

# Maternal and Child Health Services Title V Block Grant

# State Narrative for PUERTO RICO

# Application for 2007 Annual Report for 2005



Document Generation Date: Wednesday, September 20, 2006

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# I. General Requirements

# A. Letter of Transmittal

The Letter of Transmittal is to be provided as an attachment to this section. *An attachment is included in this section.* 

# **B. Face Sheet**

A hard copy of the Face Sheet (from Form SF424) is to be sent directly to the Maternal and Child Health Bureau.

# **C.** Assurances and Certifications

By signing the SF424 Form and submitting the Title V Block Grant (BG) Application for 2005-2006, the Puerto Rico Department of Health (PRDoH) is committed to comply with all requirements established by OBRA'89 (PL 104-193, 1996). Funds allotted to PR will only be used for addressing the identified needs of women in their reproductive age, their infants, children and adolescents, including those with special needs and their families; and for the proper management and implementation of the action plan as described in the application. The allotted funds will be fairly distributed across all geographical areas for the different MCH population groups in accordance to the mandate (30-30-10).

Under any circumstance the Title V Block Grant funds will be used for construction or the purchase of land.

We will comply with all applicable requirements of other federal laws, executive orders, regulations and policies governing this program.

The undersigned agrees that the PRDoH will comply with the Public Health Service terms and conditions if the grant is awarded as a result of the submitted application.

Additionally, we certify that services will be rendered in a smoke-free environment, to provide a drug-free workplace in accordance with 45 CFR Part 76, and to comply with the prohibition of using federal funds to support any activity regarding lobbying or its appearance to.

# /2007/ By signing the SF424 Form and submitting the Title V Block Grant Application for FY 2006-2007, the Puerto Rico Department of Health reiterates all its commitments stated above.//2007//

# **D.** Table of Contents

This report follows the outline of the Table of Contents provided in the "GUIDANCE AND FORMS FOR THE TITLE V APPLICATION/ANNUAL REPORT," OMB NO: 0915-0172; expires May 31, 2009.

# E. Public Input

/2007/ Public input was obtained from a wide array of stakeholders including, but not limited to, women of child bearing age, adolescents, front line providers (home visiting nurses and community health workers), regional MCH staff, OB and other perinatal providers, pediatricians, collaborators from other agencies and programs serving the MCH population, professional organizations, members of the Healthy Start Consortium (also the MCH Advisory Body), Regional SSDI Inter agency Working Groups, etc., on a regular and ongoing basis. An ad was published on June 9-11, 2006 in two newspapers of wide circulation, "El Nuevo Día" and "El Vocero", requesting input from the concerned general public. Persons interested in reviewing and submitting recommendations could review a copy of the application and the Needs Assessment in Aguadilla, Bayamón, Caguas, Ponce and San Juan on June 12-13, 2006. Written recommendations were due June 20, 2006. This year a notice was posted in the PR Department of Health web page from June 1-13, 2006.

No one requested to review the proposal. The notice posted on the Department of Health web page was read by 372 persons.//2007//

# **II. Needs Assessment**

In application year 2007, it is recommended that only Section IIC be provided outlining updates to the Needs Assessment if any updates occurred.

# **III. State Overview**

## A. Overview

## Geography and Political Context

Geography: Puerto Rico (PR) is a Commonwealth of the United States (U.S.). It is the smallest of the Greater Antilles islands located in the Caribbean, about 1,000 miles southeast of Miami and 80 miles West of the U.S. Virgin Islands. The island of PR is 100 miles long and 35 miles wide for an approximate area of 3,500 square miles. Puerto Rico has four main offshore islands--Vieques and Culebra to the east, and Mona and Desecheo to the West. Mona and Desecheo are deserted islands. The population of Vieques and Culebra has to travel to PR in small planes and boats in order to access secondary, and tertiary health care as well as other human services.

The Dominican Republic, another of the Greater Antilles islands, is located west of Puerto Rico. Our proximity allows for mutual tourism and the sharing of economic and cultural resources. However, it also allows the entry of a significant number of illegal immigrants affecting our health care systems as well as our health indicators.

Geographically, the Island is divided in 78 jurisdictions known as municipalities, each headed by a mayor who is elected every four years. The largest municipalities in Puerto Rico are San Juan, the capital; Bayamon, Carolina, Caguas, Arecibo, Mayaguez and Ponce.

The climate of the Island is a tropical maritime one, with an average high temperature of 86 degrees (F) and a low average temperature of 66.9 degrees (F). The Atlantic Ocean borders the North of PR and the Caribbean Sea border the South Coast. Due to its location in the Caribbean, PR is highly vulnerable to the strike of hurricanes.

Political Context: Puerto Rico has been part of the United States since the end of the Spanish-American War (1898), and became a commonwealth in 1952. Politically, the Island resembles the 50 states. Every four years, the people of Puerto Rico elect a governor, 28 senators, and 51 House members to serve in the local government. Puerto Rico's voters also elect a nonvoting delegate to the U.S. House of Representatives.

The United States maintains control over Puerto Rico's military defense, transportation, immigration, foreign trade, and many other areas of governance. Puerto Rican residents contribute to Social Security, serve in the U.S. military, and can be called for military service. They do not pay federal income taxes and do not vote in U.S. presidential elections. Puerto Ricans are eligible to participate in federal government programs, but levels of assistance are typically lower than those provided for people living in the 50 states and the District of Columbia. For example, in 2004-2005, the average monthly payment to families through the Temporary Assistance for Needy Families (TANF) program was \$60 in Puerto Rico, compared with \$454 in New York--the state where Puerto Ricans are most highly concentrated.

In addition to TANF, there are several other federal programs that provide support for low-income children and families in Puerto Rico, including nutritional assistance programs, Head Start, Job Corps, and school lunch programs. Residents of Puerto Rico are not eligible to receive Supplemental Security Income and, because they do not pay federal income taxes, they cannot receive the Earned Income Tax Credit, an important source of support for many low-income working families in the United States.

Economic Profile: Fifty years ago, Puerto Rico was a largely rural island where most people made a living as farmers. Since becoming a commonwealth, Puerto Rico has developed closer economic ties with the United States, with increasing revenue from industry, agriculture, and tourism. While U.S. median household income increased by 7 percent between 1989 and 1999 (adjusting for inflation), median household income in Puerto Rico increased by 24 percent.

However, income levels in Puerto Rico still lag far behind those in the rest of the United States. In 1999, median household income in Puerto Rico was \$14,412. West Virginia's median household income--at \$29,696--was the lowest among the 50 states but was still twice as high as the median income in Puerto Rico. The median household income in New Jersey--at \$55,146--was the highest of the 50 states and was almost four times higher than the median income in Puerto Rico. Among Hispanic/Latino households in New Jersey, median household income was \$39,609, still more than two and a half times the median income in Puerto Rico. The level of poverty declined from 58.9% in 1990 to 48.2% in 2000. On the other hand, the number of families under the poverty threshold level off from 55.3% to 44.6 percent. The economic downturn since 2000 is likely to put an additional strain on the Island's limited resources.

/2007/ For the past year the executive and legislative branch (controlled by the opposing political party) have been attempting to reach a consensus agreement that can solve the financial crisis PR is currently facing. A large budget deficit, increasing government costs and reduced revenues have led to a proposed fiscal and financial reform. In the meantime, government officials have taken drastic steps to reduce government costs. These includes cost containing measures such as hiring freeze, reorganization and consolidation of government agencies, and a drastic reduction in funds available to maintain services at current levels. A reduction in the amount of federal funds made available to PR have made the situation even worse.//2007//

Population: Puerto Rico is one of the most densely populated areas of the world. According to the Census Bureau there were 3,808,610 people living in PR in 2000. This represents a population density of over 1,100 people per square mile, similar to the population density of New Jersey which is the most densely populated state. Over 94.4% of the population resides in the urban areas, where an overwhelming concentration of people are found reaching figures close to 10,000 per square mile.

### **General Trends**

The population living in Puerto Rico has increased during each decade since the first U.S. census was conducted in 1899. In 1899, there were nearly 1 million people living in Puerto Rico. By 1950 the population had more than doubled, reaching 2.2 million. During the past 30 years, increased migration from Puerto Rico to the U.S. mainland, combined with a decrease in fertility levels, has slowed population growth in the Commonwealth. Between 1970 and 1980, there was an 18 percent increase in the Commonwealth's population, followed by a 10 percent increase during the 1980s and only an 8 percent increase during the 1990s, bringing the total population to 3.8 million. In the United States as a whole, there was a 13 percent increase in the population during the 1990s. (Figure III-1)

The population under age 18 increased from less than 500,000 at the turn of the 20th century to 1.1 million in 1950. The child population increased slightly each decade during the 1950s, '60s, and '70s, but has decreased since then, from 1.2 million in 1980 to 1.1 million in 2000. Therefore, the number of children living in Puerto Rico today is roughly equal to the number of children living there in 1950. Between 1990 and 2000, the number of children in Puerto Rico decreased by 5 percent, compared with a 14 percent increase in the United States. Despite the recent drop in the population under age 18, the number of children in Puerto Rico has more than doubled during the past century.

The proportion of children in the population has also declined in recent decades. Between 1899 and 1960, the share of children in the population hovered around 50 percent. But since then, there has been a steady decline in the percentage of children, from 43 percent of the population in 1970 to 29 percent in 2000. This is only slightly higher than the percentage of children in the United States (26 percent) and is lower than the share of children in the nearby U.S. Virgin Islands (32 percent). The long-term decline in the proportion of children in Puerto Rico's population does not reflect a significant decrease in the number of children but rather an increase in the number of adults relative to the child population. (Figure III-2)

The decline in the proportion of the population under age 18 has been driven by two main factors. First, there has been a long-term decline in fertility rates in Puerto Rico. In 1950, the fertility rate in Puerto Rico was 5.2 births per woman. By 1970, it had fallen to 3.2 births per woman, and by 2000 it had dropped to 1.9 births per woman. The 2000 fertility rate in Puerto Rico was slightly lower than the rate in the United States as a whole (2.1 births per woman) and was substantially lower than the rate for U.S. women of Puerto Rico descent (2.6 births per woman). The decline in fertility rates in Puerto Rico during the 1950s and 1960s has been linked to increasing levels of female sterilization during those decades. Other factors, including a rising age at marriage and an increase in the use of oral contraceptives, have contributed to the decline in recent years, but sterilization continues to play a key role. In fact, the estimated percentage of married women in Puerto Rico who have been sterilized --46 percent--is higher than that of any other country for which we have data.

Second, many young Puerto Ricans and their families have moved to the U.S. mainland in search of greater job opportunities and higher wages. Between 1995 and 2000, the net movement of people age 5 and over from Puerto Rico to the U.S. mainland exceeded 100,000 migrants. This relatively high level of out-migration could contribute to the decline in the number of children in Puerto Rico in two ways--through the migration of children who come to the U.S. mainland with their parents and through the out-migration of people of reproductive age, which reduces the number of potential births that occur on the Island.

### **Female-Headed Families**

Family structure has important implications for children. Children growing up in single-parent families typically do not have access to the economic or human resources available to children growing up in two-parent families. In the United States, the number of single-parent families has risen dramatically over the past three decades, causing considerable concern among policymakers and the public. While local social and cultural norms may influence the situation for children living in single-parent families (for example, they may benefit from extended family support), children in Puerto Rico growing up in single-parent families are still at an economic disadvantage relative to children growing up in families with both parents present in the household. About 44 percent of married-couple families with children were living in poverty in 1999, while among female-headed families with children, 71 percent were living in poverty. In the United States, about 7 percent of married-couple families with children--and 34 percent of female-headed families with children--and 34 percent of female-headed families in poverty in 1999.

In 2000, about 27 percent of families with children in Puerto Rico were headed by a female householder. This represents an increase over the share of female-headed families with children in 1990 (22 percent) and is higher than the U.S. average. In the United States, the share of female-headed families increased from 20 percent in 1990 to 22 percent in 2000.

The proportion of female-headed families increased in 48 of the 50 states during the 1990s (Colorado and Utah were the exceptions). In the U.S. Virgin Islands, about 46 percent of families with children were headed by a female householder in 2000, up from 37 percent in 1990. These data suggest that the increase in female-headed households in Puerto Rico followed a trend seen throughout the United States.

## Poverty

In 1999, more than half of the children in Puerto Rico--58 percent--lived in families with incomes below the poverty line. Puerto Rico's child poverty rate was over three times higher than the child poverty rate in the United States (16 percent). American Samoa--at 67 percent--was the only U.S. state, territory or commonwealth with a higher child poverty rate than Puerto Rico in 1999.

Although poverty levels in Puerto Rico are still quite high, they declined significantly during the 1990s--a period of unprecedented economic growth in the United States. Between 1989 and 1999, the number of children in Puerto Rico living in families with incomes below the poverty line

decreased by 18 percent, from 761,789 to 626,521. The percentage of children living in poor families also decreased, from 67 percent in 1989 to 58 percent in 1999. In the United States, the child poverty rate dropped from 18 percent to 16 percent during the 1990s.

The number of families living below the poverty line also declined, from 492,025 in 1989 to 450,254 in 1999. However, the number of female-headed families living in poverty increased by 12 percent, from 142,737 in 1989 to 159,205 in 1999. In 1999, the median income for female-headed families with children in Puerto Rico was \$6,888, compared with \$20,284 in the United States.

Education: According to the Census Bureau the illiteracy rate in 1990 was close to 10% (data is not available for 2000). This proportion of analphabetisms is unacceptable in PR, if we consider the high number of public and private schools available in the Island. In 2004-2005, there were 1,528 public and 672 private schools. The number of students enrolled in the public education system was 575,387 and 133,637 in the private system. It is important to highlight that the number of students has been consistently declining during the last decade. In 2000-2001, the number of students in the public system was 612,024 vs. 575,387 in 2004-2005 (<6%).

In addition to the primary and secondary education system is the higher education system. Over 55 institutions of higher education have been established in PR since 1980. These include four Schools of Medicine; the University of PR School of Medicine which includes the School of Public Health and three private School of Medicine located in Bayamon, Caguas and Ponce. These schools provide a wide array of degrees of health professionals in addition to MD's, Dentists and nurses.

### **High School Dropouts**

During the past 50 years, Puerto Rico experienced a relatively rapid shift from small-scale agricultural production to an industrial and service-oriented economy. This transformation has led to a growing demand for educated workers with high school, college, and postgraduate degrees. In Puerto Rico, as in the United States, a high school diploma is a critical prerequisite for many entry-level jobs as well as for higher education. However, many young adults in Puerto Rico do not graduate from high school. In 2000, about 14 percent of 16-to-19-year-olds in Puerto Rico were high school dropouts (not enrolled in school and non high school graduates). The high school dropout rate in Puerto Rico was relatively high compared with most states--exceeded only by Arizona (15 percent) and Nevada (16 percent). In the United States as a whole, about 10 percent of 16-to-19-year-olds were high school dropouts in 2000. Currently, it is estimated that nearly 40% of children who begin the first grade will desert from school before they reach the 12th grade.

However, even though the dropout rate in Puerto Rico remains relatively high, there has been considerable improvement in this measure since 1990, when 22 percent of 16-to-19-year-olds were not enrolled in school and not high school graduates. It is important to highlight that in the case of females, pregnancy is the most common cause for school dropout.

### The Need for Child Care

In this report, the need for child care is measured as the percentage of children under age 6 living in families where all of the parents in the household reported being in the labor force during the week before the survey. For children living in single-parent families, this means that the resident parent was in the labor force; for children living in married-couple families, this means that both parents were in the labor force.

Based on this definition, the need for child care is lower in Puerto Rico than it is in the United States. However, it is not clear from these census data whether the need for child care is low because women are not entering the labor force or whether women are not motivated to seek work because there are so few child care options available to them. In addition, it is likely that some women who are "not in the labor force" are working in the informal sector, providing

domestic services or involved in other work outside of the formal labor force. Puerto Rico has a relatively large informal or underground economy, consisting mainly of self-employed workers--especially women. The informal sector includes many domestic services (cooking, cleaning, sewing) as well as more formal services, such as catering and child care services.

In Puerto Rico, 40 percent of children under age 6 lived in families where all of the resident parents were in the labor force in 2000, compared with 59 percent in the United States as a whole, and 69 percent in the U.S. Virgin Islands. The relatively low percentage of children in need of child care is associated with the low percentage of women who are in the labor force. In Puerto Rico, about one-third (34 percent) of women ages 16 and over were in the labor force in 2000, compared with 58 percent in the United States as a whole.

In Puerto Rico, as elsewhere, it is common for grandparents to provide child care while parents are working, and in many households, grandparents are the primary caregivers for young children. For the 2000 Census, the U.S. Census Bureau added a new question to measure the extent to which grandparents provided care to their grandchildren. In Puerto Rico, there were 133,881 grandparents who lived with their grandchildren in 2000, and about 53 percent reported that they were "responsible for most of the basic needs" of one or more of their co-resident grandchildren. This shows the importance of extended family members--particularly grandparents who lived with their grandchildren reported being responsible for their care. (Reference: Children in PR: Results from 2000 Census. Kids Count, Annie E. Casey Foundation and the Population Reference Bureau, August 2003).

### Summary

There was an increase of 7.5% in the total population reported in 2000 as compared to 1990. Nearly fifty-two percent (51.9%) of the population was comprised of females and 48.1% of males. The segment of children and adolescents between 0-19 years of age represented 32% of the total. The MCH population comprised by children and adolescents (0-19 years) and women 20-44 years of age surpassed fifty percent (50.5%) of the total population in the Island. On the other hand, the proportion of persons over 65 years of age reached 11.2% (425,137). The median age was 32.1 years, compared to 28.4 in 1990. The average family size was 3.1 persons. The population of female householders with no husband present was 21.3% compared to 23% in 1990. Among this group, 49% (131,854) of them had children less than 18 years of age under their custody.

According to the 2000 Census, the economic profile of individuals and families significantly improved during the last decade. The level of poverty declined from 58.9% to 48.2%, and the number of families under the poverty threshold leveled off from 55.3% to 44.6%.

The per capita income increased from \$4,177 to \$6,809 (63%). The mean income by household increased from \$8,695 to \$11,989 (34.9%) and the individual mean income grew from \$5,721 to \$10,403; an increase of 81.8%.

A variable not investigated in 1990 is one related with grandparents living with children under 18 years of age. A total of 133,881 grandparents lived in the same household with children under 18 years old. Among these, 52.5% were the main provider for their grandchildren. This situation should be studied in order to understand the reasons and the implications for children and grandparents.

Other indicators of the PR's economic profile are the unemployment rate, number of participants in the Nutritional Assistance and TANF programs, and the number of individuals holding the GIP. As mentioned elsewhere, in 2000 the Census Bureau reported 3,808,610 persons and 1,261,325 families residing in the Island.

The unemployment rate increased from 10.5% in February 2000 to 13.7% in February 2002. This

represents an increase of 23.4%. Among adolescents and young adults unemployment is even higher, creating a fertile environment for criminal activities and other social problems. It is important to underscore, that in spite of the upward trend in the unemployment rate, there is a downward trend in the number of families and persons participants of the Food Stamp and TANF programs.

In FY 2004-2005, the average number of beneficiaries participating of the Nutritional Assistance program on any given month was 1,047,267 persons and 457,618 families. These figures represent 25.7% and 36.3% of all individuals and families in PR as reported by the 2000 Census Bureau. It is important to highlight that in 1992, the total number of participants of the Food Stamp program was 1,480,457. A decline of 29% is observed in the number of the participants of Food Stamp program in spite of the increase in the population during a period of 13 years.

In 1998-99, there were 76,146 families and 153,427 individuals enrolled the TANF program. During current year (2004-05), the number of participant families declined to an average of 56,680 and 85,110 persons per month. These figures tell us that the number of participant families in the TANF program has decreased by 27.5% in a 6-year's period. Among all families 15,930 of them have children under 18 years old for a total of 30,977. It is unclear if delinked families and individuals from the TANF program are self-sufficient or simply it is the result to be in compliance with administrative procedures required by federal mandates.

These downward trends in the number of families and persons participants of the Food Stamp and TANF programs would be the results of the implementation of the PR Welfare Reform Act (PRWORA) and not necessarily it reflects an improvement of the socioeconomic status of the population.

Race and Ethnicity: The 2000 Census was the first census in Puerto Rico since 1950 to include questions about race or ethnicity. For people in Puerto Rico, as well as Hispanics/Latinos living in the United States, "race is a flexible concept". This is evident in a comparison of race responses between people living in Puerto Rico and Puerto Ricans living in the United States. Although the groups share the same heritage, they have very different ideas about racial identity. About 81 percent of people in Puerto Rico identified themselves as white in the 2000 Census, but Puerto Ricans residing in the United States were almost equally likely to say they were white (46 percent) as "some other race" (47 percent).

The most significant ethnic groups residing on the Island are Dominicans and Cubans. Most Dominicans are concentrated in the metropolitan areas close to San Juan. A significant number of Dominicans are undocumented. In 1998, the U.S. Immigration Agency reported 7,540 new lawful permanent residents' aliens and approximately 37,700 illegal residents in the Island. Puerto Ricans, Dominicans and Cubans have a Hispanic background. Spanish is the official language of the Government of Puerto Rico. In addition, a significant proportion of Puerto Ricans can also communicate in English quite well.

The 2000 Census revealed the following ethnic composition in PR: 95.1% Puerto Ricans, 0.5% Cubans, 0.3% Mexican and 2.8% other Hispanic or Latino. Only 0.2% were Asian, Native Hawaiian and other Pacific Islander. Interestingly, according to the Census, 84 percent of the population residing in the Island was White, 10.9% Black and 9.6% some other race.

### Vital Events 2003

Births: Figure III-3 depicts the vital events registered in PR in 2003. In 2003, the estimated population was 3,878,531. A total of 50,803 live births were registered; 99.9% occurred in hospitals. Only 63 (.1%) live births occurred at home and other places. The natality rate was 13.1/1,000 inhabitants as compared to 18.9/1,000 in 1990. These figures represent a decline of 30.7% in the crude natality rate in PR. On the other hand, the C/S rate reached 46%.

## /2007/ Vital Events 2004

Births: Figure III-3 depicts the vital events registered in PR in 2004. In 2004, the estimated population was 3,894,855. A total of 51,239 live births were registered; 99.9% occurred in hospitals. Only 63 (.1%) live births occurred at home and other places. The natality rate was 13.1/1,000 inhabitants, compared to 18.9/1,000 in 1990. These figures represent a decline of 30.7% in the crude natality rate in PR. On the other hand, the C/S rate has remained steady at 48% for the past two years.//2007//

Marriages and Divorces: The rate of marriages was 6.6/1,000 inhabitants and divorces occurred at a rate of 3.8/1,000 inhabitants.

# /2007/ The rate of marriages was 7.8/1,000 inhabitants and divorces occurred at a rate of 5.0/1,000 inhabitants.//2007//

General Mortality: Total deaths amounted to 28,356, a rate 7.3/1,000 persons. The ten leading causes of death were: (1) Heart Diseases; (2) Cancer; (3) Diabetes; (4) Hypertension; (5) Chronic Pulmonary Diseases; (6) Alzheimer; (7) All Accidents; (8) Pneumonia and Influenza; (9) Cardiovascular Diseases; and (10) Nephritis and Nephrosis.

Infant Mortality: Figure III-4 illustrates the downward tendency of the infant mortality rate (IMR) in PR from 1990 to 2000. During a ten-year period the IMR declined 26.1%. However, from 2000 to 2003 it has dropped only 1.1%; from 9.9 to 9.8 per thousand live births.

/2007/ The downward tendency of the infant mortality rate continues. The IMR for 2004 was 8.1/1,000 live births.//2007//

An attachment is included in this section.

## **B. Agency Capacity**

The health care delivery environment has been evolving during the last decade in the Commonwealth of PR as a result of the implementation of a Health Care Reform (HCR). Therefore, an understanding of the changes that are occurring in the Health Care System (HCS) of PR is important to providing the context of the MCH/CSHCN programs priorities and activities.

In this section we pretend to provide the reviewers of this application a synopsis of the traditional HCS of the Commonwealth of PR; and the reasons behind its reformation into a privatized managed care model of health services.

Traditionally, the HCS in PR was divided into two parallel systems, public and private sectors. The public sector was responsible for addressing all health care needs for almost 60% of the population with low-income or uninsured. On the other hand, the private sector served 42% of the population who could paid out of pocket or through third party payers.

The PRDoH historically functioned as the predominant provider of personal health services for low-income and uninsured populations. It operated through an extensive regionalized network of level one primary health care centers, at least one in each municipality; areas' hospitals (level II); regional hospitals (level III); and a Supra-tertiary Center, located at the PR Medical Center. However, in spite of this extraordinary network of facilities the PRDoH had to place restrictions on the scope of services available and compliance with the schedule of preventive services for low-income and uninsured populations. The HCS had a chronic limitation of trained health care providers and ancillary services such as laboratories, X-rays and pharmacy services, due to insufficient allocation of funds. There were both limited allocation of funds from the Commonwealth revenue and due to the cap in the Medicaid funds imposed to PR as well to other territories. Another limitation was that patients, who could paid for their services did not come to our system, except those with catastrophic illness referred by their physicians.

Over the years, PR's Medicaid program only paid for hospital-based services, including in-patient

and outpatient care for categorically and medically needy persons. Because of this, Title V funds were used as the first payor for ambulatory care services for women in their reproductive age (family planning, prenatal and postpartum services), preventive services for children and specialized for CSHCN.

As earlier mentioned, the traditional HCS had primary health care facilities at each one of the municipalities. This was the portal of entry into the HCS for the low-income and uninsured MCH population groups. However, the reality was that primary centers were very under staff. In addition, the majority of the primary providers for women in their reproductive age, infants and children were general physicians who were untrained to address the needs of the high proportion of the at risk MCH population. Besides, they were insufficient in number to serve all the population of the municipality in need of services, including emergency services.

High-risk pregnant women and children were referred to Regional Hospitals for follow-up. Most of the times this was worse for the patient because of the distance they had to travel from their residency to the Regional Hospital for an appointment. As an example, a high-risk pregnant women living in Orocovis had to travel about 38 miles (one trip) in public transportation to reach the high-risk prenatal clinic based at the Bayamon Regional Hospital. In addition, due to the limitation of staff at Regional Hospitals and the high number of referrals the follow-up was not given according to the patient's condition. Other reasons for referrals to Regional Hospital were for laboratory and X-rays services. Children with special conditions ran the same luck as their mothers.

On the other hand, the segment of the population with private insurance or who could pay out of pocket (42%) had a private health care system with access to primary providers, specialists, laboratories, x-rays services, pharmacies and in hospital services at their community level or the nearest municipality to their residency.

In pursuing to eliminate or reduce the disparities in the accessibility and quality of health services provided to the low-income and uninsured population (+ 60%), an aggressive HCR was launched in PR about one decade ago. The HCR driving values are justice and equity for the low-income population in addressing their health services needs. The HCR is an initiative comprised by three main components. These include, (1) a Government Insurance Plan; (2) renting or selling its public health facilities; and (3) enhancing its role in performing the core functions of public health (assessment, policy development and assurance).

The HCR is mandated by Law No. 72 enacted on September 7, 1993. The HCR attempts to bridge the gaps in services between the public and private sectors through a Government Insurance Plan (GIP). At the same time, one of its goals was to privatize the public health care system through renting or selling its facilities. In addition, the DoH is expected to enhance its role in performing the core functions of public health following the recommendations of the State and Territorial Health Officials (ASTHO): assessment, policy development and assurance. As a result of the implementation of the HCR, the DoH instituted as its top priority the promotion and protection of health.

The initiative of the HCR was based in several basic principles. These are to:

1. Eliminate the public and private sector disparity and discrimination in health care;

- 2. Guarantee access to quality health care to all residents;
- 3. Have freedom for selection of a primary health care provider;

4. Increase the efficiency and productivity of the health care industry through a competitive mechanisms;

5. Improve the quality of services;

6. Modify the role of the government in the areas of health promotion, and disease prevention; since participants have the option of selecting the health care site and provider.

These principles enhance and guarantee universal access to adequate health care services.

Who benefits from the Government Insurance Plan?

- \* Medicaid Beneficiaries up to 200%
- \* Veterans (Non-Service Connected)
- \* Medicare Beneficiaries (Part A and B)
- \* Police Officers and their families
- \* Public Employees and their direct dependents.

The GIP has three primary objectives. These are: (1) Universal coverage; (2) Freedom of choice; and (3) Expanded benefit package.

The privatization effort is administered by a nonprofit corporation called the "Administracion of Servicios de Salud" (ASES, Spanish acronym). This organization was created in 1993 under PR Law 72 and is responsible for a number of critical administrative activities, including:

\* Negotiating contracts. ASES is responsible for negotiating and awarding contracts to private insurers to provide services included in the ASES standard benefit package on either a fully- or partially-capitated basis through managed care systems.

\* Conducting quality assurance. ASES monitors managed care plans by requiring the monthly submission of service utilization data. Reimbursement of the health plans is contingent upon the submission of these reports. In addition, ASES is bolstering its monitoring activities through contracts with a number of organizations; a Peer Review Organization (PRO) is assessing the quality of ambulatory care services, PRDoH is monitoring hospital service quality, and other groups are monitoring regional activities.

\* Facilitating enrollment. ASES is responsible for enrolling eligible persons into the new system and coordinates eligibility determination activities with PRDoH. PRDoH Medicaid certification staff stationed at primary care centers determine which clients are eligible for the program and forward this information to ASES. ASES, in turn, provides contracted insurers with the names and addresses of eligible persons so that they can send them letters informing them of their eligibility and inviting them to enroll with a managed care provider in their community. Each enrollee receives a health insurance card which gives him or her access to health care services.

In February 1994, the Commonwealth of PR began the implementation of the aggressive HCR initiative mandated by Law 72, 2003. This led to the replacement of the extensive public health infrastructure that traditionally served low-income and uninsured residents in Puerto Rico. The public health service delivery system was incrementally privatized by June 2000. Under this reformed system, responsibility for providing personal health services to low-income and uninsured populations holding the GIP was transferred from the DoH to the private sector. Currently, all care is delivered through a managed care service delivery model.

The second component of the privatization process was the sale of the public health facilities. The Government had to amend State Law 31, which expedites and facilitates the sale of government owned DTC's and hospitals. The facilities were sold to private for profit and nonprofit organizations. The first request for proposal was announced in May 1997. As of June 2000, the DoH had sold 50 health facilities, including 8 hospitals. Other 10 facilities were rented or administered by the DoH. This component of the HCR was discontinued in 2001.

After the completion of the implementation of the GIP in July 2000, several laws and changes have been established. These include, but are not limited to:

\* Enactment of Law No. 194, August 2000. This law requires the establishment of an agency to advocate for the rights of patients holding the GIP.

\* Enactment of Law 408 of 2000. The PRDH is retaking the primary responsibility for the

provision and coordination of mental health services for the population enrolled in the GIP.

\* Pilot project for the implementation of the Intelligent Card. This is an electronic card which contains sociodemographic data, relevant information regarding the health history of the patient, medications and other information.

\* Establishment of 14 Clinical Guidelines including Perinatal Services, EPSDT, Guidelines for the management of pediatric patients with asthma and diabetes.

\* The Department of Health assumed the primary responsibility for immunization services after June 2002.

\* Increase the length of the contract between ASES and the Health Insurance Company to at least 3 years. The three health insurance companies that are providing the services for the population with the GIP are MCS, Triple S and Humana.

Other changes under consideration are to: 1) Readjust the HCR areas to traditional Health Insurance regions; and 2) Contract directly with HMO providers. In July 19, 2002, Law No. 105 empowered Puerto Rico Health Insurance Administration (PRHIA) to conduct demonstration projects of contracting directly with providers, without intermediaries such as managed care organizations. The Demonstration Project began operations on July 1, 2003 with Alianza de Medicos del Sureste, Inc. (AMSE) as a sole provider assuming risks under the basic coverage. A second contract was negotiated with the Family Medicine Group on March 1, 2004. For this second group the Division of Education and Social Communication of the Secretariat for Health Promotion of the Department of Health provides prevention and education services under contract.

The PRHIA is also implementing what is called the "intelligent card", a pocket size card with a microchip that stores the subscriber's medical history including: personal data, diagnosis and medications, last five physician, hospital and emergency room visits, immunization history and more. As of April 2004 a total of sixteen thousand intelligent cards (16,000) had been distributed in the municipalities of Bayamon (4,000), Isabela (7,000) and Vieques (5,000). This is an initiative toward better access and quality of services since it offers electronic retrieval of all the necessary medical information to providers. The 1.5 plus million health care reform patients in Puerto Rico will eventually have an intelligent card. As of December 2004, the total number of beneficiaries was 1,521,981. Among these, 55.16% were WCBA, infants, children and adolescents.

## /2007/ Discontinued due to lack of funding.//2007//

Satisfaction with the GIP: Studies and surveys conducted by the "Administracion de Seguros de Salud de Puerto Rico" (ASES) or the Puerto Rico Health Insurance Administration, show a high percentage of satisfaction among the clientele. Close to nine out of 10 (87.8%) of those interviewed reported being satisfied with the new service system. This finding is encouraging, because it is the best index of the success of HCR as a social justice project.

Among the reasons given by beneficiaries to preferring the new system in contrast to the traditional system are:

- 1. The Government Insurance Plan (GIP) is better than the services we had before.
- 2. The availability of more and better services.
- 3. There is more accessibility to medications and better pharmacy services.
- 4. There is better attention at the health service centers.
- 5. Services are free or require low co-payment.

The third component of the HCR is the transformation of the Department of Health from a disease-oriented agency to one that encourages health promotion and protection programs and

primary, secondary and tertiary prevention programs within the context of a comprehensive continuum of public health services.

State Health Agency's Current Priorities or Initiatives: In addition to the GIP, which is mainly implemented by ASES, and as a result of the HCR, the Department of Health has modified its role and approaches in pursuing the optimal health of the population. The Department of Health has been emphasizing in the core functions of public health that include needs assessment, policy development and assurance. It has also modified its role of a disease-oriented agency towards one of health promotion, disease prevention and health protection of the population at large.

A Strategic Action Plan has been developed which is divided into three major phases: planning, implementation and evaluation. A variety of initiatives or programs have already been implemented to address the health needs of the population at large or to segments of the population with special needs. These initiatives include, but are not limited to:

\* The Healthy Community Division of the Secretariat for Health Promotion - The mission of the program is to promote healthy lifestyles and behaviors of the diverse population groups in order to decrease mortality and morbidity due to chronic health conditions. The strategy to develop this concept and reach its goal involves a comprehensive health risk appraisal as well as an assessment of the needs and capacities of the participating communities. Challenges and opportunities to improve the health of the community are identified. Beginning with the mayor of the municipality, all community leaders are brought to the table to design a concerted action plan to address identified health needs. The Healthy Community Division has been implemented in 16 municipalities. In each of these Healthy Communities several health promotion and disease prevention programs are implemented in response to its specific needs and the available resources.

\* The Behavioral Risk Factors Survey, which is a national CDC-sponsored cross-sectional yearly study designed to identify health trends, lifestyles and behaviors among Puerto Ricans. Four questions addressed to identifying asthma morbidity were added this year.

# /2007/ BRFSS now includes 17 questions on child, adult and work related asthma. Information will be included in the Asthma Surveillance System Report.//2007//

\* The HIV Prevention Needs Assessment, an Island wide study of a large sample of high-risk populations. The purpose of the study is to identify the health needs of these groups. The results are used to design custom-made HIV/AIDS/STD primary and secondary prevention programs.

\* The Basic Sample Survey -This is an annual representative probabilistic survey of approximately 3,000 personal interviews that looks for sociodemographic characteristics, service utilization, prevalence of health conditions and the reasons for work absenteeism, including hospitalization and ambulatory conditions.

## /2007/ Discontinued due to lack of funding.//2007//

Among the programs that contribute to address specific MCH needs are:

\* The Distance Learning (An Interactive Education program) - To educate and train private and public health professionals through nine transmission centers located at regional hospitals Island wide by means of telecommunications.

## /2007/ Discontinued due to lack of funding.//2007//

\* Rape Victim Centers - The opening of four centers to assist rape victims ("Centro de Ayuda a Victimas de Violacion") and the expansion of services to assist domestic violence victims across

the Island.

\* The Oral Health Prevention Program - Under the Health Care Reform, oral health services are included in the benefit package. Patients are not required to obtain a referral to get oral health services. They can access oral health whenever they want and with their preferred dentist. In addition, the Division for Oral Health has a very active prevention program throughout the Island.

\* The Immunization Program - The Puerto Rico Government established compliance with the Hepatitis B vaccination as a requirement for school admission, for those born from 1991 on, and those who are 13 years of age. Since 2000, all adolescents from 13 to 18 must be immunized against Hepatitis B. Puerto Rico has achieved high immunization rate in children through 2 years. Puerto Rico had been the jurisdiction with the highest percent of immunized children in the nation for three consecutive years. However, a marked decline in the proportion of immunized children 24 month old was observed as a result of the vaccine shortage occurred in the nation in 2002. Currently, we have achieved again levels over 90% of immunized children.

The Welfare Reform: We understand that the Welfare reform has not negatively affected the access to health care services of the low-income population. As mentioned elsewhere, one of the three components of the initiative of the HCR consists of a GIP for persons under 200% of the FPL. The GIP is paid mostly with state funds (84.7%). Medicaid funds represent only 12.1% of the total budget used to buy the GIP in PR. Over 1.5 million persons hold the GIP. This figure represents almost 40% of the total population residing in PR.

Puerto Rico CHIP Program: The PR CHIP plan was approved in June 1998. It started with an allocation of 9.8 millions. In 2004-2005, a total amount of 42.3 millions were used to contribute to buy a GIP for children who qualify for the CHIP program. It is estimated that the CHIP monies may be used to pay the GIP of about 50,000 children; considering the current annual premium of \$862.00 per person.

The total population holding the GIP is 1,521,981. This figure includes 383,438 women in their reproductive age and 455,497 children aged 1-19 years. As of September 2004, the network of health care providers available to serve the low income population was the following: 410 OB/GYN's, 570 pediatricians, 210 family physicians, 1,062 GP's, 410 internists and 1,289 dentists.

Current MCH Priorities and Initiatives: As already described, in 1994, the Government of Puerto Rico began implementing an aggressive HCR, under which the public service delivery system was incrementally privatized in all the island's health regions. Under the reformed system, responsibility for providing personal health services to low income and under-insured populations was transferred from the public to the private sector and all care is delivered through managed care service delivery models. The Reform was first implemented in the sub-region of Fajardo and moved very quickly to other areas. Currently, the HCR is implemented Island wide.

The reformed system replaced an extensive public health infrastructure that traditionally served low income and uninsured residents of Puerto Rico. The PRDH historically functioned as the predominant provider of personal health services for these populations, operating an extensive network of primary care diagnostic and treatment centers (86) and hospitals (9) reaching all corners of the Island.

The PRDH delegated the provision of direct care services to the private sector, through contracts with health insurers, while maintaining the non-delegable core functions of public health. These functions include needs assessment, policy development, assurance and training of health professionals. The Department of Health also retained the administration of certain federal programs and special services such as the WIC program, Medicaid, services for persons with AIDS and the MCH program, among others.

Considering the above context and the mandates of Title V, the MCH role was refocused to assure, at this time of transition, that the most vulnerable population does not fall through the cracks of the evolving system. The MCH struggles to enable women, infants, children, adolescents and CSHCN to receive high quality and comprehensive services across a system that is now more complicated. Responding to this need, two (2) new core programs were designed and incrementally implemented across the Island. One is the Home Visiting Program that serves pregnant women and children less than 2 years of age with multiple social and health risk factors through a case management care/coordination model. The other one is the Community Outreach program. Community outreach workers' main responsibilities are to identify pregnant women and children delinked from the HCS and to facilitate their enrollment into the GIP, coordinate inter-agency services and give follow-up to certain situations of the Home Visiting program's clients.

# /2007/ As a result of the Health Care Reform, families struggle to obtain referrals to the Pediatric Centers for specialized services.//2007//

Most important, as an aftermath of the delegation of the provision of direct services to the private sector, has enabled the MCH/CSHCN programs to dedicate more time and resources to the development and implementation of infrastructure building activities. These activities include creating partnerships, monitoring and evaluation, empowering communities, promoting healthy behaviors, building capacity, and advocating for supporting policies. Among these infrastructure building activities it is important to highlight the followings:

- Healthy Start Consortium / MCH Advisory Board: It is a multidisciplinary and intersectorial group of professionals and representatives of the MCH population. They are very committed and knowledgeable of MCH issues. The Advisory Board has been a fundamental piece in providing input regarding new priorities and strategies to address the needs of the MCH population within the emerging new health care environment. Most of their recommended strategies are integrated in the action plan aimed at improving the health and well being of the MCH population including CSHCN.

- Breastfeeding Steering Committee: This committee is comprised by a wide array of stakeholders committed with the promotion of this important behavior aimed at enhancing the growth and development of children.

- Puerto Rico's Safe Kids Coalition: This is a non-profit multisectorial organization. Its goal is to reduce unintentional injuries among children and adolescents.

- Asthma Coalition: The Asthma Coalition was incorporated as an organization comprised by public organizations, private entities, academia and parents. Its goal is to reduce morbimortality rates due to asthma. The coalition holds monthly meetings.

## /2007/ The Asthma Coalition has developed the PR State Plan and the Surveillance System. The Coalition has identified the need to train physicians in NIH Guidelines in order to decrease asthma morbidity.//2007//

- Title V Monitoring and Evaluation Section: This section monitors all national and state performance measures, evaluate outcome measures and support the MCH needs assessment process. It entails several ongoing activities such as the implementation of the SSDI action plan; a customized PRAMS of recent mothers conducted every other year; an Infant Mortality Epidemiological Surveillance System (SIVEMI, Spanish acronym); a Maternal Mortality Surveillance System; Integrated Index of MCH status by Municipality; one State SSDI Conference every other year and special applied studies aimed at increasing the knowledge on selected MCH problems.

- Birth Defect Registry: Currently this registry monitor the prevalence of 13 categories of

birth defects; NTD's, cleft lip/palate, Down Syndrome, gastroschisis, limb defects, ambiguous genitalia, Trisomy 13, 18, albinisms, congenital heart defects and others.

# /2007/ The Birth Defect Registry is now the Birth Defects Surveillance System. It monitors 38 birth defect diagnoses in all birthing hospitals.//2007//

- PININES (Proyecto de Identificacion de Niños con Necesidades Especiales de Salud, Spanish acronym): Puerto Rico, as well other jurisdictions is not included in the SLAITS. However, we are not waived regarding the responsibility to gather the information to monitor the progress on performance measures that use the data collected through the SLAITS. Toward this aim we designed the PININES. This is a collaborative effort with the Medicaid Program. The certification instrument used by the Medicaid Program was modified with the assistance of the MCH/CSHCN programs to collect information about 13 common conditions among CSHCN in PR. PININES enable us to have an idea of the most common chronic conditions among children enrolled in Medicaid.

/2007/ The DHS requested TA to develop a SLAITS-like CSHCN survey. The survey will provide us with data needed to report on NPM. According to PININES data for this reporting year, the total number of children evaluated for Health Care Reform enrollment decreased by 0.19% in comparison to previous year. A reduction in the percentage of congenital anomalies and conditions associated to sensory organs was observed.//2007//

- Folic Acid Campaign: This is a long-range collaborative campaign, which includes a broad array of organizations, private and public agencies. This campaign has been very successful in decreasing the rate of infants born in the Island with neural tube defects. In fact, the National Birth Defects Prevention Network honored PR with the Birth Defects Education and Prevention Award for 2004. This award was in recognition of the outstanding activities of an agency to promote public awareness of birth defects through innovative and collaborative education and prevention efforts.

