Influencing Interventions to Promote Positive Pregnancy Outcomes and Reduce the Incidence of Low Birth Weight and Preterm Infants

Policies, Programs and Avenues for Advocacy

Prepared for the March of Dimes

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Any views expressed in this report are solely those of the authors and do not necessarily represent those of the March of Dimes.

Executive Summary

Preterm delivery is a serious health problem across the United States. According to the National Center for Health Statistics, between 1990 and 2002, rates of preterm birth (delivery of infants before 37 weeks gestation) increased more than ten percent, from 10.6 to 12.1 percent. The effects of preterm birth can be severe, with preterm birth being the leading cause of neonatal mortality.

While more clinical research is needed to better understand the causes of preterm labor and delivery, the magnitude of this problem supports the need to continue to develop and test public policy approaches for preventing preterm birth. The insights of public officials and private sector policy-makers on this issue can be essential to the ongoing process of identifying effective policies and strategies.

<u>Role of Medicaid.</u> Medicaid finances over one-third of the nation's births and is therefore very important to any discussion of pregnancy outcomes, including prematurity. Some states have engaged in activities to improve enrollment of eligible pregnant women in their Medicaid programs. These include simplifying application and enrollment procedures, eliminating asset tests, providing continuous Medicaid eligibility during pregnancy, and instituting presumptive eligibility, which allows providers to grant immediate, temporary Medicaid coverage prior to the completion of a formal eligibility process.

Overall, in most states, Medicaid provides fairly comprehensive prenatal benefits. There are, however, some key areas of concern, such as the limited coverage for smoking cessation, which is particularly problematic given the relationship between maternal smoking and low birthweight and preterm births. Another concern is ensuring quality, accessible, and integrated care for all the services needed by pregnant women enrolled in Medicaid. While some services may be provided by obstetricians/primary care providers, others, such as psychosocial counseling and substance abuse treatment, are provided in other venues. In order to ensure quality, accessibility, and consistency, states must assure the availability of quality providers in these areas. In addition, many pregnant women receive services through managed care plans

that have state Medicaid contracts. In order to ensure consistency and quality it is important that standards for services be spelled out in managed care contracts.

Case Studies. Four projects—located in Delaware, California, Montana, and Colorado—illustrate how Medicaid programs can interact with and support programs using interesting approaches to the promotion of positive pregnancy outcomes. Each of the projects highlighted focus on approaches to fostering positive pregnancy outcomes that emphasize:

- Early access to prenatal care;
- Education and risk assessment with appropriate follow-up intervention; and
- Care coordination.

More specifically, the projects identify high-risk pregnant women and target their interventions to those risks. For example, maternal smoking is a risk factor for low birthweight and preterm births and the projects target this by providing smoking cessation interventions.

Another important attribute of the projects highlighted is their organizational and financing creativity. These projects provide examples of the different roles that Medicaid can play in supporting interventions to promote positive pregnancy outcomes. For example, Montana uses targeted Medicaid case management in its program, while the California project encourages early enrollment into care of those eligible for Medicaid and then builds on Medicaid reimbursement to provide additional services for high-risk pregnant women. Colorado developed a financing "package" of services while the Delaware project developed a system to coordinate with Medicaid to avoid duplicative effort and maximize available resources.

Each project has focused on what is possible and pragmatic, and works to both sustain what is in place while continuing to work for expansion. With "many roads to Rome", it is important to identify and weave together organizational and financing approaches and strategies in ways that make sense for individual states. This is particularly important in difficult financial times such as those currently being experienced by states across the country.

Introduction and Purpose of the Project

The extent of the problem of preterm delivery in the United States is well documented and represents a serious health problem across the country. According to the National Center for Health Statistics, between 1990 and 2002, rates of preterm birth (delivery of infants before 37 weeks gestation) increased more than ten percent, from 10.6 to 12.1 percent. This rate was over 50 percent higher than the Healthy People 2010 objective set by the U.S. Department of Health and Human Services of no more than 7.6 percent. Of special concern is the significantly higher rate of preterm delivery among African-American and Hispanic women.[1]

The effects of preterm birth can be severe, with preterm birth being the leading cause of neonatal mortality.[2] Preterm birth can also have lifelong effects on those infants who survive the neonatal period, including cerebral palsy, autism, mental retardation, and vision and hearing impairments, as well as other developmental disabilities and neurological impairments.[3] In addition to its human toll, preterm birth carries with it significant economic costs. According to the March of Dimes, the national hospital bill for premature infants alone totaled $13.6 billion in 2001.[4]

Despite the clear need for strategies to address this costly and growing problem, our understanding of the causes of preterm birth is limited. While a range of risk factors for preterm delivery has been identified and interventions developed in attempts to address them, there is, however, a lack of scientific evidence for the effectiveness of the interventions developed.

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[1] Martin, JA, Hamilton, BE, Ventura SJ, Menacker F, Park MM. Births: Final Data for 2000. *National Vital Statistics Reports 2002*; 50(5).

[2] Goldenberg RL. The management of preterm labor. *Obstetrics and Gynecology* 2002;100(5).

[3] McCormick MC. The contribution of low birthweight to infant mortality and childhood morbidity. *New England Journal of Medicine* 1985;312:82-9.

[4] March of Dimes. News Release. November 18, 2003. http://www.marchofdimes.com/aboutus/9564_10358.asp

Despite this, and due to the magnitude of the problem, it is important to continue to develop and test public policy approaches to preventing preterm birth. Moreover, the insights of public officials and private sector policy-makers on this issue can be essential to the ongoing process of identifying effective policies and strategies. Therefore, the purpose of this project is to:

- Examine the role of national policy and Medicaid financing efforts as they relate to specific interventions or programs designed to promote positive pregnancy outcomes and reduce the incidence of preterm labor and delivery;
- Identify current programs or activities promoting positive pregnancy outcomes that involve state Medicaid programs; and
- Explore opportunities for March of Dimes (MOD) Chapter advocacy in promoting the involvement of state Medicaid programs in fostering positive pregnancy outcomes and the reduction of the incidence of preterm birth.

To understand current public policy and financing efforts and their implications for the future, it is important to start with an understanding of the preterm birth problem, by examining both what we know and what we do not know about preterm birth. Current interventions are based on both what we know and what we think might be helpful in addressing the problem of prematurity. In addition, there is often a relationship between the perceived efficacy of an intervention and whether or not the Medicaid program reimburses the intervention.

Therefore, this report begins with a brief summary of the potential causes of prematurity, followed by a review of national policy efforts, federal programs, clinical guidelines, and proposed legislation designed to promote positive pregnancy outcomes. A description of current Medicaid eligibility and benefits for pregnant women is then provided. This is followed by several brief case studies that reflect how actual "on-the-ground-programs" are addressing and financing the provision of services to promote positive pregnancy outcomes and decrease the incidence of preterm birth.

The report concludes with an analysis of the discussion and implications for March of Dimes advocacy at the Chapter level.

A. What is Known About Preterm Birth: How is the Problem Being Addressed at the National Level?

The following is a summary of what we do and do not know about preterm birth, and the public policies, federal programs, and proposed legislation designed to impact pregnancy outcomes.