- Universal Newborn Hearing Screening Program (UNHSP): This program is in the process of implementing newborn hearing screening at all birthing institutions. The program has among its strategies an Advisory Community to help in the implementation process. Legislation has been passed to support the UNHS in PR.

# /2007/ Thirty five birthing hospitals report they perform hearing screening. This year, 71% of babies were screened before discharge, a 45.7% increase.//2007//

# -/2007/ Universal Newborn Metabolic Screening Program: This comprehensive program began in 1983. It screens, provides confirmatory testing, genetic counseling and treatment for infants with a confirmed diagnosis.//2007//

- Emergency Medical Services System for Children, Program for the prevention of pediatric emergencies: This program was developed and implemented in the University Pediatric Hospital with the support of the MCH program. A Law was approved aimed at the sustainability of the program through the recurrent allocation of \$100,000 from state funds.

# /2007/ Maternal Mortality Review Committee- A multidisciplinary committee has been established to evaluate pregnancy-related deaths identified by the maternal mortality surveillance system.//2007//

/2007/ Healthy Start Community Based Consumer Groups - Informal community based groups of participants in the Home Visiting Program. They meet to identify barriers to health care and health related problems and work toward eliminating them.//2007//

In closing up this section, it is imperative to underscore that in PR we have a health care system

in which the three sectors that affect the health decision --making are there. These are the:

- Informal sector based at the community level, consisting of individuals, families and concerned groups organized to promote specific health issues.

- Formal health care system consisting of network of health providers, organizations, public and private health institutions, and different levels of care that provide preventive and curative services.

- Intersectorial sector comprised by other public, private and non-governmental entities that indirectly influence health.

However, in spite of the above, this health care system has been inefficient in achieving its goal of enhancing the optimal health of all subgroups of the population. This is so because of its fragmentation and the lack of a well designed Health Management Information System (HMIS). A HMIS is necessary for the proper communication among all the parts comprising the HCS. Without it, managers are unable to manage their programs based on reliable data that may be transformed into the information needed for selecting the most appropriate interventions.

Toward this aim, the MCH program established the Monitoring and Evaluation Section of Title V described elsewhere. The current administration nominated a Health Commission to evaluate the HCR initiative. Last June both MCH/CSHCN directors participated in a public hearing conducted by a subcommittee which is evaluating the health promotion and preventive components under the HCR. The MCH Director emphasized the impact of the GIP on goals and objectives set for the MCH population. We understand that major changes in the implementation of the HCR will result from the findings of this Commission.

/2007/ On February 18, 2005 the Governor created a Commission for the Evaluation of the Health Care System in Puerto Rico. It was entrusted with evaluating the current health care system and its increasing costs, and submitting recommendations to modify it in order to improve the health status of residents of PR. After a long process, the Committee submitted its report on November 2005. The report establishes the DoH as the lead agency for all public health efforts, responsible for establishing public policies and guidelines for health care, ensuring access to quality care for residents and providing low cost basic insurance coverage for the uninsured. It urges the creation of organizational structures that monitor health promotion and education activities and oversee the evaluation of health care system activities. The development of an Information System that would eventually facilitate the establishment of the electronic medical record is also included in the recommendations. The document recommends integrating the physical and mental aspects of health care provision.

The Commission recognizes changes should be made to the current health care system and it proposes two different health delivery systems scenarios. Both remove the economic risks of health care management from the primary care provider and place them in the hands of the government or the health insurance companies. It recommends changes should be gradually introduced after pilot projects are tested in a limited number of regions. The new coverage being suggested should have medication coverage and reduce medical liability risk for providers.

The new contracting cycle begins in July 2006. For this upcoming period several options are being considered. Most shift the financial risks away from the providers and into either the government or the health insurance companies. The main goal is to reduce payment to the health insurance companies. Several pilot projects will be taking place in diverse areas of the Island. Contracts for these pilot projects will be for one year. After the pilot test period ends, results will be evaluated to determine if the model is to be continued, expanded or eliminated. Under this new contract preventive health care services will be provided by the PRDoH. Recommendations will be implemented as funding becomes available.//2007//

# **C. Organizational Structure**

The Puerto Rico Department of Health (PRDoH) is the umbrella agency assigned in Article IV, Section 6 of the Constitution of the Government of PR responsible for all matters pertaining to public health, with the exception of maritime quarantine. The Secretary of Health is appointed by the Governor of Puerto Rico and confirmed by the Legislature.

The Administrative Order No. 179, signed by the Secretary of Health on January 15, 2003, determines the current organizational structure of the Agency (Appendix 1). It comprises 6 secretariats, 12 offices and programs and 6 administrations, the General Council of Health and the Corporation of the Cardiovascular Center of PR and the Caribbean, all responding directly to the Secretary of Health, as well as three offices which respond to the Sub-Secretary of Health.

- A. Assistant Secretariats:
- 1. Secretariat for Planning and Development
- 2. Secretariat for Regulation and Certification of Health Facilities
- 3. Secretariat for the Prevention and Control of Diseases (ASPCD)
- 4. Secretariat for Health Promotion
- 5. Secretariat for Health Protection
- 6. Secretariat for Administration
- B. Offices and Programs:
- 1. Office of the Secretary of Health
- 2. Office of Internal Audit
- 3. Office of Communications and Public Affairs
- 4. Office of Legal Affairs
- 5. Office of Informatics and Technologic Advances (OITA)
- 6. Office of Human Resources and Labor Relations
- 7. Office of Budget and Finances
- 8. Office of Catastrophic Funds
- 9. Office of PR for Coordination with PAHO-WHO
- 10. Office for the Administration of HIPAA Law
- 11. Office of External Affairs
- 12. Correctional Health Program

C. There are six (6) independent agencies, administrations, councils and commissions created by law under the umbrella of the DoH. These are the following:

1. Administration of Mental Health and Anti-Addiction Services: Law 67 enacted in August 1993.

- 2. Administration of Medical Services: Law 66 enacted in June 1978.
- 3. Corporation of the Cardiovascular Center of PR and the Caribbean: Law 51, June 1986.
- 4. General Council of Health: Law 23, June 1976.
- 5. Commission for the Prevention of Suicide: Law 227, August 1999.
- 6. Commission of Food and Nutrition: Law 10, January 8, 1999.

There are three (3) offices and programs that have been delegated under the supervision of the Sub-Secretary of Health. These are the following:

1. Office for Regulation and Certification of Health Professionals

- 2. Regional Health Coordinators
- 3. Office of Nursing Affairs

The current Administrative Order establishes the vision, mission, goals, organizational structure and core functions of its components under the umbrella of the DoH.

The goals of the DoH are to:

- \* Increase years of productive healthy life of all residents in PR;
- \* Reduce health disparities among residents in the Island; and
- \* Achieve access to preventive health services for all.

The DoH places special emphasis in health promotion, prevention and control of diseases, and protection of health. (3Ps)

The ASPCD is responsible for the development and implementation of strategies and activities geared toward the identification of risk factors contributing to poor health among all individuals. It is also charged with the development and implementation of needed programs aimed at the reduction or elimination of such risk factors and the prevention of diseases. Its approach is based on primary interventions at the community level and with special populations.

The ASPCD is comprised of a number of divisions and programs which address a wide scope of health needs of the different MCH population groups. These include the Division of MCH, Division of Habilitative Services, Division of Preventive Health, Central Office for AIDS Affairs and STD's, Mental Retardation Program, Division of Oral Health, Rape Victim Center and the WIC Program.

The PR Title V program is comprised of the MCH and CSHCN divisions, which are within the organizational structure of the ASPCD. Its directors work collaboratively and in coordination promoting the development of systems of care for all women and children and the provision of direct, supportive population-based and infrastructure building services. The goal is to decrease maternal-infant and pediatric mortality in PR. Each division is integrated by several programs, projects and activities supported by Title V funds and other federal initiatives.

Before the implementation of the HCR, PR's MCH program played many different roles in serving mothers and children, including providing direct services, administrating population-based programs and assuming responsibility for core public health functions.

With the advent of the HCR and aided by the recommendations of a TA supported by Region II in 1995 (Health Systems Research, Inc.), the MCH services were refocused. Title V resources were directed toward filling the gaps in direct services not covered by the GIP, development and implementation of support programs for at-risk mothers and children, development of population based programs, infrastructure building services, such as conducting activities aimed at improving the integration of the public and private systems of health care, needs assessment, applied research, development of surveillance systems, inter-agency coordination of related services, professional development, public education, etc.

Since these divisions and programs are under the same leadership, the collaboration, cooperation and coordination of services among the central, regional and local staff is facilitated.

/2007/ On March 20, 2006 the Secretary of Health signed Administrative Order #207 which establish the new organizational structure of the Puerto Rico Department of Health (Appendix 1). This reorganization took into consideration similarities between programs, program size, efficiency, centralized vs. decentralized services, interdependency of functions, and the current government fiscal and administrative reform. The reorganization is expected to facilitate collaborative efforts and integration of projects. The new organizational structure has three main structural levels: Advisory entities responding directly to the Secretary of Health: Health Council Regional Health Directors Internal Audit Office Legal Counsel Office Communication and Public Affairs Office Commissions for Suicide Prevention, Nutrition and Radiation Control Pan American Health Organization Office

Other entities responding directly to the Secretary of Health: Direct Service Health Care Facilities (ASSMCA, ASEM, Cardiovascular) Emergency Response Corps Research and Epidemiology Office Medicaid Office Public Policy Office Center for Bio-security Preparedness and Emergency Response Office for the Regulation and Certification of Medical Services Providers

Support Services Units: Provide administrative support: Auxiliary Secretariat for Health System Planning and Development Human Resources and Labor Relations Office Technology and Information System Office External Resources Office Auxiliary Secretariat for Administrative Affairs Fiscal Affairs Office

Operational Units: They provide health prevention, promotion and protection services at the central, regional and municipal level: Auxiliary Secretariat of Family Health and Integrated Services Auxiliary Secretariat for Health Promotion Auxiliary Secretariat for Medical and Nursing Affairs Auxiliary Secretariat for Health Care Facilities Regulation and Accreditation Auxiliary Secretariat for Environmental Health and Public Health Laboratories

The highlights of the Administrative Order can be summarized as follows:

-Creation of an Auxiliary Secretariat for Medical and Nursing Affairs whose main responsibility is dealing with direct patient care (hospitals and clinics).

-Reinforcement and expansion of the Auxiliary Secretariat for Health Promotion. It will house services provided by the WIC Program, the Program for Disease Prevention and Control, Oral Health and the Nutrition Internship Program.

-Creation of the Research and Epidemiology Office and the Center for Bio-security Preparedness and a Public Policy Office. Both respond directly to the Secretary of Health.

-The Auxiliary Secretariat for Prevention and Disease Control changed its name to Auxiliary Secretariat of Family Health and Integrated Services. The Maternal and Child Health Division is included in this Secretariat, along with the Immunization Program, Center for Victims of Sexual Assault, Central Office for HIV and Sexually Transmitted Disease Affairs, Mental Retardation Services Division. (Appendix 2)

Some changes particularly affect Title V. Under this new organizational structure the Maternal, Child and Adolescent Division and the Habilitation Services Division are fused into one Division (Appendix 3). It is part of the Auxiliary Secretariat of Family Health and

Integrated Services. Its name is the Maternal, Child and Adolescent Division comprised by three distinct sections:

-Perinatal, Child and Adolescent Services Section Included in this section will be: Healthy Start Project, Comprehensive Adolescent Health Services Project, Abstinence Only Education Project, Birth Defects Surveillance System and the Folic Acid Campaign, System Development and Inter-agency Collaboration Project which in turn includes the Early Childhood Comprehensive System Project, the Asthma Program and the Asthma Surveillance System.

-Children with Special Health Care Need Services Section It will include services provided by the Children with Special Health Care Needs Program, the Early Intervention System of Services and the Universal Newborn Hearing Screening Program.

-Evaluation, Monitoring, Research and System Development Section The State System Development Initiative is an integral part of this section. //2007//

An attachment is included in this section.

# **D. Other MCH Capacity**

MCH PROGRAM Some of the current projects, programs and activities based on the MCH pyramid of services are:

Direct Services: We fill in the gaps in services needed by WCBA and CSHCN that are not in the GIP package, including contraceptive methods and Rhogam immunization in the 3rd trimester. Over 40,000 women obtain contraceptive methods and 1,500 receive Rhogam per year.

# /2007/ Current budget reduction, family planning costs and the legislated salary increase for nurses have reduced our capacity to provide them. Resources will be invested preferentially on IB, ES and PBS.//2007//

Enabling Services: Family support services for at-risk pregnant, postpartum women and children up to 2 years of age.

- Home Visiting/Healthy Start Program: An enabling, family-centered, community-based service provided by specially trained public health nurses to pregnant/postpartum women and children up to 2 years of age with medical and social risk factors. The Home Visiting Nurses (HVNs) conduct a comprehensive medical, psychosocial and environmental assessment, develop a tailored comprehensive care plan in conjunction with the family and coordinate needed services through referrals to the appropriate private or public entity in the community. During follow-up contacts with the family, the HVNs provide health education on a broad array of topics tailored to the family's needs. They conduct formal risk assessment for smoking, alcohol, drug use and maternal depression, providing orientation and referrals according to the level of risk. HVNs promote enrollment of mothers and children in a medical home as well as an inter-conceptional period of at least 24 months. Most HVNs have been trained to provide counseling on breastfeeding benefits and techniques. As of June 2005, there were 109 HVNs in 74 of the 78 municipalities. The caseload is 45-50 families for a service capacity of nearly 7,000 families per year.

- Perinatal Services: The MCH program has stationed 9 perinatal nurses (PN) at selected institutions that perform a significant number of deliveries. They are also trained in breastfeeding techniques, family planning, distribution of FP methods, and risk assessment of mothers and infants. They provide individual and group education on a variety of topics, make referrals to HVNs and other needed services, collect perinatal data, participate in periodic surveys designed

at the central level and are resources for the March of Dimes "Comenzando Bien" prenatal courses.

- Community Outreach: This is another important program developed as a result of the implementation of the HCR. It is staffed by 85 Community Health Workers (CHW) in 63 of the 78 municipalities. Among their main responsibilities are to identify pregnant women and children disconnected from the HCS and facilitate their enrollment into the GIP, coordinate inter-agency services, give follow up to certain situations of the Home Visiting clients as referred by the HVNs, conduct "Comenzando Bien" courses, provide orientation on MCH topics at the community level, disseminate educational materials, participate in health fairs and data collection, identify problems of access to health services and report to the appropriate level.

## /2007/ Financial constraints and a hiring freeze make replacing HVNs difficult.//2007//

Population-Based Services: The MCH program has directed more efforts to developing new population-based programs and enhancing its involvement with those available prior to the advent of the HCR. These include a newborn metabolic/genetic screening program, immunization program, prenatal care outreach, toll-free information line, public education on MCH topics, dissemination of educational materials, folic acid campaign to reduce birth defects, HIV counseling and testing of prenatal patients, AZT administration to HIV positive patients on a voluntary basis, and Universal Newborn Hearing Screening Program (UNHSP).

The Comprehensive Adolescent Health program (SISA, Spanish acronym) integrates all activities directed at reducing adolescent risk factors: pregnancy, unintentional injuries, violence, alcohol and drug use, etc. SISA trains middle school students as peer health promoters and organizes various activities to support them in their work. In collaboration with the Kanopka Institute, SISA is developing a culturally appropriate curriculum on Positive Youth Development and a train-the-trainers guide to promote its application in agencies that serve adolescents.

At the central level SISA is comprised by a multidisciplinary team which includes the Associate Director (a physician with training in public health), a nurse, a social worker, an anthropologist, and a pediatrician with an MPH who coordinates the AEOP work plan. SISA also has 8 regional coordinators under the supervision of the Regional MCH Directors.

The Abstinence Education Only Program (AEOP) is integrated into SISA. Among its strategies are the Sex Can Wait Curriculum, peer groups led by mentor teachers, teacher training, parent workshops, summer camps and dissemination of educational materials.

Infrastructure Building Services: This is an area of enormous development after the HCR. The MCH program has developed a section of programmatic advisors on reproductive health, pediatrics, social work and health education. The nutritionist and nurse coordinators retired last year.

The Title V Monitoring and Evaluation Section is located at this level of service. It is supported by the SSDI project and staffed by an extraordinary group of skilled public health professionals, including a Demographer who is the SSDI and Section Coordinator, a Biostatistician in charge of the PRAMS-like surveillance, two epidemiologists (master level), one in charge of investigations on reproductive issues and the other on children's health; an Evaluator in charge of the development and implementation of a maternal deaths surveillance system, a Programmer who supports all data infrastructure issues and coordinates with OITA, and the data contact, an Evaluator in charge of the Title V Electronic Monitoring System. He also collaborates with the Title V Director in the needs assessment and monitoring of the Title V action plan, designs instruments to collect qualitative data, and evaluates programs.

- MCH Advisory Body (Healthy Start Consortium): It is comprised of about 50 persons representing public agencies, academia, community organizations, and consumers. They provide

input on the selection of MCH priority needs and how to address them, help in the coordination of services across public and non-governmental agencies and are resources for professional development.

- MCH Regional Working Groups (RWGs): These are comprised by members of public and private agencies and consumers. They facilitate coordination of services across agencies and programs and provide recommendations to deal with system problems that interfere with access to services.

/2007/-Maternal Mortality Review Committee: The committee members include a social worker, midwife, health educator, obstetrician, nurse, pediatrician and evaluator. It has been meeting regularly to review unidentified causes of maternal deaths with summaries of information gathered on maternal deaths. Based on information gathered and multidisciplinary evaluations, recommendations are made to improve the health care delivery system.//2007//

Other activities include the development of standards of care, interagency coordination, technical assistance and support of community programs, professional development in the area of MCH, information dissemination to concerned stakeholders, policy development and assurance of care, among others.

The MCH/CSHCN programs possess the technology (computers and statistic software) needed to perform an excellent work.

The MCH Director, a board-certified pediatrician with a master's degree in public health, has occupied different positions at the PRDoH for 28 years. He has been a primary health care provider, director of a pediatric residency program, and director of the MCH program at regional level and holds the present position since December 1990. He was honored as the best student graduated from the MCH program at the 25th anniversary of the School of Public Health. In November 2004, he was the recipient of the 3rd Annual March of Dimes Jonas Salk Public Health Leadership Award.

# /2007/ The MCH Director retired in 2005 and a new acting Director was named. (Appendix 4A)//2007//

To furnish the comprehensive array of services recommended by the MCH pyramid, we have 34 FT positions at the central level (Appendix 4) and 8 regional teams, each under the supervision of a Regional MCH Director. These teams are comprised of a coordinator of services for WCBA, coordinator of pediatric services, SISA coordinator, health educator, perinatal nurse and administrative support staff.

At local levels we have at least one HVN and one CHW. As of June 2005, there were 109 HVNs and 85 CHWs distributed across the Island. Four municipalities do not have HVNs and 15 lack CHWs.

## CSHCN PROGRAM

Appendix 5 illustrates the organizational structure of the CSHCN program. It is comprised of several projects, programs and activities. These include 7 Regional Pediatric Centers (PCs), Early Intervention program (EIP), Early Childhood Comprehensive System project (ECCSP), NUHSP, Asthma project, Folic Acid Campaign, Congenital Anomalies Registry, PININES and the Surveillance System of Autism Spectrum Disorders.

Direct Services: The CSHCN program provides services to eligible chronically ill and disabled children through its PCs, one rehabilitative hospital, specialty clinics at the University Pediatric Hospital, and 7 Immunology Centers for AIDS patients. Currently, the CSHCN program serves about 15,000 non-duplicated CSHCN per year.

# /2007/ During FY 2004-2005, 10,808 non-duplicated CSHCN received services under Title V.//2007//

The PCs complement specialized services not covered by the GIP or provided in an insufficient amount. They have been certified as providers of specialized services for the networks of the health insurance carriers. At these facilities, eligible children receive specialty care, assistive technology, ancillary services, and highly specialized services required by children with metabolic and genetic disorders and mental retardation. Children with AIDS or hemophilia are referred to the appropriate programs. Health insurance carriers are billed for services provided to children holding the GIP or a third party payor. Reimbursement monies revert to the PCs.

Direct services are also provided to pediatric patients with complicated asthma by the Pediatric Pulmonary Program located at the PR Cardiovascular Center. This program is fully supported with Title V funds.

Enabling Services: The CSHCN program provides care coordination services primarily to children with developmental disabilities ages 0-3 who are eligible for the EIP. Nurses have been trained to perform this activity. Case management is conducted collaboratively with the Association of Parents of Children with Disabilities (APNI, Spanish acronym). There are 75 case managers (Service Coordinators) distributed across the Island.

# /2007/ The CSHCN Program provides care coordination services primarily to eligible children 0-21 years with severe disabilities.//2007//

# /2007/ A toll free number provides information about services and transfers calls to the PCs.//2007//

- Catastrophic Illness program. This program, funded 100% by the state, allows access to very expensive services to individuals with catastrophic conditions. A significant proportion of the patients are children under 21 years of age. They are served either in PR or in the mainland. Around 150 children benefit from the program per year, with costs ranging from 6 to over 7 million dollars.

## /2007/ This year 105 children benefited from the program.//2007//

Population-Based Services: The NTD prevention campaign through the promotion of folic acid consumption among WCBA is conducted with the collaboration of many partners and through a broad array of activities including dissemination of educational materials (posters, pamphlets, etc.) in a variety of settings and integration of the message into the health education curriculum beginning in elementary school.

Infrastructure Building Services: At this level the CSHCN has the following projects:

- ECCSP pursuing the development of cross-service systems to support children 0-5 years to be healthy and ready to learn. A State Interagency Planning Committee supports the project.

## /2007/ A Strategic Plan has been completed including its four basic components.//2007//

- UNHSP, in the implementation phase. Currently, 19 hospitals conduct hearing screening regularly.

- Addressing asthma from a public health perspective. The CDC supports this project.
- Congenital Anomalies Registry, supported by CDC, tracks 13 categories of conditions.

- PININES. In collaboration with the Medicaid program, all children are screened for 13 chronic conditions at the time of certification for the GIP.

# /2007/ A Title V Committee with participation of families and key stakeholders has implemented a plan to achieve CSHCN PMs.//2007// An attachment is included in this section.

# E. State Agency Coordination

The needs of the MCH population are multiple and complex. Because of this, there is no public or private agency, program, or community based organization that can satisfy all the needs of the most vulnerable population comprised of women in their reproductive age, children and adolescents. It is therefore imperative to establish appropriate coordination mechanisms among all concerned entities in order to reduce duplication and fragmentation of services and to be more efficient in the utilization of the scarce resources available.

In Puerto Rico, we have in place fairly satisfactory coordination mechanisms among several public agencies and other sectors of the community at the state, regional and local levels. These coordination mechanisms are at both formal and informal levels. The Department of Health has established formal relationships with other state public agencies, local public health agencies, academic institutions, federally qualified health centers and tertiary health care facilities. All of these formal arrangements enhance the capacity of the MCH/CSHCN programs.

This formal coordination is the outgrowth of established laws and executive orders of the Governor, which mandate specific agencies and programs to sit at the table to coordinate certain types of services for the MCH population. There are also memorandums of understanding (MOU) among agencies and programs, which enhance the coordination of services. Other formal mechanisms, which contribute to the achievement of this goal, are interagency committees, task forces and coalitions, among others. Several of the laws, executive and administrative orders and committees require the participation of consumers.

At this point, we want to highlight some of the laws, executive orders, MOU and committees that enhance the provision of health services and coordination among all concerned entities, which serve the MCH population. The central staffs of the MCH/CSHCN programs are regular members of most of these arrangements.

General Public Policy:

\* Law No. 72 enacted on September 7, 1993 mandated the establishment of a Health Care Reform which includes a GIP for all individuals under 200% of poverty line. Under this law ASES was created. ASES is responsible for negotiating and awarding contracts to private insurers to provide services included in ASES standard benefit packages.

\* Law No. 194, August 2000: To establish the Patient's Rights and Responsibility.

\* Law No. 408, October 2000: To establish the needs for prevention, treatment and rehabilitation in mental health, and to create the Bill of Rights of adults and minor patients.

Public Policies Concerning Women of Reproductive Age and Infants:

\* Law No. 84 -- Enacted in 1987. This law mandates the Department of Health to create the Hereditary Diseases Program to detect, diagnose and treat children with Hereditary Diseases. It requires that every infant born alive in PR must be screened for PKU, hypothyroidism and sickle cell anemia. Currently, two other conditions are routinely screened: galactosemia and congenital adrenal hyperplasia. In addition, the Law requires the establishment of the Council for Hereditary Diseases of PR. The council is integrated by four (4) licensed physicians; one (1) representing the Secretary of Health; one (1) parent of an affected child; and one (1) member should represent programs of continued education for health professionals. Among its responsibilities, the council will recommend the type of conditions to be screened and the kind of diagnostic tests to be used by the Program of Hereditary Diseases of PR. This law is under revision of the Legislature in order to increase the number of conditions to be screened.

\* Law No. 27 -Enacted on July 1992, allows health care professionals to provide prenatal care and postpartum services to minors without parental or guardian consents.

\* Law No. 70 - Enacted on August 1997. It mandates the Secretary of Health to establish a committee charged with the responsibility to develop studies and provide recommendations for the reduction of infant mortality. The law requires an interagency committee including ASES, comprised of nine members under the leadership of the MCH Director.

Administrative Order 129, enacted on July 29, 1998 - To establish regulations for all health professionals through continuing education, requiring at least 3 CME credits on the subject of breastfeeding at the time of re-certification. This strategy is aimed at increasing the knowledge and promoting positive attitudes of health providers towards breastfeeding as a means of educating and encouraging breastfeeding in the community. A Steering Committee was organized, consisting of 11 partners from several private and public entities, such as MCH Division of the Department of Health; La Leche League; Department of Education; MCH Health Division of San Juan (Capitol City of Puerto Rico); WIC Program; LACTA Project; Department of Family Affairs; and community advocates. This committee developed a 5-year plan with the purpose of reaching the year 2010 objectives related to breastfeeding and includes the enforcement of Administrative Order 129 through a collaborative effort with the professional boards regulating the individual health practices. This Order also promotes 24-hour mother and child rooming-in in the hospital setting as a strategy to enhance breastfeeding and the well being of the mother and her infant. The Administrative Order has promoted several laws that protect and enforce the rights of all mothers to breastfeed their babies. These laws have been enacted recently as a result of the continued efforts of this committee as well as other breastfeeding advocates in the community.

\* Law No. 32 -Enacted on January 10, 1999. To establish areas designed for breastfeeding and change diapers for young children in malls, government centers, ports and airports.

\* Law No. 427 - Enacted on December 2000. To require that working breastfeeding women be allowed 30 minutes per day to express their milk.

\* Law No. 311 - A legislative mandate for newborn hearing screening is in place since December 19, 2003. Coverage for screening and audiological diagnostic testing is required for all health insurance plans in Puerto Rico.

\* On March 13, 2004, Puerto Rico enacted Law 79 aimed at prohibiting the administration of any breast milk substitute to newborns without the written consent of the mother. Any institution that violates this law will be fined.

\* Law No. 95, enacted on April 23, 2004, prohibits discrimination against women who breastfeed in any public setting.

\* Healthy Start Consortium and Advisory Board to the MCH programs. Currently, it is comprised of about 40 members who represent public agencies including the Department of Health, academia, community based organizations, Medicaid, ASES, WIC, consumers, etc.

\* Committee for the Promotion of Folic Acid Campaign - includes the Department of Education & Puerto Rico's chapter of March of Dimes among its members.

\* Advisory Board of the Midwife Training Program of the School of Public Health - The MCH Director is an active member.

Public Policies Concerning Children and Adolescents:

\* Law No. 25 -- Enacted on September 1983 requires complete immunization as established by the DoH to all preschool, school age children and universitary students at the time of enrollment.

\* Law No. 259 -Enacted on August 31, 2000. To establish an Emergency Medical Service System for Children Program for the prevention and surveillance of pediatric emergencies. The law assigns \$100,000.00 per year for the implementation of the program. This legislation will allow the sustainability of the EMSC program granted by the federal government.

\* Law No. 296 - Enacted on September 1, 2000. This law mandates a medical evaluation according to EPSDT standards for all children enrolled at day care centers, Head Start programs, and private and public schools on an annual basis.

\* Administrative Order 158, enacted on September 13, 2000 - To establish regulation for training in Comprehensive Adolescent Health.

\* Law No. 177 enacted on August 1st, 2003: For the comprehensive protection and well being of childhood. It requires coordination (Art. 6) among the Department of the Family, Department of Education, Department of Health, AMSSCA, Housing Department, Justice Department & Police Department, among others.

\* PR Safe Kids Coalition - Includes public agencies such as DoH, Department of Education, the Police Department, Fire Department and many non-governmental community agencies and individuals.

\* During 2004, interagency agreements with the Department of Family and the Early Head Start consortium's were revised and updated. Inter-agency steering committees were implemented for the UNHS and ECCS programs.

\* Law No. 220 -- Enacted on August 21, 2004 to establish the Bill of Rights for pregnant teens enrolled at public schools.

\* COPRAN -- It is the Puerto Rican coalition aimed at preventing underage drinking. This aim is pursued through a wide array of activities which include lobbying for appropriate legislation. The MCH program has a formal collaborative agreement with COPRAN.

# /2007/ Funds to continue this program are no longer available.//2007//

/2007/ Law 66 enacted on March 2, 2006. This bill eliminates tobacco use in bars, casinos, and other workplaces, as well as in private cars with children under 13 years old aboard. It makes Puerto Rico the 13th U.S. state/district/territory to go smoke-free. //2007//

/2007/ The Puerto Rico Penal Code was amended. This reform will have an impact on some of the indicators related with adolescents. For example: the age when an adolescent female can consent to have sexual relations has been increased from 14 years to 16 years. This change limits the services that can be provided to a sector of the adolescent population.//2007//

Public Policies Concerning CSHCN:

Administrative Order No. 95 - The Metropolitan Pediatric Center was integrated to the

University Pediatric Hospital to maximize its administrative functions and to better serve the special needs population. Normatively, the Pediatric Center responds to the Division of Habilitative Services.

\* Law No. 51- This law was enacted on June 7, 1996. It mandates the provision of comprehensive educational services to individuals up to 21 years of age who have special educational needs. The law requires the establishment of an Advisory Council. An outstanding responsibility of the Department of Health under this law is to screen all children born in PR in facilities of the DOH or privatized, for developmental delay during the first three months of age. Identified children will be referred to the Early Intervention Program (EIP) with parental consent for eligibility determination and for provision of services until age 3 years. This strategy will assist the program to increase the number of children identified and enrolled during the first year of age. From ages 3 to 21, the Department of Education is ultimately responsible for providing educational and related services and the required coordination with six other agencies.

/2007/ Collaboration with the Federally Qualified Health Centers (Section 330 of the federal Public Health Act) has been increased. Title V and the administration of the 330 Centers share data on topics related to MCH issues. Personnel of the MCH Division also served as resources for Continuing Medical Education activities sponsored by the 330 centers.//2007//

/2007/ \* Law No. 56 - In 2005, PRDoH and the Asthma Coalition impelled the creation of "Law for the Treatment of Students with Asthma". This law, signed on February 1, 2006, recognizes the right of students with asthma or other related conditions to self-administer medications in school with the consent of their parents or guardians.//2007//

\* Law No. 318 -Approved on December 2003 designates the PRDoH as responsible for developing and implementing public policy for the evaluation, management, and registry of children and adults with autism.

\* Law No. 351, September 2004: To establish a Birth Defect Registry at the PRDoH. This law requires that all providers and agencies which come in contact with cases of birth defects must report them to the Department of Health regardless of gestational age. The Birth Defects Surveillance System program is responsible for developing protocols for an active surveillance system and to establish a data bank to allow research on contributing risk factors to birth defects. The principal objectives of this law pursue the determination of incidence and prevalence rates of selected births defects in PR, develop prevention strategies, promote early referrals of identified cases to available services and promote the collaboration among the public at large and private partners concerned with this issue.

/2007/ Law No 56 - February 2006. Law for the Treatment of Students with Asthma While in School.

\* Advisory Council of Special Education to the Secretary of Education - The CSHCN director represents DOH.

\* State Council on Developmental Disabilities - The CSHCN director represents the Secretary of Health.

\* The PR Asthma Coalition implemented in 2000 to reduce morbimortality due to asthma in Puerto Rico. The Director of Pediatric Pulmonary Program is the president.

\* Committee of the University Affiliated Program (UAP) -- Includes consumers.

/2007/ Its name has changed to Centers of Excellence. The DoH is a member of the Alliance for Full Participation. The alliance is developing a plan to support full

### participation of people with disabilities in daily activities.//2007//

\* United Funds of PR - CSHCN director participates with other representatives of the community.

/2007/ The SECCS Task Force is collaborating with the Legislature to develop public policy for children ages 0-5 and families.//2007//

/2007/ A needs assessment of persons with autism spectrum disorders is under way. Once completed, it will contribute to the development of public policy. It is sponsored by CDC.//2007//

/2007/ In 2005, a MOU between DoH and ASES was signed. It will allow us to remove barriers associated with access to services for CSHCN that have been identified through the "Champions for Progress Center" Initiative. The main goal of this grant was to provide leadership for the development of a system of services for CSHCN. Families, providers and representatives from the health care insurance companies participated in the initiative. Together they established three common objectives: 1) Educate stakeholders on the development of Systems of Care for CSHCN, including six CSHCN (MCH) core outcome measures; 2) Develop collaborative strategies to establish partnerships; 3) Develop a list of reimbursement codes. Other grant recommendations were included in the Title V action plan.//2007//

## F. Health Systems Capacity Indicators

**Health Systems Capacity Indicator 01:** The rate of children hospitalized for asthma (ICD-9 Codes: 493.0 - 493.9) per 10,000 children less than five years of age.

_ realing systems capacity indicators rorms for histor of through 04, 07 & 00 - Multi-real Data					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Indicator	301.0	144.2	483.5	519.1	683.7
Numerator	8810	4260	13502	13799	17618
Denominator	292664	295406	279252	265820	257697
Is the Data Provisional or Final?				Final	Provisional

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

### Notes - 2005

Data for the numerator was obtained from the Health Insurance Administration (ASES) and the Office of the Insurance Commissioner (OCS). ASES provided hospitalization claims data of patients holding the government insurance plan (Reform). The OCS provided hospitalization claims data from the insurance plans other than Reform. OCS reported data from patients with private plans and may not represent the universe of the population.

The denominator is the annual estimate of the population on July 1, 2005 as reported by the US Census Bureau.

### Notes - 2004

Data for the numerator was obtained from the ASES and the Office of the Insurance Commissioner (OCS). ASES provided hospitalization claims data of patients with the government insurance plan (Reform). The OCS provided hospitalization claims data from the insurance plans other than Reform. ASES established a new electronic system for year 2004 and this may affect the reported data. OCS reported data from patients with private plans and may not represent the universe of the population.

The denominator is the annual estimate of the population on July 1, 2004 as reported by the US Census Bureau. Data for 2002 (numerator) was provided only for patients recipients of the governmental insurance plan. It did not include data from patients with private insurance plans.

Therefore the number was subreported. Data for 2003 (numerator) reflects data from both ASES and the Office of the Insurance Commissioner.

### Notes - 2003

During year 2001 activities were initiated to obtain data from the Health Services Administration (ASES), agency that provides data on patients with public insurance. This was the first time that we received ASES data; this data was provided to ASES on individual basis by each of the four health insurance agencies under the Health Care Reform.

Data for year 2002 was provided only for patients with public insurance. It did not include data from patients with private insurance and therefore the number was subreported.

Data for year 2003 was obtained from both ASES and the Office of the Insurance Commissioner (OCS). The OCS provides data from claims of patients with private insurance. Denominator is from the US Bureau of the Census.

### Narrative:

Asthma is the most common condition among CSHCN in the Island. We evaluated the most common conditions of 35,949 children enrolled in the Head Start Program in 2005-2006. Asthma accounted for 18.8% of all reported conditions. According to data provided by the Project for the Identification of CSHCN (PININES, Spanish acronym) for 2005, asthma was the most frequent condition (54%) reported. The number of pediatric pulmonologists is not sufficient to serve children with moderate to severe asthma. In addition, most of them are located the metropolitan area.

The first Asthma Surveillance System Report, completed in April 2006, included data for 2000-2003 of only one health insurance company, Triple S/C, the largest in the Island. The 0-4 age group accounted for the highest hospitalization rate. No difference was observed between the private and HCR population. The hospital admission rates were higher during the months of September and October. Claims were analyzed to determine the use of medications as one of the morbidity indicators. Four (4) categories of the most frequently used asthma medications were considered for this analysis. The inhaled short acting beta agonist was the most used medication, but the use of leukotriene antagonist switched from the third position (2001 and 2002) to the second for 2003. It is important to highlight that the use of xanthines changed from the second to the fourth position. Asthma medication costs adversely affects providers PM/PM income.

The Pediatric Pulmonary Program (PPP) located at the PR Medical Center serves the pediatric population of PR with conditions such as asthma, cystic fibrosis, and pulmonary diseases dependent on high technology. It provides a unique array of services to children island-wide by a multidisciplinary group including a social worker, a nutritionist, a laboratory technician and a respiratory therapist. Part of the personnel is funded by Title V. The total of patients served by the program during the reporting year was 1,139. Pulmonary function tests were performed to 683 children and to 502 infants. A total of 48 new patients and 87 follow up received services from the nutritionist. The social worker served 107 new patients and 351 follow up patients. The laboratory technician performed Sweat Test to 1,358 children, and 18 of these were diagnosed with Cystic Fibrosis. The PPP staff has an active role in the Asthma Coalition of PR.

The State Asthma Plan (SAP), already completed, addresses the need for training primary physicians in the use of the NIH guidelines to decrease asthma morbidity and mortality. The priority intervention selected by the SAP committee is training to primary care physicians regarding the NAEPP asthma treatment guidelines. The Asthma Project and partners decided to pilot test the interventions in the Metropolitan area. Trainings will be expanded to other municipalities with high rates of asthma morbidity and mortality depending on Puerto Rico

Asthma Surveillance System findings and identified needs, and will be modified according to results of pilot interventions.

In addition, in 2005, the PRDoH and the Asthma Coalition impelled the creation of a law to allow students to self-administer asthma medications while at school. Public Law #56, "Law for the Treatment of Students with Asthma" was signed on February 1, 2006. This law recognizes the right of students with asthma or other related conditions to self-administer medications in school with the consent of their parents or guardians. The PRDoH, in coordination with the Department of Education, is responsible for creating the bylaws.

**Health Systems Capacity Indicator 02:** The percent Medicaid enrollees whose age is less than one year during the reporting year who received at least one initial periodic screen.

Health Systems Cap	acity Indicators Forms for I	HSCI 01 through 04, (	07 & 08 - Multi-Year Data
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Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Indicator	36.5	NaN	NaN	12.1	18.1
Numerator	12075	0	0	2949	4049
Denominator	33110	0	0	24374	22357
Is the Data Provisional or Final?				Final	Provisional

### Notes - 2005

Data represents the GIP sector only. It was provided by the Health Insurance Administration. The numerator is the estimated number of infants who received at least one initial screening service according to the EPSDT. This percentage is a reflection of the Medicaid contribution to the total GIP cost. The denominator is the total number of infants enrolled in the GIP for FY 2004-2005.

## Notes - 2004

Numerator and denominator provided by ASES, the Goverment Health Insurance Administration.

### Notes - 2003

### Narrative:

In Puerto Rico, the MCH population with incomes 200% below FPL qualifies for the government insurance plan. Because of its territorial status, Medicaid funds allotted for PR are significantly lower than the amount it would be entitled to if it were a state. Therefore, Medicaid funds are insufficient to provide services for all Medicaid eligible children. The health care for these children's is funded with local government monies. The budget used to purchase the GIP for low-income individuals is a combination of state and local funds (municipal), Medicaid and SCHIP.

During 2004-2005 Puerto Rico devoted \$1,155.4 million (84.8%) of commonwealth and municipal funds to finance the GIP for persons with incomes below 200% of the FPL. This represents a 1% increase compared with 2003-2004. During that same period \$165 million (12.1%) Medicaid dollars were assigned for the GIP.

Determining the percent of Medicaid enrollees less than one year who received at least one initial periodic screen is particularly difficult since our current health care model is a capitated one. Because of this, providers receive a fixed amount of dollars per patient to provide services and therefore do not bill the health care insurance companies for services individually. As a result, utilization data is not helpful to us as we attempt to calculate this indicator.

The MCH staff distributes educational material to mothers to inform them of what should be included in their well baby care. The knowledge is provided to empower them to demand all the screening tests and evaluations required as part of the EPSDT. During their daily activities CHW, HVN, and perinatal nurses in the 8 Health Regions educate parents on the content of adequate pediatric care and encourage them to demand it for their children. Medicaid staff also promote the same message when they participate in activities and health fairs directed at identifying people without health insurance. They particularly stress the importance of adequate care when they identify pregnant women without insurance.

The SSDI Program resources are focused on improving the data linkages between birth records and the Medicaid eligibility file. Currently, information being provided for this HSCI comes from the ASES data base. SSDI is working on this matter to have access to the most accurate information in a timely manner.

**Health Systems Capacity Indicator 03:** The percent State Childrens Health Insurance Program (SCHIP) enrollees whose age is less than one year during the reporting year who received at least one periodic screen.

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Indicator	NaN	NaN	NaN	3.0	4.6
Numerator	0	0	0	731	1037
Denominator	0	0	0	24374	22357
Is the Data Provisional or Final?				Final	Provisional

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

### Notes - 2005

Data represents the GIP population only. It was provided by the Health Insurance Administration (ASES). The numerator is the estimated number of infants who received at least one initial screening service according to the EPSDT. The denominator is the total number of infants enrolled in the GIP for FY 2004-2005.

### Narrative:

The SCHIP Program benefits became available in Puerto Rico by 1998. This program allows States and territories to choose from three different options when devising a plan to cover underserved children. These are: establishing a new children's health insurance program, expanding current Medicaid Programs, or a combination of both strategies. Currently, Puerto Rico is using its allotment to expand Medicaid eligibility. SCHIP funds allotted to PR for 2005 amounted to \$42.3 million. This amount represents 3.1% of the total funds the PR government spends for the GIP.

One of the most frequent screening tests conducted in infants in Puerto Rico is the Newborn Screening panel. In 2004, 49,079 of the 51,239 live births were screened. This represents 95.8% of all infants. Preliminary data for 2005 showed that approximately 98.6% (49,133 of 49,834) of all live born had a newborn screening test performed. This represents a decrease of less than 1% compared with 2004. Of the 3,145 infants that participated in the HVP, 85% had complied with the EPSDT schedule. The Immunization Program conducts an annual study to measure compliance with and timeliness of vaccine administration. Results from the latest study performed in August 2005, show that 89% of children 35 months of age had received their immunization according to the established schedule.

The SSDI Program is working to link the data from the Neonatal Screening Program for Hereditary Diseases (NSPHD), vital records and the Universal Newborn Hearing Screening

Program. We are in the process of evaluating the NSPHD data and making recommendations on how to correct the deficiencies found in the process. The NSPHD is making the changes we suggested. Currently, the SSDI Program is evaluating and refining the dataset according to new changes. In addition, SSDI is working with the Universal Hearing Screening and Intervention Program to incorporate the newborn screening information since both screenings are performed at the time of birth and are required by law.

The SSDI Program will work in collaboration with the Department of Education to conduct a study to identify the prevalence of the children without a health insurance plan that could potentially benefit from SCHIP.

**Health Systems Capacity Indicator 04:** The percent of women (15 through 44) with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80 percent on the Kotelchuck Index.

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Indicator	73.8	83.9	83.2	84.2	81.4
Numerator	41290	18445	24729	25799	27255
Denominator	55983	21984	29723	30655	33477
Is the Data Provisional or Final?				Final	Provisional

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

#### Notes - 2005

The Kotelchuck Index is a composed indicator to measure adequacy of prenatal care. It uses two crucial elements obtained from birth certificate data: the date when prenatal care began (initiation) and the number of prenatal visits until delivery. Data reported for 2005 is preliminary.

Numerator: data provided by the Office of Informatics and Technology Advances (OITA) of the PR Department of Health. Denominator: US Census.

## Notes - 2004

Data for 2000-2003 was revised. We had included the Kotelchuck Index for all women who delivered a live birth. Now we have included only for those between 15 and 44 years old.

## Notes - 2003

Preliminary data for this indicator is not available.

## Narrative:

Data for this health indicator come from the Vital Statistics System (VSS) birth certificates. The MCH Division has a competent team with the skills to determine the Kotelchuck Index by age groups, municipality of residence, health regions, as well as by many other sociodemographic variables.

The percentage of women 15-44 years with a Kotelchuck Index greater or equal to 80% did not change much from 2000 (83.1%) to 2003 (83.2%). Nevertheless, this percentage decreased to 81.4% during 2005. One explanation for this decrease may be related to the implementation of the new birth certificate. On the other hand, the 2005 data is incomplete and still preliminary. Therefore, this percentage could change once the final data is obtained.

Indeed, this is one of the 15 health indicators that we analyze annually to determine the Integrated Index of Maternal and Child Health by municipality (IIMCH). Data generated is widely

disseminated to concerned entities and stakeholders responsible for promoting first trimester admission into PNC and the quality of PNC. Also, the MCH Division carries out activities aimed at the maternal population in topics such as the importance of PNC once pregnancy is known, the importance of early PNC and the number of expected PNC visits. The development and implementation of a PNC passport is one of the strategies considered to improve this HSCI. The purpose of the PNC passport is to ensure that the pregnant woman knows all the elements that comprise adequate PNC and is empowered to demand these services. The passport provides space for personal information, PNC visits record, test results according to the weeks of gestation, and outcomes of pregnancy.

**Health Systems Capacity Indicator 07A:** Percent of potentially Medicaid-eligible children who have received a service paid by the Medicaid Program.

Thealth Systems Capacity indicators rolling for histor of through 04, 07 & 00 - Multi-Tear Data							
Annual Objective and Performance Data	2001	2002	2003	2004	2005		
Annual Indicator	NaN	NaN	13.3	16.5	18.3		
Numerator	0	0	61523	98891	98891		
Denominator	0	0	462586	599177	540777		
Is the Data Provisional or Final?				Final	Provisional		

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

#### Notes - 2005

Data provided for this performance measure was estimated using as numerator the total number of children 0-19 years old who received EPSDT services throught the GIP during FY 2003-2004. The denominator was the number of children 0-19 years of age holding the GIP. The data was provided by the Health Insurance Administration.

#### Notes - 2004

This performance measure was estimated using as numerator the total number of children 0-19 years old who received EPSDT services throught the GIP, and the denominator was the number of children 0-19 years of age holding the GIP. The data was provided by the Health Insurance Administration.

## Notes - 2003

Puerto Rico uses close to \$1,208 million to purchase the GIP for low-income persons under 200% of the FPL. Medicaid dollars represent only 13.25% (\$160 million) and SCHIP funds 2.4% (\$29 million). The budget used to purchase the GIP for low-income individuals is a combination of state and local funds (municipal), Medicaid and SCHIP. We are using as a proxy for this PM the total of infants, children and adolescents with the GIP who received at least one service during FY 2002-2003. The data presented was provided by the PR Health Insurance Administration (ASES).

## Narrative:

Financial access to health care does not guarantee that all children will enroll and access care, but insured children are more likely to get care. Currently, 3 million children are estimated to be eligible non-participants in Medicaid in the United States. Because of its territorial status, Medicaid funds allotted for PR are capped and insufficient to provide services for all Medicaid-eligible children.

Medicaid funds are used to complement state monies allocated to buy the GIP for clients certified by the Medicaid Program. The budget used to purchase the GIP for low-income individuals is a combination of state and local funds (municipal), Medicaid and SCHIP. In PR it is difficult to provide an accurate estimation of the number of children who received services paid exclusively by Medicaid funds. For that reason, MCH Program uses the GIP participants as a proxy for Medicaid participants and Non-GIP for Non-Medicaid participants when determining this indicator.

During FY 2004-2005, Medicaid funds represented only 12.1% of the total budget required by the GIP. As reported by ASES, a total of 98,891 children between birth and age 19 received EPSDT services during FY 2004. Approximately 16.5% of children enrolled in the GIP received a service paid by Medicaid. For purpose of this report, it has been assumed that this is the proxy for Medicaid eligible in PR.

Based on the situation described above, the PR MCH's main role is to provide information on the availability of the GIP for low income children and provide appropriate referral for those families that may be eligible and are not receiving the services. Identification and appropriate referral is done by the Home Visiting Nurses and the Community Outreach Workers. The SSDI Regional Working Groups also provide assistance in the identification and referral of potentially eligible children.

**Health Systems Capacity Indicator 07B:** The percent of EPSDT eligible children aged 6 through 9 years who have received any dental services during the year.

Thealth Systems Capacity indicators forms for fisch of through 04, 07 & 00 - Multi-fear Data								
Annual Objective and Performance Data	2001	2002	2003	2004	2005			
Annual Indicator	41.0	NaN	NaN	29.7	16.7			
Numerator	74281	0	0	87391	22957			
Denominator	181369	0	0	294373	137374			
Is the Data Provisional or Final?				Provisional	Provisional			

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data
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#### Notes - 2005

All EPSDT eligible children (0-100% FPL) hold the GIP, as well as those in the FPL 101-200%. Both of these groups have direct access to dentists. However, it is quite difficult to estimate the proportion of children 6 through 9 years of age who have received a dental service during any year. In the past year, the collected and reported information was related to the number of encounters or visits for dental services. Since a child may have more than one visit per year, the number of encounters was not appropriate to estimate the percent of children who use dental services in Puerto Rico.

This year, the number provided by the GIP administration (ASES) is the unduplicated number of children 6 to 9 years who received at least one dental service. That is the reason that explains the decrease in this annual indicator.

## Notes - 2003

All EPSDT eligible children (0-100% FPL) hold the GIP, as well as those in the FPL 101-200%. Both of these groups have direct access to dentists. However, it is quite difficult to estimate the proportion of children 6 through 9 years of age who have received a dental service during any year. The reason for this difficulty is that the collected information is related to the number of encounters. Since a child may have more than one visit per year, the number of encounters is not appropriate to estimate the percent of children who use dental services in Puerto Rico.

## Narrative:

Oral health is critically important to the overall health and well-being of children. In a survey among Head Start Programs in Puerto Rico, dental caries was the most common chronic childhood condition reported. It was present in 38% of participants; more prevalent than asthma (19%) or incomplete immunization schedule (12%).

In Puerto Rico, all EPSDT eligible children (0-100% below FPL) hold the GIP, as well as those in

the FPL 101-200%. Both of these groups have direct access to dentists. The Health Insurance Administration (ASES, Spanish acronym) reported a total of 865,793 dental services provided during FY 2005-2006. A total of 82,889 children under 21 years of age received services in the same period, distributed as follows: 0-5 years (9,404); 6-9 years (22,957); 10-14 years (25,783); 15-18 years (17,543), and 19-20 (7,202). As illustrated in the previous figures, ASES reported 22,957 children 6-9 years who received any dental service in FY 2004-2005. This represents an apparent reduction in the number of children receiving dental services. However, this year, the number provided by ASES is the unduplicated number of children 6 to 9 years who received at least one dental service.

The continuous monitoring of this measure is imperative because it is an indicator of the general health and well-being of the population, especially for children. Several studies documented that left untreated, pain and infection caused by tooth decay can lead to problems in eating, speaking, and learning. Despite the established importance of oral health, it is estimated that dental caries (tooth decay) is five times more common than asthma and seven times more common than hay fever in children (US Surgeon General).

The MCH Division has already obtained approval from the PR Department of Education to conduct a study to assess the oral health status of a representative sample of third grade students. This evaluation will be done with the collaboration with the Department's Oral Health Division and the School of Dentistry of the University of Puerto Rico. Parents of students will be asked to complete a survey at the time they sign the consent form. One of the variables included in the survey is the last time the student visited a dentist and the dental health coverage they have. During the study, educational materials will be distributed to participant families promoting compliance with guidelines to ensure good oral health.

**Health Systems Capacity Indicator 08:** The percent of State SSI beneficiaries less than 16 years old receiving rehabilitative services from the State Children with Special Health Care Needs (CSHCN) Program.

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Indicator	NaN	NaN	0	0	0
Numerator	0	0			
Denominator	0	0			
Is the Data Provisional or Final?				Final	Final

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

#### Notes - 2005

PR does not receive SSI funds. Therefore no data can be reported for this HSCI.

#### Notes - 2004

PR does not receive SSI funds.

#### Notes - 2003

Puerto Rico does not receive SSI funds.

#### Narrative:

Puerto Rico does not receive SSI funds. Therefore no data can be reported for this HSCI.

Health Systems Capacity Indicator 05A: Percent of low birth weight (< 2,500 grams)

INDICATOR #05 YEAR DATA SOURCE	POPULATION
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Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State			MEDICAID	NON- MEDICAID	ALL
Percent of low birth weight (< 2,500 grams)	2005	other	13.9	11	12.9

Notes - 2007

Preliminary data obtained from OIAT of the PR Dept of Health. Medicaid percentage represents the population covered by the Government Insurance Plan. Non Medicaid population represents the population without GIP.

## Narrative:

The incidence of premature births and low birth weight babies is high in Puerto Rico, according to the SSDI Descriptive Study of Live Births 2000-2003. These are determinant factors for infant mortality. Having LBW reduces the probability of an infant's survival.

Information regarding the health plan held by women in Puerto Rico at the time of delivery is collected in the birth certificate. The birth certificate provides information on demographic characteristics of the infant's parents, the mother's prenatal history, pregnancy and birth complications, and characteristics of the newborn for all live births in Puerto Rico. Preliminary data suggest an increase in the low birth weight category during 2005 (12.9%) compared with the information for 2004 (11.5%). This data represents mortality for the first nine (9) months of 2005.

There are different sources of information to document the factors contributing to low birth weight: ESMIPR (PRAMS-like), descriptive studies, birth certificates and data linkages between birth and death files. Findings from the SSDI Descriptive Study of Live Births 2000-2003 and the Maternal and Child Health Index (IISMIPR, Spanish acronym) suggested an increase of low birth weight from 10.8% to 11.5% during 2000 to 2004.

The information regarding birth weight by Medicaid and Non-Medicaid population could not be obtained in Puerto Rico. In order to study the birth weight among the low income population (below 200% FPL), the MCH Program uses the GIP participants as a proxy of Medicaid participants and Non-GIP for Non-Medicaid. Based of these categories, the MCH Program estimates that the proportion of low birth weight babies born to mothers holding GIP card was higher than Non-GIP babies (13.9% vs. 11.0%, respectively).

Another source of information is the Maternal and Child Health Study 2004-2005 (PRAMS-like) in Puerto Rico, which collects birth weight data. Results from this study are similar to data collected in birth certificates for 2005 (12.8% and 12.5%, respectively). The SSDI Program shall continue performing the PRAMS like Survey in order to monitor several maternal and child indicators.

Efforts to improve these indicators are conducted by the MCH Program. Through the Home Visiting Program, the MCH Program provides case management/care coordination, health education and counseling to pregnant women with complex medical and social risk factors associated with LBW and VLBW infants. The WIC Program also contributes toward reducing these rates by focusing on women who present nutritional risk factors. In 2005, the WIC Program provided services to 21,889 pregnant women.

The MCH Program provides educational interventions directed at HVN, providers and the population at large to increase awareness regarding the elevated LBW in PR and its implication for the infants' survival. During the activities, staff encourage WCBA to abstain from high risk behaviors and offer recommendation to reduce factors that contribute to these poor outcomes.

# Health Systems Capacity Indicator 05B: Infant deaths per 1,000 live births

INDICATOR #05	YEAR	DATA SOURCE	PC	PULATION	
Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State			MEDICAID	NON- MEDICAID	ALL
Infant deaths per 1,000 live births	2005	other	10.4	6.1	8.9

# Notes - 2007

Preliminary data obtained from OIAT of the PR Dept of Health. Medicaid percentage represents the population covered by the Government Insurance Plan. Non Medicaid population represents the population without GIP.

# Narrative:

The US Healthy People 2010 objective is 6.2 infant deaths per 1,000 live births. The current 2005 infant mortality rate in Puerto Rico surpassed the PR 2010 HP goal of 6.9/1,000 live births. SSDI continuously monitors this indicator and its contributing factors by used linked birth and death data files prepared by OIAT. Infant mortality is a sentinel indicator of the existing socio-economic, health and quality of services in the community.

State and local funds (municipal) are combined with Medicaid and SCHIP funds to finance the GIP for low-income individuals. The MCH Program cannot differentiate between those infants born with Medicaid insurance from the rest of the children receiving health insurance under the GIP. For that reason, the MCH Program uses the GIP participants as a proxy for Medicaid participants and Non-GIP for Non-Medicaid participants when determining this indicator (below 200% FPL).

Information documenting health insurance coverage by the GIP can be obtained from the birth certificate. The SSDI Descriptive Study of Infant Mortality 2000-2003 revealed the infant mortality rate in Puerto Rico is higher among GIP participants than those with other health insurance (10.6 vs. 7.1 deaths per 1,000 live births).

The MCH Program monitors and documents infant mortality trends using several strategies. One of the most important sources of information is the Puerto Rico Epidemiological Surveillance System for Infant Mortality established under the guidance of SSDI. This surveillance system collects data from death certificates and the infant births, death, and fetal deaths electronic files generated by the local offices of Demographic Registry. This surveillance system was developed based on the Guidance for Surveillance System Evaluation prepared by the Centers for Disease Control. One of challenges SSDI is currently faces is being able to match infant death and births certificates in order to increase the amount of maternal and infant variables for which information is available. One such variable is health insurance coverage.

Another important source of information is the Home Visiting Program and the Infant Mortality Committee of the Healthy Start Consortium. Members of both groups contribute by disseminating information regarding infant mortality and the indicators related to decrease infant mortality rates to health professionals and the general population.

Collaborative efforts with the March of Dimes Puerto Rico Chapter allow us to monitor and disseminate information on two of the contributing factors for infant deaths, prematurity and low birth weight.

KIDS COUNT, a project for the Annie E. Casey Foundation, is a national and state-by-state effort to track the status of children in the US and now in Puerto Rico. By providing policymakers and citizens with benchmarks of child well-being, KIDS COUNT seeks to enrich local, state, and national discussions concerning ways to secure better futures for all children. SSDI contributes data on infant deaths and others indicators for the KIDS COUNT Data Book.

Efforts to improve these indicators are conducted by the MCH Program. Through the Home Visiting Program, the MCH Program provides case management/care coordination, health education and counseling to pregnant women with complex medical and social risk factors associated with LBW and VLBW infants. The WIC Program also contributes toward reducing these rates by focusing on women who present nutritional risk factors. In 2005, the WIC Program provided services to 21,889 pregnant women.

The MCH Program provides educational interventions directed at HVN, providers and the population at large to increase awareness regarding the elevated LBW in PR and its implication for the infants' survival. During the activities, staff encourage WCBA to abstain from high risk behaviors and offer recommendation to reduce factors that contribute to these poor outcomes.

**Health Systems Capacity Indicator 05C:** Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester

INDICATOR #05	YEAR	DATA SOURCE	PC	PULATION	
Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State			MEDICAID	NON- MEDICAID	ALL
Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester	2005	other	65.3	80.2	78.4

# Notes - 2007

Preliminary data obtained from OIAT of the PR Dept of Health. Medicaid percentage represents the population covered by the Government Insurance Plan. Non Medicaid population represents the population without GIP.

## Narrative:

Medicaid benefits in PR are different from those at the national level. Because of our territorial status, Medicaid funds allotted for PR are capped and insufficient to provide services for all Medicaid eligible women of childbearing age. The budget used to purchase the GIP for low-income individuals is a combination of state and local funds (municipal), Medicaid and SCHIP. Therefore, these two categories can not be compared with those in the mainland. At this time we are using GIP insured as our proxy for Medicaid.

Information regarding the health plan held by women in PR at the time of delivery is used to calculate this HSCI. It is collected in the birth certificate. In 2005 the revised birth certificate was implemented in PR. The MCH Program worked in collaboration with the Demographic Registry Office to carry out the trainings for health care professionals in PR. During the process, the MCH Program identified potential difficulties and problems that could preclude collecting quality birth certificate data. Also, the activity was an opportunity to disseminate to health professionals the

importance of collecting accurate birth certificate data for research studies and to inform the decision making process.

The revised birth certificate does not collect the month when prenatal care began. This information is calculated using two variables: the date of beginning of prenatal care and the birth date. We calculated that 78.4% of women who had a live birth began prenatal care during the first trimester of pregnancy in 2005.

The PRAMS-like study (ESMIPR, Spanish acronym) is another source of information the MCH Program uses to document early admission to prenatal care. Findings for the 2004-2005 ESMIPR suggest that 89.4% of women who had a live birth began prenatal care in the first trimester of pregnancy.

SSDI will conduct a study to document changes in the maternal and newborn health indicators included in the revised birth certificate. The study will attempt to determine if the changes in perinatal indicators are due to actual changes or to errors in the completeness of the birth certificate data.

The ESMIPR for 2004-2005 suggested a difference in the percent of first trimester prenatal care between GIP and Non-GIP participants (75.6% vs. 88.3%, respectively). SSDI performed another study in 2005 to identify the different reasons leading pregnant women to seek PNC after the first trimester of pregnancy. Around 85% of the 265 respondents were covered by GIP at the moment of pregnancy. Personal barriers (lack of awareness of the signs of pregnancy, psychosocial factors), a combination of personal and system barriers (transportation problems, lack of health insurance coverage), and health care delivery system barriers (the time lapse between requesting prenatal care and the actual admission to prenatal health services) were identified as the main reasons for pregnant women to seek or start PNC after the first trimester of pregnancy.

The studies conducted in PR reveal that the main reason for late prenatal care is lack of awareness of pregnancy. For this reason our Outreach Workers' main priority focus is identifying women who might be pregnant and linking them to Medicaid and obstetrical providers before the end of their first trimester. We have been establishing MOU with the Auxiliary Secretariat of Health Promotion and Governors Office for Special Communities in order to train their staff to assist us in early identification and enrollment of pregnant women into prenatal care.

**Health Systems Capacity Indicator 05D:** Percent of pregnant women with adequate prenatal care(observed to expected prenatal visits is greater than or equal to 80% [Kotelchuck Index])

INDICATOR #05	YEAR	DATA SOURCE	PC	PULATION	
Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State			MEDICAID	NON- MEDICAID	ALL
Percent of pregnant women with adequate prenatal care(observed to expected prenatal visits is greater than or equal to 80% [Kotelchuck Index])	2005	other	68.6	82	81.4

Notes - 2007

Preliminary data obtained from OIAT of the PR Dept of Health. Medicaid percentage represents the percentage of the population covered by Medicaid under the Government Insurance Plan. Non-Medicaid population represents the population without GIP.

# Narrative:

Since Medicaid funds allotted for PR are significantly less than the amount it would be entitled to if it were a state, it is insufficient to provide services for all Medicaid eligible MCH individuals. Consequently, the PR government provides the MCH population with incomes 200% below FPL a GIP financed by combined state, local funds, Medicaid and SCHIP. It is therefore very difficult for the MCH Program to identify the number of individuals in the MCH population that receive services exclusively through Medicaid. On the other hand, since GIP is similar to Medicaid in many aspects, the MCH Program uses GIP participants as a proxy for Medicaid participants and Non-GIP for Non-Medicaid participants.

The birth certificates, the Home Visiting Program and WIC are among the sources used to evaluate the adequacy of prenatal care in PR. Other source of information is the Maternal and Child Health Study (PRAMS like) in Puerto Rico, which collects information about the initiation of PNC among other information. The above mentioned sources also provide information of the type of insurance plan used during pregnancy.

The Kotelchuck Index is indeed one of the 15 health indicators that the MCH Program analyze on a yearly basis to determine the Integrated Index of Maternal and Child Health in an SSDI Descriptive Study of Live Births (IISMPR, Spanish acronym). This allows the MCH Program to track this index by municipality and health regions, helping to identify those sectors of PR that need interventions and then improve this indicator. During 2004, all of the municipalities reported that more than half (Range: 63.9%-90.4%) of their female residents that were pregnant during this year had a Kotelchuck Index greater than or equal to 80% of prenatal visits during pregnancy in accordance with ACOG recommendation.

During this year, about 81% of the pregnant women in PR had a Kotelchuck Index equal or greater than 80%. About 48% of the pregnant women covered by GIP had a Kotelchuck Index equal or greater than 80%, compared to 32.9% for non GIP participants.

The MCH Program staff is continually disseminating messages on the importance of initiating PNC as soon as pregnancy is suspected and complying with the established guidelines for prenatal care.

The SSDI Program will focus on expanding the sources of information that are available at the moment, with the purpose of obtaining accurate information concerning to Medicaid coverage in PR to improve maternal and child health.

State's Medicaid and SCHIP programs Intants (0 to 1)		
INDICATOR #06	YEAR	PERCENT OF
The percent of poverty level for eligibility in the State's		POVERTY LEVEL
Medicaid programs for infants (0 to 1), children, Medicaid and		Medicaid
pregnant women.		
Infants (0 to 1)	2005	100
INDICATOR #06	YEAR	PERCENT OF
INDICATOR #06 The percent of poverty level for eligibility in the State's SCHIP	YEAR	PERCENT OF POVERTY LEVEL
	YEAR	
The percent of poverty level for eligibility in the State's SCHIP	YEAR	POVERTY LEVEL
The percent of poverty level for eligibility in the State's SCHIP programs for infants (0 to 1), children, Medicaid and pregnant	<b>YEAR</b> 2005	POVERTY LEVEL

**Health Systems Capacity Indicator 06A:** The percent of poverty level for eligibility in the State's Medicaid and SCHIP programs. - Infants (0 to 1)

# Notes - 2007

Information Provided by the Medicaid Program

#### Notes - 2007

Information provided by the Medicaid program.

## Narrative:

Puerto Rico, by virtue of being a territory and not a state, receives Medicaid funds at a lower rate than the states. Medicaid funds alone are insufficient to provide services for all Medicaid-eligible children; therefore, funding used to purchase the GIP for low-income individuals is a combination of state and local funds (municipal), Medicaid and SCHIP. The Puerto Rico government has been providing the government insurance plan for MCH population with incomes below 200% FPL. Medicaid funds are used to cover infants whose families have incomes below 100% FPL, while SCHIP funds are used to provide insurance for children whose family's income is between 101% and 200% FPL.

Infants born of mothers insured by the GIP are automatically enrolled. This automatic enrollment lasts for the first six months of life or until the mother returns to be re-certified, whichever comes first. The newborns coverage includes ambulatory services and subsequent hospitalizations as needed.

Mothers not insured by the GIP must visit one of the Medicaid Program offices for an evaluation to determine their eligibility status. Those who qualify for the GIP will have their newborns covered for the next six months. Once this time elapses, the mother will need to be reevaluated and eligibility determined again. In some situations, eligibility is only granted for three-month periods. The length of time is determined by Medicaid staff based information regarding unemployment or food allowances received, since it can change the family income level and make them ineligible for the GIP.

Newborns may be eligible for SCHIP program even when their mothers are not GIP-eligible. The Medicaid Program will consider children of families with incomes 50% over levels established for Medicaid eligibility for the GIP sponsored with SCHIP funds. This allowance benefits infants whose family income is too high to make them Medicaid eligible but too low to have a have a private insurance plan.

The MCH Program, CHW and HVN will continue reaching out to infants, children and families without health care insurance and referring them to the Medicaid Program to undergo an evaluation to determine eligibility.

State's Medicaid and SCHIP programs Medicaid Children		
INDICATOR #06	YEAR	PERCENT OF
The percent of poverty level for eligibility in the State's Medicaid programs for infants (0 to 1), children, Medicaid and		POVERTY LEVEL Medicaid
pregnant women.		
Medicaid Children	2005	
(Age range 1 to 18)		100
(Age range to)		
(Age range to)		
INDICATOR #06	YEAR	PERCENT OF
The percent of poverty level for eligibility in the State's SCHIP programs for infants (0 to 1), children, Medicaid and pregnant		POVERTY LEVEL SCHIP

Health Systems Capacity Indicator 06B: The percent of poverty level for eligibility in the State's Medicaid and SCHIP programs. - Medicaid Children

2005	
	200
	2005

# Notes - 2007

Information provided by the Medicaid program.

#### Notes - 2007

Information provided by the Medicaid program.

#### Narrative:

In Puerto Rico, uninsured children whose family incomes are 200% below FPL qualify for the government insurance plan. The GIP is considered a proxy for Medicaid. The Medicaid funds PR receives are insufficient to provide services for all Medicaid eligible children; therefore, funds to purchase the GIP come from state, local municipalities Medicaid and SCHIP.

The Medicaid program is responsible for determining the income level eligibility criteria. Income levels in PR are significantly different than those in the mainland. For example, a family of two whose income is \$990.00 per month is considered to be 200% below the FPL and therefore will be able to receive the GIP. Currently, children living in families whose income is lower than 200% of FPL or whose families lack insurance and have incomes 50% above the Medicaid eligibility criteria cutoff can also get the GIP. The latter group will be covered by SCHIP funds. Medicaid funds the GIP for families with incomes 100% below FPL.

As mentioned above, SSDI will work in collaboration with the Department of Education to conduct a study to identify the prevalence of the children without a health insurance plan and their sociodemographic characteristics.

Health Systems Capacity Indicator 06C: The percent of poverty level for eligibility in the
State's Medicaid and SCHIP programs Pregnant Women

INDICATOR #06	YEAR	PERCENT OF
The percent of poverty level for eligibility in the State's		POVERTY LEVEL
Medicaid programs for infants (0 to 1), children, Medicaid and		Medicaid
pregnant women.		
Pregnant Women	2005	100
INDICATOR #06	YEAR	PERCENT OF
The percent of poverty level for eligibility in the State's SCHIP		POVERTY LEVEL
programs for infants (0 to 1), children, Medicaid and pregnant		SCHIP
women.		
Pregnant Women		

Notes - 2007

Information provided by the Medicaid program.

## Notes - 2007

Data not available.

## Narrative:

The budget used to purchase the GIP for low-income individuals is a combination of state and local funds (municipal), Medicaid and SCHIP. In Puerto Rico, pregnant women with household

incomes 200% below FPL qualify for the government insurance plan.

The GIP is the proxy for Medicaid. A pregnant woman can be evaluated and certified until two months after delivery by the Medicaid Program. Subsequently they will be notified to return for reevaluation in three or six months, depending on expected changes in family income.

In addition, the MCH Program, CHW and HVN will continue reaching out to pregnant women without health care insurance and referring them to the Medicaid Offices for GIP eligibility evaluations.

Health Systems Capacity Indicator 09A: The ability of States to assure Maternal and Child
Health (MCH) program access to policy and program relevant information.

DATABASES OR SURVEYS	Does your MCH program have the ability to obtain data for program planning or policy purposes in a timely manner? (Select 1 - 3)	Does your MCH program have Direct access to the electronic database for analysis? (Select Y/N)
ANNUAL DATA LINKAGES Annual linkage of infant birth and infant death certificates	3	Yes
Annual linkage of birth certificates and Medicaid Eligibility or Paid Claims Files	2	Yes
Annual linkage of birth certificates and WIC eligibility files	1	No
Annual linkage of birth certificates and newborn screening files	1	No
REGISTRIES AND SURVEYS Hospital discharge survey for at least 90% of in-State discharges	1	No
Annual birth defects surveillance system	3	Yes
Survey of recent mothers at least every two years (like PRAMS)	3	Yes



## Narrative:

In Puerto Rico, the Office of Informatics and Technology Advances (OITA) has the main responsibility for developing databases of births, deaths and stillbirths files. For a long time, the OITA Director has been a great collaborator of the MCH Program. Every June they provide us

with the linked data bases from the birth and infant death files. In addition, the OITA Director provides us with technical support when problems are identified.

In addition to OITA, the MCH program has a staff of public health professionals with expertise in the fields of demography, epidemiology, biostatistics, evaluation and data entry who analyze the data and monitor changes in health status of our target population based on the data files provided by OITA. The team consists of one Demographer, who is the Coordinator of the Title V Monitoring and Evaluation Section as well as the SSDI Project, two Epidemiologists, two Evaluators, one Biostatistician, and one Data Entry Clerk. A pediatrician, a cultural anthropologist and an OB/GYN consultant with vast experience in public health provide support to this team.

Over the years, we have established the mechanisms to get the needed information from other programs of the Department of Health such as WIC, Medicaid, Immunization, ASES, and Pediatric AIDS. Some additional programs that share vital information with the Department of Health are the Newborn Screening for Hereditary Diseases, the Department of Education, the Department of the Family, Police Department, EMSC, Department of Transportation, Safe Kids Coalition and Head Start.

Even though we have the ability to access information and data collected by other programs and agencies, it is frequently collected in a manner that is not suitable for our use. The SSDI Program is developing a structure that will allow us to collect data in a uniform manner. This will facilitate our tracking of the Title V Program indicators. One of the challenges we are facing is coordinating with other entities to make data files compatible. For this we must revise and modify some agencies' data base structures. The MCH Program will continue to improve communication with agencies in order to make information available in a timely manner.

12 WIND Reputed Using		
DATA SOURCES	Does your state	Does your MCH program have direct
	participate in the YRBS survey? (Select 1 - 3)	access to the state YRBS database for analysis? (Select Y/N)
Youth Risk Behavior Survey (YRBS)	2	No
Consulta Juvenil	3	No
Maternal Mortality Surveillance System	3	Yes

**Health Systems Capacity Indicator 09B:** The Percent of Adolescents in Grades 9 through 12 who Reported Using Tobacco Product in the Past Month.

## Notes - 2007

Consulta Juvenil is a youth survey performed by the PR Mental Health Administration (ASSCA Spanish Acronym).

#### Narrative:

Two local surveys have been conducted in Puerto Rico during the past ten years that gather data on the percent of adolescents who report use of tobacco products in the past month: the Youth Risk Behavior Survey and "Consulta Juvenil". Data used for this HSCI was obtained from "Consulta Juvenil".

The Administration of Mental Health and Anti-Addiction Services (ASSMCA, Spanish acronym) of the PR Department of Health has contracted the Universidad Central del Caribe in Bayamón to conduct a biennial survey entitled "Consulta Juvenil" since 1990. It is a self-administered survey with a representative sample of the students in public and private schools (elementary, middle and high) in Puerto Rico. Its purpose is to determine the percentage of students enrolled in 5th to 12th grades in public and private schools who engage in high risk behaviors such as tobacco,

alcohol and other drug use. It also includes questions directed at identifying the presence of protective and risk factors for these behaviors. The analysis of the data includes information regarding frequency and trends for these high risk behaviors according to age, school grade and sex. "Consulta Juvenil" provides data needed to develop policies and programs directed at the prevention of these behaviors in children and adolescents.

"Consulta Juvenil" gathers information regarding tobacco use in the past month and analyzes it by age, school grade, sex and other variables. According to this survey, the prevalence of tobacco use during the past month for adolescents of 10th through 12th grades was 36.4% in 1990-91; 23.1% in 1994-95; 23.9% in 1997-98; 15.3% in 2000-01; and 10.4% in 2002-04. The trend of tobacco use during the last month among adolescents in high school has shown a marked reduction in the past decade. This habit is more frequently reported in males. Furthermore, it shows a tendency to become more frequent with increasing age. This applies to both sexes.

This reduction in the number of students who smoke can be attributed in part to the proactive efforts of the Tobacco Coalition. This multidisciplinary and inter agency group has contributed to the enactment of local laws restricting smoking in public places and raising awareness among the population of the health risks associated with smoking. It publishes a bulletin that goes out to providers and interested parties several times a year. ASSMCA is using the peer group strategy to prevent smoking initiation in the public school settings. HVN and CHW also contribute with their smoking cessation and prevention interventions.

The Puerto Rico Department of Education contracts a private entity to perform the biennial Youth Risk Behavior Survey. This survey was started in Puerto Rico in 1993 but has not been conducted on a regular basis. During some of these occasions the sample size was not weighted to represent the entire student population. The most recent YRBS was completed in 2005 but the results have not been published yet.

In addition in 2003-2004, a Spanish version of the Tobacco Youth Survey was conducted for the first time in PR public schools as a collaborative effort between the Departments of Health and Education. Although the sample was not representative of all PR youths, the information obtained is very useful. It included frequency of use, number and brands cigarettes smoked, and information about how they obtained them.

The SSDI will work to establish a collaborative effort to obtain the databases from the YRBS and "Consulta Juvenil" surveys. Once this information is obtained, SSDI will be able to perform more detailed research regarding substance use and abuse among 9th to 12th grade students.

# **IV. Priorities, Performance and Program Activities**

# A. Background and Overview

The PR MCH needs assessment process is a continuous activity carried out on a year round basis. It is aimed at identifying the specific and changing needs of the different MCH population groups. This activity provides the necessary feedback to readjust the MCH work plan to better respond to changes in health needs of the target population. The needs assessment is geared by the H.P. 2010 national objectives related to the MCH population (Focus Areas 9, 16 and others); national and state performance and outcomes measures, as well as the health status indicators established by the MCHB.

Another complementary activity to the needs assessment is the identification of all activities, services and programs according to the MCH pyramid levels for each of the population groups. These two activities allow us to match MCH health needs with available services and to identify gaps in services that should be filled.

Currently, the Title V program has a section staffed with a well-trained team of professionals whose main task is to gather the most accurate and timely data to monitor the progress of all performance and outcomes measures, as well as the level of progress in improving the health and well-being of the Puerto Rican MCH population.

After that, Title V funds are allocated to complement services, to conduct new activities or to implement new programs that will help us to achieve the established target of performance and long terms outcome measures.

The MCH priorities are determined based on the identified needs, the state capacity to address these needs, the political priorities and input from a broad array of partners including families. The trend analysis for at least five years of the rates of each national and negotiated state performance and outcome measures allow us to set expected targets for future years.

Selection of State Priority Needs:

A total of ten (10) priority needs were selected based on data analysis, number of persons affected, input from collaborators, state political priorities, availability of resources to address identified needs and reliable culturally sensitive treatment or management options.

The Puerto Rico MCH work plan is focused on the following priorities:

- 1. Improve maternal health.
- 2. Reduce unintended pregnancies.
- 3. Improve newborn health.
- 4. Reduce adolescent pregnancies.
- 5. Reduce behavioral risk factors among pregnant women and adolescents (smoking, alcohol and substance abuse).
- 6. Reduce unintentional injuries among children and adolescents.

7. Increase availability and accessibility to preventive and quality primary health care services for the MCH/CSHCN populations.

- 8. Decrease morbidity and mortality due to bronchial asthma.
- 9. Improve coordination among health care plans, primary physicians and the Pediatric Centers.
- 10. Promote successful transition of youth to adult life.

# /2007/ No changes in priority needs were considered for this year. //2007//

# **B. State Priorities**

Figure IV-1 depicts the relationship among PR's selected priority needs, its capacity and resource capability, the national and State Negotiated Performance Measures and the long term health outcomes set for our mothers, children and adolescents (MCA).

Improving the health status, well being and quality of life of the MCA and their families is a great challenge for the MCH/CSHCN programs. To achieve this goal it is imperative to develop and implement a concerted action plan among a diversity of public agencies, private entities, and CBOs, with the involvement of the families themselves. This is so, because the health status and well being of an individual, or a selected population group, results from the intricate interaction of genetic, environmental and sociodemographic factors. Currently, there is not a single public or private entity with all the resources and capability to address by itself the multiple and complex socioeconomic and health needs of the MCA population. This conclusion is drawn from the comprehensive five (5) years needs assessment of the Puerto Rican MCA population. Their needs are diverse and very complex. The five years needs assessment was performed by means of in-depth analysis of quantitative data collected by the Demographic Registry and the Vital Statistic Office as well as other secondary data sources; by gathering primary and qualitative data; conducting applied research and gathering input through the participation of the MCH/CSHCN staff in hundreds of inter agency meetings, coalitions, commissions, task forces, committees; and through focus groups of different MCA groups. Sadly, this process led us to realize that there is a wide gap between the current MCA health status and well being, and the expected goals set for 2010. In 2003, the IMR was 9.8/1,000 live births compared to the established goal of 4.5/1,000 by 2010. The MMR was 25.5/100,000 live births in comparison to 3.3/1000 by 2010. This ratio is 7.7 times higher than the established goal.

The contributing (or risk factors) to these poor MCA health outcomes are not only in the realm of medical factors but also in the domain of sociodemographic, environmental and behavioral factors. It is imperative to highlight that in the epidemiology of MCH, there are several independent variables such as heredity, race and ethnicity, income, education, marital status, culture, age groups and area of residence, that are not under the control of the primary role of the MCH/CSHCN programs. Additionally, the contributing factors of the epidemiological model of the MCH are immense. These include medical risk factors, obstetric complications, behavioral risk factors and the quality of prenatal, perinatal, postpartum and pediatric care, among others. The interrelationship of both, the determinant and contributing factors, leads to short term (<1 year), intermediate (1-5 years) and long term (5-10 years) MCH outcomes. The priority needs for PR were drawn from the analysis of this MCH epidemiological model and the government's political priorities.

Figure IV-1 represents the PR Title V Block Grant Performance System. It shows at a glance the relationship of selected priority needs with current available services to address them by levels of the MCH pyramid. The National and State Negotiated Performance Measure are grouped by the level of the pyramid, which includes the programs, services or activities that, if properly implemented, would result in achieving its set goals across the years. The cumulative achievements of the National and State Performance Measures should lead us to reach the ultimate goal of the Title V Program: "Improving the health and well-being of all women in their reproductive age, infants, children, adolescents and their families". The measures that will tell us how effective our efforts have been over the years are the maternal, infant and child death rates shown at the end of the PR Title V Measurement System.

After the earlier general description, we would like to be more specific describing the relationship among the priority needs with the components of PR Title V BG Performance Measurement System. Due to space limitations we will focus on the first five priorities.

1. Improving maternal health. Rate of fetal-neonatal and maternal deaths are indexes that reflect the level of maternal health in Puerto Rico. The five (5) years needs assessment showed

that half of all women began pregnancy with either a low BMI or at the obese level. This is a risk factor for pregnancy and perinatal complications affecting the mother as well as a risk factor affecting the unborn baby. Similarly, the WIC program reported that the most common reasons for a pregnant woman to be enrolled in the program were obesity or underweight, inadequate weight gain during pregnancy, or anemia.

Most fetal deaths are related to problems associated with maternal health prior to pregnancy, as well as complications arising during the course of the pregnancy and problems related to the quality of care during pregnancy and delivery (fetal asphyxia).

ESMIPR 2004 found a prevalence of 28.4% of pregnant women requiring one to four hospitalizations during her last pregnancy. The most common reasons for these hospitalizations were premature contractions, vomiting and dehydration, urinary tract infections, placental problems and hemorrhage, blood pressure (eclampsia), diabetes, and others. These data do not include a significant proportion of pregnant women with health conditions such as asthma who are adequately managed as outpatient cases.

To address this priority need it is imperative to assure availability and accessibility to prepregnancy services (i.e. family planning), early and regular prenatal care, perinatal care rendered at the most appropriate level of service according to the identified risk, postpartum and inter conceptional care. These services are considered direct services according to the MCH pyramid.

The focal area 16 of HP 2010 provides several measures to help us monitoring this priority. These include: objectives 16-4 aimed at reducing maternal death; 16-6 (PM-18) aimed at increasing the proportion of women who receive adequate prenatal care; 16-9 to reduce cesarean section among low-risk women; and 16-17 to increase abstinence from alcohol, cigarette smoking and illicit drug use among pregnant women.

Enabling Services: Among the enabling services are the Home Visiting Program (PR State PM1), the toll-free line, postpartum education provided by perinatal nurses, the WIC program and others.

Population Based Services: At the community level a diversity of educational activities are conducted aimed at creating awareness on several health issues and promoting healthy behaviors among women during pregnancy and the inter conceptional period. These educational activities are reinforced with distribution of written education materials. The importance of maintaining an appropriate weight, the need for an annual check up, the importance of early and regular prenatal and its content are emphasized.

Infrastructure Building Services: The PR Title V program's staff is actively engaged at this level of the pyramid in activities aimed at promoting a decrease in maternal complications and deaths. Among these are conducting needs assessments to understand better the prevalence and geographic distribution of health problems. The findings are used to raise awareness among concerned stakeholders; policy development; development and distribution of standard of care for the MCH population groups; quality assurance; implementation of a maternal deaths surveillance system; active participation in coalitions and committees concerned with the promotion of maternal health; professional development, and many other activities.

2. Reduce unintended pregnancies. The HP 2010 agenda (Focus Area 9) has set the target that by 2010, 70% of all pregnancies should be intended. However, in PR there is a wide gap between current proportion of intended pregnancies and the set goal. Findings from the ESMIPR 2004 revealed that almost 7:10 (66.8%) of surveyed recent mothers did not plan their most recent pregnancy. In addition, 12.7% said they did not want their most recent baby. Therefore, it is estimated that over 34,000 babies are born in PR who are not planned. In addition, nearly 6,500 are not wanted by their mother at the time of birth.

Unwanted pregnancies are associated with higher rates of abortion on demand, later or no prenatal care, unhealthy behaviors such as smoking, alcohol use, drug abuse and domestic violence. This situation leads to maternal complications and poor birth outcomes, including higher rates of LBW and prematurity, infant mortality, lower rates of breastfeeding and child neglect and abuse, among others.

It is important to mention that there is the knowledge and technology to prevent unwanted pregnancies. However, this requires personal commitment and responsibility at the time of expressing sexuality. On the other hand, comprehensive family planning services must be available and accessible at the community level for those persons who voluntarily want to control the number and spacing of children.

Direct Services: In Puerto Rico there are four entities that render family planning services. The Department of Health through the GIP provides male and female sterilizations. Contraceptive methods are complemented by means of Title V funds. Other entities are the Title X (Grantee is the School of Medicine), 19 federally funded 229/330 programs and PROFAMILIA, a non-for profit organization. This entity recently received approval of a Title X Grant.