1. Why Do Women Deliver Early?

In response to the question, "why do women deliver early?" the answer in most cases is, "no one knows." Nonetheless, researchers have made some progress in learning more about the potential causes of prematurity and studies suggest that there may be four main pathways or routes leading to premature labor. These include:

- Maternal or fetal stress;
- Infections;
- Bleeding; and
- Abnormal Uterine Distension.[5]

While these are seen as the major mechanisms for the occurrence of preterm labor/delivery, the mechanisms are often discussed in the literature in terms of predictors of preterm birth, or risk factors for preterm delivery. A number of other maternal factors have also been identified as associated with preterm delivery and therefore as possible risk factors. Some of these include:

- Previous history of preterm delivery;
- Multiple gestations and maternal age;
- Pregnancy intention;
- Socio-economic status;
- Racism;

[5] March of Dimes. www. marchofdimes.com/prematurity/.

- Violence;
- Smoking and substance abuse; and
- Genetic factors.

The relationship of maternal smoking and low birthweight birth due to intrauterine growth retardation has been established and is also suspected as playing a significant role in preterm birth. In addition, there is a growing body of evidence of an association of infection with preterm delivery. At the same time, research into stress-induced preterm delivery holds promise for all women, with this research holding special promise for women of color.[6] Overall, researchers are increasingly seeking a better understanding of the interactions among a group of risk factors.

Clearly a better understanding of the causes of prematurity is critical to the identification and promotion of public policy and financing strategies that can address the occurrence of preterm labor/delivery. Without this scientific knowledge base, the design and testing of interventions to reduce preterm birth will be impossible.

2. Public Policies Affecting Pregnancy Outcomes

Since policy-making in the U.S. is generally not focused on specific outcomes, it is not surprising that there is no clear set of national policies related to improving pregnancy outcomes. Policies at the national, state, or local level can be directed to one of the specific factors affecting pregnancy outcomes or a group of factors. These policies may be woven together in any number of ways, with the ultimate goal of promoting positive pregnancy outcomes. For example, a policy designed to decrease the number of unintended pregnancies can be woven together with the Title X Family Planning and Medicaid Programs to facilitate access to reproductive health care for women of childbearing age.

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[6] Hogue CCJ, Vasquez C. 2002. Toward a Strategic Approach for Reducing Disparities in Infant Mortality. *American Journal of Public Health* 92(4):552-556.

A brief description of relevant national agenda-setting efforts, federal grant programs, clinical guidelines and recently proposed legislation follows.

a. National Agenda-setting Efforts. While at this time, there are no national policies specific to the reduction of preterm births, there have been several national efforts to promote better birth outcomes.

Various non-governmental committees and organizations have been convened to shape national policy toward prenatal care. One example is the Committee on Perinatal Health, which issued a report on regionalizing perinatal care and a report recommending four general strategies as components of an agenda for perinatal care. These strategies included health promotion and education, risk assessment, universal access, and the creation of state and local Perinatal Boards.[7,8]

Other groups playing important roles in setting the agenda for perinatal health policy include the Public Health Expert Panel on the Content of Prenatal Care, the Institute of Medicine's Committee on Unintended Pregnancy, the National Campaign to Prevent Teen Pregnancy, and an array of foundations and advocacy groups that have produced documents on this issue. The Secretary's Advisory Committee on Infant Mortality (SACIM), Low Birth Weight Subcommittee recommended in their June 2001 report the establishment of a Department of Health and Human Services (DHHS) Interagency Working Group on Low Birth Weight and Preterm Birth. The purpose of the group would be to galvanize multidisciplinary research, scientific exchange, and collaboration among DHHS agencies and to assist DHHS in targeting efforts to achieve the greatest advances toward the national goal of reducing preterm and low birthweight babies.

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[7] Committee on Perinatal Health. Toward Improving the Outcomes of Pregnancy: Recommendations for the Regional Development of Maternal and Prenatal Health Services. March of Dimes Nation Foundation. 1976.

[8] AAP and ACOG. Guidelines for Perinatal Care. Fifth Edition. 2002.

Finally, in overall policy efforts, the March of Dimes continues to be one of the most influential organizations involved in public policy discussions on prenatal care and the improvement of birth outcomes.

b. Federal Grant Programs. There are a variety of federal efforts that address issues related to preterm births. These include most predominantly the Title X Family Planning Program, the Title V Maternal and Child Health Block Grant Program, and the Healthy Start Initiative. Each of the federally funded and state or locally implemented efforts is designed to improve the health of women of childbearing age, and support positive pregnancy outcomes.

c. Clinical Guidelines and Recommendations. A variety of clinical guidelines and recommendations designed to improve pregnancy outcomes and decrease the incidence of low birthweight and premature birth have been developed. These include the *Guidelines for Perinatal Care* published by the American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG), with the support of the March of Dimes. This is a comprehensive set of guidelines and includes preconception care and management of preterm birth. The *Guide to Clinical Preventive Services* is a document developed by the U.S. Preventive Services Task Force and is regularly updated with extensive detail about available evidence regarding the effectiveness of clinical preventive services. Other relevant documents include *Health Care Guidelines: Preterm Birth Prevention*, published by the Institute for Clinical Systems Improvement and the *Management of Maternity Care (MOM Care) Program Guidance*.

These guidelines contain a number of recommendations regarding some of the key factors cited earlier in this report thought to be associated with poor pregnancy outcomes (e.g., lack of preconception care and tobacco use). However, other factors, including an array of psycho-social factors, infection and socioeconomic status, and racism are not generally addressed in current guidelines.

d. Proposed Federal Legislation. In October 2003, two legislative bills were introduced in Congress to address issues related to preterm birth. The *Prematurity Research Expansion and Education for Mothers who deliver Infants Early* (PREEMIE) bill was introduced in the Senate and in the House via companion bills. The PREEMIE Act would expand research into the causes and prevention of premature birth, including identification of the factors that make premature birth more prevalent in the African-American community. In addition, the Act would increase education and support services related to prematurity and authorize the National Institutes of Health and the Centers for Disease Control and Prevention to "expand, intensify and coordinate" research related to prematurity.

The PREEMIE Act would establish an Interagency Coordinating Council on Prematurity and Low Birthweight to stimulate collaboration among federal health and human services agencies and target the most promising efforts to reduce the incidence of premature and low birthweight. Several demonstration projects would also be authorized by the Act, including projects to disseminate information on prematurity to a wide array of audiences.

Another bill, The *Prevent Prematurity and Improve Child Health Act of 2003*, was introduced in the Senate with a companion bill introduced in the House. The proposed legislation would give states increased flexibility and the federal resources needed to improve access to prenatal care for low-income women. The bill would give states new options to cover pregnant women under the state Children's Health Insurance Program (SCHIP) and to cover low-income immigrant pregnant women and children under Medicaid and SCHIP. The proposed legislation would improve and expand coverage for pharmaceuticals and counseling to help income-eligible pregnant women enrolled in the program to quit smoking. It would also permit states to extend Medicaid coverage for family planning services without having to obtain a waiver. Finally, it would give states the ability to use federal funds available under SCHIP to include income-eligible infants and children with special health care needs who are underinsured by their families' health insurance policies, as is currently permitted in Medicaid.

3. Medicaid Policies

The Medicaid Program is very important to any discussion of pregnancy outcomes, as it is a major source of health insurance coverage for pregnant women, with over one-third of the nation's births to women enrolled in the Medicaid program. Given the large percentage of births covered by Medicaid, policies affecting Medicaid enrollees and Medicaid benefits have a tremendous impact on perinatal health insurance coverage in the United States.

Medicaid Eligibility. States are required to offer Medicaid coverage to pregnant women with family incomes below 133 percent of the Federal Poverty Level (FPL), although they have the option of raising the income standard to 185 percent of FPL. In addition, states can count income and resources in such a way that they are able to effectively raise the income limit well above 185 percent of FPL.[9] Table I displays the Medicaid income eligibility thresholds for pregnant women by state for the years 1995 and 2002. In addition, the table indicates whether the state offered state-funded coverage to immigrants who were pregnant in 2002. Eleven states still only cover pregnant women who meet the minimum federal income requirement of below 133 percent of FPL.[10] Although California has a Medicaid limit of 200 percent of FPL, it has also developed a separate state program covering women with family incomes up to 300 percent of FPL (March of Dimes 2003). Nineteen states offer state-funded programs for pregnant women who are not eligible for Medicaid because of their immigration status. It is important to note that state-funded programs for immigrants not eligible for Medicaid may have different income limits than those displayed in the table.

A comparison of coverage of pregnant women in 1995 and 2002 as displayed in Table I reveals that many states expanded coverage during this period. Fourteen states increased their Medicaid eligibility income limits for pregnant women between 1995 and 2002. In addition, Colorado and New Jersey have higher income limits through the use of an SCHIP waiver.

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[9] Schneider, A. The Medicaid Resource Book. The Kaiser Commission on Medicaid and the Uninsured. July 2002.

[10] Colorado is not included in this count even though its official Medicaid income limit for pregnant women is families below 133 percent of FPL. Pregnant women up to 200 percent of FPL are covered under the State's Children Health Insurance Program (SCHIP) through a federal waiver.

Table I
Income Eligibility Thresholds for Pregnant Women by State, 1995 and 2002

State	Eligibility as Percentage of Federal Poverty Level	
	1995	**2002**
Alabama	133	133
Alaska	133	200
Arizona	140	140
Arkansas	133	133
California	200	200[11,I]
Colorado	133	133[12,I]
Connecticut	185	185 [I]
Delaware	185	200 [I]
District of Columbia	185	200 [I]
Florida	185	185
Georgia	185	235
Hawaii	300	185
Idaho	133	133
Illinois	133	200 [I]
Indiana	150	150 [I]
Iowa	185	200
Kansas	150	150
Kentucky	185	185
Louisiana	133	133
Maine	185	200 [I]
Maryland	185	250 [I]
Massachusetts	185	200 [I]
Michigan	185	185 [I]
Minnesota	275	275 [I]
Mississippi	185	185
Missouri	185	185 [I]
Montana	133	133
Nebraska	150	185 [I]

[11] California operates a separate State program that covers pregnant women up to 300% of poverty.

[12] Colorado covers pregnant women over 18 from 133% to 185% of poverty through an SCHIP waiver.

Table I
Income Eligibility Thresholds for Pregnant Women by State, 1995 and 2002

State	Eligibility as Percentage of Federal Poverty Level	
	1995	2002
Nevada	133	133
New Hampshire	185	185
New Jersey	185	185[13,I]
New Mexico	185	185
New York	185	200 [I]
North Carolina	185	185
North Dakota	133	133
Ohio	133	150
Oklahoma	150	185
Oregon	133	170 [I]
Pennsylvania	185	185
Rhode Island	250	250 [I]
South Carolina	185	185
South Dakota	133	133
Tennessee	185	185
Texas	185	185
Utah	133	133
Vermont	225	200
Virginia	133	133
Washington	200	185 [I]
West Virginia	150	150
Wisconsin	185	185
Wyoming	133	133

[I] State offers State-funded coverage to immigrant women who are pregnant and ineligible for Medicaid.

Sources: National Governor's Association Center for Best Practices. *MCH Update September 1995: State Medicaid Coverage of Pregnant Women and Children.* http://www.nga.org/cda/files/MCHUPDATE0995.pdf.
March of Dimes. *Maternal, Infant, and Child Health in the United States 2003.* Office of Government Affairs. 2003.
Chin, et. al. 2002.

[13] New Jersey covers pregnant women up to 185 of poverty under an SCHIP waiver.

California has implemented a separate state program with higher income limits than that allowed through their Medicaid program. Three states, Hawaii, Vermont, and Washington, lowered their Medicaid eligibility income limits during this period.

Further steps to expand coverage include a controversial Bush administration regulation giving states the option of providing coverage of fetuses through SCHIP. This regulation became effective in October 2002. Previously, states had to seek a federal waiver for their SCHIP programs in order to provide coverage for prenatal care for pregnant women. Covering pregnant women through SCHIP is appealing to states because the federal government provides a larger percentage of matching funds for every state dollar spent under SCHIP compared to Medicaid. In addition, the regulation permits coverage of prenatal care for legal immigrant populations, making federal funds available for services otherwise covered only with state funds.

However, waivers are subject to a variety of conditions that make them somewhat difficult to apply for and receive, especially in regard to expanding coverage. In April 2003, Michigan and Rhode Island became the first states to receive approval to cover services to pregnant women under the provision allowing states to cover services to fetuses.[14]

Despite the general trend toward the expansion of Medicaid eligibility for pregnant women, evidence from the 1990s indicates that through 1997 there was actually a steady increase in the percent of uninsured women. In 1997, 14 percent of pregnant women were uninsured, although three-quarters of them were actually eligible for Medicaid. Ensuring access to Medicaid involves more than setting income eligibility limits, and states have engaged in a number of activities to promote enrollment in their Medicaid programs. For example, some states have developed a variety of options to simplify eligibility and encourage participation. States also have the option of not examining the assets or resources of pregnant women as an application requirement for Medicaid. Asset tests often involve extensive paper work and gathering of material and this requirement may prevent applicants from initiating or following

[14] United States Department of Human Services. *HHS Approves Michigan, Rhode Island Plans to Expand Prenatal Care Under SCHIP.* News Release. http://www.hhs.gov/news/press/2003pres/20030417a.html. April 17, 2003.

through on the application process. In a survey done for the Kaiser Family Foundation in 1999-2000, 40 out of 48 states reported eliminating the assets requirement for pregnant women. States may also institute continuous Medicaid eligibility for women during pregnancy, which eliminates the need to prove or recertify their eligibility for benefits. The Kaiser survey indicated that only Hawaii, Montana, Tennessee, and the District of Columbia have not adopted continuous eligibility for pregnant women. Finally, states have the option of implementing presumptive eligibility, which allows providers to grant immediate, temporary Medicaid coverage to women who meet certain criteria prior to the completion of a formal eligibility process and are presumed to be eligible for the program. This allows for quick access to medical services and can be helpful in ensuring access to early prenatal care. Twenty-eight of the 48 states surveyed reported providing presumptive eligibility to pregnant women[15].