Enabling Services: The toll-free line and the Home Visiting Program, which provides inter conceptional services up to two years after the birth of the baby to all its participants and coordinates needed services at the community level.

Population Based Services: Community awareness through small group orientations, dissemination of educational materials. In addition, in collaboration with the Department of Education, the Title V program has implemented a peer group program and curriculum to promote abstinence education throughout the Island.

Infrastructure Building Services: The activities include needs assessment, dissemination of data, professional development and the promotion of public policy.

3. Improve newborn health. Focus Area 16 of HP 2010 establishes several objectives that help us to monitor the health of newborns. Among these are the percentage of LBW and VLBW babies, the perinatal, neonatal, post neonatal and infant mortality rates, etc. The target set for the IMR is no more than 4.5 infant deaths per 1,000 live births for all states, jurisdictions and ethnic groups. In 2003, the IMR in PR was 9.8/1,000 LBs. This rate is 2.1 times higher than the set target and 1.4 times above the U.S. mainland.

The determinant causes for the observed IMR are prematurity and the percentage of LBW/VLBW. Congenital anomalies are the second cause of IM in PR. Among the most frequent congenital anomalies are heart defects and NTDs. It is important to mention that a significant proportion of infants with congenital anomalies survive the neonatal and post neonatal periods to die later at the preschool and school age periods. As a matter of fact, congenital malformations are the third leading cause of death in children between 1-4 years of age in the Island.

LBW and VLBW lead not only to higher IMRs, but also to CSHCN. This group of children require a large amount of resources, programs and services from different public and private entities to address their complex needs.

Direct Services: The GIP provides preventive, primary and some specialized services. The Department of Health complements specialized services with Title V and state funds (Pediatric Centers and the Pediatric Pulmonary Center), the Department of Education and various non-governmental organizations support the needs of this population.

Enabling Services: Toll-free line, APNI (Asociacion de Padres de Niños con Impedimentos), case

management for children 0-3, Home Visiting services, and others.

Population Based Services: Among the group of services geared to improving the newborn health are the newborn screening program for congenital hereditary diseases, newborn hearing screening, immunizations, folic acid prevention campaign and Early Intervention Program (Law 51, 1996).

Infrastructure Building Services: Needs assessment, Registry of Congenital Anomalies, Autism Surveillance, public policy. Law 51 of 1996 sets forth the development of standards of care, quality assurance, coalitions and committees concerned with the attention of the needs of the population with special health care needs.

4. Reduce adolescent pregnancy. The roots of the problem of adolescent pregnancy are multi factorial and very complex. Therefore, there are no simple strategies to address this public health problem. The need to involve a wide array of stakeholders is crucial in addressing adolescent pregnancy. These include, but are not limited to the family, adolescent themselves, the schools, Department of Health, CBOs, the media, private sector, and non-traditional partners such as the faith community.

Currently, in PR nearly 25 women under 20 years of age become mothers every 24 hours, some as young as 10-14 years of age. Nearly eight out of 10 are unwed and over 90% hold the GIP. Definitely this is a social problem that impacts women in the early reproductive period, their children, families and the society at large.

Direct Services: GIP with prenatal and maternity services, newborn and pediatric services, early intervention services, family planning services, among others.

Enabling Services: WIC program and Home Visiting services.

Population Based Services: Comprehensive Adolescent Health Services with peer groups, and abstinence education program.

Infrastructure Building Services: Needs assessment, sharing of data, coalitions, public policy, professional development, coordination of services, etc.

5. Reduce behavioral risk factors among pregnant women and adolescents. A significant proportion of pregnant women are engaged in unhealthy behaviors such as smoking, alcohol consumption, illegal drug use and abuse and unprotected sex. These behaviors are contributing factors for the high rates of LBW, premature labor and congenital anomalies which are the determinant factors for our higher rates of IM in the Island. Therefore, we need to address these behaviors in order to improve the maternal and newborn health.

Similarly, our adolescent population involves in behaviors such as smoking, alcohol and illegal drug use and unprotected sexual activity. These behaviors are the root of delinquency, violence (homicides) and motor vehicle crashes with its consequences: deaths and injuries.

/2007/ No changes in PR priority areas are being proposed. //2007//

An attachment is included in this section.

# **C. National Performance Measures**

**Performance Measure 01:** The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	95.9	96	96.1	96.3	96.5
Annual Indicator	95.8	94.7	95.4	100.0	100.0
Numerator	53624	50081	48468	23	24
Denominator	55983	52871	50803	23	24
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	100	100	100	100	100

**Tracking Performance Measures** 

#### Notes - 2005

Data provided by the Puerto Rico Hereditary Disease and Newborn Screening Program.

#### Notes - 2004

Reported numbers for 2004 were adjusted according to the revisions made to the detail sheet that emphasized the timely follow up to definitive diagnosis and clinical management for newborns who screen positive. Future objectives were revised as well.

## a. Last Year's Accomplishments

Law No. 84 (1987) mandates universal newborn screening for all live infants born in PR. Currently this program screens for PKU, hypothyroidism, sickle cell anemia, Galactosemia and Congenital Adrenal Hyperplasia. The Neonatal Screening Program for Hereditary Diseases (NSPHD) is a comprehensive program that also performs confirmatory testing in cases with abnormal screening tests. When the condition is confirmed, parents receive genetic counseling, specialized medical treatment and nutritional follow up.

Form 6 summarizes the newborn screening activity and its results during calendar year 2005. In 2005, NSPHD program served 49,133 out of 49,834 registered live births. This figure represents 98.5% of all live born in 2005. Abnormal results were found in 7,500 cases. A total of 204,000 confirmatory tests were performed. Those tests confirmed a total of 24 cases. The program identified: PKU-4 cases; hypothyroidism-12 cases; sickle cell anemia-6 cases, and 2 cases of congenital adrenal hyperplasia; no galactosemia cases were identified. All received counseling and follow up treatment. Appropriate referral for endocrinologists, metabolic clinics or WIC program were provided as needed. The WIC program provides prescribed special formulas for children under five years. The Pediatric Centers provide formulas for children over 5 years.

Hemoglobinopathies of clinical significance were detected: four Hemoglobin Hb FS, five HB S/C and one Hb FC beta Tal. A total of 1,129 newborns with abnormal hemoglobin traits were detected. Seven hundred of the children with abnormal traits were evaluated in the clinics. Both the children and their parents were tested to detect abnormal hemoglobins. Those with abnormal results received genetic counseling.

Title V funds support eight perinatal nurses throughout the island who regularly visit birthing hospitals. They provide key follow up activities in cases where the NSPHD is unable to locate the families of infants who screen positive. The MCH staff visit their homes and if necessary summon the help of the Department of the Family or the Police, in an effort to locate them and have them retested. Perinatal nurses also provide postpartum education, refer potential candidates to primary services, HVNs, disseminate educational materials and collect information. During the reporting period the perinatal nurses conducted 6,430 individual orientations and 8,618 postpartum women were reached through group sessions. On the other hand, the Home Visiting Nurses served 6,356 families (including pregnant women and children under 2 years of age).

Orientation regarding the importance of newborn screening for congenital diseases is a topic regularly included in interventions with HVP pregnant women. Also, 1,112 persons were reached at the community level with orientations concerning the importance of newborn screening for hereditary diseases.

Activities		nid Leve	el of Ser	vice
	DHC	ES	PBS	IB
1. Screen all newborns for congenital hereditary conditions: T4, PKU, Sickle Cell, and Galactosemia.	Х			
2. Monitor compliance with the law at individual birthing institutions.				Х
3. Link infants with genetic and metabolic disorders with nutritional and specialized medical care.		Х		
4. Provide anticipatory guidance on newborn screening to all Home Visiting participants.	X			
5. Provide genetic counseling to families of newborns with genetic or metabolic conditions.	Х			
6. Continue efforts directed at linking newborn screening data files with birth certificates.				Х
7. Hold regular meetings of the Council on Hereditary Disorders and increase membership.				Х
8. Initiate a Pilot Project aimed at increasing the number of conditions to be screened.				X
9. Disseminate educational materials on the topic.			Х	
10. Provide perinatal education to providers and parents regarding the importance of the newborn screens.			Х	

# Table 4a, National Performance Measures Summary Sheet

# **b.** Current Activities

The Puerto Rico Newborn Screening Program for Hereditary Diseases will work to ensure that all infants born in PR are tested, abnormal test are confirmed, and all those with a condition receive adequate follow up and treatment as mandated by law. A new legislative proposal (P. del S. 751) has been submitted in order to increase the number of tests that would be required. It proposes adding 29 conditions. However, it establishes a Council on Hereditary Diseases which will be responsible for determining which tests must be performed on all infants born in PR.

The PR NSPHD purchased and installed in the Pediatric Hospital a Tandem Mass Spectrophotometry machine at a cost \$450,000. Currently, laboratory staff is completing the required training prior to its use. The machine is being calibrated and quality control tests are being conducted. Once this phase is completed a pilot project will begin on July 1, 2006. This will increase to 20 the number of conditions screened. After this phase ends the Council will be able to recommend the panel of the metabolic conditions that will be required by law as part of the NB screening testing. A preliminary lists of conditions that can be included have been recommended for inclusion by two well known, experienced and respected geneticist practicing in Puerto Rico. Final determination will be based on cost effectiveness, treatment availability and prevalence of the condition in the Island.

Preliminary talks have begun to link data from the metabolic screening program to that of the universal newborn hearing screening program. This electronic system has already been implemented in key birthing hospitals. This program integrates fields that document follow up activities and is able to track cases that have not received timely confirmatory tests or treatment. Joining both programs should facilitate detection of children who may have received hearing screens but were not screened for metabolic conditions. In addition, it will reduce data entry time

and the need for additional equipment and technical support. It should help with quality assurance, documentation of appropriate follow up of children with positive screening tests, and timely treatment of confirmed cases.

# c. Plan for the Coming Year

During the coming year the pilot project is expected to conclude, allowing us to use the tandem mass spectrometry methodology to detect genetic conditions. Once the pilot project is concluded, the Council will evaluate the data and make recommendation on which tests should be mandated as part of the universal screening program. The evaluation will consider prevalence of the conditions, cost effectiveness of the tests and treatment availability. We expect 10 to 12 new tests added after the pilot project phase.

Efforts to link the universal hearing screening data are expected to continue and expand as new hospitals and providers join in the endeavor. Mechanisms will be developed to also link the birth certificate data. We expect that this linkage will help us identify and track those without metabolic screening or with a positive screening or confirmatory test that have been lost to follow up and bring them for appropriate treatment or follow up.

In addition to these important developments, future activities concerning this performance measure will continue as described earlier. These include to:

1. Screen all newborns for congenital hereditary diseases such as hypothyroidism, PKU, sickle cell anemia, galactosemia and congenital adrenal hyperplasia.

2. Refer children with PKU and galactosemia to the WIC program for nutritional education and management.

3. Refer children with genetic and metabolic disorders to the Pediatric Centers for specialized follow up as required.

4. Provide prenatal counseling to all Home Visiting participants regarding the importance of the newborn screening.

5. Provide postpartum education stressing the importance of asking the pediatric providers for the newborn screening results during the first pediatric visit.

6. Disseminate appropriate educational materials.

7. Follow up the institutions with low newborn screening rates by written communication.

8. Hold regular meetings with the Council on Hereditary Diseases.

9. Continue our efforts in achieving 100% newborn screening in all birthing institutions.

**Performance Measure 02:** The percent of children with special health care needs age 0 to 18 years whose families partner in decision making at all levels and are satisfied with the services they receive. (CSHCN survey)

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective				0	45
Annual Indicator	NaN	NaN	NaN	44.8	44.8
Numerator	0	0	0	162	162
Denominator	0	0	0	362	362
Is the Data Provisional or Final?				Provisional	
	2006	2007	2008	2009	2010
Annual Performance Objective	49	51	54	57	

Tracking Performance Measures

# Notes - 2005

The data reported in 2005 are pre-populated with the data from 2004 for this performance measure.

# Notes - 2004

Puerto Rico is not included in the national SLAITS, CSHCN survey. As an alternative, the Division of Habilitation Services of the Department of Health performed a family survey (n=377) during the months of January and February 2005 with a sample of families with children with special health care needs that receive services at the Pediatric Centers (population=8,214). The survey questionnaire included two (2) scale questions selected from the SLAITS, CSHCN Survey to collect baseline data for this performance measure. The answers from the questions were recoded and then combined to obtain a proportion based on those families who answered both questions (valid cases n=362). This is the first intent made to obtain data for the CSHCN performance measures; the results are specific for the Pediatric Centers population and cannot be generalized to the population of CSHCN in Puerto Rico.

## Notes - 2003

Puerto Rico is not included in the National CSHCN Survey; consequently, family satisfaction data is not available at present. A family survey will be done to collect data for this performance measure. The medical home family survey instrument will be revised to include questions to collect data for this indicator. The questionnaire will be validated and tested before the survey implementation. Activities are under way to select the sample among the Title V population served at the Pediatric Centers. Puerto Rico will initiate activities to revise, adapt and validate the SLAITS-CSHCN survey module questionnaire for the puertorrican population. Next step is to perform the study to collect data for NPMs 2, 3, 4, 5 and 6.

# a. Last Year's Accomplishments

A survey was performed with a sample of families of CSHCN that receive services in the Pediatric Centers in the Island to obtain data for this performance measure. The questionnaire was administered during the months of January and February 2005. The AAP medical home family survey was revised to add questions from the SLAITS-CSHCN questionnaire in order to obtain data for performance measures 2-6. The revised instrument collects data related to health insurance coverage, utilization of services, medical home, access to services, among other useful information. A sample (n=377) was calculated using the records of active patients registered in the information system as of December 2004 and then stratified by Pediatric Center.

In 2004, the PR Department of Health was awarded a Champions for Progress Grant. This initiative provided an opportunity to join key partners with the purpose of advancing the medical home implementation throughout the Island. Implementing the medical homes model in PR will increase access to services for CSHCN and their families. Medical homes links CHSCN families to newborn, genetic and metabolic screening, hearing screening and the Birth Defects Surveillance System, among others. The 18 members of the Champions for Progress Committee (CFP) include 6 families, 7 physicians, and representatives from ASES and health insurance companies. They have already identified the difficulties faced by CSHCN families when accessing services and the physicians' barriers to establishing medical home practices. In September 2005, the Champions for Progress Planning Committee prepared a final report on the limitations CSHCN face when accessing care and developed an action plan to address them. The Committee presented to the health insurance companies under HCR and the Health Services Administration (ASES) the needs and barriers identified and offered their recommendations with the purpose of improving access to health services of CSHCN. Some of the objectives were to: increase the number of CSHCN eligible for the GIP through revision of Law #72; promote the development of public policy to expand the GIP CSHCN benefit package to include respite services and assistive technology devices; educate families on their rights and responsibilities, including filing complaints; educate providers on prescriptions for CSHCN and on the use of ICD-9 and CPT codes; provide training to physicians on the benefits of adopting the medical home model, including how to appropriately bill for services rendered to CSHCN, among others. Since the duration of this grant was only 12 months, the responsibility of implementing the activities to

achieve these objectives was delegated to and included in the Title V action plan.

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Perform a survey with a sample of families of CSHCN in the				Х
Pediatric Centers.				
2. Develop a plan with active participation of CSHCN families				Х
that are satisfied with the services they receive.				
3. Educate CSHCN families regarding their rights,		Х		
responsibilities and procedures to make a complaint.				
4. Establish the mechanisms to facilitate that specialists'				Х
prescriptions are approved by the primary physicians for				
dispensing by pharmacists.				
5. Provide CSHCN with the possibility of obtaining a second				Х
medical opinion.				
6. Meet with health care insurance companies in order to				Х
increase the number specialists they contract.				
7. Standardize data collected in existing CSHCN registries.				Х
8.				
9.				
10.				

# Table 4a, National Performance Measures Summary Sheet

# **b.** Current Activities

On November 2005, a MOU between ASES and the DOH was signed as a result of the Champions for Progress Award. Its goal was to provide leadership for the development of a system of care that supports CSHCN. Activities included in the MOU were incorporated to the Title V Action Plan. They will allow us to comply with the CSHCN PM's.

The strength of the Title V Action Plan is the active participation of families, professionals and key stakeholders. Families partner in decision making at all levels. This group is meeting on a monthly basis. Four sub-committees were designated: public policy, data collection, education and transition.

The MCH Division hired Mrs. Miriam Perez as Family Advocate for the ECCS grant. She worked for APNI and the Down Syndrome Association and has experience working with advocacy groups. Her collaboration has facilitated family input to the SECCS Strategic Plan.

PR's financial difficulties and the restrictions for recruitment have prevented us from hiring an additional FA. However, the Division is considering expanding Ms. Perez's duties to collaborate with the implementation of the Title V Action Plan.

In February 2006, 397 CSHCN families from the seven Pediatric Centers were surveyed to measure satisfaction with provider and community services. According to the survey, 95% indicated that their child received primary care services, 73% specialist services, 53% therapist services, 25% social worker services and 19% psychological or psychiatric services. Parents were generally more satisfied with their specialist (87%) than with their primary care provider (79%). The therapist had an 88% satisfaction score, the social worker had 86%, and the psychological or psychiatric 82%. The highest dissatisfaction score (13%) was for the psychological/psychiatric services.

Analysis of specific satisfaction items revealed that parents are especially dissatisfied with providers' efforts to link them with other families, and this is particularly true for the primary care

physician. Other items with high rates of dissatisfaction are efficient and timely referrals, followed by service coordination. This data may point to the need for improvement in providers' knowledge related to CSHCN conditions. These findings correlate with the MAPS for CSHCN reported by Ireys and Perry (1999) from The Johns Hopkins School of Public Health.

This survey also included open-ended questions. Of the 397 families surveyed, only 35% responded to these questions. Of these, 14% responded they were satisfied with services received; 11% expressed the need of physical, occupational and speech therapy, and orientation regarding special conditions, benefits and support services; 8% expressed the need for specialists, specifically geneticists, dermatologists, pulmonologists and orthopedists, and 5% expressed the need of orthopedic and assistive technology equipment, psychological services and difficulties to obtain medications, among others.

#### c. Plan for the Coming Year

We plan to continue the implementation of the Title V Action Plan with the active participation of families, professionals and key stakeholders through monthly meetings to accomplish this performance measure. Some of the activities to be implemented include:

1. Trainings by ASES and the health insurance companies on families' rights, responsibilities and procedures to file complaints.

2. Develop and distribute brochures with detailed information on benefit packages for CSHCN.

3. Increase the availability of specialists and sub-specialists island wide.

4. Establish the mechanisms to facilitate that specialists' prescriptions are approved by the primary physicians for dispensing by pharmacists.

5. Administer a family survey at the Pediatric Centers to obtain follow up data for the NPMs 2-6.

The Habilitation Section, along with the staff of the MCH Division, will establish a collaborative effort to develop a questionnaire based on the CSHCN SLAITS Spanish version. Questions pertinent to NPM 2-6 will be evaluated for inclusion and others will be added to make it culturally and linguistically appropriate. In addition, PR has identified the need to collect data on the prevalence of CSHCN conditions island wide and by municipality, as well as the socio-demographic data of this population. This information will be collected using either the SLAITS or another instrument designed by the MCH Monitoring, Evaluation, Investigation Section established by Administrative Order No. 207.

**Performance Measure 03:** The percent of children with special health care needs age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home. (CSHCN Survey)

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective				0	41
Annual Indicator		NaN	NaN	38.7	38.7
Numerator		0	0	127	127
Denominator	0	0	0	328	328
Is the Data Provisional or Final?				Final	Final
	2006	2007	2008	2009	2010

# Tracking Performance Measures

Annual Performance Object	ective 43	45	46	48	49

# Notes - 2005

The data reported in 2005 are pre-populated with the data from 2004 for this performance measure.

# Notes - 2004

Puerto Rico is not included in the national SLAITS, CSHCN survey. As an alternative, the Division of Habilitation Services of the Department of Health performed a family survey during the months of January and February 2005 with a sample (n=377) of families with children with special health care needs that receive services at the Pediatric Centers. The AAP survey questionnaire included forty-nine (49) scale questions distributed among the medical home components of accessibility, family centered services, comprehensive, continuous, coordinated, compassionate and culturally competent. The cases that answered "usually" or "always" were assigned a value of 1 in each of the questions. The numerator includes the number of cases that obtained a total value of 38 or more from the questions. The denominator is the number of families who answered 37 questions or more for this performance measure (n=328). This is the first survey performed to obtain data for the CSHCN performance measures. The findings from this study are specific to the Pediatric Centers' population and cannot be generalized to the population of CSHCN in Puerto Rico. The findings can help us to develop activities to promote the medical home concept and increase the proportion of children who receive coordinated, ongoing, comprehensive care within a medical home in Puerto Rico.

# Notes - 2003

Puerto Rico is not included in the National CSHCN Survey; consequently, the number of CSHCN who receive coordinated, ongoing, comprehensive care within a medical home is not available at present. Nevertheless, we have undertaken several activities to promote and develop the medical home concept in Puerto Rico (see performance measure narrative).

A family survey will be done to collect data for this performance measure. The medical home family survey instrument will be revised to include questions to collect data for this indicator. The questionnaire will be validated and tested before implementation. Activities are under way to select the sample among the Title V population served at the Pediatric Centers.

The annual performance objective for 2003 (5%) was estimated based on the short period (3 years) of public awareness of the Medical Home concept in Puerto Rico.

Puerto Rico will initiate activities to revise, adapt and validate the SLAITS-CSHCN survey module questionnaire for the Puerto Rican population. The next step is to perform the study to collect data for NPMs 2, 3, 4, 5 and 6.

## a. Last Year's Accomplishments

A survey was performed with a sample of families of CSHCN that receive services in the Pediatric Centers (PCs) in the Island to obtain data for this performance measure. The questionnaire was administered during the months of January and February 2005. The AAP medical home (MH) family survey was revised to add questions from the SLAITS-CSHCN questionnaire in order to obtain data for performance measures 2-6. The revised instrument collects data related to health insurance coverage, utilization of services, medical home, access to services, among other useful information. A sample (n=377) was calculated using the active records in the information system as of December 2004 and then stratified by Pediatric Center.

In September 2005, the Champions for Progress Planning Committee completed an action plan and generated a final report on identified limitations in access to care for CSHCN.

To assess the number of existing medical homes in the Island, a questionnaire was sent to pediatricians. An analysis of the questionnaires was completed and findings were presented to

the ECCS Planning committee for follow up.

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Identify a financial mechanism that will allow us to develop an inter agency communication system for data information sharing.				Х
2. Include medical home information in the nursery discharge packets.			Х	
<ol> <li>Distribute medical home educational materials to families receiving services at agencies.</li> </ol>			Х	
<ol> <li>Continue identifying physicians and mentors in each health region to establish Medical Homes.</li> </ol>				Х
5. Train physicians in the use of CPT codes.		Х		
6. Meet with ASES and health insurance agencies to make them aware of the medical home concept.				Х
7. Train parents as interviewers to do the family interview of the survey.				Х
<ol> <li>Conduct a survey in order to get data on the national performance measures for CSHCN.</li> </ol>				Х
9.				
10.				

# Table 4a, National Performance Measures Summary Sheet

## **b.** Current Activities

As part of the Title V Action Plan, four strategies were delineated by the education sub-committee regarding this performance measure. These are to:

a. Inform CSHCN families regarding the medical home.

b. Increase the number of physicians and mentors in each of the seven health regions adopting the medical home concept (MH).

c. Increase physicians' knowledge regarding CSHCN prescriptions, special coverage and use of ICD-9 and CPT codes.

d. Provide training to physicians using peer education model to increase their willingness to adopt or improve the medical homes model.

e. Promote changes in the health professionals' curriculum's in order to make students more sensitive to CSHCN and their families needs.

Thus far, the committee agreed to develop a workshop with the PCs and the UAP Institute of Developmental Disabilities on key areas:

1. Medical Home- A plan to reach pediatric practices is being developed by the Committee and PCs. Copies of the MH brochure are being distributed through PCs for families.

2. Developmental Disabilities- A MOU with the UAP Institute of Developmental Disabilities is under way to train pediatricians on the MH concept.

3. International Classification of Functioning, Disability and Health (ICF)-The education committee has recognized the importance of training physicians on the ICF, a new member of the Family of International Classifications. ICF complements the ICD10 and is useful to understand and measure health outcomes for this special population, looking beyond mortality and disease.

4. Billing - The need to train pediatricians on billing health insurance companies (HIC) was

identified as a barrier to increase the number of MH in PR. At present, HICs do not reimburse pediatricians for services rendered to CSHCN; also, pediatricians do not use CPT codes appropriately.

5. Screening- The SECCS interagency committee has recommended the use of the Ages and Stages screening tool to identify children with developmental delay by primary physicians, child care, EHS/HS centers.

6. Sensitivity- A survey administered to pediatricians revealed that 91% believe they meet the sensitivity component. To further analyze this issue, a family focus group will be performed to identify the meaning that families give to sensitivity and how this element is being addressed by physicians. The results will be explained to the pediatricians so that they will understand the family's perspective and expectations. An activity to increase sensitivity of medical students to CSHCN and their families is under way in collaboration with APNI.

We plan to continue distributing the medical home educational materials to families and to continue identifying physicians and mentors in each health region and train them to establish medical homes.

#### c. Plan for the Coming Year

We plan to continue the implementation of the Title V Action Plan with the active participation of families, professionals and key stakeholders to accomplish this performance measure. Activities for the coming year include:

1. Distribute the medical home brochure through Pediatric Centers, private pediatric offices where CSHCN are served and hospital nursery discharge kits.

2. Include the medical home brochure information in web pages of agencies and collaborating organizations.

3. Distribute the medical home brochures by Departments of Health and Education staff during educational activities targeted to families.

4. Promote the implementation of medical homes in primary physicians' practices.

5. Develop and implement training for physicians in collaboration with ASES and the insurance companies.

6. Develop trainings directed at physicians to increase their sensitivity to CSHCN and their families' needs.

The Habilitation Section, along with the staff of the MCH Division, will establish a collaborative effort to develop a questionnaire based on the CSHCN SLAITS Spanish version. Questions pertinent to NPM 2-6 will be evaluated for inclusion and others will be added to make it culturally and linguistically appropriate. In addition, PR has identified the need to collect data on the prevalence of CSHCN conditions island wide and by municipality, as well as the socio-demographic data for this population. This information will be collected using either the SLAITS or another instrument designed by the MCH Monitoring, Evaluation, Investigation Section established by Administrative Order No. 207.

**Performance Measure 04:** The percent of children with special health care needs age 0 to 18 whose families have adequate private and/or public insurance to pay for the services they need. (CSHCN Survey)

Tracking Performance Measures
[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective				0	18
Annual Indicator		NaN	NaN	17.0	17.0
Numerator		0	0	53	53
Denominator	0	0	0	311	311
Is the Data Provisional or Final?				Provisional	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	19	20	21	22	23

## Notes - 2005

The data reported in 2005 are pre-populated with the data from 2004 for this performance measure.

## Notes - 2004

Puerto Rico is not included in the national SLAITS, CSHCN survey. As an alternative, the Division of Habilitation Services of the Department of Health carried out a family survey (n=377) during the months of January and February 2005 with a sample of families with children with special health care needs that receive services at the Pediatric Centers. The survey questionnaire included five (5) questions selected from the SLAITS, CSHCN Survey to collect baseline data for this performance measure. The questions covered issues related to the adequacy of the health insurance, including gaps in coverage, meeting the child's needs, whether the cost of non-covered service was reasonable, and whether the insurance permitted the child to access the needed providers. The answers were recoded and combined to obtain a proportion based on those families who answered the questions for this performance measure (valid cases n=311). However, we noted that questions included in the SLAITS-CSHCN survey are not specific and do not necessarily address the measure required. This is the first survey performed to obtain data for the CSHCN performance measures; the results obtained are specific to the Pediatric Centers population and cannot be generalized to the population of CSHCN in Puerto Rico.

#### Notes - 2003

The Pediatric Centers Information System (SI\_CEPED) has been updated to collect data for this performance measure. The system provides specific data on an ongoing basis on the number of CHSCN with health insurance that pays for the services they need. Also, it provides other useful information related to services provided to CSHCN in the Pediatric Centers. However, since the definition for the numerator in the detail sheet specifies that this number represents the number of families who perceive that they have adequate insurance coverage, we will include questions in the CSHCN family survey to collect data for this measure.

Puerto Rico will initiate activities to revise, adapt and validate the SLAITS-CSHCN survey module questionnaire for the Puerto Rican population. Next step is to perform the study to collect data for NPMs 2, 3, 4, 5 and 6.

## a. Last Year's Accomplishments

A survey was performed with a sample of families of CSHCN that receive services in the Pediatric Centers in the Island to obtain data for this performance measure. The questionnaire was administered during the months of January and February 2005. The AAP medical home family survey was revised to add questions from the SLAITS-CSHCN questionnaire in order to obtain data for performance measures 2-6. The revised instrument collects data related to health insurance coverage, utilization of services, medical home, access to services, among other useful information. A sample (n=377) was calculated using the active records in the information system as of December 2004 and then stratified by Pediatric Center.

In September 2005, the Champions for Progress Planning Committee completed an action plan and generated a final report on identified limitations in access to care for CSHCN.

Activities	Pyram	id Lev	el of Ser	vice
	DHC	ES	PBS	IB
1. Perform a survey with a sample of families of CSHCN in the Pediatric Centers.				Х
<ol><li>Develop a plan with active family participation to achieve adequate insurance coverage for this population group.</li></ol>				Х
<ol> <li>Meet with ASES and health insurance companies to present the difficulties under insured CSHCN families encounter and identify solutions.</li> </ol>				X
4. Designate a committee for the revision of Public Law 72 and recommend modifications if necessary.				X
5. Identify and analyze parents' complaints to OPPI.				Х
6. Promote public policy to expand the GIP benefit packages for CSHCN.				Х
7.				
8.				
9.				
10.				

# Table 4. National Darfarmanas Massuras Summary Chast

## **b.** Current Activities

In the Title V Action Plan, there are two actions pertaining to performance measure #4 to be implemented by the public policy subcommittee. These are to:

1. Increase the number of CSHCN eligible for the GIP.

2. Promote public policy to expand the GIP benefit package for families with CSHCN to include services such as medical/technical assistance equipment, transportation, and respite services.

To accomplish these actions, we have reviewed Public Law #72 (Administration of Health Plans). and ASES Regulations in order to identify areas of the Law and Regulation that can be amended. In addition, the committee participated in a workshop offered by the Medical Assistance Program, related to eligibility determination under the GIP for families of CSHCN. With this information, we are currently in the process of preparing our recommendations for the Legislature.

## c. Plan for the Coming Year

We plan to continue the implementation of the Title V Action Plan with the active participation of families, professionals and key stakeholders to accomplish this performance measure. Activities include to:

1. Establish a committee to revise Law #72 (which created the Government Insurance Plan) to assure eligibility requirements and to expand services for CSHCN, to include assistive technology devices, respite and support services. Recommendations for amendments will be submitted to the Secretary of Health.

2. Meet with legislators to present families' need to expand CSHCN GIP coverage services to include chromosome and genetic studies and wheelchairs, among others.

3. Meet with the Office of the Ombudsman for Persons with Disabilities and the Office of the

Х

Х

Х

Х

Х Х

Patient's Advocate to obtain information on common complaints and submit recommendations for improving service availability.

The Habilitation Section, along with the staff of the MCH Division, will establish a collaborative effort to develop a questionnaire based on the CSHCN SLAITS Spanish version. Questions pertinent to NPM 2-6 will be evaluated for inclusion and others will be added to make it culturally and linguistically appropriate. In addition, PR has identified the need to collect data on the prevalence of CSHCN conditions island wide and by municipality, as well as the socio-demographic data for this population. This information will be collected using either the SLAITS or another instrument designed by the MCH Monitoring, Evaluation, Investigation Section established by Administrative Order No. 207.

**Performance Measure 05:** Percent of children with special health care needs age 0 to 18 whose families report the community-based service systems are organized so they can use them easily. (CSHCN Survey)

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective				0	70
Annual Indicator		NaN	NaN	68.0	68.0
Numerator		0	0	246	246
Denominator	0	0	0	362	362
Is the Data Provisional or Final?				Provisional	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	71	73	75	76	77

Tracking Performance Measures

## Notes - 2005

The data reported in 2005 are pre-populated with the data from 2004 for this performance measure.

## Notes - 2004

Puerto Rico is not included in the national SLAITS, CSHCN survey. As an alternative, the Division of Habilitation Services of the Department of Health performed a family survey (n=377) during the months of January and February 2005 with a sample of families with children with special health care needs that receive services at the Pediatric Centers. The survey questionnaire included one question selected from the SLAITS, CSHCN Survey to collect baseline data for this performance measure. The question asked whether services were organized for easy use. The numerator is the number of persons who answered "usually" or "always" to the question. The denominator is the number of persons who answered the question (valid cases n=362). We understand that the SLAITS-CSHCN questions are not aimed at measuring community-based service systems. We recommend adding more questions to this section. This is the first survey performed to obtain data for the CSHCN performance measures; the results obtained are specific to the Pediatric Centers' population and cannot be generalized to the population of CSHCN in Puerto Rico.

## Notes - 2003

Puerto Rico is not included in the National CSHCN Survey; consequently, the percent of CSHCN age 0-18 whose families report the community based service system is organized so they can use it easily is not available at present. A family survey will be done to collect data for this performance measure. The medical home family survey instrument will be revised to include questions to collect data for this indicator. The questionnaire will be validated and tested before the survey implementation. Activities are under way to select the sample among the Title V population served at the Pediatric Centers.

The ECCS grant was approved during year 2003. This project will facilitate the integration of services and resources for families and will allow the development of a system of services for families and children, including CSHCN.

Puerto Rico will initiate activities to revise, adapt and validate the SLAITS-CSHCN survey module questionnaire for the puertorrican population. Next step is to perform the study to collect data for NPMs 2, 3, 4, 5 and 6.

#### a. Last Year's Accomplishments

A survey was performed with a sample of families of CSHCN that receive services in the Pediatric Centers in the Island to obtain data for this performance measure. The questionnaire was administered during the months of January and February 2005. The AAP medical home family survey was revised to add questions from the SLAITS-CSHCN questionnaire in order to obtain data for performance measures 2-6. The revised instrument collects data related to health insurance coverage, utilization of services, medical home, access to services, among other useful information. A sample (n=377) was calculated using the active records in the information system as of December 2004 and then stratified by Pediatric Center.

In September 2005, the Champions for Progress Planning Committee completed an action plan and generated a final report on identified limitations in access to care for CSHCN.

Activities	Pyramid Level of Service			/ice
	DHC	ES	PBS	IB
1. Perform a survey with a sample of families of CSHCN in the				Х
Pediatric Centers.				
2. Develop a plan with active family participation of CSHCN to				Х
improve community-based systems.				
3. Develop a directory of community-based services for CSHCN.				Х
4. Include the directory in the web pages of the Department of				Х
Health.				
5. Continue the medical home education to families and		Х		
providers.				
6.				
7.				
8.				
9.				
10.				

#### Table 4a, National Performance Measures Summary Sheet

#### **b.** Current Activities

A list of agencies and organizations providing direct services to CSHCN at the community level was obtained. Collected information will be shared with United Way to be included in their central directory and web page.

We implemented a survey with 397 families of CSHCN at the Pediatric Centers in February 2006 to measure satisfaction with provider and community services. The most frequently used community services were Medicaid, early intervention and nutrition services. The least used were respite services, vocational rehabilitation and transition services to adulthood. In this study we measured how organized these services are for families and their satisfaction with services. The top four more organized services were Early Intervention, Early Head Start/Head Start, Child Care, and nutrition services. These services are of real the same time rated with higher levels of satisfaction by families. Educational services and orientation to families, as well as Special

Education and mental health, were the least organized services. Families reported to be less satisfied with Special Education and assistive technology services.

#### c. Plan for the Coming Year

We plan to continue the implementation of the Title V Action Plan with the active participation of families, professionals and key stakeholders to accomplish this performance measure. Among the activities for this performance measure are to:

1. Collect information on services provided by agencies and organizations in the communities island wide, including direct services.

2. Coordinate with United Way to consider including updated information in their web pages. At the same time this activity will be coordinated with the PR Department of Health.

The Habilitation Section, along with the staff of the MCH Division, will establish a collaborative effort to develop a questionnaire based on the CSHCN SLAITS Spanish version. Questions pertinent to NPM 2-6 will be evaluated for inclusion and others will be added to make it culturally and linguistically appropriate. In addition, PR has identified the need to collect data on the prevalence of CSHCN conditions island wide and by municipality, as well as the socio-demographic data for this population. This information will be collected using either the SLAITS or another instrument designed by the MCH Monitoring, Evaluation, Investigation Section established by Administrative Order No. 207.

**Performance Measure 06:** The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.

[Secs 485 (2)(2)(B)(III) and 486 (a)(2)(A)(III)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective				0	10
Annual Indicator		NaN	NaN	9.1	9.1
Numerator		0	0	9	9
Denominator	0	0	0	99	99
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	12	14	16	18	20

Tracking Performance Measures

#### Notes - 2005

The data reported in 2005 are pre-populated with the data from 2004 for this performance measure.

#### Notes - 2004

Puerto Rico is not included in the national SLAITS, CSHCN survey. As an alternative, the Division of Habilitation Services of the Department of Health carried out a family survey (n=377) during the months of January and February 2005 with a sample of families with children with special health care needs that receive services in the Pediatric Centers. The survey questionnaire included four questions selected from the SLAITS, CSHCN Survey to collect baseline data for this performance measure. Some questions were related to the role of physicians in talking to families about the changing needs during adulthood and the shift to an adult provider, whether a plan was elaborated to address the changing needs, and whether the child has received vocational or career training in preparation for adult life. The numerator for the PM is the number of persons who answered affirmatively to the four questions. The denominator

is the number of persons who answered the four questions (valid cases n=99). This is the first survey performed to obtain data for the CSHCN performance measures; the findings from this study are specific for the pediatric centers population and cannot be generalized to the population of CSHCN in Puerto Rico.

#### Notes - 2003

Puerto Rico is not included in the National CSHCN Survey; consequently, the percentage of youth with SHCN who received the services necessary to make transition to all aspects of adult life is unknown.

To obtain this information, the CSHCN Program will develop collaborative agreements with the Department of Education and the Vocational Rehabilitation Program to share data and strategies to facilitate the integration of youth with SHCN to all aspects of adult life. A collaborative group will be identified during the current year, including Department of Education, Vocational Rehabilitation Program, parents and youth, Council on Developmental Disabilities and the University Affilliated Program Center of Excelence to perform a need assessment of this population, develop baseline data, and develop a work plan to improve outcomes for this population.

Puerto Rico will initiate activities to revise, adapt and validate the SLAITS-CSHCN survey module questionnaire for the puertorrican population. Next step is to perform the study to collect data for NPMs 2, 3, 4, 5 and 6.

Also, a family survey will be done to collect data for this performance measure. The medical home family survey instrument will be revised to include questions to collect data for this indicator. The questionnaire will be validated and tested before the survey implementation. Activities are under way to select the sample among the Title V population served at the Pediatric Centers.

## a. Last Year's Accomplishments

A survey was performed with a sample of families of CSHCN that receive services in the Pediatric Centers in the Island to obtain data for this performance measure. The questionnaire was administered during the months of January and February 2005. The AAP medical home family survey was revised to add questions from the SLAITS-CSHCN questionnaire in order to obtain data for performance measures 2-6. The revised instrument collects data related to health insurance coverage, utilization of services, medical home, access to services, among other useful information. A sample (n=377) was calculated using the active records in the information system as of December 2004 and then stratified by Pediatric Center.

In September 2005, the Champions for Progress Planning Committee completed an action plan and generated a final report on identified limitations in access to care for CSHCN.

Activities	Pyramid Level of Service				
	DHC	ES	PBS	IB	
1. Identify agency representatives that can be part of a collaboration task force and participate in the transition subcommittee.				X	
2. Identify families willing to participate in the task force for data collection and analysis.				Х	
3. Develop an action plan to assist in CSHCN transition to adult life.				Х	
4.					
5.					

#### Table 4a, National Performance Measures Summary Sheet

6.		
7.		
8.		
9.		
10.		

# **b.** Current Activities

The Transition sub-committee is developing an Action Plan specifically for children with special care needs between the ages of 13 to 18 to address the gaps and limitations regarding transition to adulthood. It will be based on issues discussed during our meetings, and on the report of the "Alliance for Full Participation" from the Institute of Developmental Disabilities, Medical Science Campus, University of Puerto Rico.

The Action Plan's strategies are to:

1. Increase access to information on services for young people with disabilities.

2. Increase the population's knowledge about public laws that apply to CSHCN, their rights, and empower them to successfully transition into adult life.

3. Revise health related professionals' curriculum's in colleges and universities to include the topic of transition from school to work.

4. Promote developing public policy to increase the percentage of persons with disabilities that participate in the labor force.

5. Conduct needs assessments periodically.

Presently this sub-committee is preparing educational materials that deal with the following topics:

- a) Definition of transition.
- b) Onset of activities for transition from school to adulthood.
- c) Transition steps.
- d) Supporting laws.
- e) List of concerned agencies providing transition services.

This information will be included in local newspapers and distributed throughout agencies that offer services to the target population. Our plan is to include this information in the Department of Health web page.

Among the barriers for successful transition to adult life identified were: 1) Lack of information and empowerment of CSHCN family regarding their responsibilities for effective transition, 2) Physicians' lack of information regarding steps for successful transition into adulthood.

# c. Plan for the Coming Year

We plan to continue the implementation of the Title V Action Plan and the Transition Plan with the active participation of families, professionals and key stakeholders in order to accomplish this performance measure. Activities recommended by the Transition subcommittee include:

1. Family training on rights and responsibilities to assure services and opportunities for employment for youths and adults with disabilities.

- 2. Provide leadership to overcome system barriers.
- 3. Train physicians on transition steps with the help of health insurance companies.
- 4. Coordinate transportation with municipalities to facilitate access to services.

5. Announce the availability of funding from the Council of Developmental Disabilities to expand

respite services.

6. Review results of the UAP Transition Survey to identify barriers.

7. Obtain data on transition-related complaints filed with the Office of the Ombudsman for Persons with Disabilities.

The Habilitation Section, along with the staff of the MCH Division, will establish a collaborative effort to develop a questionnaire based on the CSHCN SLAITS Spanish version. Questions pertinent to NPM 2-6 will be evaluated for inclusion and others will be added to make it culturally and linguistically appropriate. In addition, PR has identified the need to collect data on the prevalence of CSHCN conditions island wide and by municipality, as well as the socio-demographic data for this population. This information will be collected using either the SLAITS or another instrument designed by the MCH Monitoring, Evaluation, Investigation Section established by Administrative Order No. 207.

**Performance Measure 07:** Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenza, and Hepatitis B.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	92	92	92	92	93
Annual Indicator	93.4	NaN	56.9	92.7	94.5
Numerator	4226	0	566	921	926
Denominator	4524	0	994	994	980
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	94.5	95	95.5	96	96.5

# Tracking Performance Measures

#### Notes - 2005

Data from the Immunization Coverage Study provided by the PR Immunization Program of the Department of Health.

## a. Last Year's Accomplishments

Law 25 of 1983, mandates immunization of children according to the latest immunization schedule approved by the Secretary of Health of Puerto Rico. The Immunization Program of the Puerto Rico Department of Health has been conducting annual immunization coverage studies to monitor compliance with established national and local guidelines. For the purpose of the study a full schedule of immunization for children 35 months of age consists of 4 DTaP, 3 IPV/OPV, 3 HiB, 1 MMR and 3 Hepatitis B vaccines. The study entails conducting house to house interviews with a random sample of parents of children 35 months of age and documenting their immunization status. Included in the study were 980 parents of children born during the month of August 2005.

The latest immunization study revealed local catch-up activities have been able to return vaccinations to 2001 levels and that delayed immunization associated with the DTaP vaccine shortage has been surmounted. After reaching their lowest levels in March 2002, when the rates fell down to 31%, rates they have been steadily increasing. The most recent study conducted in August 2005 revealed 94.5% of 35 month olds had received a full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenza, Hepatitis B. Coverage for single antigens was even higher. Nearly all (98%) had 4 DTaP, 99% had 3 doses of the Polio and 99% of children had 1 MMR dose. A

complete series of Hepatitis B vaccines was documented at 99% and at 97% for HIB among children included in the study. In addition, 69% of children included in the sample had 3 doses of PCV-7 and 95% had at one Varicella vaccine.

This level of coverage is a reflection of the multiple collaborative efforts the Puerto Rico Department of Health has been able to establish with public and private entities such as WIC, Private Insurance Companies, providers, schools, pharmacies, grocery stores, pharmaceutical companies, among others. A key collaborator has been the Maternal and Child Health Division. Our Home Visiting Nurses and community outreach workers are constantly reminding participants and the community at large of the importance of adequately immunizing their children during home visits, school activities and health fairs. During 2004-2005, children from the 6,356 families in the HVP were evaluated for the adequacy of their immunization status, counseled and referred for vaccination if needed. In addition, 5,341 individuals participating in 487 group meetings received information on the importance of children's immunizations. As a result of these efforts, one of our health regions has increased to 99% the percentage of 35 month olds who had received a full schedule of immunization.

Activities	Pyramid Level of Service					
	DHC	ES	PBS	IB		
1. Assess and promote adequate immunization for children		Х				
participating in the Home Visiting Program.						
2. Collaborate with the immunization program initiatives to			Х			
promote disease prevention.						
3. Identify and address system barriers which affect access to				Х		
immunizations.						
4. Monitor immunization rates by municipalities and health				Х		
regions.						
5. Update the immunization knowledge of the MCH staff (Home				Х		
Visiting Nurses and Community Health Workers).						
6. Use diverse community level interventions to disseminate the			Х			
current immunization schedule.						
7.						
8.						
9.						
10.						

 Table 4a, National Performance Measures Summary Sheet

# **b.** Current Activities

Currently the DTaP shortage has been resolved. Catch-up activities have resulted in vaccination coverage levels 1% above the 93% goal. This year influenza vaccines were again actively promoted for high risk children and pregnant women. So far over 9,691 children under 2 years of age have received it. An additional 183 children 2-18 years of age received protection against Influenza. The April Immunization Bulletin, InfoVac, focuses of Influenza and Varicella.

Beginning in March 2006, the vaccine schedule was modified for children aged 11-18 years. It now will substitute TdaP for those receiving a tetanus booster as long as the last dose of DTP/DTaP/DT was administered 5 years before. TdaP is not being recommended for children under 10. A public policy was adopted on May 1, 2006 recommending Hepatitis A vaccine for children 12-17 months of age with a booster dose to follow six months later. Other vaccines such as the Rotavirus vaccine and the Varicella Booster are being considered for inclusion in the immunization schedule. The Immunization Program will consider the ACIP and CDC recommendations when revising the current schedule.

Financial constraints make it difficult for the Puerto Rico Department of Health to ensure children can readily receive Prevnar and Hepatitis A except through Vaccines for Children. Under this program, the vaccine is provided to participants of the GIP, the uninsured and children with inadequate vaccine coverage. Vaccination of under insured children continues to be a challenge. Additional local funds have been requested to increase the availability of vaccines for these children. However, limited local funds and the 3% reduction in federal funds makes purchasing vaccines for them difficult. Other barriers identified are missed opportunities and some parents' concerns with development of autism in their children due to vaccines.

This year the methodology that will be used to select the sample for the vaccination coverage study will be dramatically changed at the request of CDC staff. The sample will be selected using cluster sampling methodology. The study is scheduled to be conducted during the summer months. Staff will visit houses included in the cluster sample area to determine the immunization status of household members. The study began in June 2006.

In order to respond to these challenges, HVNs and CHWs continue to educate and promote compliance with the vaccine schedule during home visits, school activities and health fairs. In those cases where they identify a particular need in the community, a clinic is organized in coordination with the IP to administer them. Disparities in vaccination coverage have been noted among the different health regions. To eliminate these disparities MCH staff from the health care regions with lower coverage rates will develop a strategic plan directed at improving vaccine coverage.

#### c. Plan for the Coming Year

The frequent modification of the immunization schedule create confusion among health care providers and parents. Once the Secretary of Health approves the revised schedule, the IP and MCH staff will disseminate and promote compliance with it. Although the current financial crisis precludes us from conducting a mass media campaign, alternative means to promote the new schedule will be employed. Among them are television interviews, press conferences, health fairs, school and child care activities, continued medical education activities and the distribution of flyers in community based activities.

The frequent changes and new modalities in the field of childhood immunizations make it necessary for the MCH and IP to provide frequent trainings to MCH staff and providers promptly after the new schedule is made official. This topic will be included in the MCH staff in service training this year. After this, HVNs will be able to evaluate the immunization status of the HVP participants and determine if it complies with the approved immunization schedule. If it does not, they will counsel and provide referrals. In addition, CHWs will do the same at the community level when they participate in school activities, health fairs, prenatal and parenting classes. In those cases where a significant need is identified, CHWs are expected to coordinate a special immunization clinic with the IP.

We will collaborate with the IP initiatives to increase the number of children and pregnant women who receive the influenza vaccine next season. The focus of next year's influenza campaign will be on promoting vaccinating children ages 6-23 months and other high risk groups. We will continue to encourage WCBA to have their rubella titers measured and, if needed, get the MMR vaccine.

The main motivator to adequately immunize children is the school requirement that parents must provide evidence that the children have been adequately immunized before they can be enrolled in school. Some parents procrastinate and delay immunizations until schools or child care institutions demand they present this evidence. Our staff strives to increase awareness among those parents of the benefit of protecting children against diseases as soon as possible and the risks of delaying the vaccination.

The information gathered during the home visits, outreach activities and during activities conducted by the regional immunization program will help us monitor immunization rates by municipalities and health regions more effectively. Any new barriers or emerging difficulties are shared with the Immunization Program. Health Regions with the lowest immunization levels will be preparing a strategic plan to increase them. Our collaborative efforts with the IP should be enhanced now that both programs are housed in the Auxiliary Secretariat for Family Health and Integrated Services, in accordance with the new organizational structure of DoH.

**Performance Measure 08:** The rate of birth (per 1,000) for teenagers aged 15 through 17 years.

Tracking Performance Measures

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	51.5	42.2	40.7	39.2	37.7
Annual Indicator	45.5	42.2	40.7	41.1	28.6
Numerator	4150	3853	3624	3656	2516
Denominator	91196	91196	89035	89014	88035
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	36.2	34.7	33.2	31.7	30.2

### Notes - 2005

Numerator: Preliminary data obtain from the Office of Informatics and Technology Advances (OITA) of the Department of Health. It includes data for the period of January to September 2005. Denominator: Population estimates of the US Census.

### a. Last Year's Accomplishments

Preliminary data from the OITA reveal the birth rate for teens 15 to 17 years of age was 28.6 per 1,000 in 2005. The MCH program continued providing contraceptives to GIP participants, including teens. They were distributed to 2,190 females 15-17 years old in 5 regions. Our staff offered 2,188 interventions on teen pregnancy prevention, sexuality education and self esteem to 39,665 participants. A total of 761 groups (7,482 participants) received sexual abstinence information.

The PR Abstinence Education Program (PRAEP) sponsored activities reaching 61,283 participants. A total of 391 public schools in 62 towns participated in PRAEP activities. Among them were the "Sex Can Wait" Curriculum, extracurricular and peer group activities, including a parade; two poster contests; summer camps and workshops, one for hearing-impaired teens. Other activities directed at adults were parent workshops, educational activities, teacher trainings and conferences. The Institute for Youth Development and the DoH offered the First Abstinence Education Forum.

A committee was established to develop the "Crianza con Amor" curriculum, to teach teen parents positive parenting skills and prevent repeated pregnancies. The "Healthy Beginnings" project grant trained 73 MCH staff as "Comenzando Bien" facilitators. They provided 106 workshops to 2,230 women, including pregnant teens.

The Comprehensive Adolescent Health (SISA) Program adopted the Positive Youth Development (PYD) model as the main strategy to prevent high risk behaviors including teen pregnancy. HRSA awarded Rochester University a CE Grant to develop the "Reto y Esperanza: Healthy Puerto Rican Youth Development" Project in collaboration with Cornell University, ACT for Youth, Konopka Institute and the SISA Program. Its goal is to develop a culturally appropriate PYD

curriculum and a Train the Trainer Guide. A Steering Committee composed of youth and adult representatives from 15 public and private agencies held nine meetings to start the project.

The 2005 theme for March, Teen Pregnancy Prevention Month activities was "Conexión es Protección". It stressed the importance of connectedness for teen pregnancy prevention. Three teens and two adults from the SISA Program participated in a forum on this topic that was shown in public regional hospitals via satellite feed. In March 2005, the 582 SISA Peer Youth Health Promoters held 61 teen pregnancy prevention activities reaching 6,964 teens in 40 schools. During the school year they coordinated and participated in 250 Positive Youth Development activities reaching 11,200 students and adults in 40 middle schools in 21 towns. The first High School Youth Health Promoters' Group started in Camuy.

The PR Juvenile Justice and the DoH joined efforts to develop a Youth Health Promoters Initiative in two juvenile justice centers. The Casey Foundation, Naranjito Teen Program and PR Title V collaborated to develop the "Plain Talk/Hablando Claro" Demonstration Project in PR.

Activities	Pyram	vice		
	DHC	ES	PBS	IB
1. Continue the organization of the Positive Youth Development				Х
Initiative for Puerto Rico. Develop a culturally competent				
curriculum and a train-the- trainer manual.				
2. Coordinate educational activities in schools and communities			Х	
to prevent teen pregnancies and promote healthy behaviors.				
3. Distribute culturally appropriate educational materials on			Х	
topics related to teen pregnancies, abstinence, self-esteem and				
character formation.				
4. Provide the "WAIT Training" and "Game Plan" curriculum and			Х	
activities by the Abstinence Only Education Program PRAEP to				
middle and high schools, in collaboration with the Department of				
Education during FY 2006-2007.				
5. Provide sex education, information on the benefits of sexual			Х	
abstinence and effective communication workshops to parents of				
school age children. Evaluate teen and parental attitudes toward				
sexual abstinence.				
6. Continue the SISA's Teen Health Promoters Program in public			Х	
middle schools and develop a demonstration program in				
selected communities.				
7. Provide teens with information related to family planning		Х		
services on an individual basis.				
8. Develop an after-school program promoting sexual abstinence				X
in the Department of Education by PRAEP and establish				
Community Abstinence Coalitions.				
9. Increase awareness on issues related with teen pregnancies			X	
among the general public, and develop a mass media campaign				
regarding the benefits of sexual abstinence among teens.				
10. Continue to support the Plain Talk Demonstration Project		Х		
that fosters adult-youth communication on sexuality issues to				
prevent teen pregnancies in a community of Naranjito.				

### Table 4a, National Performance Measures Summary Sheet

### **b.** Current Activities

A new Criminal Code was enacted May 1, 2005. It increases the age for consenting to a sexual relation from 14 to 16. Since then, teen family planning services have been curtailed. SISA is actively involved in a task force evaluating the impact on teens' sexual behavior and reproductive

#### health.

Several strategies to reduce pregnancies in this age group are taking place. PRAEP offers activities such as: "Sex Can Wait" curriculum in public schools and implementation of PYD strategies. The Spanish translation of new curriculum, Wait Training, is in progress. Five interactive workshops for parents and teens on communication about sexuality reached 1,757 persons. Eighty sexual abstinence videos were produced by teens and were shown in five multimedia shows reaching 3,758 students. A calendar with sexual abstinence messages was distributed to 80,000 students. A social theater drama about teen pregnancy reached 625 public school staff. Its goal was to raise awareness of the situations pregnant teens face and the importance of promoting secondary abstinence and supporting them to prevent school drop out.

SISA continues to develop and implement the PYD model in its activities as one strategy to prevent teen pregnancies. A curriculum is being redesigned to train Teen Health Promoters to provide peer group interventions using this model. This strategy is also being developed in the Juvenile Justice System. As part of their activities, they developed a social theater drama on teen pregnancy prevention.

During Teen Pregnancy Prevention Month, SISA organized a forum that allowed five leading researchers to present their findings on issues related to teen pregnancy to 60 different agencies. The MCH staff coordinated and participated in 350 activities as part of the celebrations, in which 14,088 students participated. The MCH staff offered a presentation about the implications of teen births in PR to 700 health professionals.

The Plain Talk Project activities started in Naranjito. Community volunteers finished mapping and analyzing the community. The culturally sensitive messages on sexuality and teen-parent communication that the 5 Community Walkers and Talkers will deliver during the neighborhood home educational gatherings have been selected.

The "Crianza con Amor" Committee has developed a draft of a curriculum for pregnant and parenting teens. It includes activities to prevent repeat teen pregnancies. Collaboration with "Red AMAME" shelters and programs for pregnant and parenting teens continues. The layout for the first teen oriented Health Services Directory was developed. Six subcommittees with 23 youths and adults are developing the curriculum for "Reto y Esperanza: Healthy PR PYD Project".

MCH staff will further analyze VS data on 1995-2004 teen birth rate trends by age groups for each municipality and is training staff to become focus groups leaders when the qualitative study to identify factors that contribute to teen pregnancies begins.

### c. Plan for the Coming Year

The MCH Staff will continue its efforts to prevent pregnancies among adolescents. The PR Abstinence Education Program (PRAEP), in conjunction with the Department of Education, will provide the WAIT Training and Game Plan Curriculum's and PYD strategies to middle and HS students. Teachers will be trained to facilitate peer groups (AMORES) in 84 public schools. These initiatives will also be implemented in private schools, special communities and institutions for incarcerated youths. Parents of school-aged children will continue to have the opportunity of attending a one-day workshop whose goal is to increase and facilitate parent youth communication around the topic of sexuality, self esteem, teen character and empowering them to make healthy choices. The Leaders for Wise Decisions PRAEP abstinence educational program will be developed. Coalition development and community outreach efforts will be strengthened and PRAEP strategies will be established in under served communities in collaboration with the Governor's Office. A mass media campaign and a website to promote teen sexual abstinence will be developed. The Comprehensive Adolescent Health (SISA) Program will continue the Peer Teen Health Promoters Program in public schools. The training curriculum will be modified and adapted to establish the program in remote, underprivileged communities throughout the Island as part of a collaborative effort with the Auxiliary Secretariat for Health Promotion. This program uses the Positive Youth Development model as an integral part of its teen pregnancy prevention efforts. SISA will continue educating parents and adults on the importance of establishing connections (Connectedness) with teens in order to protect them from engaging in high risk behaviors.

The Plain Talk Pilot Project will continue. During Phase II, neighborhood gatherings will be taking place in the homes of community residents. These gatherings have been designed to provide participants with the tools they need to foster adult-youth communications on sexuality issues.

We will continue to develop the "Crianza con Amor" curriculum for pregnant teens. This curriculum is aimed at increasing their parenting skills. Collaboration with programs that provide services and support for pregnant and parenting teens will continue. The Directory of Teen Health Services in Puerto Rico will be posted on the Department of Health web site. The Youth Health Promoters Initiative will continue in juvenile institutions.

The curriculum on Positive Youth Development will be pilot tested and evaluated in 4 sites. A train-the-trainer manual will be developed to train 6 adult youth workers and 6 youth leaders as PYD educators. Once trained, they will provide training in health regions.

The SISA Program will conduct a qualitative study to identify factors that lead to pregnancy in teens (10-17), in collaboration with the HVP. It includes the participation of the MCH anthropologist, HVN and HVP teen participants.

**Performance Measure 09:** Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

[Secs 485 (2)(2)(B)(III) and 486 (a)(2)(A)(III)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	14	14	15	20	10
Annual Indicator	8.3	5.2	4.6	5.9	4.7
Numerator	5246	6391	5087	7067	5599
Denominator	63575	122075	110950	119976	118237
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	6	6.5	7	7.5	8

Tracking Performance Measures

### Notes - 2005

Data regarding the grade in which children are enrolled is not available in the billing forms. Reported number is an estimation based on the information provided by the Health Insurance Commissioner and the Administration of the GIP that reflects the number of 8 to 9 year old children who received protective sealants on at least one permanent molar tooth during the last year (2005). This data will be collected in a study planned for this year.

Data on the denominator is the estimated population of children of 8 and 9 years old in PR according to the US Census.

We recommend that this performance measure be revised to include age instead of grade in school.

#### Notes - 2004

Data regarding the grade in which children are enrolled is not available in the billing forms. Information provided by the Health Insurance Commissioner reflected the number of 8 to 9 year old children who received protective sealants on at least one permanent molar tooth during the last year (2004). We recommend that this performance measure be revised to include age instead of grade in school.

# Notes - 2003

Data regarding the grade in which children are enrolled is not available in the billing forms. Information provided by the Health Insurance Commissioner reflected the number of 8 to 9 year old children who received protective sealants on at least one permanent molar tooth during the last year (2003). We recommend that this performance measure be revised to include age instead of grade in school.

# a. Last Year's Accomplishments

As a result of the implementation of the Health Care Reform in Puerto Rico, all individuals under 200% of the poverty level qualify for a government-paid health plan. It provides limited dental coverage, including the application of sealants on permanent molar teeth. Access to dental services GIP beneficiaries does not require a referral from a primary care provider. In addition, a significant proportion of children with private health insurance also have dental services included. One of the services commonly included are sealants for permanent molars.

We estimate over 98% of children and adolescents had health insurance coverage in PR in 2005. However, only 5,599 children benefited from this preventive service in 2005. Included in this figure are children with either private or government health care insurance.

In 2005, the Division of Oral Health Services provided services to 810 elementary schools, the vast majority of which were public institutions. During these interventions they reached 144,128 students. The Division staff stressed the importance of using dental sealants, particularly among parents who were attending the activity. They were advised that this service is covered by the GIP. After group orientations participants received a brochure "Consejos para una Sonrisa Saludable" ("Tips for a Healthy Smile"). The flyer includes messages that promote healthy oral habits and prevent the development of dental disease. In addition, it provides a summary of the oral health services included within the GIP package.

Home Visiting Nurses and Title V community outreach workers promote the importance of the proper utilization of oral health services available through the GIP. During 2005 MCH staff offered 105 activities on oral health. A total of 1,573 persons benefited from them.

### Table 4a, National Performance Measures Summary Sheet

Activities Pyramid Le		id Leve	evel of Service		
	DHC	ES	PBS	IB	
1. Raise awareness among elementary school children and parents about the importance of protective sealants.			Х		
2. Disseminate educational materials concerning the importance of protective sealants.			Х		
3. Improve data collection mechanism to monitor this performance measure.				Х	
4. Evaluate oral health status among in a representative sample of third grade students.				Х	
5.					
6.					
7.					
8.					

9.		
10.		

# **b.** Current Activities

During the current year the Division of Oral Health will continue to promote the importance of dental sealants during their school interventions.

The MCH Division recognizes oral health problems are the number one cause of morbidity among children, particularly those enrolled in Head Start (37.8%) in 2005-2006. In order to determine the oral health status of third grade students in both public and private schools of the Island, the MCH Division has established a collaborative effort with the Oral Health Services Division and School of Dentistry of the University of PR to conduct a study to determine the percentage of children enrolled in third grade with evidence of having had dental sealant applied to at least one permanent molar tooth. The study received final approval from the Department of Education on April 3, 2006. During May 2006, letters will be sent to private schools directors in order to determine their willingness to participate and requesting their written approval to conduct the study in their institutions. Once all these authorizations are received and the logistics worked out, we will proceed with the study. We expect to perform the evaluation during the month of September. A sample of 2,000 students has been selected using cluster sampling methodology. A total of 41 schools scattered throughout the Island were selected to participate. Parental consent forms, data collection instruments and a brochure for parents on how to maintain the oral health of their children have been designed. Particular emphasis has been placed on the importance of using sealants to prevent cavity formation and promote tooth preservation. The screenings will be conducted by personnel from the Division of Oral Health Services and residents from the General Dentistry and Pedodontics Residency from the School of Dentistry of the University of Puerto Rico Medical Sciences Campus.

During our interventions we will encourage all participants to take advantage of this preventive measure covered under the GIP. Since these services are underutilized, our MCH staff will actively encourage their use during their community and home visit activities.

### c. Plan for the Coming Year

After the study is completed we will have a clearer picture of the oral health status of students in the Island. Based on the results, a strategic plan can be developed to improve this indicator. During the coming year the MCH program will continue the collaboration with the Division of Oral Health Services staff to increase the level of awareness among parents about the importance of having their children receive this service. We will also be able to correlate the findings with the reports from the Commissioner's Office and ASES to determine how to collect this information and establish a methodology to monitor this performance measure in the future. Findings will be disseminated among oral health professionals across the island.

**Performance Measure 10:** The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					-
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	3	2.4	2.3	2.2	1.9
Annual Indicator	2.9	2.4	1.9	2.8	1.2
Numerator	26	22	17	24	10
Denominator	901637	901637	882134	865067	851730
Is the Data Provisional or Final?				Final	Provisional

### **Tracking Performance Measures**

	2006	2007	2008	2009	2010
Annual Performance Objective	1.8	1.7	1.6	1.5	1.4

## Notes - 2005

Numerator Source: Office of Informatics and Technology Advances (OITA) of the Department of Health.

Denominator Source: US Census.

## Notes - 2004

Numerator data source: Office of Informatics and Technology Advances (OITA) of the Department of Health Denominator data source: US Census.

# a. Last Year's Accomplishments

Motor vehicle crashes (MVC) are one of the principal causes of death in children. In 1999, unintentional injuries constituted the principal cause of death in children 1-14 in the US, and most were as a result of MVC (American Children, 2002). According to preliminary data provided by the Office of Informatics and Technological Advances (OITA) in 2005, 10 children under 14 years of age died due to this cause.

Reducing unintentional injuries among infants, children and adolescents is one of the 10 priorities established by the PR MCH program. The Safe Kids Coalition leads local collaborative efforts to reduce the number of MVC deaths. Members of the SKC include several public and private entities such as the Police Department, the Traffic Safety Commission, the Fire Department, the PR Coalition for Prevention of Alcohol use Among Minors, the Department of Education, EMSC and the MCH program among others.

The MCH staff analyzes VS data and reports information related on MVC deaths yearly. The information is analyzed by sex, age and other demographic variables. The findings are used to raise awareness among service providers and in the general population. The information is shared with the SKC and the EMSC program for their use and to be presented during press conferences and other awareness raising activities.

The MCH staff continually disseminates information directed at preventing MVC related deaths. The HVN provide age and developmentally appropriate anticipatory guidance to their HVP participants on a regular and consistent basis. Perinatal nurses stress the importance of correctly using the car seat as they educate mothers whose infants are being discharged from the nursery. CHW plan and develop community based interventions directed at reducing unintentional injuries. During FY 2004-2005, a total of 1,562 educational activities reaching 14,403 participants were documented by regional staff. In those activities, educational materials on the topic were distributed.

This year the Coalition held a series of educational activities reaching over 3,000 participants. SKC staff and volunteers conducted 17 Car Seat Check Point events that lead to inspections of 1,600 cars across the Island. In addition, 100 banners were displayed in bus stop shelters promoting of car seat safety messages and over 800 children participating in summer camps received educational messages regarding the importance of buckling-up and other safety measures they should adopt.

The Coalition commemorates the Injury Prevention Week annually with a press conference. During this years celebration the SKC held educational activities in public beaches, shopping malls and health fairs. Educational material on road security and injury prevention were distributed in these activities. In addition, 3 car seat check points at highway toll stations were conducted.

Table 4a.	National	Performance	Measures	Summary	/ Sheet
			mououroo	• annan j	0

Activities	Pyram	id Leve	l of Serv	vice
	DHC	ES	PBS	IB
1. Promote adequate use of child restraints as part of			Х	
anticipatory guidance at the community level.				
2. Inform families with limited resources about local programs		Х		
renting infant car seats.				
3. Continue collaborating with the PR Safe Kids Coalition action				Х
plan.				
4. Train Perinatal Nurses in installation and inspection of car				Х
seats.				
5. Disseminate educational materials at the community level.			Х	
6. Disseminate the report on the analysis of deaths caused by				Х
unintentional injuries among children and adolescents registered				
in 2005.				
7. Continue collaboration with MADD (Mothers against Diving				Х
Drunk) and other organizations to reduce driving under the				
influence.				
8. Promote the institutionalizing of comprehensive driver			Х	
education programs.				
9. Disseminate information to adolescents about MVC prevention			Х	
and alcohol as a contributing factor in MVC fatalities.				
10. Continue to support initiatives leading to increase the legal				Х
age for alcohol use to 21.				

### **b.** Current Activities

During FY 2005-2006, the MCH Division regional and central level staff have continued to provide educational activities and interventions directed at reducing MCV related deaths in children 1-14 years of age. The First Family Encounter for the Safety of Children, held in Aguadilla, was developed in collaboration with the Police and Fire Departments as well as other local CBOs. Participant organizations provided educational materials on the prevention of MVC related deaths. Over 160 families received recommendations on how to prevent unintentional injuries.

Fatalities by MVC in children 1-14 have declined since 2001. Motorcyclist deaths, however, have increased from 55 in 2004 to 89 in 2005. Motorcycles have gained popularity due to the high fuel costs and the availability of more affordable models. Available data reveals most deaths occur during the weekends and from 6:00pm to 3:00am. A recent newspaper article stated 80% of motorcyclists used helmets that were ineffective in protecting them from severe brain trauma. The increase in the number of children and adolescents using motorcycles and the number of related deaths has prompted police to increase their interventions to prevent them. An amendment to the Traffic Law has been proposed to require motorcyclists to use approved safety helmets.

The Safe Kids Coalition continues holding injury prevention activities around the Island. During the first half of this FY, SKC has distributed educational materials disseminating these messages in health fairs, held car seat security demonstrations and check points and inspected almost 90 cars seats for appropriate installation. In addition, SKC participated in a convention sponsored by the Chamber of Commerce, the CPA Association and the Human Resources Society. During the activity injury prevention educational materials were distributed to 2,500 participants. A pilot project, Walk this Way, took place in a private school located in an area with heavy traffic. It was able to reorganize traffic flow, install traffic signs and offered parents and students information on the safest way to enter school and drop off students.

In terms of population based activities, the press has organized a campaign to educate the public, particularly youths 14-25 year olds, on the consequences of driving under the influence of alcohol

and/or using cell phones. The campaign will be disseminated in local radio and TV stations and local newspapers. A coalition of public and private companies will collaborate in this endeavor.

Legislation to reduce MVC fatalities has been enacted. A law prohibiting cellular phone use while driving has been endorsed by cell phones companies, Police, and the Justice and Transportation Departments. A bill was proposed to prohibit children less than 12 years from riding as passengers in motorcycles. If approved, Senate Project No. 1361 will increase the minimum drinking age to 21.

#### c. Plan for the Coming Year

Figure 4a lists some of the activities that will be conducted in collaboration with our partners to reduce deaths due to MVC's in children 14 years of age or younger. We will promote establishing legislation that requires driver license candidates must be 18 years of age or older and must attend a driver education course. Several reports on child restraints use have demonstrated that they are used frequently (86%); however, only 15% of them are installed correctly. To address this issue, MCH personnel will join and support Safe Kids and other organizations in their efforts to educate regarding the correct use of helmets, child restraints devices and infant safety seats. Perinatal nurses will receive a refresher course on the correct installation and inspection of car seats so they can help parents whose infants are being discharged from the nursery install their car seats properly. It is important to emphasize that the educational activities planned will include providing the CSHCN population information regarding safe transportation and informing them of existing laws requiring child restraint and seat belt use.

The Safe Kids Coalition will continue to provide activities directed at preventing MVC related deaths. Prevention activities will also include promoting the correct and consistent use of infant safety seats in parades and special public events, conducting car seat check points near schools and active participation in the Guaynabo City Kids EXPO. Safe Kids will also participate in a health fairs that will take place in the House of Representatives, Manati and Florida municipalities and in public and private schools during the Puerto Rico Children's Day celebration. The Walk this Way Initiative will be expanded to six new schools in an effort to reduce traffic related deaths.

The Adolescent Program (SISA) will collaborate with the Safe Kids Coalition by encouraging teens from the Youth Health Promoters' Group to develop school activities directed at educating their peers on how to prevent unintentional injuries and deaths due to MVC, particularly among those riding motorcycles.

The Emergency Medical Services for Children will continue to promote safety and prevention information in a variety of public events, including a Symposium on Emergency Medicine and other population based activities.

**Performance Measure 11:** The percent of mothers who breastfeed their infants at 6 months of age.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective					
Annual Indicator					12.0
Numerator					37
Denominator					309
Is the Data Provisional or Final?					Final
	2006	2007	2008	2009	2010

# Tracking Performance Measures

Annual Performance Objective	12.5	13	13.5	14	14.5
	-	-			-

# Notes - 2005

Numerator and Denominator obtained from the ESMIPR (PRAMS like survey) follow up telephone interview conducted by the MCH Division of the PR Department of Heath six months after the initial survey.

# a. Last Year's Accomplishments

Puerto Rico has had a public policy to promote breastfeeding since 1995. The MCH Program and the Breastfeeding Committee recognize the importance of creating supportive environments that promote breastfeeding initiation in the immediate post partum period if it is to continue during the first six months of life. To promote this behavior, we assisted in the implementation of Law 79 of 2004. This law forbids supplying breast milk substitutes to infants without the mother's consent in all facilities providing obstetrical or child care services.

Another aspect to consider if women are to continue breastfeeding for six months or longer is the need to provide them with an area in their workplaces where they can breastfeed or express and store their milk. Law #155 of 2002 requires all public areas must have a room devoted to this purpose. We are currently providing technical assistance to institutions preparing a breastfeeding room in their facilities. The MCH staff had an active participation in remodeling and furnishing two breastfeeding rooms in the Central Offices of the DoH. A Breastfeeding Steering Committee continued to work on a strategic plan to increase the number of women who continue breastfeeding their infants for their 6 to 12 months of life.

The MCH Division closely monitors breastfeeding trends. To achieve this, a PRAMS-like survey, called ESMIPR, was developed and conducted. It includes questions on breastfeeding during the immediate postpartum period. A follow up telephone interview with the same participants took place 6 months and 12 months after the initial survey. Information gathered by the survey has helped to develop strategies to achieve our goals. The results for the ESMIPR 2002 revealed that 54.3% of the 2,310 participants breastfed in the immediate postpartum period, 20.4% continued at 6 months, but only 8.5% were doing so at 12 months of age. The 2004 ESMIPR study showed a slight increase in these parameters: 64.5% at birth, 22% at 6 months, and 12% at 12 months.

The Second Breastfeeding Fair, a collaborative effort with community partners was held in August 2004 with 267 participants. During Breastfeeding Promotion Week, a group of mothers who had breastfed for 6 months or more visited the Governor's residence and participated in a press conference.

The Committee met on six occasions. It focused its attention on improving compliance with breastfeeding laws, promoting maternal and infant rights and the Baby Friendly Hospital Initiative. Two lectures for health professionals and community partners were offered by MCH Division and LACTA staff.

During FY 2004-2005, MCH staff carried out 106 prenatal courses, which include information on breastfeeding. A total of 2,230 persons participated in these courses. CHWs provided 612 breastfeeding educational activities reaching 5,185 persons.

During 2004, MCHB sponsored the participation of 24 HVP nurses in a training that led to their certification as Lactation Educators.

# Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Service			vice
	DHC	ES	PBS	IB
1. Conclude the collection of data concerning breastfeeding				Х
practices at 6 and 12 months after delivery through the Maternal				

and Infant Health Survey (PRAMS-like) during the fall of 2006.		
2. Share ESMIPR 2006 findings with key providers of prenatal		Х
and perinatal services at the Sixth SSDI Conference in 2007.		
3. Continue enforcing the laws that promote and protect mothers'		Х
and childrens' breastfeeding rights in Puerto Rico.		
4. Provide assistance to health facilities across the Island to		Х
promote the rooming-in concept as a strategy to increase		
breastfeeding practices among mothers from birth up to at least		
12 months after delivery.		
5. Carry out courses of "Comenzando Bien" which include the	Х	
topic on breastfeeding to impact at least 550 persons island		
wide.		
6. Continue promoting breastfeeding through group orientations	Х	
at the community level.		
7. Enhance the understanding of the importance of breastfeeding	Х	
among the participants of the Home Visiting Program.		
8. Collaborate with other partners (WIC, LACTA Project) in their		Х
efforts to promote breastfeeding at all levels.		
9. Hold Breastfeeding Committee meetings every three months.		Х
10.		

# **b.** Current Activities

The Breastfeeding Promotion Committee has met four times. It has been working to develop a four-year strategic plan directed at reaching the HP 2010 breastfeeding goals. The main strategies included in the plan are: enforcing the existing laws that promote breastfeeding, empowering women so they can demand their right to breastfeed, and educating and providing support to health providers and hospitals so they can become our partners in these efforts.

The 2006 PRAMS-like Maternal and Child Survey data gathering phase has concluded. It collected data regarding breastfeeding in the early postpartum period. Information regarding continuation of breastfeeding practices at 6 months and 1 year will be collected during follow up telephone interviews to willing participants 6-12 months from now. Preliminary report from the 2006 ESMIPR revealed 67.7% of those who completed the survey breastfed in the immediate post partum period. This represents a 3.2% increase from the rate reported in 2004.

A representative of the DoH Breastfeeding Promotion Committee took part in the First National Conference of Breastfeeding Coalitions in Alexandria, Virginia in January, 2006. The Committee is evaluating the strategies presented during the activity and evaluating the desirability and feasibility for implementation.

A total of 33 "Comenzando Bien" prenatal courses which include sessions promoting breastfeeding, have been offered during the period of August-December 2005 by our staff. A total of 822 persons participated in them, including 396 pregnant women.

### c. Plan for the Coming Year

During the coming year the MCH Division will continue its efforts to promote public policies that facilitate breastfeeding in all venues, particularly in hospitals. In addition, we will continue to work to ensure that mothers' rights to breastfeed are respected. To accomplish this, the Committee will target hospitals where breastfeeding rates are very low. Members will assist MCH staff when they evaluate potential barriers, attempt to change negative attitudes toward breastfeeding practices among personnel and offer the technical assistance needed to facilitate the implementation of rooming-in. If these strategies prove successful they should contribute to an increase in breastfeeding rates in the early post partum period, and in turn increase the chance that

breastfeeding continues during the entire first year of life.

The Breastfeeding Committee will continue to meet every three months and monitor progress toward established goals. Committee members and the MCH Program will join together in an effort to reproduce and distribute information and fliers regarding current public policies that promote breastfeeding and Law #79 of 2004. This will help us increase the public awareness on the importance of breastfeeding during the first six to twelve months of life.

The MCH Program will continue to collaborate with our partners, particularly the WIC Program and LACTA Project, in their breastfeeding promoting activities. Eight Title V sponsored perinatal nurses, located in local and regional hospital facilities throughout the Island, will promote breastfeeding practices through group orientation and individual counseling. The CHWs will provide prenatal courses that will include the importance of breastfeeding to at least 550 persons across the Island.

The 2006 PRAMS-like Maternal and Child Survey (ESMIPR) data will be analyzed, particularly the information related to breastfeeding practices and other related MCH issues. Information will be shared with health professionals and key stakeholders during the Sixth SSDI Conference to be held during the fall of 2007.

**Performance Measure 12:** Percentage of newborns who have been screened for hearing before hospital discharge.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]	1	1			
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	1	1	5	15	50
Annual Indicator	3.1	3.9	6.9	25.3	75.8
Numerator	1795	2086	3499	12989	37774
Denominator	57988	52871	50803	51239	49834
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	80	90	90	90	90

Tracking Performance Measures

### Notes - 2005

Denominator: The number of births reported for 2005 is preliminary and is based on the number of births registered in the Demographic Registry Office.

### Notes - 2004

2004 The NHEP Program has not been fully implemented Islandwide. Currently, there are 18 hospitals performing neonatal hearing screenings. With the approval of Law 311 and its regulation, all hospitals with delivery services in PR are starting to plan or implement their neonatal hearing screening programs. There should be a significant increase in neonatal hearing screenings by the end of 2005. The annual performance objectives from year 2005 to 2009 may need to be revised next year as continued implementation of the NHEP Program takes place in Puerto Rico.

### Notes - 2003

2003 The NHEP Program has not been fully implemented Islandwide. Currently, there are eight (8) hospitals performing neonatal hearing screenings. With the approval of Law 311 all hospitals with delivery services in PR are starting to plan or implement their neonatal hearing screening programs. There should be a significant increase in neonatal hearing screenings by the end of 2004. The regulations for Law 311 are being written and once completed and approved, should accelerate overall implementation of the program. The estimated annual performance objective

depends on the date of final implementation expected for December 2004. The annual performance objectives from year 2004 to 2007 may need to be revised next year once the NHEP Program implementation takes place in Puerto Rico.

## a. Last Year's Accomplishments

Our main goal last year was to fully implement the Universal Newborn Hearing Screening Program (UNHSP) in the 39 birthing hospitals of the island, including the seven hospitals of the pilot program. To accomplish this goal, we had to develop and get the approval of the regulations that would guide the implementation of Law #311. The UNHS Advisory Committee met numerous times during the year to draft the regulations for Law #311. On December 14, 2005 the regulations were finally approved. Once they were ready, they served as a frame of reference for hospitals when they developed their UNHS programs. The regulations helped us accelerate the UNHS implementation phase island wide.

Equipment was delivered and on-site training was offered to the hospital staff of the seven hospitals participating in the UNHS pilot program. In collaboration with the Academy of Audiology of Puerto Rico, we presented information about the program to its members.

During this year we worked on developing the electronic data collection system. Data collection continued and we observed an increase in the number of newborns screened since the end of 2004. During 2004, 18 hospitals were screening babies for hearing loss. For this period, a total of 12,989 births were screened for hearing loss, accounting for 25% of all births in Puerto Rico.

The Division of Habilitation Services applied for a three-year federal grant that would allow us to continue UNHSI Program. The Department of Health and Human Services Health Resources and Services Administration approved the grant on April 2005.

Activities	Pyramid Level of Service		vice	
	DHC	ES	PBS	IB
1. Provide follow-up tracking to 10% of newborns identified with		Х		
hearing loss.				
2. Implement the UNHS programs in 40 birthing hospitals.				Х
3. Offer training activities on UNHS for participant hospital staff.				Х
4. Offer training activities on UNHS for Audiologists, Speech				Х
Language Pathologists (SLP), Nurses and Physicians.				
5. Collaborate in the development of UNHS programs at all				Х
birthing hospitals in Puerto Rico.				
6. Implement the data tracking system for UNHS.				Х
7. Create a UNHS program website to deliver information				Х
regarding UNHS and the UNHS program.				
8. Develop promotional activities to create awareness of UNHS			Х	
in the general population.				
9.				
10.				

# Table 4a, National Performance Measures Summary Sheet

### **b.** Current Activities

During this year our main goal was to increase the number of newborns screened for hearing deficits and monitor that those with a positive screen received follow-up services. The number of participating hospitals has increased significantly from 18 to 35. Screened newborns have increased from 12,989 in 2004 to 37,774 in 2005. One quarter (25.3%) of the 51,239 births in 2004 were screened. This percentage increased markedly to 75.7% in 2005.

We continued developing the Electronic Data Reporting System to monitor follow-up of children whose screening test was positive. It will become our principal mechanism to monitor follow up services. The Electronic Data Reporting System allows hospitals to send test results and contact information of identified newborns to the UNHSP at the Department of Health of Puerto Rico. It also allows audiologists in the community to enter the results of confirmatory hearing evaluations and treatment plan for identified newborns.

Delays in the development the Electronic Data Reporting System postponed the Beta testing until March 2006. At this time testing has finally concluded and the tracking system is ready for hospitals and audiologists to enter data. We are currently in the process of establishing the logistics required to offer island wide trainings for hospital staff and audiologists. Until the Electronic Data Reporting is fully operational, follow-up information is being entered manually. We are currently in the process of hiring a Service Coordinator to provide follow-up contacts with families and monitor infant progress.

The UNHS will continue to offer promotional and educational activities during the year. These activities are intended to raise awareness among the population and health professionals of the existence of the UNHSP. We will continue to educate and empower expectant mothers to inquire about newborn hearing screening services in the birthing hospitals of their choice. Development of a UNHSP website is underway. The website will be part of the Department of Health of Puerto Rico's website and will provide information on all UNHSP issues and activities and links to other related sites. It will serve health care providers, hospitals and the general public and also serve as the Electronic Data Reporting System portal.

#### c. Plan for the Coming Year

Next year's main focus will be making sure children with positive screening test receive the appropriate follow up services. We will increase the level of culturally competent support families of identified newborns receive in order to assure diagnostic testing is performed by three months and treatment received by six months of age. To monitor progress we will be combining information from the Electronic Data Reporting System, participating hospitals, UNHSP and families of identified children, support groups and other government programs.

We expect to increase the percentage of newborns screened to 75%, and the number of participating hospitals to 40. Several barriers impede us from significantly increasing the percentage of newborns screened and participating hospitals. Most of the remaining hospitals are small, and purchasing the equipment and hiring or training staff to conduct the hearing screening test will not be cost effective for them. However, the program will continue to identify strategies that would help them start to provide services in their facilities.

The UNHSP will continue to educate the general public and health care providers during our participation in health fairs, community level activities, public announcements, publications and speaking engagements. These activities will be geared to wards educating the general public and health care providers on the importance of identifying, diagnosing and receiving treatment for hearing deficits. Particular emphasis should be place on the importance of infants receiving treatment before they are six months of age. The activities will also increase the public awareness of the law requiring the universal newborn hearing screening and the presence of hearing screening services in the hospitals.

To assure that services are culturally competent and support is being provided to affected children and their families, the UNHSP will encourage establishing support groups for families of newborns with hearing deficits, and encourage families to provide their input in order to improve UNHSP services.

# Performance Measure 13: Percent of children without health insurance.

Annual Objective and Performance	2001	2002	2003	2004	2005
Data					
Annual Performance Objective	2	2	1	1	1
Annual Indicator	0.3	0.4	1.1	1.3	1.6
Numerator	3468	3432	15012	15136	18384
Denominator	1156022	903025	1364807	1164353	1149039
Is the Data Provisional or Final?				Final	Final
	2006	2007	2008	2009	2010
Annual Performance Objective	1	1	1	1	1

**Tracking Performance Measures** 

#### Notes - 2005

The estimate for this performance measure was done using the Head Start health insurance data. According to this data, 1.6% of enrolled children did not have a health insurance plan. We assume that Head Start children are low income children in Puerto Rico. They represent the maximum number of children without health insurance. The denominator was the population estimation as of July 2005 and was obtained from the US Census Bureau.