While obtaining health insurance is important, it is also important to examine the benefits offered through Medicaid programs. The next section examines state policies regarding coverage of prenatal services under Medicaid.

a. ***Medicaid Benefits: Prenatal Services***. Under Medicaid, states are required to provide coverage for certain services known as "mandatory" services. These include physician services, laboratory and x-ray services, inpatient and outpatient hospital services, and nurse-midwife services as allowed by state law. They may choose to cover other optional services such as prescription drugs and targeted case management services. No state offers only mandatory services, and even within mandatory services there is flexibility on exactly what services are covered and under what conditions. These categories do not apply to state-funded programs for immigrants not eligible for Medicaid. Many states restrict the services available under these programs, often limiting them to prenatal services only.[16]

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[15] Schwalberg, R., S.A. Mathis, M. Giffen, L. Mohamadi, B. Zimmerman, and E. Sines. *Medicaid Coverage of Perinatal Services: Results of a National Survey.* Health Systems Research. Report for the Henry J. Kaiser Family Foundation.

[16] Chin et al. 2002.

The most detailed recent analysis of Medicaid benefits offered by state Medicaid programs comes from the survey conducted for the Kaiser Foundation mentioned above. A survey containing questions regarding Medicaid eligibility rules and services was sent to 50 states and the District of Columbia. Responses were received from 47 states and the District of Columbia. Mississippi, New Mexico, and Wyoming did not respond. All of the states surveyed provide coverage through Medicaid for basic prenatal visits. However, there was variation among the states regarding the coverage of additional services often associated with improved pregnancy outcomes, including a reduction of preterm and low-birthweight births. Findings regarding several of these services are described below.

- ***Risk Assessments.*** Four states (Colorado, Connecticut, Georgia, and Michigan) of the 48 states responding to the survey indicated that medical risk assessments were not included as a Medicaid benefit.

- ***Psychosocial Counseling.*** Psychosocial counseling is a Medicaid benefit for pregnant women in 37 states.

- ***Nutrition Counseling and Vitamins***. Medicaid reimbursement is available for nutrition counseling in 34 states. More states (43) cover the costs of prenatal vitamins, with only the District of Columbia, Montana, New Jersey, North Carolina, and North Dakota not providing coverage for prenatal vitamins.

- ***Support Services***. Forty-two of the states include prenatal care coordination or case management in their Medicaid programs and 38 states cover transportation for pregnant Medicaid clients. Home visits are an allowable Medicaid benefit in 37 states. However, the specific population of pregnant women who can receive services through a home visit differ by state. For example, Colorado, Iowa, and Tennessee only cover prenatal home visits for high-risk women or when deemed medically necessary. Florida only covers home visiting services if the Medicaid enrollee is homebound for medical reasons. In Massachusetts, home visits are not covered directly by Medicaid, but some managed care plans use a home visiting strategy to provide services to high-risk enrollees.

- ***Substance Abuse Treatment for Drug and Alcohol***. Twenty-two states include substance abuse treatment for pregnant women as a billable Medicaid service. Colorado and North Carolina only provide this service to women who are eligible because they meet the income eligibility requirements for Medicaid that were in effect under the Aid for Families with Dependent Children (AFDC) Program. Since substance abuse treatment is optional coverage, states are able to restrict this coverage to certain categories of recipients.

Most of the states reporting coverage for substance abuse services as a benefit also indicated in the survey that they have no special programs for substance abusing pregnant women. California was an important exception to this, as the state Medicaid Department contracts directly with the State Department of Alcohol and Drug Programs to provide services. This finding is important because in the 1980s and 1990s concerns were raised about the lack of substance abuse treatment for pregnant women, and efforts were made to expand Medicaid coverage for this population.[17] This finding suggests that there may still be a need in this area and to the extent that states have these programs, they may not be closely linked with Medicaid.

- ***Smoking Cessation.*** The CDC has published the most recent information on Medicaid coverage of smoking cessation treatment for pregnant women. This survey was completed in the fall of 2000 and included responses from all 50 states and the District of Columbia. There is evidence that smoking cessation counseling and programs can be effective in assisting pregnant women to stop smoking. Despite these findings, most state Medicaid policies provide limited coverage of smoking cessation programs. Only 16 states include as a benefit some form of counseling for pregnant smokers. Eighteen states actually exclude smoking cessation pharmaceuticals (nicotine patches, gum, etc.) from their Medicaid drug formularies.[18] Ten states offer special programs, with nine of these including counseling and thirteen states cover home visiting programs that offer counseling. Six states cover both counseling and pharmaceutical interventions.[19]

Overall, in most states, Medicaid provides fairly comprehensive prenatal benefits. There are, however, some key areas of concern, such as the limited coverage for smoking cessation which is particularly problematic given the relationship between maternal smoking and low birthweight and preterm births. Another concern is the management of structures in which pregnant women enrolled in Medicaid obtain needed services. While some of these services may be provided by obstetricians/primary care providers, others, such as psychosocial counseling and substance abuse treatment, are provided in other venues. In order for these services to be effective, states must assure the availability of quality providers in these areas.

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[17] Chavkin, W., V. Breitbart, D. Elman, and P.H. Wise. 1998. National Survey of the States: Policies and Practices Regarding Drug-Using Pregnant Women. *American Journal of Public Health* 88: 117-119.

[18] Schwalberg R, Bellamy, H, Giffin M, Miller C, Williams SS. *Medicaid Outpatient Prescription Drug Benefits: Findings from a National Survey and Selected Case Study Highlights*. Kaiser Commission of Medicaid and the Unisured, October 2001.

[19] Ibrahim, J., H. Halpin Schauffler, D. Barker, and C.T. Orleans. Coverage of Tobacco Dependence Treatments for Pregnant Women and for Children and Their Parents. *American Journal of Public Health* 92: 1940-1942.

In addition, many pregnant women receive services through managed care plans with state Medicaid contracts.[20] In order to ensure consistency and quality it is important that standards for services be spelled out in managed care contracts. Sample purchasing specifications have been developed for state Medicaid agencies and other medical service purchasers that reflect the Public Health Service guidelines for preventive services. Among the sample specifications that have been published for pregnant women are those regarding reproductive services, including preconceptional and perinatal services, and smoking cessation.[21]

Table II summarizes the type of coverage by service and the number of states providing coverage as of March 2003.

Table II Services Covered By State Medicaid Programs (as of 3/2000)	
Covered Service	Number of States Providing Coverage
Case Management	42
Nutrition	34
Psychosocial Counseling	37
Smoking Cessation	18
Transportation	38
Home Visits	37
Substance Abuse Treatment	22

Given the significant budget deficits of the majority of states and the expectation of a continuing depressed state revenue picture, it is unclear how Medicaid eligibility and services

[20] Schwalberg, et al. 2001.

[21] Center for Health Services Research and Policy. *Sample Purchasing Specifications For Reproductive Health Services*. Center for Health Services Research and Policy. George Washington University Medical Center School of Public Health and Health Services. 2000.

Center for Health Services Research and Policy. *Sample Purchasing Specifications Related to Tobacco-Use Prevention and Cessation*. Center for Health Services Research and Policy. George Washington University Medical Center School of Public Health and Health Services. 2002.

for pregnant women may be affected. We do know, however, that all 50 states and the District of Columbia implemented Medicaid cost containment measures in FY 2003 and each of these states plan to put in additional spending constraints in FY 2004. Physician Medicaid reimbursement rates were cut or frozen in 41 states in FY 2003 and 38 states plan this action for FY 2004. This could result in a decrease in the availability of providers for pregnant women. Another cost savings measure used by states is to institute Medicaid eligibility limitations for some groups. Minnesota and Texas have reduced eligibility for pregnant women (from 275% to 200% of FPL and 185% to 158% FPL, respectively), and other states may consider this as a cost containment measure.[22] It will therefore be important for advocates to closely monitor state Medicaid programs.