### Notes - 2004

The estimate for this performance measure was done using the Head Start health insurance data. According to this data, a total of 450 (1.3%)children did not have a health insurance plan. We assume that Head Start children are low income children in Puerto Rico. They represent the maximum number of children without health insurance. The denominator was the population estimation as of July 2004 and was obtained from the US Census Bureau.

### a. Last Year's Accomplishments

The PR Census Office estimated 1,164,353 children and adolescents 0-18 years old lived in PR as of July 2005. A total of 599,177 (39.4%) held the government insurance plan as of December 2005. Several studies provide a measure of the amount of uninsured persons living in the Island. One of them is the "Estudio de Muestra Básica" conducted by the School of Public Health for the Puerto Rico Department of Health. It was designed to measure and monitor health status, social, economic indicators, and demographic characteristics of the population. In 2003 it was estimated that 9.1% (353,058) of the population had no medical insurance. The demographic profile of the uninsured suggests that young adults and children are the group at greatest risk for being uninsured.

Our best estimate of the proportion of children without health insurance, comes from data gathered from children enrolled in Head Start. These children are mainly from a low socioeconomic background and can be used as a proxy to estimate the number of children without health insurance in Puerto Rico. An evaluation of the health coverage of 35,949 preschool children enrolled in the Head Start Program during FY 2005-2006 demonstrated that 81.4% held the GIP; seventeen percent (17.5%) had a private health plan; and only 1.6% (582) did not have a health insurance plan. Based on these results, we estimate that approximately 18,384 children and adolescents do not have a health insurance plan.

A new health care environment has evolved as a result of the implementation of the HCR. Since that time our role has been modified from direct patient services providers to one in which our time is devoted to providing case management/care coordination in order to link eligible MCH population with the health care services they need. MCH staff conducted 98 outreach activities at the community level during which they attempted to identify children without health insurance. Children without insurance were referred to the Medicaid program for evaluation and certification. Our staff intervened with a total of 1,146 individuals across the Island.

During their visits to participants' homes, Home Visiting Nurses determine their health insurance status. Those without insurance received a referral to the Medicaid Program.

Activities	Pyramid Level of Service			/ice
	DHC	ES	PBS	IB
1. Conduct outreach activities to identify children without health insurance and refer them to Medicaid.		Х		
2. Conduct a study to identify the health care insurance coverage of third grade students who will participate in the Oral Health Evaluation study.				Х
3. Assess the impact of the Evaluation Commission Recommendations of the HCR on the MCH population.				Х
4.				
5.				
6.				
7.				
8.				
9.				
10.				

#### Table 4a, National Performance Measures Summary Sheet

### **b.** Current Activities

The MCH Division has modified its activities in response to changes brought forth by the HCR. Currently our staff, particularly the CHWs, devote most of their efforts towards performing outreach activities in health fairs, school venues and at the community level. These outreach efforts are mainly focused on identifying pregnant women, children and adolescents with no health care insurance and ensuring they become GIP certified if eligible. During this year our 81 CHWs are continuing to identify Medicaid eligible children and linking them with the Medicaid offices closest to their homes. Our first priority when conducting outreach activities is to identify pregnant women, especially teens, without prenatal care and linking them with the local Medicaid office. In PR 92% teens who experienced a live birth are insured by the GIP.

As of June 30, 2006, 103 Home Visiting Nurses were determining health insurance status of the families participating in the Home Visiting Program. Those without insurance receive a referral to the Medicaid Program.

The recent report of the Special Commission for the Health Care System Evaluation appointed by the Governor addresses the uninsured population and mentions the desirability of establishing universal health coverage in PR. However, although these proposals are being studied, it is uncertain if they will be implemented due to the financial crisis PR is experiencing. We will closely monitor the impact of this report on the percentage of children without insurance.

The SSDI Project will work in collaboration with the Department of Education to conduct a study to identify the prevalence of the children without a health insurance plan and their sociodemographic characteristics. We will determine the health care insurance coverage of third grade students who participate in the Oral Health Evaluation study.

#### c. Plan for the Coming Year

The MCH Program, CHWs and HVNs will continue reaching out to children and families without health care insurance and provide them with referrals to the Medicaid Program.

The SSDI Project will work in collaboration with the Department of Education to conduct a study to identify the prevalence of the children without a health insurance plan and determine their socio-demographic characteristics. In addition, SSDI will closely monitor the impact of the Report of the Special Commission for the Health Care System Evaluation appointed by the Governor on the percentage of children without insurance.

**Performance Measure 14:** Percentage of children, ages 2 to 5 years, receiving WIC services with a Body Mass Index (BMI) at or above the 85th percentile.

Tracking Performance Measures

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective					
Annual Indicator					13.1
Numerator					15404
Denominator					117590
Is the Data Provisional or Final?					Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	13	12.5	12	11.5	11

### Notes - 2005

Data provided by the PR WIC Program of the PR Department of Health.

## a. Last Year's Accomplishments

For the past several years, PR has experienced an increase in the prevalence of obesity in the population. According to the BRFSS, PR ranked eighth among states and territories in prevalence of adults with BMI over 85%. In 2003, it was reported to be 63%. Physicians have noted an increase in DM type 2 in the pediatric population. Among children enrolled in Head Start during the 2005-06 school year, 10% were classified as overweight. The WIC program reported 13.1% of children ages 2-5 enrolled in their clinics had BMIs over 85%.

To address this issue, the MCH Division convened a Committee for the Nutritional Evaluation of Second Grade Students in Public and Private Schools. Its members were representatives from Department of Education, WIC, College of Physicians, AAP, Nutrition Internship Program, School of Public Health and the Private Education Association. The Committee designed and conducted a study to determine the prevalence of overweight and at risk for overweight among second grade students.

In April 2005, after securing required school and parental consents, 17 multidisciplinary teams comprised of a nutritionist, nurse and team leader visited 100 private and 151 public schools in all 78 municipalities in PR to conduct the evaluation. During their visits, information on age, sex, weight and height was obtained from 3,026 students. Once the data was collected, the teams calculated the BMI. After plotting them in the CDC growth charts, they assigned students to one of the following categories: underweight, healthy weight, at risk for overweight (BMI 85-94%) and overweight (95% and up). One hundred percent of schools and 97% of the students included in the sample agreed to participate in the study.

Results showed 24% of second grade students were classified as overweight, 16% were in the at risk category and 2.7% were underweight. No statistical difference was noted by type school, age or sex. The results show the prevalence rate in PR is higher than reported by CDC (16%) for children in a similar age group living in the US. However, our rate is only slightly higher than the

ones observed in Hispanic children living in large urban areas in the U.S.

The Committee developed a questionnaire to obtain information regarding dietary habits and level of physical activity from the students included in the sample. During 2005, the Gerber Company commissioned the School of Public Health of the Ponce School of Medicine to determine overweight prevalence and dietary habits of a group of children between the ages of 4-24 mo. They evaluated the diets of 164 children (93 from 4-12 mo. and 71 from 13-24 mo.). These children were classified using the CDC weight for height tables. Based on these tables 31.7% were above the 95th percentile. Nutritional intake information revealed parents were introducing solid food as early as 2 months of age. Foods being introduced beginning at 6 months of age were fried foods, sodas, candy and fast foods.

Activities	Pyramid Level of Service		/ice	
	DHC	ES	PBS	IB
1. Establish an inter agency committee to design and perform				Х
applied research and to develop public policy to understand the				
current situation of childhood overweight and establish				
appropriate strategies and course of action.				
2. Develop a strategic plan to establish interventions and			Х	
educational strategies for the population aimed at controlling the				
childhood overweight situation in Puerto Rico.				
3. Analyze the viability of the establishing of an ongoing				Х
Surveillance System to monitor children's BMI and the				
prevalence of overweight in children.				
4. Carry out an ethnographic assessment in three municipalities				Х
to identify social and cultural variables that contribute to				
childhood overweight.				
5. Design and develop a culturally appropriate Childhood Healthy				Х
Eating and Physical Activity Guide.				
6. Perform a retrospective analysis of the proportion of children				Х
who are participants of the WIC Program and have a BMI in or				
above the 85th percentile to understand the present situation				
and establish future annual objectives.				
7. Increase communication and collaboration among				Х
governmental, private and non profit agencies that are				
developing research and implementing interventions for the				
reduction of overweight in children.			V	
8. Increase health literacy in pediatric obesity among journalist,			Х	
communicators, media representatives, and community				
representatives.				V
9. Reinforce collaboration with the Auxiliary Secretariat of Health				Х
Promotion in order to increase the participation in the activities				
developed by their health promotion programs directed at increase healthy habits.				
10.				
10.				

### Table 4a, National Performance Measures Summary Sheet

### **b.** Current Activities

Disseminating these results and increasing the level of awareness in the population about the obesity epidemic PR is experiencing has been the focus of this year's activities. Efforts began in October 2005, when the First PR National Crusade Against Obesity was held. Over two days, 397 representatives from all sectors of the population met to discuss the problem and prepare a draft for the National Agenda to Reduce Obesity in PR. Participants included representatives from

the Education, Sports and Recreation, Urban Development, Department of Health and the Legislature. Also present were health insurance companies, professional organizations, food industry, supermarket chains, pharmaceutical and hospital representatives. Topics discussed were: public policy and legislation to promote physical activity, health promotion as a strategy to improve nutrition and physical activity, urban planning for active communities, health communication and integrated models for weight control in the community and school setting.

The results of the Second Grade Prevalence Study have been widely disseminated. A four-page article sharing the results of the study and the impact obesity has on public and individual health has been distributed to participating schools and collaborators. It has been submitted for publication in the PR College of Physicians, Pediatric Society and the Private Education Association newsletters. PI have shared results with private school directors, nutritionists of the School Lunch Program, physicians, Department of Education and WIC Directors, the Robert Wood Johnson Foundation Obesity Team and the Academy of Primary Care Centers' Medical Directors. An abstract was submitted and approved for oral presentation at the CSTE Meeting in CA in June 2006. The results of the study were shared with key stakeholders in Gurabo, the municipality with the highest percentage of overweight children.

Several weight control programs have been developed. The WIC Program conducted a pilot project with a group of Caguas clinic participants between the ages of 3-4 years who had BMIs above the 90th percentile. The project provided parents six 2 hour didactic session on behavior modification techniques and how to improve their child's nutrition. Children had the opportunity to exercise during these 2 hours. Of the 101 children who completed the program, 48 lost or maintained their weight and 53 gained weight. However, those that gained weight did so at a reduced rate when compared to the previous 6 months.

The Transformers Club is another weight control initiative. It was developed and implemented by a MCH staff member from the Mayagüez Region. This program combines increasing physical activity levels and improving nutritional habits of severely overweight middle school children. It is a collaborative effort between the Departments of Health, Sports and Recreation and Education After School Program. The initiative has now been expanded to the Aguadilla Region.

#### c. Plan for the Coming Year

We will continue to collaborate with WIC in their efforts to develop and implement interventions to prevent and control excessive weight gain in children between the ages of 2-5 years. We will monitor progress and help evaluate the effectiveness of the interventions. Both programs will promote breastfeeding as a strategy to reduce obesity. We will continue our efforts to partner with other key stakeholders to disseminate messages regarding the need to increase physical activity and eat healthy. The Head Start Program of the Department of the Family is expected to continue offering nutritional education to approximately 18,000 children using a curriculum they have developed.

During 2007, we expect to hold the Second National Crusade. The MCH Division and the Committee will collaborate with the Auxiliary Secretariat for Health Promotion in coordinating this event. It is expected that by this date the PR public policy for obesity prevention will have received final approval from the Governor. Efforts to increase awareness of the problem in the Island have been successful in increasing the number of individuals and institutions interested in becoming involved in collaborative efforts and we expect a Coalition will be established. Once it is formally established it will be responsible for developing and implementing strategic plans to control the obesity problem. The Committee will become an integral part and will focus primarily on the problem of pediatric obesity.

The MCH Division will submit a proposal to the Robert Wood Johnson Foundation with the purpose of conducting a qualitative study to identify social, cultural, economic and ethnographic factors that contribute to disparities in overweight rates among different municipalities in PR.

Once these factors are identified, a strategic plan will be developed and public policies proposed to reduce the prevalence of overweight children.

In collaboration with the Auxiliary Secretariat for Health Promotion regional nutritionists and physical trainers we will promote two key Department of Health Initiatives: "Salud te Recomienda", a program that helps persons select nutritious foods by identifying them with a Department of Health sign of approval, and "Muévete Puerto Rico", a program that promotes physical activity at the community level.

The Transformers Club will be expanded in collaboration with the After School Program and the Sports and Recreation Department to other regions in the Island. In collaboration with the public school nurses, we will monitor progress regarding the nutritional status of kindergarten and 7th grade students. The MCH staff will promote physical activity and healthy nutrition during their home visits and community based activities. The Division is recruiting a nutritionist to guide these nutritional efforts and coordinate activities with other agencies.

**Performance Measure 15:** Percentage of women who smoke in the last three months of pregnancy.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective					
Annual Indicator					2.8
Numerator					47
Denominator					1699
Is the Data Provisional or Final?					Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	2.7	2.6	2.5	2.4	2.3

Tracking Performance Measures

# Notes - 2005

Preliminary data obtained by the ESMIPR Survey (PRAMS like adapted version) for 2005 conducted by the MCH Division of the PR Department of Health.

### a. Last Year's Accomplishments

This is a new NPM; therefore we have no specific activities to report for last year. The "PR Maternal and Child Health Study" (ESMIPR, Spanish acronym) is a PRAMS-like surveillance study carried out biennially by the MCH Division. In the 2004 survey, 1,004 women in the immediate post partum period were interviewed. The prevalence of tobacco use among pregnant women was calculated in the 2004 survey at 3.6%. Of the women who reported smoking at any point during pregnancy, 71.4% (20 women) continued to do so in the last trimester of pregnancy, distributed as follows: 57.1% smoked less than 10 cigarettes/day; 10.7% smoked 10-20 cigarettes/day; and one respondent (3.6%) reported smoking over 20 cigarettes/day.

The HVNs have continued implementing the smoking cessation program that was designed in 2001 under the sponsorship of AMCHP's Tobacco-Free Futures Mini-Grant. This project allowed us to convene a panel of experts in smoking cessation and education to design a comprehensive program for our pregnant smokers. The smoking cessation program is based on the USPHS Guidelines for Smoking Cessation and uses DiClemente and Prochaska's Transtheoretical Model as the basis for designing the most appropriate intervention. The HVN uses the "Perfil de la Participante," which is the instrument designed to collect information regarding smoking status, to determine addiction severity, susceptibility to change and level of motivation and support. The self-help diary "Mi Gran Decisión" is used as a complement to the HVN's intervention and is meant to guide the participant through a seven-day quitting process.

In addition to this program, HVNs stress the importance of avoiding environmental tobacco smoke (ETS) for those women who, although not smokers themselves, live or work in proximity to smokers.

Educational materials regarding both smoking and exposure to ETS are distributed in health fairs and other community education activities. In FY 2004-2005, a total of 257 educational activities on ETS and 392 educational activities on smoking prevention were performed, reaching more than 5,000 participants each.

#### Table 4a, National Performance Measures Summary Sheet

Activities	Pyramid Level of Servic		vice	
	DHC	ES	PBS	IB
1. Share information of the ESMIPR survey with concerned				Х
individuals.				
2. Screen HVP participants for tobacco use and provide	Х			
management according to the level of risk.				
3. Update providers' knowledge regarding screening and				Х
management of tobacco use during pregnancy.				
4. Include the topics of alcohol, tobacco and illicit drug use in			Х	
patient orientations.				
5. Disseminate educational materials on adverse effect of high			Х	
risk behaviors during pregnancy.				
6. Increase public awareness of poor birth outcomes associated			Х	
with risky behaviors.				
7.				
8.				
9.				
10.				

### **b.** Current Activities

In the revised birth certificate (2005), the question regarding cigarette use in pregnancy was reformulated to include number of cigarettes smoked in the three months before pregnancy and in each trimester. Preliminary data for 2005 reflect an extremely low reported rate of 0.4% in the 3 months before and 0.3% during each trimester. It is important to note that this information includes births through October 2005 only. The numbers revealed by the 2006 ESMIPR are somewhat higher, with 2.9% of respondents reporting having smoked at some point during pregnancy and 2.8% in the last trimester.

Please refer to SPM #3 for details of current activities that will also contribute to the attainment of this PM.

#### c. Plan for the Coming Year

Activities programmed for accomplishing SPM #3 will also have an effect on this PM. HVNs will continue to pay special attention to women who quit smoking during pregnancy to avoid a postpartum relapse. HVNs will continue to screen all Home Visiting Program participants for tobacco use and provide management according to the level of risk. CHWs will include the topics of alcohol, tobacco and drug use in educational activities and individual orientations during their interventions in the community. These topics will be covered in depth during the prenatal and parenting courses the MCH staff offer in their respective municipalities.

**Performance Measure 16:** The rate (per 100,000) of suicide deaths among youths aged 15 through 19.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)] Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	4.5	4	3.5	3	2.5
Annual Indicator	3.9	4.2	4.6	2.7	1.7
Numerator	12	13	14	8	5
Denominator	309926	309926	301435	299286	297309
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	1.5	1	1	1	1

**Tracking Performance Measures** 

#### Notes - 2005

Numerator: Office of Informatics and Technology Advances (OITA) of the Department of Health as of September 2005.

Denominator: Population estimates of the US Census.

#### a. Last Year's Accomplishments

The MCH Division held 21 educational activities and workshops on adolescent suicide and its prevention in the eight health regions. A total of 324 persons participated in the activities.

The MCH Division adopted the Positive Youth Development Model as the main strategy to prevent high risk behaviors including suicide and suicide attempts among adolescents in Puerto Rico. A project named "Reto y Esperanza: Healthy Puerto Rican Youth Development" has been implemented in collaboration with Rochester University, Cornell University Act for Youth and the Konopka Institute of Minnesota University. The main goal of the project is to develop a culturally appropriate Positive Youth Development curriculum for Puerto Rico. A Steering Committee was formed to develop the curriculum. The Committee has adult and youth representatives from 15 public and private agencies. It has met on nine occasions. The tasks completed during these meetings were: 1) developing a team work approach among members; 2) establishing youth-adult partnerships; 3) defining functions and tasks; 4) developing the project's organizational conceptual model; 5) receiving training on cultural competency; 6) developing a guide for curriculum review and 7) reviewing and evaluating 10 Youth Development curricula. A total of 217 persons participated in these meetings.

The Commission for Suicide Prevention of the Department of Health is comprised of representatives members from public and private institutions. The Commission developed a kit called "Para Salvar Vidas" (To Save Lives) mainly targeted at the adult population. The kit contains information on crisis intervention services, signs and behaviors associated with suicide in adolescents and adults, and ways to handle these situations. The Commission distributed 37,000 "Para Salvar Vidas" kits.

During the reporting period, the Commission for Suicide Prevention held the "Un Abrazo por la Vida" (A Hug for Life) activity in 70 public housing projects and the University of Puerto Rico. A total of 7,000 informational packets were distributed. During the month of December 2004 the Commission distributed 2,000 adolescent suicide prevention informational packets in the activity "Aguinaldo por la Paz" (A song for Peace), sponsored by the Department of Recreation and Sports, held in 70 public housing projects. In March 2005 the Commission participated in the "Conferencia de Calidad de Vida Escolar" (Conference on School Quality of Life) in the municipality of Carolina.

### Table 4a, National Performance Measures Summary Sheet

Activities	Pyram	nid Leve	el of Ser	vice
	DHC	ES	PBS	IB
1. Continue analyzing available VS and other sources of data on suicide by geographical areas.				Х
2. Establish a collaborative relationship among state agencies (Family, Education and Health) to address this issue within the public school system.				X
3. Increase teens and parents' awareness of the signs associated with suicide intention by distributing educational materials.			X	
4. Increase PRMCH capacity to address teen suicide by offering training to staff.			X	
5. Develop a train-the-trainer manual on Positive Youth Development.				Х
6. Train 12 adults and youths as Positive Youth Development educators.				Х
7. Coordinate and monitor 18 training sessions on Positive Youth Development to be offered by trained Positive Youth Development educators.			X	
8. Continue to distribute the "To Save Lives" kits through the Commission for Suicide Prevention.			Х	
9. 10.				

# **b.** Current Activities

The Comprehensive Adolescent Health Services Program (SISA) is currently developing a training module entitled: "Abracemos La Vida" (Embracing Life) targeted at adolescents. The main goal of the module is to provide adolescents with tools that will enable them to adopt healthy lifestyles and embrace life. It uses a holistic approach, therefore it addresses physical, psychological and social aspects. The module also deals with anxiety, depression and other factors that may contribute to suicidal behavior.

Six subcommittees have been established for the "Reto y Esperanza: Healthy Puerto Rican Youth Development" Project in order to develop the curriculum training modules. The total number of people participating in the subcommittees is 23. Each subcommittee is developing one training module. The modules are: I) Positive Youth Development and Health; II) Human Relations; III) Who Am I; IV) Building Partnerships Among Youth; V) Building Youth-Adult Partnerships; VI) Community Action in Youth Development.

The Comprehensive Adolescent Health Services program has established a collaborative relationship with the Administration of Mental Health and Anti-Addiction Services (ASSMCA, Spanish acronym) and the Commission for Suicide Prevention to implement strategies directed at preventing adolescent suicide behavior.

This year the Commission for Suicide Prevention conducted adolescent suicide prevention activities in 77 schools throughout Puerto Rico. The Commission has distributed 27,515 "Para Salvar Vidas" kits. It is collaborating with the University Pediatric Hospital to establish the Adolescent Suicide Epidemiological Surveillance Demonstration Project aimed at registering suicide attempts in the adolescent population in Puerto Rico. Other activities held by the Commission include: a) a presentation on adolescent suicide to 400 persons participating in a Congress sponsored by the San Juan Archdiocese of the Catholic Church ; b) adolescent prevention workshops in two public schools that were attended by 92 persons; and c) a media campaign in two radio stations and one television station.

## c. Plan for the Coming Year

The module "Abracemos La Vida" (Embracing Life) will be incorporated into the training program of the Youth Health Promoters of the Comprehensive Adolescent Health Services Program (SISA) in the eight health regions.

The curriculum on Positive Youth Development for Puerto Rico will be pilot tested and evaluated in four sites. A train-the-trainer manual will be developed to train six adult youth workers and six youth leaders as Positive Youth Development educators. It is expected that once trained, each adult will offer two trainings in their respective health care regions, while youths are expected to provide at least one.

Collaborative efforts with AMSSCA and the Commission for Suicide Prevention will continue. The SISA Regional Coordinators (Social Workers) will also be trained on suicide prevention and how to intervene in a crisis.

The Commission for Suicide Prevention led by the Department of Health will be commemorating the National Suicide Prevention Week on August 6-12, 2006. A conference on Suicide Prevention will be offered on August 11, 2006. The Commission will continue distributing the "To Save Lives" kit and other informational packets on the topic of adolescent suicide prevention.

**Performance Measure 17:** Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)] Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	76	77	78	79	55
Annual Indicator	70.9	66.1	41.8	45.5	42.4
Numerator	526	494	299	340	197
Denominator	742	747	716	747	465
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	45	47	49	51	53

Tracking Performance Measures

### Notes - 2005

A panel of experts in neonatology of the Pediatric University Hospital provided a list of Level II and Level III NICUS available in the Island. Only four (4) level III NICUS were identified and are located at:

1) Pediatric University Hospital (PR Medical Center), 2) Municipality Hospital of San Juan (also located at the PR Medical Center - San Juan), 3) Hospital Auxilio Mutuo (San Juan), and Hospital Interamericano de Medicina Avanzada (Caguas).

Preliminary birth data for 2005 provided by the Office of Informatics and Technology Advances (OITA) of the Department of Health.

### Notes - 2004

A panel of experts in neonatology of the Pediatric University Hospital provided us with a list of Level II and Level III NICUS available in the Island. Only four (4) level III NICUS were identified and are located at:

1) Pediatric University Hospital (PR Medical Center), 2) Municipality Hospital of San Juan (also

located at the PR Medical Center - San Juan), 3) Hospital Auxilio Mutuo (San Juan), and Hospital Interamericano de Medicina Avanzada (Caguas).

## Notes - 2003

Data for this performance measure is provided by ODSI. They inform us the number of VLBW babies born by facility across the Island. We identify the number of facilities which may comply with the criteria for Level III. The explanation that we have for the wide variation of the percentage of LBW babies born at Level III facilities across the years is that some facilities may provide level III services in one year and not in another. Also, as a result of the implementation of the Health Care Reform, the low income population may choose the facilities where they want to go for delivery. This situation results in very wide changes not only in the number of births per facility from year to year, but also where the VLBW babies are delivered. This information is important to provide appropriate information to pregnant women at risk of preterm delivery.

# a. Last Year's Accomplishments

Data related with the place of birth for VLBW babies from 2001 to 2003 was analyzed. The analysis of VLBW infant survival revealed that 42% of the births occurred in Level III facilities, while 58% occurred in level I (basic) or Level II (specialized) facilities. Approximately 60% of VLBW deaths occurred in babies delivered in Level I or II facilities, while 40% had been delivered in Level III facilities. VLBW infants born in Level I and II hospital facilities had a greater risk of dying (Adjusted HR=1.03), although the small increase observed was not statistically significant (p=0.748). In this study, it must be considered that facilities.

The percentage of VLBW infants delivered in facilities prepared to manage high risk deliveries and neonates was 45% in 2004. Preliminary estimates for 2005 revealed that 42.4% of VLBW deliveries occurred in the appropriate facility.

HVNs routinely assess their clients for risks associated with premature delivery. They provide appropriate education/counseling regarding the signs and symptoms associated with premature labor and information regarding the closest birthing facility providing Level III perinatal services.

In addition, 60,000 culturally sensitive magnetic boards containing information aimed at creating awareness on this issue were distributed to health care providers and community members.

In November 2004, in collaboration with the PR Chapter of March of Dimes, the Prematurity Awareness and Prevention Day was celebrated and widely covered by radio, TV and newspapers of wide circulation. The MCH staff made two presentations regarding the most recent data concerning the Maternal and Infant Health Status, and the impact of maternal smoking behavior on LBW and maternal-child health.

During FY 2004-2005, Home Visiting Nurses and Community Health Workers were trained as "Comenzando Bien" curriculum facilitators. This curriculum emphasizes the importance of reducing the risk of prematurity.

The MCH Community Health Workers distributed educational material and offered 391 group activities on the subject of signs and symptoms of premature labor to 4,710 participants across the Island during FY 2004-2005. Likewise, 99 group orientations regarding where to seek emergency assistance in case premature labor ensues were offered, reaching 1,830 persons.

### Table 4a, National Performance Measures Summary Sheet

Activities	Pyram	Pyramid Level of Service		/ice
	DHC	ES	PBS	IB
1. Educate pregnant women on the risks of preterm delivery and			Х	

where to go in case of an emergency.			
2. Disseminate educational materials explaining signs and symptoms of PTB.		Х	
3. Analyze place of birth and outcome of all VLBW infants born in 2004.			Х
4. Disseminate findings of activity #3 among obstetricians and neonatologists.			Х
5. Provide training courses related to management of obstetric emergencies among health care professionals.			Х
6. Promote public policy that requires the use of a prenatal card with pertinent information to be carried at all times by pregnant women.			Х
7. Re-evaluate hospital facilities by levels of care, according to the new Guidelines for Perinatal Care, Fifth Edition.			Х
8.			
9.			
10.			

# **b.** Current Activities

Home Visiting Nurses and CHWs have continued educating pregnant women on the signs and symptoms of preterm delivery and providing them with information regarding the Level III facilities closest to them.

A Maternal Mortality Surveillance System and a Maternal Mortality Review Committee have been established. After reviewing the causes of maternal deaths identified by the surveillance system, the need to provide training related to early identification and appropriate management of obstetric emergencies has been identified. To fulfill this need, we are planning to provide a three-hour CME course on this topic to ER physicians and nurses. The PR Healthy Start Project will be offering this training. A proposal to the Office of Women's Health was submitted to co-sponsor these trainings and, if approved, will allow us to increase the number of providers that will attend the trainings. The health insurance companies have voiced their willingness to help us identify physicians who work in the emergency rooms and therefore could benefit from attending these trainings. We are currently involved in the process of identifying the speakers and determining all the logistical details. One of the main messages to be included during the training will be the need to expedite the transfer of pregnant women at risk of delivering a VLBW infant to the nearest Level III facility prior to delivery. We plan to provide these trainings to approximately 200 physicians island wide.

Our Division is also promoting the adoption of a public policy that will require pregnant women to carry a prenatal card with them at all times. This card will include relevant prenatal care data. Among the information to be included in the card are: laboratory test results, BP, weight, presence or absence of proteinuria, existing medical conditions and treatment received. This card should be made available to the ER physician. Having this information in hand should facilitate their early identification of high risk pregnancies and their prompt referral to a level III facility for further evaluation and treatment prior to delivery.

### c. Plan for the Coming Year

The hospital facilities in Puerto Rico will be re-classified as basic care (Level I), specialty care (Level II), and sub specialty care (Level III), according to the new Guidelines for Perinatal Care, Fifth Edition. Once hospitals are classified into these categories, the descriptive analysis will be repeated in order to identify the outcome of the baby according to the place of birth. The findings of this study will be shared with perinatal providers and executive directors of birthing facilities across the Island.

For the coming year, a series of training courses related to the management of obstetric emergencies, such as early identification of signs and symptoms of premature labor, will be given to physicians and nurses working in the ER. The courses will create awareness among health care providers about the importance of transferring women with a threat of premature labor to Level III facilities prior to delivery.

We will continue to educate pregnant women to recognize the early signs and symptoms of premature delivery. In addition, we will stress the importance of knowing where the closest Level III facilities are located so they will know where to go for an obstetrical evaluation in case premature labor signs and symptoms appear.

**Performance Measure 18:** Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	82	83	84	85	86
Annual Indicator	79.1	80.9	82.1	83.2	78.4
Numerator	44275	42771	41728	42594	26217
Denominator	55983	52871	50803	51223	33441
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	87	88	89	90	91

**Tracking Performance Measures** 

### Notes - 2005

Data for 2005 is provisional. As a result of the change in the birth certificate, the way this information is asked of the woman changed. The previous version of the Birth Certificate asked the month of pregnancy when she began prenatal care. The new version asks the woman the date when she began prenatal care.

Over 3,000 women did not answer the question and were treated as missing values for this variable in particular. The reported number reflects the proportion of women who provided an answer for the question.

### a. Last Year's Accomplishments

Early prenatal care is one of the most cost-effective public health strategies. Therefore, the MCH Division continues to promote early PNC throughout PR. In 2004, 64.4% of women who delivered a live infant received prenatal care financed by the Government Insurance Plan. Approximately 35.3% had private health insurance and only 1.2% had no health plan. However, having medical insurance did not mean they enter prenatal care early. Vital Statistics for 2004 revealed that 83.4% of live births in PR were delivered to mothers who had initiated prenatal care during the first trimester of pregnancy. This represents an improvement from the 77.8% reported for 2000. However, we continue increasing our efforts in an attempt to reach our 2010 Healthy People objective set at 86%.

In 2005, the MCH Division conducted a study to identify factors that contribute to women entering prenatal care late or not receiving any care at all. The information was gathered from a self-administered questionnaire completed by women in the postpartum wards of 33 hospitals or in Registrar's Office. Only women who had no PNC or had initiated PNC after 13 weeks gestation were selected. A total of 265 participants completed the questionnaire. Among them, 96.6% had entered PNC during the second or third trimester of pregnancy, while 3.4% had had no PNC. Most participating women were single, low-income, unemployed and had the GIP. The main barriers they identified were either personal or related to the health care system. Some of the

barriers were: not knowing they were pregnant (64.7%); lack of health insurance at time of conception (21.1%); fear of notifying parents of their pregnancy (15.8%); transportation problems (9.8%), and long waiting period (one to more than 4 weeks) for the first prenatal evaluation after first requesting the service (41.5%). The results of this study were presented at the 11th Annual MCH Epidemiology Conference in December 2005 in Miami, FL.

To further increase awareness of the importance of entering PNC early, in FY 2004-2005 CHWs offered 1,007 group educational activities island wide. A total of 4,710 persons took part in them. Educational material promoting early prenatal care was distributed at group interventions.

We continually stress the importance of entering prenatal care in the first 12 weeks of gestation. We have established as the number one priority for CHWs to identify pregnant women who have not initiated prenatal care and facilitating their prompt enrollment into prenatal care. We have noted a disparity regarding the early PNC indicator between the adult and the adolescent population. While in 2004, 85.4% of women over 20 entered PNC during the first trimester, only 70.6% of those in the 15-17 age range and 62% of those 10-14 years of age had entered prenatal care in the first trimester.

Activities	Pyram	Pyramid Level of Service		
	DHC	ES	PBS	IB
1. Continue increasing public awareness of the importance of			Х	
early and regular prenatal care.				
2. Provide free comprehensive prenatal care to pregnant women	Х			
with incomes 200% below the poverty level.				
3. Carry out outreach activities aimed at identifying pregnant		Х		
women with no prenatal care and enrolling them into prenatal				
care.				
4. Encourage preconceptional care and family planning during	Х			
HVN interventions with participating families.				
5. Disseminate results of the study to identify reasons for late or				Х
no prenatal care and of the ESMIPR 2006 to key stakeholders.				
6. Disseminate current public policy requiring admission of a				Х
pregnant woman to PNC services upon request and obtain				
endorsement from the Secretary of Health and the ASES				
Executive Director.				
7. Enforce compliance with this policy (#7).				Х
8. Evaluate impact of the newly revised birth certificate on				Х
maternal and infant health indicators including early prenatal				
care.				
9.				
10.				

# Table 4a, National Performance Measures Summary Sheet

# **b.** Current Activities

Currently, most of the activities mentioned in the previous section continue. The 2006 PRAMSlike study (ESMIPR, Spanish acronym) data collection phase has ended and the analytic phase is in progress. Data regarding entry into prenatal care initiation is included in this study. Results will be available this fall.

Recently we have been devoting our efforts towards eliminating age-related disparities in early PNC rates. A more in-depth analysis of data obtained from the survey performed to identify barriers to early PNC has helped us identify the barriers adolescent face when attempting to enter PNC. The main barrier they encounter is trying to get a serological test to confirm their

pregnancy. This is crucial, since this test is required to enroll in the GIP. To facilitate this process we have devised a protocol that establishes the steps that must be followed when managing adolescents who suspect a pregnancy. It establishes a mechanism that enables them to get the test performed and subsequently obtaining the GIP in the least amount of time possible. This protocol was endorsed by the Secretary of Health. Currently, we are in the process of meeting with representatives from ASES and the health insurance companies that provide GIP services and establishing the logistics that will allow us to implement the protocol. Key in the negotiations process has been sharing with them the results of the late entry into PNC study and the results of the statistical analysis that documented age related disparities in early PNC rates. Health Insurance Companies Medical Directors have agreed with us that difficulties in obtaining the serological test should not constitute a barrier to enrollment in the GIP and receiving PNC services.

The Monitoring and Evaluation Section of the MCH Division has performed a preliminary analysis of data obtained from the revised birth certificate implemented in January 2005, to determine this indicator. The analysis of data provided by the Office of Informatics and Technological Advances for the period of January through October 2005 revealed that only 78.4% of 32,368 live births reported had initiated prenatal care in the first trimester of pregnancy.

#### c. Plan for the Coming Year

The MCH Program will continue its efforts to increase the level of awareness among all sectors of our society and key stakeholders of the benefits of initiating prenatal care as soon as possible during the first trimester and the need to eliminate barriers to accomplish this goal. To eliminate age related barriers we will promote the implementation by ASES and health insurance companies providing services to the GIP insured population of the protocol for managing adolescents who suspect they might be pregnant.

The MCH staff will continue to promote the importance of early prenatal care during outreach events and in activities held at the community level. Particular emphasis will be given to disseminating information on the early signs and symptoms of pregnancy and the need to visit a prenatal care provider as soon as a pregnancy is suspected. This is of particular importance to us since the main reason given for late entry to prenatal care by those participating in the survey was not being aware of their pregnancy. Depending on the availability of funds, posters and brochures to disseminate information regarding early signs and symptoms of pregnancy will be reproduced and distributed. Our MCH staff will disseminate the findings of the late entry to PNC study to key stakeholders and encourage them to establish strategies to increase the level of awareness among their clients of the early signs and symptoms of pregnancy and the need to enter PNC early.

CHWs will continue to identify pregnant women with no prenatal care and facilitate their entrance into PNC as soon as possible. MCH staff will facilitate access to PNC for all pregnant women they come in contact with. In addition they will empower women to demand receiving PNC as soon as they request it.

We will monitor compliance with the public policy that establishes all pregnant women should be enrolled into PNC immediately after they request the service. Information regarding the existence of this policy will be shared with prenatal care providers in the Island.

The State System Development Initiative (SSDI) will evaluate the impact of the implementation of the revised birth certificate in 2005 on health status indicators.

# **D. State Performance Measures**

**State Performance Measure 1:** The number of HIV positive pregnant women treated with AZT.

**Tracking Performance Measures** 

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)] Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	100	100	100	100	100
Annual Indicator	97.4	94.2	95.7	82.5	93.2
Numerator	74	81	67	66	69
Denominator	76	86	70	80	74
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	100	100	100	100	100

#### Notes - 2005

Data provided by the Pediatric HIV/AIDS program.

#### Notes - 2004

Data provided by the Pediatric HIV/AIDS program.

#### Notes - 2003

Data provided by the Pediatric HIV/AIDS program.

### a. Last Year's Accomplishments

Providing services to HIV positive pregnant women has been a priority for the PRDoH. In 1994, a public policy was established that required HIV-positive pregnant women identified by testing on a voluntary basis should be counseled and offered therapy with AZT. To ensure these women were treated according to established guidelines, the Perinatal HIV Guidelines were distributed to health insurance companies providing care under the HCR. Compliance with these guidelines was included as part of their contracts. In addition, they were required to disseminate this information to their health care providers.

Since 2002 a pilot project has been implemented in UPR Carolina Hospital. This project provides rapid HIV testing to women in labor who don't have evidence of their HIV status. To date, 159 patients have been screened by the project. During CY 2005, this pilot project offered rapid HIV testing to 17 women in the labor and delivery room who had no evidence of prenatal screening; none were found HIV positive. Unfortunately, they were unable to screen more women because testing material became unavailable.

The MCH Division and Perinatal HIV/AIDS Prevention Programs continue to collaborate to ensure all pregnant women who agree are tested to determine their HIV status. During CY 2005, 74 pregnant women were identified as HIV positive. Among them, 69 (93.2%) were treated with antiretroviral medications. Of the 44 infants tested, only two infants were found to be HIV positive.

HIV/AIDS prevention continues to be covered in educational activities held at the community level. During 2005, the Perinatal HIV/AIDS Prevention Program coordinated 63 outreach activities throughout the Island. A total of 1,419 persons participated of these activities; among them, 592 were women of reproductive age.

CHWs from the MCH Program offered information related to HIV prevention and treatment of HIV+ pregnant women on 79 occasions, reaching 1,266 participants across the Island during FY

2004-2005.

Prenatal education and counseling on HIV prevention was offered to women participating in the HVP (6,356) during CY 2005. Those who had not been screened were referred for testing.

The MCH Program is aware of the importance of increasing the skills of our staff in the area of HIV/AIDS prevention. On June 3, 2005, St. Francis Xavier University of New Jersey sponsored a training activity on prevention and treatment of Perinatal HIV/AIDS, with the collaboration of the PRDoH and other partner groups. Twenty-nine Home Visiting nurses and perinatal nurses from our MCH Program participated in this activity.

During CY 2005, the Perinatal HIV/AIDS Prevention Program carried out seven training activities for health care providers. A total of 316 persons participated. One of these trainings was a closed-circuit interactive educational program for the PRDoH staff at the regional level.

Table 4b, State Performance	Measures Summary Sheet
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Activities	Pyram	nid Leve	el of Ser	vice
	DHC	ES	PBS	IB
1. Provide orientation regarding the importance of HIV testing to		Х		
participants of Home Visiting Program.				
2. Offer continuing education on universal prenatal HIV				Х
screening and follow up to health providers.				
3. Continue providing pre-counseling, testing and treatment to			Х	
HIV positive pregnant women on a voluntary basis.				
4. Promote the establishment of public policy to provide quick				Х
HIV testing for pregnant women without evidence of screening				
and adequate treatment of those HIV positive at all hospitals in				
the Island.				
5. Share results of data of perinatal HIV testing and treatment				Х
with key health providers.				
6. Disseminate educational material about perinatal HIV			Х	
prevention at the community level.				
7. Seek and promote the collaboration of the Health Reform				Х
administrative section to obtain important data to monitor				
compliance with the perinatal health care guides related to HIV				
screening.				
8. Promote the use of the patient's prenatal information card to			Х	
assure that all pregnant patients are screened for HIV according				
to the perinatal care guides.				
9.				
10.				

### **b.** Current Activities

The following activities represent our continued efforts during this period:

The MCH Program has supported the Perinatal HIV/AIDS Prevention Program's efforts to establish and implement a public policy requiring rapid HIV testing for all pregnant women whose HIV status is unknown in the labor and delivery room. This strategy will minimize intrapartum HIV transmission. To reduce the need to perform this test, the MCH Division is also promoting the adoption of a public policy that requires pregnant women carry a prenatal card with them at all times. This card will include relevant prenatal care data, including HIV test results.

Women participating in HVP have continued receiving individual prenatal education on HIV/AIDS prevention, and those with positive results have been referred for evaluation and treatment.

Currently, two HIV positive women are receiving services by the MCH program. CHWs have continued to offer educational activities and distribute material on perinatal HIV/AIDS prevention across the Island.

The PR Conference on STDs and HIV/AIDS, sponsored by CDC, was held in November 2005. The activity main goal was to present health care providers updated treatment guidelines for HIV and STDs. The MCH Ob-Gyn Consultant was a guest speaker during the activity. She presented the results of a study performed by the MCH Program regarding late entry into prenatal care. She stressed the importance early PNC has in the identification and treatment of conditions such as HIV, syphilis, GC, chlamydia and other STDs.

The Perinatal HIV/AIDS Prevention Program has joined MCH Division Staff in their efforts to eliminate age-related disparities for early PNC. Both programs have been meeting with representatives from ASES and the health insurance companies providing GIP services to develop a plan for reducing these disparities. During the meetings the need to establish universal rapid HIV testing for women with unknown HIV status in the delivery room has been discussed and the possibility of including rapid HIV testing as part of the GIP health coverage entertained.

The STD/HIV/AIDS Prevention and MCH Divisions have established an MOA for the purpose of preventing secondary HIV cases

#### c. Plan for the Coming Year

Our efforts to identify HIV positive pregnant women early and provide them AZT treatment will continue. The MCH Division will support the Perinatal HIV/AIDS Prevention Program's efforts to identify pregnant women with unknown HIV status and providing them prenatal HIV testing or the rapid HIV test in the delivery room. The MCH staff will also support their efforts to establish a public policy that will make rapid HIV testing available in all birthing centers in Puerto Rico. In addition, we will support a policy that will require pregnant women to carry a prenatal card containing key health information (such as HIV status) at all times. In addition, we will continue to promote the public policy that provides for adequate evaluation, counseling and treatment of all HIV positive pregnant women throughout the Island. Adopting these public policies will allow us to comply with recommended HIV perinatal care guidelines.