The next section of the report contains brief case studies that describe how four "on-the-ground" projects are addressing the causes of poor pregnancy outcomes using some of the policy concepts and clinical recommendations described earlier. In addition, the financing of each project is described, including their relationship with the state Medicaid program.

B. Case Studies

Staff from four projects—located in Delaware, California, Montana, and Colorado—using interesting approaches to the promotion of positive pregnancy outcomes were interviewed to ascertain the rationale, activities, financing and outcomes of their efforts. A copy of the protocol used to guide these key informant interviews can be found in Appendix A.

1. MOMS Program (Delaware)

The Maternity Outcomes Management Services (MOMS) program at Christiana Care Hospital provides telephone-based case management services for high-risk pregnant women. The program, which has been in operation since August 2000, is funded entirely by the hospital and services are provided to patients without charge.

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[22] Smith V, Rekha R, Gifford K, Ellis E,Wachino V. *States Response to Fiscal Pressure: State Medicaid Spending Growth and Cost Containment in Fiscal Years 2003 and 2004: Findings from a 50-State Survey.* Kaiser Commission of Medicaid and the Uninsured, September 2003.

Christiana Care is a Level III hospital serving New Castle County and bordering areas of Pennsylvania, New Jersey, and Maryland. It houses a high-risk maternal-fetal medicine group and provides for about 7,000 deliveries a year. About 60 percent of women who deliver at Christiana Care participate in the MOMS program.

Rationale for the Project. The MOMS program was developed to improve the quality of social work services within the hospital. The program's administrator and founder was frustrated by the amount of information collected by hospital social workers that never found its way to the clinical providers, and the inability of the hospital to link antepartum risk factors and interventions to birth outcomes. For example, she had found that 29 percent of infants of women with a risk factor for domestic violence were admitted to the special care nursery, although the attending obstetrician may never know of this critical risk factor. This indicated a need for a continuum of care that begins during the prenatal period and provides physicians and nurses with information about both medical and psychosocial risk factors.

Project Interventions. Women who plan to deliver at Christiana Care are referred to the hospital by local prenatal clinics. All new patients are screened for medical and social risk factors, domestic violence, and risk for postpartum depression. The level of risk identified through these screens (rated on a scale of 0 to 3) determines the frequency of calls from the nurse case manager. Smoking, for example, automatically raises a woman's risk level, so a smoker may receive calls weekly while a non-smoker with few risk factors may be called only once a trimester. Case managers provide referrals to social work services, smoking cessation, or other services, both within the hospital and in the community.

The information gathered through the risk screens and throughout the pregnancy is included in a database that is available to physicians and nurses at delivery. This gives providers access to risk information that may be important during labor, and allows program administrators to link maternal risk factors to information about infant health and birth outcomes.

Outcomes Achieved. Although much of the data collected about the program's results are proprietary, program officials report success at improving birth outcomes. For example, the

preterm delivery rate among participants in the MOMS program is 10 percent, compared to 16 to 17 percent among non-participants. Other indicators that the program monitors include:

- Smoking rates;
- Preterm and low birthweight rates among smokers and non-smokers;
- Domestic violence rates, and relationship between domestic violence and admission to the special care nursery;
- Referrals to depression support groups;
- Number of physician contacts by nurse care coordinators;
- Education and counseling services provided by nurses;
- Preterm labor follow-up;
- Cultural support and translation services; and
- Most common referral services.

These indicators can be analyzed by insurance status, risk level, and number of referrals received, and compared to similar indicators for women who do not participate in the program.

Project Financing. Approximately 13 percent of MOMS participants are uninsured or are enrolled in Medicaid. However, the program receives no Medicaid reimbursement. Medicaid services in Delaware are provided through managed care plans, and the local plan in New Castle County, First State, provides its own case management services for pregnant women. In order to avoid duplication, the plan has asked the hospital not to provide care coordination to its members, and as a rule, the hospital complies, except when a woman is found to smoke, have anesthesia issues, or have other concerns that might affect her admission to the hospital.

Project Lessons. The MOMS program demonstrates the value of hospital-based care coordination, especially in an environment in which medical privacy requirements may restrict

the ability of providers to share information about patients. Having care coordination information in a single database with medical information gives providers a comprehensive picture of a woman's risks and history that can be critical at delivery.

The program also presents a creative solution to the ever-present problem of managing the case managers; although Medicaid enrollees are likely to have risk factors that would qualify them for MOMS, the hospital's program would likely duplicate the case management that the Medicaid managed care plan already provides. The hospital's willingness to take a back seat in the coordination of care for Medicaid patients represents an admirable effort to coordinate care on the system level. Finally, although complete information is not publicly available, it appears that the program has shown success in intervening in important risk factors such as domestic violence and smoking and in improving birth outcomes for high-risk women.

2. The Prenatal Plus Program (Colorado)

The Prenatal Plus Program is a Medicaid-funded program that provides care coordination, mental health, and nutrition services to high-risk pregnant women in Colorado.

Rationale for the Program. The program is a result of concern about the availability and access to prenatal care for pregnant women throughout the state judged to be at-risk due to:

- History of previous low birthweight infant;
- Age of seventeen years or younger at time of delivery;
- Recent or current alcohol or illicit drug use;
- Recent or current smoking behavior; or
- Underweight at pre-pregnancy (body mass index of less than 19.8).

If none of these factors apply, women may still qualify for the program if they exhibit three or more risk factors from a list of 13 other factors that include low socio-economic status, specific health conditions, poor social support, and domestic violence.

While it was designed as a statewide program, many areas of the state lack agencies that have agreed to be program providers. In 2003, there were 27 Prenatal Plus Programs operating in Colorado. Providers included county health departments, community health centers, nursing services, and hospitals.

Program Interventions. Pregnant women are referred into the program through a variety of sources. These include Medicaid enrollment, by their primary care provider, obstetrician-gynecologist, or at the WIC program. Their care coordinator, using a comprehensive needs assessment tool, assesses women enrolled in the program. Based on the needs assessment a woman may be referred to a mental health professional or registered dietician. The full program package of services involves 10 visits with any combination of care coordinator, mental health professional, or dietician. Two of the visits are required to be home visits or other visits away from the prenatal clinical care setting. Only one of the contacts may occur via telephone. Program services are available up to 60 days after delivery.

Outcomes Achieved. The Program has reported several important achievements, with program participants resolving many of the factors or behaviors that originally placed them at risk. For example, in 2002, half of the women who entered the program as smokers quit before they delivered, 55 percent of those with psychosocial or mental health problems reported them managed, and 62 percent of those with nutritional or weight gain risks resolved them. Among those who were using drugs, 87 percent reported quitting and 98 percent reported stopping alcohol consumption. Many of the women with multiple risks were able to resolve all of those risks.[23]

A study conducted by the University of Colorado Health Sciences Center suggests that the reductions in risk factors have resulted in better birth outcomes and cost savings for the Medicaid program. Babies born to Prenatal Plus participants were shown to have significantly higher birthweights compared to a comparison group of at-risk mothers. A total of 2,403 babies were born, resulting in an overall program low birthweight rate of 9.7 percent, with 233 of them low birthweight. If the women had not received the Prenatal Plus services, an

[23] Ibid, p. 7.

estimated 329 low birthweight infants would have been born, a considerably higher low birthweight of 13.7. The study found that average total Medicaid costs for Prenatal Plus participants and their infants was over $1,100 (22 percent) lower than those of a similar group of Medicaid participants.[24] While there are no specific findings for preterm rates, the findings do indicate the positive outcomes that can be achieved when interventions are directly targeted to risk factors.

Program Financing. Approximately 20,000 women have their prenatal care covered by Medicaid each year in Colorado and nearly two-thirds of them have risks that qualify them for the program. The total number of Prenatal Plus clients has grown from 1,864 in 1996 to 3,569 in 2002.[25] This is impressive growth, but represents a small fraction of the number of women and newborns who could benefit from the program. There are approximately 13,000 women who could benefit from Prenatal Plus services each year.[26]

The cost of the program to the state is actually quite low, partly due to its low rate of reimbursement. Providers are reimbursed $540 for a full package of services or $280 for a partial package. An analysis comparing actual costs with program reimbursement showed that the full package reimbursement of $540 covered only 39 percent of the actual costs of the services provided to these clients.[27] The low level of reimbursement is cited by program staff as a reason for a recent decline in the number of providers. The program peaked at 34 providers in 2001 but by the end of 2002 the program saw a large decline in providers, with six discontinuing participation. Program staff indicated that the failure to obtain an increase in reimbursement rates for 2003, combined with the poor economy, discouraged agencies from

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[24] Glazner, J.E., and B. Beaty. *The Effects of the Prenatal Plus Program on Infant Birth Weight and Medicaid Costs.* University of Colorado Health Sciences Center, December 2002.

[25] The Women's Health Section. Colorado Department of Public Health & Environment. *Prenatal Plus Program: Annual Report 2002.* p. 1.

[26] Ibid, p. 10.

[27] The Women's Health Section. Colorado Department of Public Health & Environment.

participating. While providers have been willing to subsidize services in prior years, many of the funds they used for these purposes have been reduced because of economic conditions.

Project Lessons. Medicaid reimbursements for the program were initially determined by the Colorado legislature and were raised twice through legislative action that was not directly related to program analysis. Because budget issues have eliminated the option of seeking reimbursement through the legislature, the Prenatal Plus Program is currently seeking increased reimbursement directly from the state Medicaid agency by presenting data to Medicaid decision-makers on program costs and cost savings associated with program participation. It will be interesting to see if this approach, which is somewhat insulated from the political process, is effective.

3. The Black Infant Health Program (California)

The Black Infant Health Program (BIH) provides services to women through 17 programs in 16 jurisdictions (i.e., counties and cities) in California. These jurisdictions represent areas with high percentages of births by African-American mothers and/or high rates of African-American infant mortality. The exact services differ by jurisdiction but always involve outreach efforts to help enroll pregnant women in Medicaid as quickly as possible and to encourage them to use services available through BIH. Program funding comes from the state Title V Maternal and Child Health Block Grant and state general funds. The program was created with the goal of reducing the disproportionate rate of infant morality among African-American infants.

Rationale for the Project. The Black Infant Health (BIH) Project originated in 1989 as a legislative initiative designed to improve birth outcomes for African-American infants. California data indicated that African-American infants were dying at double the rate of white infants. The legislation created an advisory board to develop strategies for the state Maternal and Child Health Agency to address the high infant mortality rate of this population. The advisory board produced a report titled, *African American Babies are Dying: A Call to Action* describing the extent of the problem and providing recommendations to address the problems. Initially the program focused on funding innovative community-based projects, with four

projects funded in 1990. However, in the mid-1990s a decision was made to broaden the focus of the initiative. Due to the pervasiveness of the infant mortality problem in communities with large African-American populations and a belief that some effective intervention strategies were available, it was determined that a broader approach to the problem was warranted. Therefore a decision was made to focus on 16 areas of the state and funding was subsequently provided to counties and cities in those areas to implement a targeted program in 1993-1994.

Program Interventions. Initially, local jurisdictions were given a great deal of flexibility in program strategies. However, in 1995, a decision was made to limit the number of approaches to those that showed the most promise. All programs were therefore required to implement an outreach approach to ensure that pregnant women enrolled in Medicaid as early as possible in their pregnancy and that they also enrolled in BIH. Program sites could choose among five other program strategies: social support and empowerment; case management; pregnancy prevention; a focus on the role of men; and health behavioral modification. Standardized strategies were developed for each type of intervention along with a curriculum/model to assist with implementation. The program has since discontinued the pregnancy prevention and health behavioral modification approach, as these were not generally utilized by the projects.

In addition to these services, BIH also works to ensure that existing efforts designed to promote better birth outcomes are culturally competent. At the state level the program organized a review of the Sudden Infant Death Syndrome (SIDS) prevention model. This review provided recommendations to ensure that the program was culturally competent. BIH also organized a review of a domestic violence prevention program administered by the state Injury Control Branch. BIH organized a focus group of local program staff to discuss how the violence prevention program was working and to determine how the model could be improved to make it better fit the African-American population.

Outcomes Achieved. From 1996 to 1998 the program reported retaining over 55 percent of enrolled clients throughout the length of the women's pregnancy. This included high-risk enrollees. Women who were retained in the program through delivery were those with current health problems, a previous poor pregnancy outcome, and/or a history of family violence. The

same program evaluation that examined retention also reported that the program reduced the risk of very low birthweight and very premature births (i.e., under 32 weeks gestation).[28]

A recent report shows an increase in early use of prenatal care and the percent of pregnant women with adequate visits among the African-American population. The percent of African-American women in California initiating care in the first three months of pregnancy increased from 67 percent in 1989 to 81 percent in 1999. The percent of women with an adequate number of prenatal visits increased from 70 percent to 83 percent.[29] While the report did not examine whether particular programs have influenced this change, it is quite possible that a combination of BIH and the expansion of Medicaid have each played a role in improving access. Moreover, there has been an overall decrease in the incidence of African-American infant mortality during the program.

Project Financing. The project is financed by a combination of Federal Title V Block Grant funds and state general funds. Program funding has grown from an initial $1.4 million to $8 million. Local communities also have the option of increasing funding by providing matching funds. As of September 2003, however, there was a great deal of uncertainty regarding how the state budget crisis would effect the BIH program. While there was no doubt that the program would continue, substantial cuts were anticipated, which have the potential to reduce program funding by as much as 50 percent.

Project Lessons. BIH is an example of an effort that targets a population at high-risk of premature births and other poor birth outcomes, directing resources toward a group most in need of intervention. While it is separate from the state Medicaid program, BIH complements the Medicaid program by facilitating early Medicaid and prenatal care enrollment. By examining the cultural competency of other interventions, BIH also promotes the effectiveness of those services.

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[28] San Diego Graduate School of Public Health. *California Black Infant Health Program Evaluation Report: Program Planning and Implementation 1994-1998.*

[29] Braveman, P., K. Marchi, R. Sarnoff, S. Egerter, D. Rittenhouse and A. Salganicoff. *Promoting Access to Prenatal Care: Lessons from the California Experience.* The Henry J. Kaiser Family Foundation. 2003.