Women participating in the HVN program will receive one-to-one prenatal education on the subject of HIV prevention. They will be encouraged to get tested and to receive treatment if the test is positive.

In collaboration with the health insurance companies, CME activities for primary health providers on the subject of universal prenatal HIV screening and treatment will be provided throughout the Island.

CHWs will continue to raise awareness on the issue of perinatal HIV prevention during their participation in activities at the community level. They will reinforce the message by distributing educational materials pertinent to the topic.

The Perinatal HIV/AIDS Prevention Program and the MCH Division will request from ASES the data required to evaluate compliance with established perinatal health care guides regarding HIV screening.

**State Performance Measure 2:** *Establish a Home Visiting program in at least 90% of the Island by the year 2,010.* 

Tracking Performance Measures

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	95	95	95	95	95
Annual Indicator	87.2	92.3	85.9	94.9	94.9
Numerator	68	72	67	74	74
Denominator	78	78	78	78	78
Is the Data Provisional or Final?				Final	Final
	2006	2007	2008	2009	2010
Annual Performance Objective	95	95	95	95	95

### Notes - 2005

Reported data as of December 31, 2005. MCH Division of the PR Department of Health.

#### Notes - 2003

Reported data as of December 31, 2003.

#### a. Last Year's Accomplishments

The core service program of the Puerto Rico Title V program is the Home Visiting Program. Its target population consists of pregnant women, women in the inter conceptional period up to 24 months after birth, and children up to 2 years of age with complex health and social problems. By the end of calendar year 2005, 103 Home Visiting Nurses (HVNs) were providing services in 74 out of 78 municipalities (95% coverage) and 81 Community Health Workers (CHW) were assigned to 63 municipalities.

The HVNs and CHWs participated in various continuing education activities sponsored by the PR Healthy Start Project and Title V to continue to develop their professional capacity to deliver quality services to the population. The topics covered in the in-service training sessions were Strategies for Community Work, The Interview Process, Crisis Intervention, HIPAA Applied to Public Health, Child Abuse, Nutrition in Pregnancy and the First Two Years of Life, and Diabetes in Pregnancy.

During this period, 6,356 families received home visiting services. In addition, the HVNs and CHWs reached over 253,651 persons in the community through group orientations on diverse topics related to maternal and child health. The CHWs identified 2,228 pregnant women in the community who were not connected with the existing system of perinatal care. They were given the necessary referral to ensure they received prenatal care, WIC and any other needed services. Some of these women were admitted to the HVP, according to their need, risk factors and the caseload of the HVN in the corresponding municipality. If the woman did not qualify for the HVP or could not be admitted for any reason, the CHW's intervention at least ensured that she would receive the medical, social and other support services she needs. The CHWs maintain an extensive directory of resources that exist in the community and how to access them, which they share with the HVNs to facilitate the referral and care coordination efforts.

Activities	Pyramid Level of Servic						
	DHC	ES	PBS	IB			
1. Continue offering home visiting services for at-risk pregnant and parenting women.		Х					
2. Offer continuing education activities for HVNs and CHWs to enhance their professional capacity.				Х			
3. Develop a multi-tiered risk factor assessment system for women and children 12-24 months after birth.				Х			
4. Redesign the case assignment system for HVNs to reflect the				Х			

# Table 4b, State Performance Measures Summary Sheet

risk level of participants.		
5. Continue data collection, analysis and evaluation activities.		Х
6.		
7.		
8.		
9.		
10.		

# **b.** Current Activities

HVNs continue to provide case management/care coordination services to pregnant, parenting women and children for up to 24 months. According to Healthy Start guidelines, emphasis is given to increasing the use of preventive services, including early admission to prenatal care, regular pediatric and women's health visits to primary providers, and adequate immunizations; screening for behavioral risk factors and maternal depression and addressing women who are at risk or engaging in risk behaviors through educational interventions by the HVNs or referrals to treatment services available in the community; and promoting family planning, contraceptive use and an inter conceptional period of at least 24 months after birth. HVNs have a caseload of 50 families. This allows them enough time to ensure quality services for each family.

CHWs will continue to carry out outreach activities to identify pregnant women and children not connected to the health care system. They refer potential participants to the HVP or to services available in the community, according to their needs and the capacity of the local HVN to admit new cases. They will also continue to assist HVN in their interventions, offering follow up to clients when required.

During the current year HVNs and CHWs will again receive continuing education on MCH topics. The focus of the training is on identifying and managing those risk factors that have the greatest impact on preterm births, LBW and other poor birth outcomes.

As of June 2005, there are 109 HVNs working in 74 of the 78 municipalities in PR (95%).

Between 1997 and 2006 the Healthy Start Project covered all 78 municipalities in PR, supporting the work of the HVNs and CHWs through training, supplying educational materials, data collection and evaluation. However, the guidance for the current funding cycle (2006-2010) required an IMR greater than 10.58 for the period 2000-2002. The IMR in PR for that period was 9.6, leading us to limit the PRHSP to 34 municipalities comprising the southern part of the Island, where the IMR for the period was 11.2, compared with 8.7 for the northern part.

The collaboration between Title V and the PRHSP continue to be an asset and has allowed the continuation of the core home visiting and outreach services in municipalities outside the current PRHSP area. However, our efforts will focus on identifying factors associated with the higher observed IM in the South and implementing strategies to improve MCH indicators in this area.

In 2005 we assumed responsibility for the HVP for the Municipality of San Juan (MSJ). This is being done through a collaborative effort. Title V funds the salaries of the MCH staff, and the MSJ provides office space in the MSJ Health Centers. Two HVNs and 1 CHW provide services to the MCH population in SJ. The staff participates in training activities for HVNs and CHWs to ensure they provide the same level of service and follow the established care protocols.

### c. Plan for the Coming Year

The HVP will continue to provide services in all municipalities where we have staffing. In order to maximize our human resources we are in the process of revising our HVN case loads. We will evaluate establishing a multi-tiered service system based on an analysis of risk factors the inter conceptional group of participants present. Women who are 12-24 mo. postpartum and their

children will be assessed for risk factors and assigning to an intervention category depending on their risk level. This level will determine the frequency and intensity of the home visits and other services. This system will enable us to assign a greater number of families to each HVN (currently 50 families per nurse), as families in lower risk categories can receive a lower intensity of services. The quality of services and their impact on the health and well being of pregnant women, their infants and families will be closely monitored during the year to ensure that this model serves the needs of our participants.

Community Health Workers will continue to carry out outreach activities to identify pregnant women and children who are not connected to the health care system, as described in the previous section.

Filling the vacant HVN positions or adding more nurses to areas with high need will be difficult in the coming years due to financial constraints. On the one hand, Title V funds have been cut back, and the projection for next year seems to be for further cuts. On the other hand, a law recently implemented in Puerto Rico grants all nurses in the public and private sectors a salary increase. In addition, the PRDH commissioned a personnel classification study to bring the existing human resources job descriptions and salary scales up to date. The implementation of this structure has been postponed several times, but it is expected to be put into effect as soon as the fiscal situation permits it. It will likely have a major economic impact on the Title V budget line for salaries and benefits. We estimate it will increase the budget devoted to HVN salaries by one million dollars. Every effort will be made to maintain the current staffing levels in order to comply with this PM and to ensure that our mothers, children and families receive the support, education and care coordination services they require.

We are in the process of assessing HVN training needs. Once concluded we will be able to include these topics in their future CME trainings.

State Performance Measure 3: Prevalence of tobacco use among pregnant women

Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)] Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	3.5	3	2.5	2	1.5
Annual Indicator		4.1	2.8	3.6	2.9
Numerator		94	18	36	51
Denominator		2310	636	1004	1738
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	1.5	1.5	1.5	1.5	1.5

#### **Tracking Performance Measures**

#### Notes - 2005

Data collected through the PRAMS like survey conducted in 2006. MCH Division of the Puerto Rico Department of Health.

#### Notes - 2004

Data collected through the PRAMS like survey conducted in 2004.

#### Notes - 2003

The data for this PM is obtained from a biennial customized PRAMS-like survey (ESMIPR). This survey is administered to recent mothers in postpartum wards. This year (2004) the questionnaire had to be submitted for review and approval to the IRB and HIPAA Committees of the School of Medicine. Unfortunately, it took four months to obtain the final authorization of both

committees. Currently we are in the process of collecting the data from a representative sample of 1000 cases in 28 birthing hospitals. Provisional data is provided.

#### a. Last Year's Accomplishments

The MCH Division of the PRDoH conducts a PRAMS-like surveillance study, the "PR Maternal and Child Health Study" (ESMIPR, Spanish acronym) biennially. For the survey conducted in 2004, 1,004 women in the immediate post partum period were interviewed. The prevalence of tobacco use among pregnant women was calculated in the 2004 survey at 3.6%, significantly higher than the 1.0% reported by Vital Statistics (2001). Low birth weight is the number one cause associated with IM in PR. It has been scientifically corroborated that women who smoke are at a higher risk of having a LBW infant.

The HVNs have continued implementing the smoking cessation program that was designed in 2001 under the sponsorship of AMCHP's Tobacco-Free Futures Mini-Grant. This project allowed us to convene a panel of experts in smoking cessation and education to design a comprehensive program for our pregnant smokers. The smoking cessation program is based on the USPHS Guidelines for Smoking Cessation and uses DiClemente and Prochaska's Transtheoretical Model as the basis for designing the most appropriate intervention. The HVN uses the "Perfil de la Participante," which is the instrument designed to collect information regarding smoking status, to determine addiction severity, susceptibility to change and level of motivation and support. The self-help diary "Mi Gran Decisión" is used as a complement to the HVN's intervention and is meant to guide the participant through a seven-day quitting process.

In addition to this program, HVNs stress the importance of avoiding environmental tobacco smoke (ETS) for those women who, although not smokers themselves, live or work in proximity to smokers.

Educational materials regarding both smoking and exposure to ETS are distributed in health fairs and other community education activities. In FY 2004-2005, a total of 257 educational activities on ETS and 392 educational activities on smoking prevention were performed, reaching more than 5,000 participants each.

Activities	Pyramid Level of Service			vice
	DHC	ES	PBS	IB
1. Share information of the ESMIPR survey with concerned				Х
individuals.				
2. Screen HVP participants for tobacco use and provide		Х		
management according to the level of risk.				
3. Increase providers' knowledge of screening and management				Х
of tobacco use during pregnancy.				
4. Include the topics of alcohol, tobacco and illicit drug use in			Х	
patient orientations.				
5. Disseminate educational materials on adverse effect of high			Х	
risk behaviors during pregnancy.				
6. Increase public awareness of poor birth outcomes associated			Х	
with high risk behaviors.				
7.				
8.				
9.				
10.				

#### Table 4b, State Performance Measures Summary Sheet

#### **b.** Current Activities

In the revised birth certificate (2005), the question regarding cigarette use in pregnancy was reformulated to include number of cigarettes smoked in the three months before pregnancy and in each trimester. Preliminary data for 2005 reflect an extremely low reported rate of 0.4% in the 3 months before and 0.3% during each trimester. It is important to note that this information includes births through October 2005 only. The numbers revealed by the 2006 ESMIPR are somewhat higher, with 2.9% of respondents reporting having smoked at some point during pregnancy.

Home Visiting Nurses continue reporting the smoking status of their HVP participants. In calendar year 2005, 35% of our pregnant HVP participants reported smoking during the current pregnancy. The HVNs provided smoking cessation interventions following the Smoking Cessation protocol. Of the women who were identified as smokers, 80% complied with the smoking cessation intervention and reduced or discontinued their smoking practices. Culturally appropriate material is distributed at the community level and among HVP participants. In addition, the effects of high risk behaviors, including smoking, on the fetus is the topic of one of the two-hour sessions included as part of the "Comenzando Bien" Prenatal Curriculum. In 2005, 106 courses were held, with a total attendance of 2,230 participants.

In December 2004, the Department of Health established an island-wide toll free smoking quit line. From July to December 2005, the quit line assisted 544 smokers, of whom 156 (45.3%) are women. Unfortunately, the quit line still does not ask women for pregnancy status.

A training session was held in January 2006 for approximately 30 HVNs who had been recruited since the previous training was offered. It included the effects of tobacco use during pregnancy and how to implement the smoking cessation intervention.

The inter agency Tobacco Coalition continues its dissemination activities. It publishes an informational bulletin that goes out to providers and interested parties several times a year.

#### c. Plan for the Coming Year

The extremely low rate of smoking reported in the birth certificate is a matter of concern. Steps must be taken to identify possible reasons, whether the forms are incorrectly filled out by the reporting personnel, incorrectly coded, or if the question does not elicit an accurate response from the mother.

HVNs and CHWs will continue to promote smoking cessation among all those they come in contact during their daily activities in the community. HVNs will continue to screen all Home Visiting Program participants for tobacco use and provide management according to the level of risk. CHWs will include the topics of alcohol, tobacco and drug use in educational activities and individual orientations during their interventions in the community. These topics will be covered in depth during the prenatal and parenting courses the MCH staff offer in their respective municipalities.

#### State Performance Measure 4: The birth rate among girls 10-14 years of age

Tracking	Performance	Measures
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Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	2	2	2	2	1.1
Annual Indicator	1.7	1.7	1.2	1.5	0.9
Numerator	255	257	182	216	138

Denominator	149536	149536	149078	148916	148460
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	1	1	1	1	1

#### Notes - 2005

Numerator: Preliminary data from Office of Informatics and Technology Advances (OITA) of the Department of Health as of September 2005.

Denominator: Population estimates of girls 10-14 made by the US Census.

#### a. Last Year's Accomplishments

Preliminary data from the OITA reveal the birth rate for teens 10 to 14 years of age was 0.9 per 1,000 in 2005. The MCH program continued providing contraceptives to GIP participants, including teens. They were distributed to 202 females under 15 years of age in 5 regions. Our staff offered 2,188 interventions on teen pregnancy prevention, sexuality education and self esteem to 39,665 participants. A total of 761 groups (7,482 participants) received sexual abstinence information.

The PR Abstinence Education Program (PRAEP) sponsored activities reaching 61,283 participants. A total of 391 public schools in 62 towns participated in PRAEP activities. Among them were the "Sex Can Wait" Curriculum, extracurricular and peer group activities, including a parade; two poster contests; summer camps and workshops, one for hearing-impaired teens. Other activities directed at adults were parent workshops, educational activities, teacher trainings and conferences. The Institute for Youth Development and the DoH offered the First Abstinence Education Forum.

A committee was established to develop the "Crianza con Amor" curriculum, to teach teen parents positive parenting skills and prevent repeated pregnancies. The "Healthy Beginnings" project grant trained 73 MCH staff as "Comenzando Bien" facilitators. They provided 106 workshops to 2,230 women, including pregnant teens.

The Comprehensive Adolescent Health (SISA) Program adopted the Positive Youth Development (PYD) model as the main strategy to prevent high risk behaviors including teen pregnancy. HRSA awarded Rochester University a CE Grant to develop the "Reto y Esperanza: Healthy Puerto Rican Youth Development" Project in collaboration with Cornell University, ACT for Youth, Konopka Institute and the SISA Program. Its goal is to develop a culturally appropriate PYD curriculum and a Train the Trainer Guide. A Steering Committee composed of youth and adult representatives from 15 public and private agencies held nine meetings to start the project.

The 2005 theme for March, Teen Pregnancy Prevention Month activities was "Conexión es Protección". It stressed the importance of connectedness for teen pregnancy prevention. Three teens and two adults from the SISA Program participated in a forum on this topic that was shown in public regional hospitals via satellite feed. In March 2005, the 582 SISA Peer Youth Health Promoters held 61 teen pregnancy prevention activities reaching 6,964 teens in 40 schools. During the school year they coordinated and participated in 250 Positive Youth Development activities reaching 11,200 students and adults in 40 middle schools in 21 towns. The first High School Youth Health Promoters' Group started in Camuy.

The PR Juvenile Justice and the DoH joined efforts to develop a Youth Health Promoters Initiative in two juvenile justice centers. The Casey Foundation, Naranjito Teen Program and PR Title V collaborated to develop the "Plain Talk/Hablando Claro" Demonstration Project in PR.

Table 4b, State Performance Measures Summary Sheet				
Activities	Pyram	id Leve	l of Serv	vice
	DHC	ES	PBS	IB

1. Continue the qualitative study about teen pregnancy in			Х
Bayamón.			
2. Continue the organization of the Positive Youth Development			Х
Initiative for Puerto Rico. Develop a culturally competent			
curriculum and a train-the-trainer manual.			
3. Continue the Abstinence Only Education Program PRAEP		X	
with the Department of Education to provide curriculum and			
activities to students during FY 2006-2007.			
4. Continue to support the work and activities of SISA's Youth		X	
Health Promoters in public schools and develop a demonstration			
program in selected communities.			
5. Develop an after-school program promoting sexual abstinence			Х
in the Department of Education by PRAEP and establish			
Community Abstinence Coalitions.			
6. Distribute culturally appropriate educational materials on		X	
topics related to teen pregnancy, abstinence, self-esteem and			
character formation.			
7. Provide sex education, information on the benefits of sexual		Х	
abstinence and effective communication workshops to parents			
of school age children. Evaluate teen and parental attitudes			
toward sexual abstinence.			
8. Increase the awareness on issues related to teen pregnancies		X	
among the general public, and develop a mass media campaign			
regarding the benefits of sexual abstinence among teens.			
9. Coordinate educational activities in schools and communities		Х	
to prevent teen pregnancies and promote healthy behaviors.			
10. Continue to support the Plain Talk Demonstration Project	X		
that fosters adult-youth communication on sexuality issues to			
prevent teen pregnancies in a community of Naranjito.			

#### **b.** Current Activities

A new Criminal Code was enacted May 1, 2005. It increases the age for consenting to a sexual relation from 14 to 16. Since then, teen family planning services have been curtailed. SISA is actively involved in a task force evaluating the impact on teens' sexual behavior and reproductive health.

Several strategies to reduce pregnancies in this age group are taking place. PRAEP offers activities such as: "Sex Can Wait" curriculum in public schools and implementation of PYD strategies. The Spanish translation of new curriculum, Wait Training, is in progress. Five interactive workshops for parents and teens on communication about sexuality reached 1,757 persons. Eighty sexual abstinence videos were produced by teens and were shown in five multimedia shows reaching 3,758 students. A calendar with sexual abstinence messages was distributed to 80,000 students. A social theater drama about teen pregnancy reached 625 public school staff. Its goal was to raise awareness of the situations pregnant teens face and the importance of promoting secondary abstinence and supporting them to prevent school drop out.

SISA continues to develop and implement the PYD model in its activities as one strategy to prevent teen pregnancies. A curriculum is being redesigned to train Teen Health Promoters to provide peer group interventions using this model. This strategy is also being developed in the Juvenile Justice System. As part of their activities, they developed a social theater drama on teen pregnancy prevention.

During Teen Pregnancy Prevention Month, SISA organized a forum that allowed five leading researchers to present their findings on issues related to teen pregnancy to 60 different agencies. The MCH staff coordinated and participated in 350 activities as part of the celebrations, in which

14,088 students participated. The MCH staff offered a presentation about the implications of teen births in PR to 700 health professionals.

The Plain Talk Project activities started in Naranjito. Community volunteers finished mapping and analyzing the community. The culturally sensitive messages on sexuality and teen-parent communication that the 5 Community Walkers and Talkers will deliver during the neighborhood home educational gatherings have been selected.

The "Crianza con Amor" Committee has developed a draft of a curriculum for pregnant and parenting teens. It includes activities to prevent repeat teen pregnancies. Collaboration with "Red AMAME" shelters and programs for pregnant and parenting teens continues. The layout for the first teen oriented Health Services Directory was developed. Six subcommittees with 23 youths and adults are developing the curriculum for "Reto y Esperanza: Healthy PR PYD Project".

MCH staff will further analyze VS data on 1995-2004 teen birth rate trends by age groups for each municipality and is training staff to become focus groups leaders when the qualitative study to identify factors that contribute to teen pregnancies begins.

#### c. Plan for the Coming Year

The MCH Staff will continue its efforts to prevent pregnancies among adolescents. The PR Abstinence Education Program (PRAEP), in conjunction with the Department of Education, will provide the WAIT Training and Game Plan Curriculum's and PYD strategies to middle and HS students. Teachers will be trained to facilitate peer groups (AMORES) in 84 public schools. These initiatives will also be implemented in private schools, special communities and institutions for incarcerated youths. Parents of school-aged children will continue to have the opportunity of attending a one-day workshop whose goal is to increase and facilitate parent youth communication around the topic of sexuality, self esteem, teen character and empowering them to make healthy choices. The Leaders for Wise Decisions PRAEP abstinence educational program will be developed. Coalition development and community outreach efforts will be strengthened and PRAEP strategies will be established in under served communities in collaboration with the Governor's Office. A mass media campaign and a website to promote teen sexual abstinence will be developed.

The Comprehensive Adolescent Health (SISA) Program will continue the Peer Teen Health Promoters Program in public schools. The training curriculum will be modified and adapted to establish the program in remote, underprivileged communities throughout the Island as part of a collaborative effort with the Auxiliary Secretariat for Health Promotion. This program uses the Positive Youth Development model as an integral part of its teen pregnancy prevention efforts. SISA will continue educating parents and adults on the importance of establishing connections (Connectedness) with teens in order to protect them from engaging in high risk behaviors.

The Plain Talk Pilot Project will continue. During Phase II, neighborhood gatherings will be taking place in the homes of community residents. These gatherings have been designed to provide participants with the tools they need to foster adult-youth communications on sexuality issues.

We will continue to develop the "Crianza con Amor" curriculum for pregnant teens. This curriculum is aimed at increasing their parenting skills. Collaboration with programs that provide services and support for pregnant and parenting teens will continue. The Directory of Teen Health Services in Puerto Rico will be posted on the Department of Health web site. The Youth Health Promoters Initiative will continue in juvenile institutions.

The curriculum on Positive Youth Development will be pilot tested and evaluated in 4 sites. A train-the-trainer manual will be developed to train 6 adult youth workers and 6 youth leaders as PYD educators. Once trained, they will provide training in health regions.

The SISA Program will conduct a qualitative study to identify factors that lead to pregnancy in teens (10-17), in collaboration with the HVP. It includes the participation of the MCH anthropologist, HVN and HVP teen participants.

#### State Performance Measure 5: The rate of cesarean section in Puerto Rico

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	37	35	42.6	40.4	38.2
Annual Indicator	42.0	44.8	46.1	47.7	47.8
Numerator	23536	23707	23443	24458	17733
Denominator	55983	52871	50803	51223	37133
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	36	34.8	32.6	30.4	28.2

#### Tracking Performance Measures

#### Notes - 2005

Numerator and Denominator: Preliminary data provided by theOffice of Informatics and Technology Advances (OITA) of the Department of Health. It include data as of September 2005.

#### a. Last Year's Accomplishments

The increasing trend of C/S rates in PR, from 29.7% in 1995 to 47.8% by 2004, coincided with the HCR implementation in PR. For the past several years the MCH Division has been investigating possible contributing factors to this marked increase in C/S rates. The initial study on the issue consisted of a descriptive study based on the review of 183,400 vital records of cesarean deliveries that occurred from 1990 through 1999. It revealed a parallel increase in both the primary and repeat C/S trends; extremely low (< 8%) VBAC rates; C/S took place predominantly on workdays and in daytime hours; the highest rates were in women 20-29 years old and with more than 12 years education.

Two additional studies have followed. One consisted of reviewing the charts of a representative sample (N=560) of live C/S births that occurred in 1999 using an instrument developed by ACOG. Among the records reviewed, 77% had no documented risk factor justifying a cesarean delivery. The remainder had at least one documented risk factor such as pregnancy-associated hypertension (5%), diabetes (3%) and others (15%) (anemia, hydramnios, chronic hypertension, etc.) The third study gathered information from a self-administered survey completed by a representative sample of postpartum women who had a C/S delivery in 2004. Its goal was to obtain information on their attitudes and beliefs, family influence and characteristics of their medical care provider. Our participation in a nine-month, on-line analytic training program (MATRICHS) offered by the University of Rochester faculty undoubtedly assisted us with the analysis of this study. Additional help in this analysis was provided by the LA state epidemiologist, who provided a three-day TA sponsored by CDC. This allowed us the opportunity to review all cesarean related investigations and improve our analysis.

Our staff continued to raise the issue of the high C/S rate in PR in lectures and newspaper articles. We endorsed a legislative initiative that proposed studying the increasing C/S rates. The document submitted included the findings of our three studies and recommendations to reduce the elevated C/S rate.

Our staff participated in the 2004 Birth Certificate revision process. They made sure vital information needed to analyze C/S related data was retained in the new document. We expect these changes will improve the quality of the data gathered and that the information collected will improve our ability to analyze factors that contribute to a C/S delivery, particularly those related to

pregnancy complications. Identifying the reasons that lead to the high C/S rate in PR will allow us to develop a strategic plan to reduce it.

CHWs provided information on indications for and complications of C/S births in 160 activities held in several communities, reaching 3,720 persons. In addition 2,783 HVP participants received the information during their prenatal visits.

Activities		id Leve	l of Ser	vice
	DHC	ES	PBS	IB
1. Observe the trend of cesarean section deliveries by institution				Х
for 2005 and provide feedback to the administrators.				
2. Continue the analysis of the increasing C/S tendency using				Х
vital records information.				
<ol><li>Share the results of all our investigations with the C/S</li></ol>				Х
Evaluation Committee, obtain their input and present their				
conclusions and recommendations to the Secretary of Health.				
4. Share the findings of the studies with key health providers as				Х
well as the presidents of the local OB/GYN and ACOG chapters.				
5. Continue empowering women of reproductive age, especially			Х	
pregnant ones, through education on the indications for and risks				
associated with C/S as a strategy to avoid those that are				
unnecessary.				
6. Endorse public policies aimed at reducing the increase in C/S				Х
rate.				
7. Promote continued medical education activities for perinatal				Х
health providers where the topic of the alarming increase in C/S				
rate in PR is included.				
8. Hold at least two C/S Committee meetings during the year.				Х
9.				
10.				

#### Table 4b, State Performance Measures Summary Sheet

#### **b.** Current Activities

We have continued to analyze the data of the "Election of Childbirth by Cesarean Delivery: Attitudes and Experiences of the Woman and Physician Characteristics in the Decision Making" study. Data was obtained by administering a questionnaire to a representative sample of women who had had a C/S delivery in 2004. The University of Rochester faculty assisted us in this process as part of the on-line analytic training program (MATRICHS). Final results were presented to the University of Rochester staff in August 2005. At that time they provided us with recommendations on how to proceed with additional data analysis. The analysis has concluded and results suggest that the attitudes and beliefs of the medical providers influence the method of delivery. An abstract of the study was submitted and approved for presentation at the Eleventh Annual MCH Epidemiology Conference in Florida in December 2005.

The MCH Director and the Ob-Gyn Consultant, in collaboration with CDC personnel, coauthored an article called "Rates of Cesarean Delivery Among Puerto Rican Women-Puerto Rico and the US Mainland, 1992-2002", that was published in the January 27, 2006 edition of CDC's Morbidity and Mortality Weekly Report. This first manuscript is undergoing further analysis and after its completion will be submitted to the American Journal of Public Health for publication and presented in a CDC seminar in May 30, 2006 by one of the coauthors from CDC.

In February 2006, the MCH Program OB-GYN Consultant filmed an educational TV spot for the local public broadcasting station. It contained information regarding indications for a C/S as well

as the pros and cons of a C/S delivery. The spot also mentioned the elevated number of C/S being performed in PR. This brief report was designed to enhance awareness on this subject among women of reproductive age in the community and empower them to make informed decisions on how they would like their infants to be born.

The MCH OB-GYN Consultant designed a brochure, currently under revision, to educate and guide women in the process of deciding which method of delivery is best for her. The brochure provides basic information regarding indications for a C/S, complications that may arise due to the procedure, and recommendations on how to take an active part in all aspects of prenatal care, including the delivery process, to avoid an unnecessary cesarean section.

A meeting of the Committee for the Evaluation and Reduction of C/S in PR was held on May 23, 2006 to share the information gathered from all the studies performed and to delineate a strategic plan that will guide future activities. During this meeting the recent NIH Consensus document was discussed. We were particularly interested on its impact on our plan since it failed to provide strong evidence against performing a C/S delivery upon maternal request.

#### c. Plan for the Coming Year

The MCH Program will continue its efforts aimed at reducing the rate of cesarean deliveries in PR. We will continue to disseminate findings from the above mentioned studies with key stakeholders such as health care providers, the PR Chapters of ACOG and AAP, the OB/GYN and Pediatrics Chapters of the Puerto Rico Medical Association, the Association of Family Medicine Physicians, the PR College of Physicians, hospital administrators and health care insurance companies.

We will facilitate the continuation of Cesarean Section Evaluation Committee of Puerto Rico meetings and activities. New members will be invited to join the Committee and help us reduce the C/S rate. Among those we would like to invite are representatives from the Department of Health, University of Puerto Rico School of Public Health, PR Chapters of ACOG and AAP, Puerto Rico Health Insurance Administration, health insurance companies, and hospital administrators. During the meetings we will provide Committee members with the latest information and data related to C/S trends and practices in PR for their revision. The Committee will work to develop a strategic plan aimed at reducing the C/S rate in PR. Once completed, the plan will be submitted to the Secretary of Health. Committee findings and recommendations will be disseminated to the general public and perinatal health care providers.

The C/S rate in each health institution in PR will be monitored by the MCH Section for Monitoring and Evaluation of Health Status.

During home visits and educational activities in the community, the MCH staff will continue to provide information regarding the indications for and the risks of a C/S delivery, particularly among women of reproductive age, in order to empower them and discourage unnecessary C/S.

**State Performance Measure 6:** Develop and maintain an active surveillance system for at least 55 birth defect diagnoses by 2010.

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]					
Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective					
Annual Indicator			69.1	69.1	69.1
Numerator			38	38	38

**Tracking Performance Measures** 

Denominator			55	55	55
Is the Data Provisional or Final?				Final	Final
	2006	2007	2008	2009	2010
Annual Performance Objective	87	87	87	100	100

#### Notes - 2005

The Birth Defects Surveillance System continues with population based active surveillance activities for 38 birth defects diagnoses. At present we are planning to add 10 more birth defects starting in 2007. The goal continues to increase to 55 Birth Defects by the year 2010.

#### Notes - 2004

In 2005, the Birth Defects Surveillance System personnel revised the categories of the birth defects in the nature of the defect and the International Classification of Disease (ICD-9 codes). As a result, this performance measure was modified to include at least 55 birth defects diagnoses by 2010. After this revision the new classification is distributed as follows: a total of 38 birth defects diagnoses at present under surveillance distributed in 10 birth defects categories.

#### Notes - 2003

Based on 2005 revision: In 2003, the Birth Defects Surveillance System increased the list of conditions under surveillance to 38; the annual performance objective was 69%. It started to conduct population based active surveillance for the following conditions or categories: Congenital heart defects, ambiguous genitalia, trisomy 18 and 13, omphalocele, albinism and conjoined twins.

#### a. Last Year's Accomplishments

We continued with surveillance activities for 38 birth defects. These conditions are classified into 10 birth defects categories. The data management and analysis protocol was revised in 2005.

We continued producing bi-monthly reports to disseminate results and offering trainings to hospital staff in the 20% of the birthing and pediatric hospitals we had not reached in the past. We continue to disseminate information and promote the reduction of risk factors associated with births defects included in the surveillance system.

We supported the passing of Bill 351 which was signed into law on September 16, 2004. It establishes that health facilities and providers must report to the Department of Health every suspected or confirmed case of a birth defect. Since its approval we have assumed the responsibility established by this law of contacting affected families and offering genetic counseling and information regarding early access to comprehensive services. In 2005, 476 families identified by the surveillance system received genetic counseling.

We have been involved in sharing information on Bill 351 with health insurance companies and the Health Insurance Administration. As a result of this effort, we reached agreements with health insurance companies whereby they would share this information with their health care providers, laboratories, and other agencies doing business with them. A copy of the Bill, guidelines for the evaluation of the newborn with single or multiple congenital anomalies, referral form, and information regarding our surveillance system were distributed to 6,000 providers. The cost associated with their distribution was covered by the insurance companies. An article was published in one of the companies' newsletter in October 2005. Our abstractors also distributed the information during their hospitals visits.

We were able to identify 523 infants with BD in 2005 alone. Additional cases born in previous years were also identified. We continue linking the 2003 and 2004 vital records and Birth Defects Surveillance data sets in order to identify cases that might have been missed. Once potential cases are identified, our abstractors proceed to review medical records. This effort has led to the identification of 35 new cases. We continue to promote timeliness in case identification. In 2005 it took an average of 3.1 weeks for a case to be identified after the infant was born.

We have been successful in establishing the PR Birth Defect Prevention Alliance. Its goal is to join the efforts of partners from the public and private sectors. It has developed an agenda for the year and is meeting monthly. The coalition will help us in our projects and activities in order to maximize the impact. We share surveillance data at the local and national levels (MCH, CSHCN, NBDPN and CDC).

Activities	Pyramid Level of Service		vice	
	DHC	ES	PBS	IB
1. Increase to 48 the birth defects included in the Surveillance				Х
System.				
2. Continue the active surveillance activities, data collection				Х
protocol and evaluation of data management.				
3. Coordinate activities with inter agency partners to promote			Х	
healthy habits related to birth defects prevention, the activities				
related to the celebration of BD prevention month in Puerto Rico.				
4. Review and expand the current referral system for children		Х		
with birth defects, continue to offer genetic counseling to affected				
families and referral to CSHCN centers.				
5. Develop and implement a protocol for the evaluation of				Х
maternal risk factors exposure of affected woman.				
6. Develop culturally sensitive educational material on the ten			Х	
additional birth defects.				
7. Offer training on additional birth defects to hospital staff				Х
throughout the Island.				
8. Develop and publish the BD annual report to disseminate the				Х
surveillance results.				
9. Promote compliance with Law #351 among health care				Х
providers, including the importance of early diagnosis and				
referral to specialized services.				
10. Develop regulations for the implementation of Law #351, and				Х
disseminate it through health cares facilities responsible for the				1
reporting.				

 Table 4b, State Performance Measures Summary Sheet

#### **b.** Current Activities

We continue our surveillance activities. Some of the ongoing activities are: 1) Disseminating information related to the reduction of risk factors associated with index cases during interventions in health fairs and talks. 2) Disseminating birth defects prevention messages by establishing collaborative efforts with health agencies, promoting early diagnosis and access to habilitation services. 3) Disseminating data related to birth defect prevalence upon request of the media, agencies and the general public. 4) Sharing results in health professionals' conferences locally and nationally, through reports, requests and presentations.

From November 2005 through January 2006, a variety of activities were conducted to promote messages directed at BD prevention. This year we commemorated BD prevention month for the first time. A variety of agencies from the private and public sectors participated, contributed to the promotion of BD prevention messages, and distributed our recently developed culturally sensitive educational material among their staff and their clients. During that time we conducted a mass media campaign and media tour for the prevention of BD.

We have continued to identify cases in health care facilities using the data collection protocol, as required by Bill 351. A study to document risk factors associated with BD occurrence is being

designed. It will include questions related to risk factors, family history, previous pregnancies, maternal medical conditions, occupation, and exposure to alcohol and other drugs, prescribed drugs and OTC drugs.

Genetic counseling is provided to families and women with NTD affected pregnancies to prevent recurrence. Each case is contacted by the Genetic Counselor and referred to the CSHCN Services. Abstractors have been instructed to refer any potential case that they encounter during their hospital visits. We continue to promote awareness of the importance of receiving services early, work to eliminate barriers to access services, and emphasize the importance of data completeness and timeliness. The Genetic Counselor, Epidemiologist and the Data Entry personnel review all reported cases and provide daily telephone follow ups to regional data abstractors. Monthly meetings are held to provide abstractors with feedback and to reinforce the importance of identifying cases early. We assess timeliness by comparing the date the case was born and the date the report was made. We continuously evaluate the factors that contribute to hospitals lack of documentation that facilitate early identification of cases.

The list of defects being proposed for inclusion in the surveillance system is under review and should be ready before the end of the year. The 4th Birth Defects Prevention and Folic Acid Symposium, made possible with additional funding received from CDC, was celebrated in June 2006 with over 500 health professionals in attendance.

#### c. Plan for the Coming Year

We will continue the surveillance activities, the implementation of Law #351 for Birth Defects Surveillance in the Island, and to gather information and plan for the inclusion of additional defects. It is our goal to increase the total of defects included in the surveillance system to at least 48 during 2007 and to 55 by 2010. In order to include them, we will train health professionals throughout the Island and modify the current surveillance protocol.

We plan to complete the study protocol for the evaluation of maternal risk factors and hire staff needed to conduct the study. The BD Epidemiologist will continue working to develop the protocol to identify the occurrence of birth defects clusters. We will continue to develop culturally sensitive educational materials related to BD and to promote the integration of more partners in the PR BD prevention coalition. The third BD Surveillance System report will be published in June 2007.

# **State Performance Measure 7:** *Reduce the prevalence at birth of neural tube defects (NTD's)*

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)] Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	7	6	5	4	4
Annual Indicator	7.2	7.1	4.1	5.2	10.0
Numerator	41	38	21	27	50
Denominator	56567	53437	51351	51776	49834
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	3	3	3	2	2

#### Tracking Performance Measures

#### Notes - 2005

The annual performance measure wording was revised to be in accordance with the terminology and measure of objective 16.15 from Healthy People 2010. We are reporting the prevalence at birth of the NTD. The numerator was provided by the Birth Defects Surveillance System. The

2005 prevalence ratio is provisional. The total live births were estimated from the Birth Registry preliminary data. The annual performance objectives were also revised for years 2004 to 2010. Reported data shows Birth Surveillance cases identified through the population based active surveillance and after linking vital stats data sets. The percentage increase in the prevalence ratio might be related with new efforts to confirm cases from the vital stats data sets and by the implementation of Law 351 for the regulation of Birth Defects Surveillance in Puerto Rico. We have continued with surveillance in 100% of birthing hospitals, and at the two pediatric hospitals in the Island, and recruited two more abstractors to conduct surveillance sponsored by CDC funds.

#### Notes - 2003

The numerator is provided by the Congenital Anomailes Registry of Puerto Rico. The denominator is obtained from birth data file provided by the Office for System Development. The incidence rate for year 2003 is provisional, therefore the Annual Performance Objective was not changed. One health region is not considered in the numerator. Final data will be available by August 2004. The annual performance objectives remained the same for years 2004, 2005 and 2007. The annual performance objective for years 2006 was revised to 3 cases per 10,000 live births.

#### a. Last Year's Accomplishments

During 2005, we continued promoting folic acid use to reduce preventable neural tube defects (NTDs). A wide variety of activities were developed to raise awareness about the importance of folic acid consumption for the prevention of NTDs among the general public. In FY 2004-2005, the Folic Acid Program Staff participated in 63 educational activities reaching 3,932 individuals During the months of May and June, a mass media tour was conducted. It included radio ads promoting folic acid use in the three radio stations with the greatest audience of women of reproductive age (WRA). The media tour included radio and TV interviews. We expanded our target audience to include women who are not intending to become pregnant.

BRFSS data from the module on folic acid consumption in non-pregnant women aged 18-44 years in Puerto Rico was analyzed for the period 1997-2004. The analysis revealed folic acid use increased from 22% in 1997 to 29% in 2003. However, in 2004 a not significant (p>0.05) reduction was noted. This trend was paralleled by the level of folic acid knowledge among respondents. This knowledge increased from 23% in 1997 to 70% in 2003. However, a statistically significant reduction in this knowledge was observed in 2004, when only 59% of those who responded answered affirmatively. These changes occurred at the same time we noted a slight increase in NTDs. Based on these findings, we decided to reinforce our efforts to disseminate folic acid messages.

At the level of infrastructure building, it is important to highlight that we continued to: (1) train health professionals from private and public agencies on the importance of folic acid and the adverse effects of high risk behaviors on fetal development; (2) promote folic acid messages in health fairs; (3) promote folic acid consumption among college students during FA Awareness Day. During this activity, held in October 2005, we reached 1,600 students in the 11 campuses of the University of PR. Our staff distributed samples of folic acid enriched cereals and educational materials to participants. This activity was advertised by MCH staff and through press releases.

We continued to develop culturally sensitive educational materials and distribute them to health professionals. In terms of educational activities for health professionals, during the fiscal year 2004-2005, the Folic Acid Campaign provided training on Birth Defects Surveillance and folic acid promotion to the staff of 22 hospitals (50% of the birthing hospitals in Puerto Rico). We published an article on NTD in the College of Professional Nursing Journal "Impulso", which is distributed to every registered nurse in Puerto Rico. A member of our staff participated in Health Communication Training offered by the Johns Hopkins University and sponsored by the Secretariat for Health Promotion

Table 4b, State Performance	Measures Summary Sheet
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Activities		Pyramid Level of Service				
	DHC	ES	PBS	IB		
1. Increase awareness among primary care providers of the need to recommend daily folic acid consumption.				Х		
2. Use trained insurance company personnel to promote use of daily folic acid in medical offices.				Х		
3. Hold meetings with key stakeholders to develop strategies directed at increasing use of folic acid.				Х		
4. Promote the use of the Folic Acid Educational Module among teachers covering health topics at schools.			X			
5. Coordinate activities to increase awareness of birth defects and strategies to prevent them among the general public.			X			
6. Coordinate the observance of Folic Acid Awareness Day in local university campuses.			X			
7. Educate students in health-related fields regarding their role in promoting the use of folic acid.			X			
8. Continue inter agency collaborative efforts to promote use of folic acid through the media.				Х		
9. Promote the establishment of a State Alliance for Birth Defect Prevention.				Х		
10. Evaluate levels of folic acid awareness and consumption among women of reproductive age.				Х		

#### **b.** Current Activities

We continue to promote the benefits of folic acid and provide information on birth defect prevention at the community level i.e. health fairs, educations, and related activities. Despite staff limitations, we continued to participate in as many health fairs as possible through the Island. From July 2005 through March 2006 we have participated in 18 activities and intervened with 4,238 participants. The MCH Division helped us by promoting the FA Awareness Day held in university campuses this year. As a result of this collaboration, the number of participating institutions doubled. The observance was held in 30 university campuses from the three main higher education systems.

Limited resources have prevented us from conducting investigations to evaluate factors that contribute to the reduction in folic acid awareness and use and a concomitant increase in NTD prevalence. However, it coincided with the discontinuation of FA prevention efforts by March of Dimes. This issue has been discussed during the BD Coalition meetings. At this time, we are identifying activities to promote folic acid use and knowledge.

In January 2006 a mass media tour was coordinated as part of the birth defects prevention month. We took advantage of the opportunity to promote the importance of folic acid use. One of our coalition members donated her talent and effort to develop a Public Service Announcement (PSA) regarding birth defects prevention. Copies of the PSA were sent to radio stations along with a letter requesting them to air it. They were broadcast in 11 radio stations, free of charge, sometimes up to four times a day, during the months of January, February and March. We accomplished this at no cost. Based on previous experience, it represents about \$100,000 for the program. Recording the PSA as part of BD Coalition efforts facilitated its acceptance for broadcast. Members of the coalition have also contributed to dissemination of the message by publishing several articles in their companies' web pages.