Overall, the project demonstrates the importance of both general interventions (early enrollment into care) and targeted interventions (smoking cessation) to reduce preterm births and improve birth outcomes. Advocates can play a role in ensuring that states and communities pay sufficient attention to disparities in birth outcomes and design strategies to reach populations at the highest levels of risk for poor pregnancy outcomes.

4. MIAMI Project (Montana)

The MIAMI (**M**ontana's **I**nitiative for the **A**batement of **M**ortality of **I**nfants) act was passed in the 1989 by the Montana Legislature to:

- Ensure that mothers and children receive access to quality maternal health services;
- Reduce infant mortality and the number of low birthweight babies (5½ pounds or less); and
- Prevent the incidence of children born with chronic illnesses, birth defects, or severe disabilities as a result of inadequate prenatal care.

During this same period, the state Medicaid program instituted presumptive eligibility for pregnant women assumed to be eligible for Medicaid.

Program Rationale. The project was developed out of great concern about the high infant mortality rate in Montana. The state Medical Director felt that something different needed to be done by the state to address this issue. It was believed that it was important to provide services to pregnant women as close to their communities of residence as possible and the state Medical Director was very influential in selling this idea to the state Legislature. In Montana, Medicaid covers approximately 35% of maternity care,[30] the state general fund accounts for approximately 27% of those Medicaid costs. Considering that the cost of neonatal intensive care may be in excess of $3,000 per day, policy-makers thought it crucial that high-risk pregnant women receive comprehensive, coordinated services.

[30] In 2000, Medicaid covered maternity care for 4,077 out of a total of 10,946 births in the State, accounting for 37%. In 2001, Medicaid covered maternity care 3,802 out of a total of 10,947 births in the State, accounting for 35%.

MIAMI projects were intended to serve only high-risk pregnant women, which represent approximately 20 percent of the pregnant population in Montana. The state identified the following as risk factors that would be used singly or in combination to determine a pregnant woman's eligibility for the project. These risk factors include:

- Medical conditions of the mother, such as diabetes or infections;
- Sexually transmitted diseases or HIV/AIDS;
- Smoking;
- Use of alcohol or other drugs during pregnancy;
- Battering or other forms of abuse;
- Homelessness or multiple residences;
- No financial support/limited income, including no medical insurance;
- No support from family or father of baby; and/or
- Age of the mother, particularly if a teenager.

As the project has evolved, it has been learned that all low-income women have some level of risk and therefore the project is open to all pregnant women interested in participating.

The four components of MIAMI are:

1. Provision of services in local communities (MIAMI project services are available in 33 Montana communities);
2. Public education campaigns regarding the importance of early and continuous prenatal care;
3. Review of the causes of fetal infant and child deaths at both local and state level to identify preventable cause of death and implement policy change to impact those deaths that can be prevented; and
4. Improving services for Medicaid eligible women who are pregnant.

Project Interventions. Local MIAMI projects provide nursing, dietitian and social services, health education and advocacy for pregnant women. Professionals at each MIAMI site monitor the woman's pregnancy and outcomes. A woman needing assistance will be referred to an agency or agencies that can help, and the provision of services using home visitation is a key component of the program. A team consisting of a public health nurse, social worker and nutritionist manages MIAMI services for enrolled women. Not all sites have a nutritionist on the team due to recruitment difficulties in this very rural/frontier state.

Twenty-two local health departments are providing MIAMI project services in 33 counties of the state. Several tribal entities also participate in the MIAMI project. Two of the Tribes are compacted (administer their own health system) while others obtain services via the Indian Health Service System.

The state Maternal and Child Health Division negotiated with the state Medicaid Program to rewrite the Targeted Case Management (TCM) rules, allowing TCM to be used as a funding source for the project's care coordination activities. Negotiations involved the development of a definition of a high-risk pregnant woman and of the services to be provided through TCM, along with billing mechanisms. Each local public health department billing Medicaid for TCM must apply for a Medicaid provider number, complete a Medicaid Provider Agreement, and use approved Targeted Case Management ICD-9-CM billing codes. Staff must carefully document all TCM activities (including time involved) provided to women enrolled in the MIAMI project. These activities must include assessment, care plan development, care coordination and referral to other services, and monitoring.

Critical to the program are its education efforts. These have focused statewide and locally on SIDS prevention, smoking cessation, perinatal substance abuse, fetal alcohol syndrome, gestational diabetes, teen pregnancy, preterm labor and preterm birth.

Annually, approximately 1,500 pregnant women receive services through the program. The program has evolved over the years, with a greater current emphasis on social, rather than medical, risk factors and interventions.

Outcomes Achieved. Officials report a positive change in the state's infant mortality rate, with much of this success attributed to the MIAMI project. Estimated cost savings generated by the MIAMI project have historically been related to the low birthweight births (LBW) averted. The LBW estimated for the project population was 12.9%; the actual LBW for this population group in 2001 was 8.2%. This means that there would have been 68 more babies born at low birthweight if the MIAMI project did not exist. If each of those babies spent only 3 days in the neonatal intensive care unit, the cost would have been $612,000, exceeding the cost of the entire program.

State officials believe that the benefits of the project are not limited to cost savings by averting LBW births. The education and guidance received by families also helps them use resources efficiently, and to avoid the need for additional services and their related costs.

Project Financing. The MIAMI project is funded by state general revenues, the Maternal and Child Health Block Grant, and Medicaid Targeted Case Management funds. Funds are allocated to the local health departments. The state plans to develop a request for proposals for the 2005 funding cycle to re-bid the MIAMI project. Through this process the state will reallocate funds based on community need and agency performance. Some of the projects also obtain small grants from other sources to help support prenatal care services.

Project Lessons. The creation of the MIAMI project illustrates the importance of having a "champion" to identify the need to address a problem and to promote a strategy to intervene. In Montana, the state Medical Director played this role in working with the state Legislature to support the MIAMI project through legislation. The project has also effectively used project data to influence the legislature to continue to support the program.

This past year, however, despite documentation of the efficacy of the project, it was placed on the state budget "chopping block" for elimination. While the project was ultimately and at the last minute reprieved, general funds for the project were significantly reduced.

Montana, like many other states, is currently conducting a thorough review of its Medicaid program and has launched a "Public Health Care/Medicaid Redesign" process.

This is a legislated review and redesign effort to:

- Develop a set of principles policy-makers can use to guide future decisions;
- Provide recommendations for the Governor's 2005 budget; and
- Involve the public in how the public health care system could work better in the future.

Currently four major recommendations regarding the Medicaid program have been proposed. These focus on services for children with serious emotional disturbances and adults with mental health disabilities, preparation of an 1115 waiver to require, as a pilot program, Medicaid enrollees to obtain care at one of two community health centers, another 1115 waiver to pursue a flexibility and accountability demonstration, and finally, several options regarding the medically needy eligibility requirement, including its elimination.

The attention focused on these options is likely to take attention away from issues related to pregnancy outcomes and this could be good or bad for prenatal programs. It is, however, unlikely in this climate that prenatal programming will receive any additional Medicaid funding. Nevertheless, in the long term, the attention of the legislature and other key policy and decision-makers on the overall effectiveness of the public health system and their interest in the involvement of the public in these discussions, can be an opportunity for advocates. This is an opportunity to both educate and influence policy-makers on the need to place more emphasis on program and financial support targeted to the improvement of pregnancy outcomes and the decrease of preterm births.

C. Analysis and Advocacy Recommendations

Many lessons can be learned from a better understanding of the status of our knowledge regarding the causes of prematurity, attempts to focus national policy, and the structure and operation of the Medicaid program. The case studies highlight individual projects that have mobilized this understanding in the development of on-the-ground programs.

Each of the projects highlighted in this report (and many others reviewed for potential inclusion in this report) focus on approaches to fostering positive pregnancy outcomes that emphasize:

- Early access to prenatal care;
- Education and risk assessment with appropriate follow-up intervention; and
- Care coordination.

More specifically, the projects identify high-risk pregnant women and target their interventions to those risks. For example, maternal smoking is a risk factor for low birthweight and preterm births and the projects target this by providing smoking cessation interventions. These intervention approaches are the products of and are consistent with the national policy efforts, federal programs, and clinical guidelines cited earlier in this document.

Another important attribute of the projects highlighted is their organizational and financing creativity. These projects provide examples of the different roles that Medicaid can play in supporting interventions to promote positive pregnancy outcomes. For example, Montana uses targeted Medicaid case management in its program, while the California project encourages early enrollment into care of those eligible for Medicaid and then builds on Medicaid reimbursement to provide additional services for high-risk pregnant women. Colorado has developed a financing "package" of services while the Delaware project has developed a system to coordinate with Medicaid to prevent the duplication of efforts and therefore maximize available resources.

Each project has focused on what is possible and pragmatic – not on what is unrealistic and perfect – and works to both sustain what is in place while continuing to work for expansion. It is important to remember that there are "many roads to Rome" and the importance of identifying and weaving together organizational and financing approaches and strategies in ways that make sense for individual states. This is particularly important in difficult financial times such as those currently being experienced by states across the country.

As described earlier, while there are some federal requirements regarding Medicaid coverage for services for women of childbearing age, states have fairly broad discretion as to what services that may decide to cover. Some state Medicaid programs cover case management services while others do not. Others provide reimbursement for smoking cessation interventions and nutrition counseling, while others do not.

There may be many decision-makers, including state legislators, community leaders, consumers, and health care providers, who are unaware of what is (and what is not) covered in their state in relation to the services other states have chosen to reimburse. Advocating with solid information enhances both the reputation of the advocates and the soundness of their argument. Changes in the Medicaid Plan may also require regulatory changes. As illustrated by the Montana project, implementation of Medicaid targeted case management required changes in the definition of targeted case management and the rate structure.

Chapters may use the March of Dimes *state Medicaid and CHIP Checklist* to assess their Medicaid programs. The state Medicaid Plans can be accessed at: http://www.cms.hhs.gov/medicaid/Stateplans .

Chapters in states where some prenatal care is provided through managed care contracts may also wish to review these contracts to assess the inclusion of services to address poor pregnancy outcome issues. A national review of state managed care contracts focused on women's health needs has been conducted by the George Washington University Medical Center, Center for Health Services Research and Policy. This study will help Chapters learn what services other states have included in their managed care contracts. In addition, the

contract language used in these documents may assist Chapter staff in formulating language to be included in their own state's managed care contracts. The study may be accessed at http://www.gwu.edu/~chsrp/ by selecting the Contract Studies section, Fourth Edition, Medicaid Managed Care.

As advocates, it is essential to identify, analyze, and understand the dynamics of pregnancy outcomes in the state and to identify, analyze, understand, and use all the evaluation information available about approaches, strategies, and services that actually promote positive pregnancy outcomes. Individual stories must be accompanied by as much solid information as possible verifying the usefulness of the interventions proposed for inclusion in the state's Medicaid Plan. Evaluation information may be available from an array of sources, including the national Office of Government Affairs, the Perinatal Data Center, state Department of Health, the state Hospital Association, provider and managed care networks, and foundations.

Each of the projects highlighted has used different approaches to provide and finance services to promote positive pregnancy outcomes. The California project focuses on getting women into prenatal care, supported by Medicaid, as soon as possible. The Montana project uses the targeted case management approach that is supported by Medicaid. The Delaware project is financed by the hospital but operates in concert with Medicaid, demonstrating that private sector funding can be mobilized when Medicaid funding may not be available, providing an opportunity to pilot and evaluate an intervention that may subsequently be of interest to Medicaid officials. Colorado has taken yet a different approach, developing a set package of Medicaid supported services for pregnant women.

Each state can devise its own approaches that are driven by what is possible now, mixing and matching strategies and funds, and use this as a building block to what might be possible in the future. The March of Dimes is in an enviable position to guide these efforts through the identification and utilization of leverage points available through its partnerships, alliances, and networks. The implementation of the national awareness campaign regarding prematurity can act to garner interest in the issue. Chapter leaders can use this interest to focus organizations, agencies and individuals on concrete advocacy goals (such as expansion of

Medicaid coverage for particular approaches and services) to get tangible positive pregnancy results.

The state March of Dimes Chapters are well positioned to take what is known (and what is not known) about poor pregnancy outcomes, including prematurity, and to build on past and current national agendas, federal programs, and legislative efforts, and the experiences of projects that have made things happen.

Appendix A: Interview Protocol

Interview Protocol for March of Dimes Preventing Preterm Births Case Studies

Introduction: We are conducting a study funded by the March of Dimes examining state programs designed to improve birth outcomes, especially those associated with preterm births. The purpose of the study is to provide information that will help state March of Dimes Chapters focus their efforts in regard to shaping Medicaid and other state insurance programs. We are interested in finding out about your program and especially the relationship between your program and Medicaid and other state insurance programs.

Questions for Program Administration/Staff

Overview of the Program

1. Can you provide a general overview of the program including the target population and what services are available?

2. How was the program initially developed? What was the rationale for its inception? What agencies or organizations were involved and has this changed over time?

3. How were the services offered selected? Have they changed over time and why?

4. How do the services offered by the program differ from those services received by Medicaid clients who do not participate?

II. Financing

1. What are the sources of financial support for the program?

2. How much of the program is paid for by Medicaid funding?

3. Describe the extent that the state Medicaid agency been involved in the program? For example, did program administrators have to negotiate reimbursement issues with Medicaid either when the program was designed or at other times?

4. We are interested in speaking with Medicaid staff about financing and reimbursement issues. Could you provide us contact information for the person at the state Medicaid agency is most familiar with your program?

III. Evaluation

1. Have their been any efforts aimed at evaluating the program?

2. What types of data are collected regarding program performance?

3. Has program performance differed among different geographic areas in the state or among different providers? How? What do you think accounts for those differences? **NOTE: If they indicate that particular local areas or providers have done an exemplary job get contact information to share with Oregon researchers.**

4. Is there any material you can share regarding evaluation or program performance?

IV. Future Plans

1. How has your state's current economic situation impacted the program?

2. Have you taken any steps to ensure continued support for the program? What are they?

3. What are the future plans for the program? What are the biggest challenges you currently face? What steps are you taking to sustain or expand the program?

V. Additional Contacts

Are there any other individuals or organizations in the state you think we should talk to in order to obtain a better understanding of how your program works?

Questions for State Medicaid Staff

1. How has the state Medicaid agency been involved with [state prenatal program]?

2. How do the services offered through this program differ from those offered to Medicaid participants who are not part of the program?

3. What were the major challenges in developing reimbursement procedures for the program?

4. Have you changed any rules or procedures during the time the program has been operating? Why?