Other activities held as part of BD prevention month were three TV, four radio and two newspaper interviews. A one-page article was published in "El Nuevo Día", a newspaper with island wide coverage. In addition, several articles were published in regional newspapers.

The 4th Symposium was held in June 22, 2006. A total of 548 persons participated in the event. It was be organized by the Medical Sciences Campus Continuing Education Office. We continue to offer input to health insurance companies to promote folic acid awareness among their health care providers. We have offered 12 CME activities for health care and education professionals. The BD Prevention Coalition has continued to meet regularly.

#### c. Plan for the Coming Year

This coming year training on folic acid instructional module will be offered to private school teachers with the purpose of promoting daily folic acid consumption from an early age.

Dissemination of our messages (daily folic acid use and birth defects prevention strategies) will continue through health fairs at the community level, schools, universities and public and private agencies. For the next year, we will continue to offer educational activities in birthing hospitals regarding birth surveillance efforts. In addition, we will promote awareness about the importance of daily folic acid use and birth defects prevention among health care providers. We plan to continue to support the PR Coalition for Birth Defects Prevention efforts to become a formal entity and to accomplish their established goals. In addition, efforts will be continued to promote the inclusion of the folic acid instructional module in the junior and high school curriculum's in public schools and to disseminate surveillance results. We will collaborate with health insurance companies' efforts to promote folic acid awareness among health care providers. The BD prevention month will be celebrated again next year. A survey will be administered to women living in Puerto Rico in order to evaluate the impact of the Folic Acid Campaign.

To monitor compliance with folic acid use in WCBA, we will continue conducting the ESMIPR survey. This PRAMS-like survey is administered every two years to women in the early postpartum period. This survey provides data regarding daily folic acid use. In addition, the module on folic acid consumption in non pregnant women aged 18-44 years in Puerto Rico has been reinstated in the BRFSS. This effort is sponsored with CDC funds.

#### State Performance Measure 8: The rate of deaths to children aged 1-14 caused by asthma

Annual Objective and Performance Data	2001	2002	2003	2004	2005
Annual Performance Objective	0.2	0.2	0.2	0.2	0.2
Annual Indicator	0.2	0.3	0.0	0.2	0.2
Numerator	2	3	0	2	2
Denominator	834720	891042	828372	815120	803507
Is the Data Provisional or Final?				Final	Provisional
	2006	2007	2008	2009	2010
Annual Performance Objective	0.2	0.1	0.1	0.1	0.1

Tracking Performance Measures

#### Notes - 2005

Numerator: Preliminary data obtained from the Office of Informatics and Technology Advances (OITA) of the Department of Health.

Denominator: Population estimate obtained from the US Census.

#### a. Last Year's Accomplishments

In 2005 the number of deaths caused by asthma for the 1-14 age group was two, therefore, no changes have been observed compared to year 2004. In order to monitor trends in asthma mortality in this age group, the PRDoH established an asthma surveillance system that measures

morbidity, mortality, and work-related asthma. The system provided valuable information for the development and implementation of the island wide asthma plan. The surveillance system was developed to provide the data needed to evaluate the interventions included in the asthma plan. The first surveillance report was completed and includes mortality and prevalence data. The State Asthma Plan was completed with the collaboration of the PR Asthma Coalition (PRAC) members on August 2005.

The Surveillance System was evaluated by students from the University of Puerto Rico (UPR), Medical Sciences Campus (MSC). The evaluation assessed the quality of all system attributes following specific measures and the CDC guidelines for evaluation. These students, with the guidance of the PRDoH Asthma Epidemiologist and the MSC, also developed a questionnaire that will be administered by the PR Occupational Safety and Health Administration in a sample of local industries to estimate the prevalence of work-related asthma.

As part of Asthma Awareness Month, the PRDoH and the PRAC participated in the interactive education activity titled "Addressing Asthma from a Public Health Perspective". Fifty health professionals from the health regions participated and received CME credits for their attendance.

The Division of Habilitation Services (DHS) and PRAC members developed a series of educational interventions whose main objective is to train physicians in the use of NAEPP (National Asthma Education and Prevention Program) asthma treatment guidelines. These activities were designed for physicians providing services in geographic areas with the highest rates of asthma morbidity and mortality. The major health insurance companies helped us to identify primary care physicians who would benefit the most from this training. An expert pulmonologist collaborated with us during the development phase of the educational interventions.

The DHS continued improving and implementing the PR State Asthma Plan. It was developed to help the PRDoH meet the Respiratory Diseases HP 2010 objectives and to monitor progress regarding Title V PM's and asthma related indicators.

PRDoH supported the analysis of data collected by asthma outreach workers trained by the UPR-MSC, School of Allied Professions when they provided educational interventions in the homes of study participants. This intervention is one of the activities of the ongoing collaborative effort with the EPA funded "Proyecto AIRE", an asthma educational project.

Title V continues to partially fund the Pediatric Pulmonary Program staff in order to provide wraparound services to children with asthma from low-income families.

Activities	Pyramid Level of Service				
	DHC	ES	PBS	IB	
1. Provide wrap-around services to low-income children with	Х				
asthma.					
2. Promote policy changes for asthma care.				Х	
3. Develop surveys to assess prevalence of asthma.				Х	
4. Train health professionals in asthma management.				Х	
5. Participate in other programs' committees.				Х	
6. Collect asthma data, analyze, interpret and report findings and				Х	
recommendations.					
7. Meet Healthy People 2010 objectives for respiratory diseases.				Х	
8. Collaborate with other asthma educational programs.				Х	
9. Develop a collaborative State Asthma Plan as part of the CDC Asthma Grant.				X	

Table 4b, State Performance Measures Summary Sheet

10. Raise awareness and visibility about asthma in PR and the		Х	
State Asthma Plan.			

#### **b.** Current Activities

The first Asthma Surveillance Report with data submitted by Triple S, the largest health insurance company in the island, was presented to Triple S directors on April 27, 2006.

To assist in the implementation phase of the State Asthma Plan, we will establish a collaborative effort with PRAC members. Activities target the priorities determined after analyzing Surveillance System data. The Asthma plan will be printed for distribution to partners, key stakeholders and other interested organizations. It will also be included in the PRDoH's website.

The PRAC, in collaboration with the Asthma Plan's Public Policy Committee, gathered information, prepared and offered a presentation on the topic of student's self-administration of asthma medications in school to the President of the Health Commission of the House of Representatives. Public hearings were convened by the Chamber to discuss the development of a law to favor this initiative. Law #56 was enacted on February 1, 2006.

The DHS is coordinating a training to PRAC members by the "Allies Against Asthma National Program" of the University of Michigan. The purpose of the training is to maintain coalition members engaged during the implementation phase of the Asthma Plan.

The Asthma Project will submit a proposal to the CDC to request funds for the implementation phase (Part A-Enhanced) of the Asthma Plan from 2006-2009 in May 2006.

Title V funds continue to support the Pediatric Pulmonary Program. This program provides asthmatic children from low-income families the wrap-around multidisciplinary and specialty services they need.

The DHS continues monitoring the progress towards Focus Area #24, Respiratory Diseases, of Healthy People 2010 objectives as the result of the implementation of the activities related to the strategic plan. In November 2005 a survey was distributed to the health insurance companies and the Insurance Commissioner's Office to assess the asthma educational activities and to obtain utilization data. Results are still under analysis.

The PRDOH supported the PRAC in the coordination of the 2006 World Asthma Day activities.

#### c. Plan for the Coming Year

The DHS and the PRAC will start the implementation of educational interventions for physicians in a selected geographic area with high rates of asthma morbidity and mortality in order to be trained on the NAEPP (National Asthma Education and Prevention Program) asthma treatment guidelines. The major health insurance companies are identifying primary care physicians. An expert pulmonologist developed a tailored curriculum and will offer the trainings. The Medical Sciences Campus, University of Puerto Rico will coordinate the logistics of the interventions. This is the beginning of future island wide interventions with physicians.

The PRDOH and the PRAC will implement activities included in the Asthma Plan's priority areas. These efforts will be enhanced with CDC funds if the 2006-2009 proposal is approved. Focus Areas include: Partnerships, Surveillance, Health Promotion and Education, Public Policy, Environment, Accessibility to Health Services, and Evaluation.

The Surveillance System will continue preparing and submitting surveillance reports based on utilization claims, mortality, prevalence and work-related asthma data.

The PRAC, in collaboration with the PRDOH and other entities, will celebrate the First Asthma Congress in May 2007, focusing on asthma health disparities. This will be an international forum to raise awareness about asthma health disparities and to present the State Asthma Plan and summary recommendations to key stakeholders, the general public, providers, practitioners, patients, and others. The impact of this conference will be the sharing of collected asthma data on Puerto Ricans and analysis by attending experts. Workshops are being planned to elicit discussions, which may provide answers to the elevated prevalence and mortality in our population.

An evaluation plan that measures the effectiveness of the asthma program and each intervention will be implemented. Information on each of the implementation phases will be collected and analyzed. Data-driven activities and interventions will be developed and effectiveness of the asthma program will be determined and evidenced through data collection and analysis.

The PRDoH Division of Habilitation Services will continue funding the Pediatric Pulmonary Program at the Cardiovascular Center of PR with Title V funds in order to provide wrap-around services to asthmatic children from low-income families in need of specialized multidisciplinary services.

DHS will continue implementing a strategic plan to meet the Healthy People 2010 objectives for Focus Area #24 Respiratory Diseases. The Asthma Plan is part of the strategy to enable PRDoH to meet the objectives.

The PRDoH will support the PRAC in the coordination of the 2007 World Asthma Day activities.

#### **E. Health Status Indicators**

/2007/ The availability of information based on valid, reliable data is an important requirement for the analysis and objective evaluation of the health situation, evidencebased decision-making and the development of strategies to promote health among our population. Traditionally, this requirement is done using a variety of health indicators that facilitate the quantification and evaluation of the different dimensions of a population's health. In general, health indicators represent a summary of measures that capture relevant information on different health attributes and dimensions, and also represent the performance of the health system. Seen together, these measures attempt to reflect and monitor the health status of a population and provide information for the elaboration of a relevant profile of a population's health situation. Health indicators are influenced by social determinants like poverty status, population distribution and characteristics that should be analyzed and monitored to have a clear perspective of the situation.

In order to assess the maternal and infant health status and to compare it by municipalities, the Maternal and Child Health Division developed the Integrated Index of Maternal and Infant Health Status (IIMIHS) in 1998. The Index includes 15 indicators selected from birth and death files. The IIMIHS is comprised of five socio-demographic indicators: (1) Natality rate, (2) Percent of unmarried women, (3) Percent of adolescent mothers, (4) Percent of unmarried adolescent mothers, and (5) Percent of mothers with less than 12 years of education. Two are related with the adequacy of prenatal care: (1) First trimester admission rate, and (2) Kotelchuck Index. The remaining eight reflect the pregnancy outcome indicators: (1) Percent of prematurity, (2) Percent of VLBW, (3) Percent of LBW, (4) Neonatal mortality, (5) Post neonatal mortality, (6) Infant mortality rate, (7) Stillbirth rate, and (8) Perinatal mortality rate. MCH Regional Staff analyze the IIMIHS for their particular region on a continuous basis and include the identified needs in their action plans. Part of the dissemination efforts that regional MCH programs will be

performing includes meetings with mayor of each municipality in coordination with the Healthy Start Consortium.

HSI 01 & 02 - Low Birth Weight and Very Low Birth Weight are two of the leading causes of neonatal and stillbirth deaths. In 2004, 537 stillbirths were registered in Puerto Rico; 64% were LBW and VLBW. Preliminary data for 2005 suggest an increment in stillbirths with LBW and VLBW (439 of 508 fetal deaths, 86.4%). In Puerto Rico most of the fetal deaths occur in the early fetal period (20-27 weeks) and 6 out of 10 stillbirths are very low birth weight. This situation reflects problems associated with maternal health prior to pregnancy as well as problems related with the quality of care received during pregnancy.

Low birth weight and preterm birth are an increasing problem and constitute the number one cause of infant mortality in Puerto Rico. These indicators have been monitored through the years to determine the trend in LBW and VLBW births rates in Puerto Rico. In 2003, the LBW rate was 2.3 times higher than our 2010 objective. In 2004 the LBW and VLBW rate remained relatively constant (11.5% and 1.5%, respectively).

Birth data for 2005 is still preliminary; however, reported LBW rates are 12.9% for all live births and 11.5% for singletons. Regarding VLBW, rates reported were 1.5% for all live births and 1.3% for singletons. Although preliminary data shows a reduction in the LBW and VLBW rates, we will wait until the Vital Statistics database has been revised and information is made official before drawing conclusions based on this evidence. As expected, rates are lower for singletons than for multiple births.

Efforts to improve these indicators are conducted by the MCH Program. Through the Home Visiting Program, the MCH Program provides case management/care coordination, health education and counseling to pregnant women with complex medical and social risk factors associated with LBW and VLBW infants. The WIC Program also contributes toward reducing these rates by focusing on women who present nutritional risk factors. In 2005, the WIC Program provided services to 21,889 pregnant women.

The MCH Program provides educational interventions directed at HVN, providers and the population at large to increase awareness regarding the elevated LBW in PR and its implication for the infants' survival. During the activities, staff encourage WCBA to abstain from high risk behaviors and offer recommendation to reduce factors that contribute to these poor outcomes.

HSI 03 & 04 - Unintentional injuries are one of the leading causes of death in the adolescent and young adult population in Puerto Rico. Obtaining reliable data and analyzing it allows us to have the evidence to guide our decision processes and for developing action plans, such as regulatory and legislative measures. Having long term information regarding these indicators facilitates the analysis, interpretation and evaluation of the impact of prevention strategies that have been implemented. The Maternal and Child Health Division makes an annual report that describes the number and the cause of deaths by age group according to the objectives of Healthy People 2010. Information must also be shared with our collaborators, particularly with Safe Kids Coalition and the EMSC program, since they use this information for press conferences, raising awareness, presentations to health professionals, and in training activities.

The MCH Division regularly monitors Vital Statistics data of deaths resulting from unintentional injuries. These deaths are analyzed by age groups and sex. The findings are used to raise awareness about the problem among providers and the public at large. In 2001, the number of deaths due to unintentional injuries was higher than in 2002 (53 and 28, respectively). In 2003 and 2004, the number of deaths due to unintentional injuries was similar (30 and 32, respectively). In 2005, very preliminary data from the VS office show 10 children 14 years of age or younger died due to MVC. This rate sharply increased for the 15-24 year old age group. As expected, nonfatal injuries associated with MVC are more frequent than the fatalities. These injuries occur more frequently in the older age groups. The rate for those 14 or younger was 306.8/100,000 and 1,754.8/100,000 for those in the 15-24 age range. Males are more frequently involved in MVC. The recent popularity motorcycles have experienced has been associated with the increase in MVC.

Reducing unintentional injuries among infants, children and adolescents is one of the 10 priorities of the PR MCH program. In PR several public and private entities work in collaboration through the Safe Kids Coalition to promote the achievement of this performance measure. These include the Police Department, Traffic Safety Commission of the Department of Transportation, Fire Department, PR Coalition for the Prevention of Alcohol Use among Adolescents, Department of Education, EMSC and MCH programs and many other private entities.

For additional information on strategies and activities directed at reducing unintentional injuries please refer to NPM 10.

HSI 05A & 05B - Chlamydia is the most common bacterial sexually transmitted disease (STD) and the most commonly reported communicable infection in the United States. Because Chlamydia is primarily an asymptomatic disease, it often goes unnoticed and if left untreated, can cause pelvic inflammatory disease (PID) in women, and result in infertility in both men and women. Recent research in the area suggests that women with Chlamydia are three to four times more likely to contract HIV or other STD infection. The use of preventive health care services and widespread awareness of preventive health guidelines are vital to securing the long-term health of women. Routine Chlamydia screening enables detection of asymptomatic infection, reduction in its prevalence, and reduction in associated results.

In Puerto Rico, Chlamydia is the most common reportable STD among the adolescent population. Its prevalence varies by age group and sex. In 2005, the STDs Surveillance Office reported 3,720 cases of Chlamydia for a rate of 95.0 cases per 100,000 inhabitants. This represents an increment when compared with previous years: 91.7 for 2004, 70.5 in 2003. Over 90.5% of all cases were females, compared to only 9.4% males. The STD Report showed an increase in the number of female cases and a reduction in the male cases. It is important to highlight that 88.7% of all infected women were between 15 and 44 years of age. However, there is no information about the number of infected pregnant women, if any. Females aged 10-14 and 15-19 are 10.8 and 7.3 times respectively more likely to be infected than males. Among females 10-14 years old, the average prevalence is 27.9/100,000, while in males it is 13.9/100,000. The rate increases exponentially in the 15 to 19 years age group. In this age group, females have an average prevalence rate of Chlamydia of 677.7/100,000, while the males have an average rate of 41.1/100,000. For the 20-44 year old population group the rate is 3.2/1,000. The Puerto Rico Department of Health has started using urine tests for Chlamydia detection. The MCH and the STD/Prevention Program expect that by making testing easier to perform, more cases will be detected and referred for treatment.

HSI 06A & 06B - According to the Census Bureau, in 2000, 1,219,804 children and adolescents aged 0-19 years lived in PR. This figure represents 32% of the overall population in Puerto Rico. However, the size of all child and adolescent groups declined 5.3% from 1980-2000. This decline may be explained by the reduction of the natality rate in PR during the last decade and the increased migration of Puerto Rican WCBA to the U.S. In Puerto Rico, the birth certificates does not include an item to identify maternal place of origin, although it records the mothers' birthplace. Currently, we use maternal birthplace to classify women as Puerto Rican. Preliminary VS data for 2005 includes only 37,110 births. Among them, 36,017 (85.8%) infants were born to women whose birthplace was Puerto Rico, 1,051 (2.8%) had mothers whose birthplace was the Dominican Republic and 4,213 (11.4%) were born to women of other nationalities. The vast majority of the population is Hispanic and speaks Spanish. The largest group is in the 10-14 age range, followed in descending order by those in the 15-19, 5-9 and the 0-4 groups.

HSI 07A & 07B - The occurrence of many diseases, injuries, and other public health problems varies across different age groups and some are disproportionately higher in racial/ethnic minority populations in the United States. The collection of information by age groups and by race and ethnicity has been an important component of public health surveillance efforts used to identify differences in health status among different groups.

The 2000 Census was the first census in Puerto Rico since 1950 to include questions about race or ethnicity. For people in Puerto Rico, as well as Hispanics/Latinos living in the United States, race is a flexible concept. This is evident in a comparison of race responses between people living in Puerto Rico and Puerto Ricans living in the United States. Although the groups share the same heritage, they have very different ideas about racial identity. About 81% of people in Puerto Rico identified themselves as white in the 2000 Census, but Puerto Ricans residing in the United States were almost equally likely to say they were white (46%) as "some other race" (47%). The most significant ethnic groups residing on the Island are Dominicans and Cubans. Most Dominicans are concentrated in the metropolitan areas close to San Juan. A significant number of Dominicans are undocumented. In 1998, the U.S. Immigration Agency reported 7,540 new lawful permanent residents' aliens and approximately 37,700 illegal residents in the Island. Puerto Ricans, Dominicans and Cubans have a Hispanic background.

The 2000 Census revealed the following ethnic composition in PR: 95.1% Puerto Ricans, 0.5% Cubans, 0.3% Mexican and 2.8% other Hispanic or Latino. Only 0.2% was classified as Asian, Native Hawaiian and other Pacific Islander. In 2004, almost 90% of the births were among Hispanic/Latino women, the majority Puerto Ricans. Preliminary Vital Statistics data reveal the birth rate for teens 15 to 17 years of age in 2005 was 28.6 per 1,000 and 0.9 per 1,000 for teens in the 10 to 14 age group. Women 35 years or older had a birth rate of 10.6/1,000.

HSI 08A & 08B - In terms of infant mortality, the target for the infant mortality rate set by HP 2010 is that no more than 4.5 deaths per thousand live births should occur in any population group or geographical area. In 2005, the preliminary data on infant mortality rate was 8.9/1,000 live births, which is higher than the rate in 2004 (8.1/1,000 LB). These data show that the current infant mortality rate in the Island is higher that the U.S. mainland and two times above the set target for the 2010. This is a significant disparity between what has been achieved on this important health outcome and the expected.

Preliminary VS data for 2005 reported 335 infant deaths. Among them, 285 (85.1%) were born to Puerto Rican women, 39 (2.7%) to women from the Dominican Republic and 11 (3.3%) of other nationalities.

When we analyze the mortality rates for the pediatric population we find that it has been decreasing during the past decade. In 2005, the death rate in the age group 1-14 was 9.6/100,000 vs. 16.9/100,000 in 2004. However, this is a very preliminary report since VS office has experienced a significant delay in entering the death reports into the information system. We expect this rate will change when the VS report is final. The leading causes of death were unintentional injuries, congenital anomalies and malignant tumors. In 2005, 22 deaths were reported among children aged 5-9. The leading causes of death were (1) unintentional injuries, (2) diseases of the respiratory system (3) diseases of the nervous system. It is important to note that aside from unintentional injuries, some of the other causes of death can be traced back to conditions originating during the perinatal period. In the group of adolescents 10-14 years we found that during the period between

1990-2002 the mortality rate fluctuated between 16.7 (2000) and 29.3 per 100,000 (1995), with an average of 23.1. Preliminary data for 2005 reveals a total of 30 deaths in this group of age. The leading causes of deaths among them were: unintentional injuries, infectious and parasitic diseases, neoplasm's, and diseases of the nervous and respiratory systems. For the adolescent group of 15-19 years, the death rate in 2004 was 71.8/100,000. Preliminary data for 2005 suggests a death rate of 41.7/100,000. The leading causes of death were homicide, unintentional injuries, and malignant tumors. Finally, the death rates for the young adult population (20-24 years) were 94.7/100,000 in 2004 and 145.7/100,000 in 2005 (preliminary data). The most frequent causes of death in this age group were homicides and unintentional injuries, followed by suicides. However, the 2005 data will change after the Vital Statistics Office completes the death certificate data entry and verification process.

HSI 09A & 09B, 10, 11, 12 - The health situation of the population can be affected by social, environmental, behavioral, as well as economic determinants. Specific health situation analysis is made using two types of health indicators (perceived health and objective health) and their relation to health determinants present in each population. Adverse health outcomes disproportionately affect infants and children in foster care or in single parent homes. In 1995, 14 million infants and children aged 0 through 18 years lived below the Federal poverty level in the United States; 59% of these families were single parent families.

According to the information provided by the US Census Bureau, the total population in Puerto Rico in 2000 was 3,808,610 inhabitants. Based on this figure, the population density is estimated at an average of 1,080 persons per square mile. However, some metropolitan areas may have close to 10,000 persons per square mile. There were 1,261,321 households, of which 27% were single-parent, female-headed families with children under 18. Seventy-one percent of these female-headed families were living below the federal poverty level, compared to 44% of families of married couples.

According to the 2000 Census, half of the population (50.5%) corresponds to the MCH population groups. These include 1,219,804 (32%) children and adolescents up to 19 years old; and 701,871 (18.5%) women between 20-44 years. The median age of the population was 32.1 years, compared to 28.4 years in 1990.

Based on the US Census Bureau projection, in 2005 the total population was estimated at 3,911,299. The MCH population represented 54.1%. Specifically, 29.4% were children and adolescents (1,149,039), and 18.0% were women in reproductive age (20-44 years).

In terms of other determinants of health, educational or literacy levels are mentioned by World Health Organization (WHO) as one of the socioeconomic factors that can affect the health situation of the population. In terms of its relevance for our youth population, it is known that leaving high school before graduation can lead to continued poverty and a higher incidence of juvenile arrests. In Puerto Rico, the percentage of high school drop outs for 2004 was 1.3, but the rate of juvenile crime arrests was 1,266.9 per 100,000 for the same year. //2007//

#### F. Other Program Activities

/2007/ DIRECT SERVICES

The total number of CSHCN served by the Pediatric Centers was 7,268. Genetic services were provided to 1,244 children at the PC's island wide; Genetic counseling was offered to 456 children. The Pediatric Pulmonary Program served 1,139 children with asthma and other chronic pulmonary conditions.

#### **ENABLING SERVICES**

As required by law, the PRDoH has a Toll-Free Line (1-800-981-5721) to provide information about availability of health care and other services to the population. This service is contracted to Data Voice Solutions. As a result of the Health Care Reform, the Health Insurance Administration (ASES) as well as every contracted health insurance company are required to operate a toll-free line (TFL) for beneficiaries. Currently, there are several Toll-Free lines available for clients and service providers:

ASES: 1-800-981-2737 Triple C: 1-800-981-1352 and 1-800-255-4375 MCS: 1-800-981-2554 Humana: 1-800-790-7305 Patients' Ombudsman Office: 1-800-981-0031

A total of 1,183 calls requesting information were received at the state TFL and the central and regional directors' offices. In addition, APNI, a CBO that provides services to CSHCN families, reported 404 calls. For year 2005, 134 calls requesting information on CSHCN services were reported by Data Voice. The Sexual Assault Victim Center (CAVV) reported a total of 285 information calls during this reporting period.

#### **POPULATION BASED**

\*Regional MCH staff developed 11,415 educational activities on MCH topics reaching 166,144 persons. Central office personnel participated in six radio or TV programs discussing a diversity of MCH topics, without cost to our program. Regional MCH staff also documented over 651 participations in health fairs and multiphase clinics that reached over 36,371 participants.

\*The Sexual Assault Victim Center (CAVV) reported a total of 565 educational activities that reached 19,304 participants all over the Island. The CAVV staff participated in four radio or TV programs and collaborated in the publication of three articles. The CAVV also reported participation in a university forum about sexual assault in a private university in Puerto Rico.

\*The Naranjito Adolescent Program (NAP) held educational activities reaching 2,541 participants.

\*APNI carried out a series of activities for families of CSHCN. These included 22 fairs for parents reaching 1,124 persons all over the Island. APNI also offered orientations to parents and professionals by phone and in person about different laws (IDEA, ADA, No Child Left Behind) and services for CSHCN and families.

\*One training on the Birth Defects Surveillance System and the PR Birth Defects Coalition was provided to students of the UPR-Cayey Campus, six lectures for physicians identified by the health insurance companies and two lectures for counselors of the Department of Education. In 2005, the Folic Acid Campaign staff participated in 30 activities across the island to increase the number of women of reproductive age using folic acid, reaching 4,151 participants. The Folic Acid Awareness Day was celebrated in various universities, with 3,000 participants. During the Birth Defects Prevention Month, 6,000 primary physicians received preconceptional health information electronically from the health insurance companies.

#### INFRASTRUCTURE BUILDING

Ongoing needs assessment, data analysis, technical assistance, training and other related

activities.

\*Development and dissemination of the Integrated Index of MCH by Municipality for 2004.

\*The HS Consortium held six meetings.

\*Professionals from the MCH Division provided training to regional staff on the following topics: Questionnaire administration for the Study of Early Prenatal Care, Focal group development, Qualitative research and Anthropology (culture and health).

\*Personnel of the MCH Division received an on-site technical assistance on MCH Epidemiology taught by Dr. Juan M. Acuña from the CDC. Part of the central staff also participated in the wrapping up activity of the MATRICHS Technical Assistance in collaboration with the faculty of the Public Health Practice Division of the University of Rochester. Staff of the MCH Division also participated in the Infant Adoption Training Initiative. A total of 118 professionals participated in the training.

\*The Sexual Assault Victim Center (CAVV) reported more than 105 training activities provided to social workers, police officers, and health professionals.

\*Ongoing Needs Assessment for Persons with Autism Spectrum Disorders to be completed by December 2006. The results will guide the development of public policy by PRDoH.

\*The State ECCS Inter agency Committee is collaborating with the Legislature for the development of public policy for the early childhood population.

\*Ongoing trainings to professionals and students from collaborative agencies to maintain and expand the Birth Defects Surveillance System and the PR Birth Defects Coalition.

\*The CSHCN Program has participated in six meetings of the Alliance for Full Participation organized by the Institute on Developmental Disabilities of the Center for Excellence (UAP). A needs assessment study was completed and was presented at the Summit 2005 in Washington, DC. As a result an action plan is being developed.

\*The PR Asthma Coalition is collaborating with the Asthma Project in the State Asthma Plan and the Asthma Surveillance System.

\*A Medical Home Questionnaire was as administered to 113 pediatricians island wide to determine if services are provided according to the medical home concept.

\*A family survey to determine satisfaction with health services and community support services is under way and will provide information for NPM 2 and 5 and for Title V CSHCN Action Plan. Staff of the Healthy Start Project had an active participation in the Healthy Start Grantee Meeting in Arlington, VA. Their participation included presentations in three workshop sessions where they shared experiences with other HS professionals: Evolution of consumer participation recruitment strategies in the PR Healthy Start Project, The PR Healthy Start Project and Title V, working hand in hand to improve maternal and child health, The impact of Home Visiting Services on the adequacy of Prenatal Care and Key Birth Outcomes. //2007//

#### **G.** Technical Assistance

The new Guidance set for the Title V Application and Annual Report requires that States report progress in achieving the established annual performance indicator for each of the 18 National

Performance Measures, all the State Negotiated PMs (9 in PR), 11 HSCIs and other health status and sociodemographic indicators and 6 outcome measures. This is great challenge for those jurisdictions with limited resources and which at the same time are left out of national surveys that provide the data for some of the PMs. The latest example of a survey which did not consider the needs of the jurisdictions is the SLAITS. This survey will help the States by providing the data to monitor some of the PMs concerning the CSHCN population. However, the jurisdictions must report progress on performance measures #02, #03, #04, #05 and #6 even though they were not included in the SLAITS.

Currently, the PR CSHCN program does not have the needed data to monitor the progress of the five national performance measures mentioned earlier. There are no data for either the denominator nor the numerator of these performance measures.

Since in 2005-2006 states and jurisdictions will have to perform the comprehensive and mandated 5 year needs assessment, a TA concerning the needs assessment of the population of CSHCN is desperately needed. Some of the questions that need to be answered for the CSHCN include:

- 1. How many children with special health care needs are there in the Island?
- 2. What is the distribution by age group?
- 3. What are the most prevalent conditions?
- 4. In which geographical areas do these children live?
- 5. What services are available for them and where?

6. How many providers are there according to identified prevalent conditions, and where do they practice across the Island?

7. Others.

Initial conversations with Dr. Michael Kogan have already taken place on Puerto Rico's need to collect pertinent data for CSHCN. The Division of Habilitative Services firmly believes it is necessary to request TA for this endeavor in order to be successful.

The TA should be geared to assist us in designing the most appropriate process to gather the needed information to answer the aforementioned questions, what are the minimal resources needed to carry out the task and to obtain reliable and useful data.

Therefore we request that our MCHB Project Officer come to PR, gain knowledge of our service delivery system and recommend the appropriate MCH staff person to assist us in the process of developing, adapting, testing and administering the Spanish SLAITS CSHCN survey to the general population.

Technical assistance also is being requested to assist the Title V CSHCN Program in the planning and development phases of a comprehensive strategic transition plan partnering with all stakeholders to comply with the NPM#6.

/2007/ The Habilitation Section, along with the staff of the MCH Division, will establish a collaborative effort to develop a questionnaire based on the CSHCN SLAITS Spanish version. Questions pertinent to NPM 2-6 will be evaluated for inclusion and others will be added to make it culturally and linguistically appropriate. In addition, PR has identified the need to collect data on the prevalence of CSHCN conditions island wide and by municipality, as well as the socio-demographic data for this population. This information will be collected using either the SLAITS or another instrument designed by the MCH Monitoring, Evaluation, Investigation Section established by Administrative Order No. 207.

The Title V Application and Annual Report requires that states report their progress towards achieving the established annual objectives for Health Status Indicators (HSI) and Health System Capacity Indicators (HSCI). One of the data sources used for this purpose

is the Hospital Discharge Survey. It provides data for HSI 4A: the rate of non fatal injuries in children of 14 years of age and older; HSCI 01: the rate of hospitalizations among children 0-4 years due to bronchial asthma; and HSCI 9A: the ability of the MCH program to obtain data for program planning or policy purpose in a timely manner. The Hospital Discharge Survey is conducted annually by the National Center for Health Statistics, and collects medical and demographic information from a sample of discharge records selected from a sample of hospitals. The data collected serve as a basis for calculating statistics on hospital utilization related with preventable conditions such as those described above.

Reporting data on these indicators is a great challenge for territories and jurisdictions with limited resources that do not participate in these national surveys. In order to obtain quality and timely data needed to report on these HIS and HSCI, the Puerto Rico Department of Health is requesting a technical assistance. It will allow us to initiate the planning phase for the PR Hospital Discharge Survey Project. During this phase we will adapt and customize the survey to our local needs and language specifications. Being able to have key personnel from the National Center for Health Statistics assist the MCH Division Monitoring and Evaluation Section during this phase will increase our ability to have data to monitor our progress toward improving the health and wellbeing of our target population. We intend to submit a formal request for this technical assistance and begin our planning phase during this current budget year.//2007//

### V. Budget Narrative

#### A. Expenditures

#### /2007/ Completion of Budget Forms

Please refer to budget columns of Form 2, Form 3, Form 4 and Form 5 for FY 2004-2005. Estimates had to be used in providing budget and expenditure details. Breakdown of expenditures by type of services is a very difficult task when we try to assess the performance of a public health professional. This task is quite easy at the first level of the pyramid related to direct services. At this level, we know who serves the different groups of the MCH population and the amount of time dedicated to each of the subgroups, allowing us to determine the expenditures by type of individuals served. But trying to estimate the amount of time dedicated to each of the subgroups comprising the MCH population, as well as the time dedicated to perform enabling, population-based or infrastructure building services, is not an easy task. For this reason, estimates had to be made and this may lead to discrepancies between the budgeted and the expended figures by levels of the pyramid. The expended columns reflect the real expenditures registered accordingly to the pyramids levels. Adjustments have been made progressively to the budgeted funds to reflect the behaviors of the accounts during the past years. //2007//

#### **B. Budget**

/2007/ Program allocations have taken into account the 30-30-30-10 requirements established by Title V. Efforts are made to match funds according to the identified needs through the four levels of the MCH pyramid, as well as the three groups of individuals that comprise the target population.

Puerto Rico assures that the MCH funds are used for the purposes outlined in Title V, Section 505 of the Social Security Act. Traditionally, a fair method has been used to allocate Title V funds among individuals and geographic areas having unmet needs. The fair allocation of funds is guided by an Integrated Index of Maternal and Infant Health Status (IIMIHS) developed by the MCH Division to assess the health needs of the target population by municipality. One of the benefits of using this Index is that the information necessary to evaluate each of its variables is available on an ongoing basis through analysis of birth and death files. The IIMIHS is a useful tool for guiding the allocation of resources for Components A and B across geographical areas (Table II-1). The Division of CSHCN allocates Title V funds guided by the needs assessment's findings and the national and state performance measures.

A total of 35% of Title V Block Grant Funds are allocated for the CSHCN program. Thirty percent (30%) is used to provide services at the Pediatric Centers island wide. This includes salaries and benefits of the staff, professional service contracts, medications not covered by the GIP, nutritional supplements and assistive technology devices, following established procedures. The other five percent (5%) is used to cover the administrative costs for central level and the seven Pediatric Centers.

As of May 2006, the MCH Division has 103 Home Visiting Nurses, 81 community health workers, eight perinatal nurses and five health educators across the Island. At the regional levels we have eight teams. Most teams are comprised of the regional MCH director, coordinator of reproductive health, coordinator of preventive services for children, coordinator of adolescent health, and administrative support staff. At the central level we have 23 regular positions and 12 contracts. Contracts positions paid with Title V funds include a Biostatistician, one Epidemiologist, two Evaluators, one Anthropologist and two Physicians. At Central Level, the Division of Habilitation Services has a total of 26 positions: 17 regular positions, eight contracts and one CDC Fellow. Contract positions include: an Evaluator, a Folic Acid Campaign and Birth Defects Surveillance System Coordinator, a Genetic Counselor, an Information System Administrator, two Epidemiologists, one for the CSHCN Title V Program and one for the Asthma Surveillance System, an Universal Newborn Hearing Screening Coordinator and one Asthma Project Coordinator. The CDC Fellow has been assigned for the planning, development and implementation of an Autism Surveillance System. Positions paid by Title V funds include 14 at Central Level and 139 at the regional levels, for a total of 153 positions.

#### Allocations by Levels of the Pyramid:

Direct Services: Previously, the MCH funds were assigned to the purchase of contraceptive methods to support the family planning services rendered through the health care reform for women holding the GIP. This service provided by MCH may be affected by the reduction of funds, the increment of costs of methods and the legislated salary raise for nurses. Even though family planning services, including sterilization of males and females, are included in the GIP, contraceptive methods are not included in the benefit package. The salaries of the seven Pediatric Centers specialized providers are included in this item.

The needs of CSHCN identified through the needs assessment support our efforts to make specialized services available through the Pediatric Centers. The Metropolitan Area Pediatric Center, administratively under the Pediatric University Hospital for the past ten years, remains a supra tertiary referral center and provides services not available at the regions for children and families referred by the other six Pediatric Centers. The Metropolitan Area Center offers a great variety of sub-specialized services to our population.

Enabling Services: A significant amount of Title V funds from this level is needed to support salaries, local travel, and uniforms expenses for the 103 Home Visiting Nurses and eight perinatal nurses. The HVNs are specially trained public health nurses who provide health education and coordinate services through referrals to the appropriate private and public entities in their communities. Funds are allotted to cover expenses for the Toll-Free Information Line to disseminate the services provided by CSHCN and MCH, and for an additional information line about services available at the Pediatric Centers. Also, a part of these funds are set aside to support a community based organization that promotes adolescent health (Plain Talk Project).

Population-Based Services: Title V funds are used to sustain the NTD prevention campaign, injury prevention, salaries and local travel expenses of the health educators. These funds are used to purchase educational materials according to the performance measures and incentives that promote the toll-free line and convey wide array health promotion messages. The salaries for the staff of the Comprehensive Adolescent Health Program (SISA), including an anthropologist, a physician expert in adolescent health, and the social workers are assigned to this pyramid level. The 81 Community Health Workers in eight regions as well as their local travel expenses, are allocated to this level. The Community Health Workers have the responsibility to identify pregnant women and children outside the health care system and facilitate their enrollment in the GIP.

Infrastructure Building Services: To sustain the infrastructure of MCH/CSHCN programs, funds are used for the salaries of central and regional administrative staff. This area

developed in the MCH program is comprised by a team including a Biostatistician, Epidemiologists, and Evaluators, among other skilled public health professionals. Funds are also invested for needs assessment and other core functions, equipment, professional development, the purchase of computers, e-mail and informatics system maintenance, support for applied research and surveillance. All travel expenses required to attend meetings, conferences and trainings in the mainland, and other related activities are paid with these funds.

The Pediatric Centers bill the insurance companies for the services provided to CSHCN under the GIP. As the reimbursement process is becoming more efficient, an improvement in the amount of money collected is observed. Income generated during 2005-2006 amounted to \$542,749.00. These funds will be used to support the billing unit and provide for their priority needs, cover some of the non-recurrent expenses at the Centers, continue supporting the information system and pay for additional sub specialty services at the Pediatric Centers.

State dollars used to provide services to the MCH population surpass by many times the requirements for the match. State funds appropriations are used for the GIP and the implementation of a broad array of programs and services that contribute to improve the health and well being of the MCH populations. Table V-1 presents a list of several programs supported by State dollars.

In addition to MCH dollars and the State funds listed in Table V-1, there are other federal sources of funds that contribute to the achievement of the MCH outcomes. These are included in Form #2.

Budget documentation: The Fiscal Affairs Office of the Department of Health and the Office of Federal Affairs maintain budget documentation for Title V funding and expenditures consistent with section 505(a)(1).

Allocations for FY 2006-2007: The estimated amount of money to run the MCH/CSHCN programs during FY 2006-2007 is as follows:

Federal : \$16,274,253.00 Unobligated: \$2,204,550.00 (FY 2005-2006) State Matching: \$13,859,102.00 Program Income: \$542,749.00 Total : \$32,880,654.00

The unobligated balance allows us to continue running both MCH/CSHCN programs during the first trimester of FY 2006-2007, since the funds herein requested are not available until late November or early December of the fiscal year.

#### Allocation by MCH Population Groups:

A) \$4,882,276 (30%): for the provision of services to pregnant women, mothers and infants.
B) \$4,882,276 (30%): for the provision of preventive services for children.
C) \$4,882,276 (30%): for the provision of services to CSHCN.
D) \$1,627,425 (10%): From this amount, 5% is for program administration of Components A

and B; and 5% for administration of the CSHCN program.

Administration: Up to 10% of the federal allocation is used to support salaries of administrative staff, internal audit, newspaper announcements, office supplies, document reproduction, mailing, AMCHP annual membership and others. The CSHCN Program covers part of its administrative costs from the 35% allocated from the MCH Block Grant.

#### Other Requirements

Maintenance of Efforts: Puerto Rico is in compliance with maintenance of effort requirements as described in Section 505(a)(4). In fact, PR exceeded efforts of the 1989 program year. As of December 2005, ASES reported 1,543,306 individuals of all ages and both sexes were covered by the GIP in Puerto Rico. Among these, 388,762 were women 15-49 years of age, 22,357 were infants <1 years of age, and 448,685 were children 1-19 years old, including CSHCN.

During the FY 2004-2005, of all individuals holding the GIP, the MCH population represented 55.7%. The annual cost per person was \$861.96 (\$71.83 per month). Table V-2 summarizes the funding sources provided by the State to pay for the health services of the population holding the GIP.

Considering that 55.7% (859,621) of the beneficiaries of the GIP represent the MCH population, it is estimated that PR invested over \$795,733,967 in state and local funds to pay for the MCH services. We assume that 33%, or \$262,592,209, were invested in preventive and primary services for the MCH population. In addition, about \$165,000,000 of Medicaid and \$42,300,000 of SCHIP were also used for this segment of the population.

Several earmarked state funds allocated for special services and programs were also identified. These include \$1,744,717 for the Pediatric AIDS program, \$200,000 for the Newborn Screening for Hereditary Diseases Program, \$100,000 for the EMSC program, \$7,118,185 to support 105 children and adolescents with Catastrophic Illnesses, and others totaling \$9,162,902. Definitely, the Commonwealth of Puerto Rico surpasses the matching requirements of Title V. (Table V-1) //2007//

An attachment is included in this section.

### **VI. Reporting Forms-General Information**

Please refer to Forms 2-21, completed by the state as part of its online application.

### **VII. Performance and Outcome Measure Detail Sheets**

For the National Performance Measures, detail sheets are provided as a part of the Guidance. States create one detail sheet for each state performance measure; to view these detail sheets please refer to Form 16 in the Forms section of the online application.

## VIII. Glossary

A standard glossary is provided as a part of the Guidance; if the state has also provided a statespecific glossary, it will appear as an attachment to this section.

### **IX. Technical Note**

Please refer to Section IX of the Guidance.

### X. Appendices and State Supporting documents

### A. Needs Assessment

Please refer to Section II attachments, if provided.

### **B. All Reporting Forms**

Please refer to Forms 2-21 completed as part of the online application.

### C. Organizational Charts and All Other State Supporting Documents

Please refer to Section III, C "Organizational Structure".

### **D. Annual Report Data**

This requirement is fulfilled by the completion of the online narrative and forms; please refer to those sections.