

New York State Prevention Agenda

Promoting Healthy Women, Infants and Children Action Plan

The health and well-being of mothers and children are fundamental to overall population health. Improving health outcomes for women, infants and children is a priority for the New York State Prevention Agenda, aligning with goals of the State's Medicaid program and Title V/Maternal Child Health Services Block Grant. Of great concern, New York's key population indicators of maternal and child health have been stagnant or worsened during the last decade. Even for measures with improving trends, there are striking racial, ethnic and economic disparities.

“Improving the well-being of mothers, infants, and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system.”

Healthy People 2020

Maternal and child health encompass a broad scope of health conditions, behaviors and service systems. There is increasing recognition that a 'life course' perspective is needed to promote health and prevent disease across the lifespan. This perspective approaches health as a continuum and considers the impact of social, economic, environmental, biological, behavioral and psychological factors on individuals and families throughout their lives. This perspective recognizes that more than half of all pregnancies are unplanned, underscoring the importance of promoting women's health across the lifespan, with increasing attention to health during preconception (before pregnancy) and inter-conception (between pregnancies).

As part of the NYS Prevention Agenda and State Health Improvement Plan, the Promoting Healthy Women, Infants and Children (PHWIC) Action Plan addresses three key life course periods – **maternal and infant health, child health** and **reproductive/preconception/inter-conception health** – with goals, objectives and indicators for each. The Plan identifies evidence-based and promising practices, programs and policies to achieve these goals and objectives, guided by the five levels described in ***A Framework for Public Health Action: the Health Impact Pyramid***,¹ commonly referred to as the Health Impact Pyramid. The Action Plan was created with input from stakeholders representing sectors and organizations with an interest in improving the health and well-being of women, infants, children and families. The Plan should serve as a road map across the public health system to incorporate effective actions into their work, which collectively will help “move the needle” on priority health outcomes and reduce health disparities.

To make this Plan feasible, its development committee identified two to three goals for each focus area. This strategy was guided by goals of reducing racial, ethnic and economic disparities; advancing a life course perspective; and addressing social determinants of health. In addition, the committee considered these criteria in setting PHWIC action plan priorities:

- Impact on individual and population health;
- Ability to identify measureable outcomes;
- Availability of data to track progress, ideally at the community level;
- Existence of an evidence base for action;
- Need for broad cross-sector collaboration to make progress; and
- Alignment with other priority public health initiatives.

Committee members selected seven priority outcomes for the PHWIC Action Plan and 2013-2017 Prevention Agenda/State Health Improvement Plan:

Maternal and Infant Health

- Preterm birth
- Breastfeeding
- Maternal mortality

Child Health

- Use of comprehensive well-child care
- Prevention of dental caries

Reproductive/Preconception/Inter-conception Health

- Prevention of adolescent and unintended pregnancy
- Use of preventive health care services by women of reproductive age

Other sections of the State Health Improvement Plan have overlapping, but aligned, goals, as expected with a comprehensive lifespan perspective. Critical influences on maternal, infant and child health include mental health and wellness, substance abuse/addiction, interpersonal and community violence, environmental exposures and the impact of chronic disease.

For each goal, the Promoting Healthy Women, Infants and Children Action Plan contains the following sections:

Defining the Problem

Background information and statistics on the issue, including information about disparities, provide perspective to help the community determine its focus within the broader public health scope of healthy women, infants and children.

Goals and Objectives

Goals, objectives and indicators are provided for each priority outcome to help set targets, assess current status and track progress. Baseline data, data sources and data availability are provided for each indicator. For each goal and accompanying objectives, one to three tracking indicators will be tracked and reported by NYSDOH at the State (where available) and county levels, as part of the Prevention Agenda implementation. These tracking indicators were chosen because of their relevance to the goal and objectives, data quality and reliability, and data availability at the county level. For some goals and objectives, additional indicators are also provided for reference; these indicators will not be reported and tracked for the Prevention Agenda/SHIP by NYSDOH, but may support the work of its partners. Comparable Healthy People 2020 national objective, targets and baseline data have been included.

Interventions

The Action Plan recommends interventions to address each focus area and related goals. The interventions listed were selected after taking into account the interventions' evidence base, potential to address health inequities, ability to measure success, potential reach, potential for broad partner support and collaboration, and political feasibility. Interventions are summarized in complementary formats:

- *Interventions for Action* summarizes strategies through the framework of the *Health Impact Pyramid*, highlighting interventions at each of the five defined tiers: Counseling and Education, Clinical Interventions, Long-Lasting Protective Interventions, Changing the Context to Make Individuals' Default Decisions Healthy and Socioeconomic Factors.
- *Distribution of Interventions by Sector* highlights selected interventions and specific actions that various sectors are well positioned to carry out. This approach recognizes that each sector can play unique roles in advancing the overall implementation of effective interventions that collectively 'move the needle' on target outcomes. The selection of interventions, for each sector, serve as a starting point for action planning, not a complete list of potential strategies. It is anticipated that partners representing these sectors will expand and refine these lists throughout implementation.

New York State Prevention Agenda

Promoting Healthy Women, Infants and Children Action Plan

Focus Area 1: Maternal and Infant Health

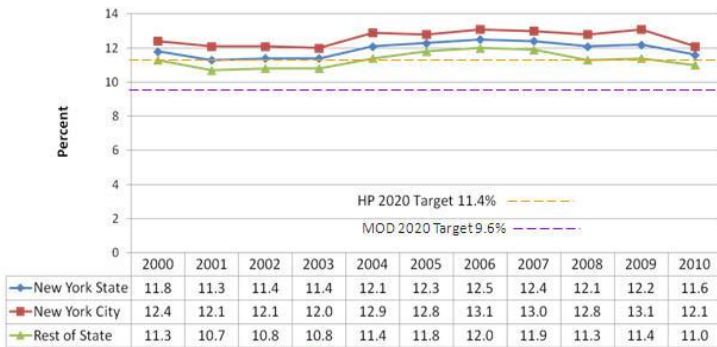
Improving the health of mothers and babies is an important public health priority for New York State. Key population indicators of maternal and infant health, including low birth weight, prematurity and maternal mortality, have not improved significantly over the last decade in New York, and in some instances have worsened. Even in measures where trends are improving, such as reductions in adolescent pregnancy rates and infant mortality rates, there are significant and persistent racial, ethnic and economic disparities.

Three priority maternal and infant health outcomes were established for the 2013-2017 Prevention Agenda/State Health Improvement Plan: **preterm birth**, **breastfeeding** and **maternal mortality**. These outcomes complement other sections of the State Plan that influence maternal and infant health, including: injury and violence prevention, prevention and management of chronic diseases, prevention and cessation of tobacco use, HIV/STI prevention, preconception/reproductive health, promotion of mental health and prevention of substance abuse.

Preterm Birth

Defining the Problem

Percentage of Preterm Births by Region,
New York State Residents, 2000 - 2010



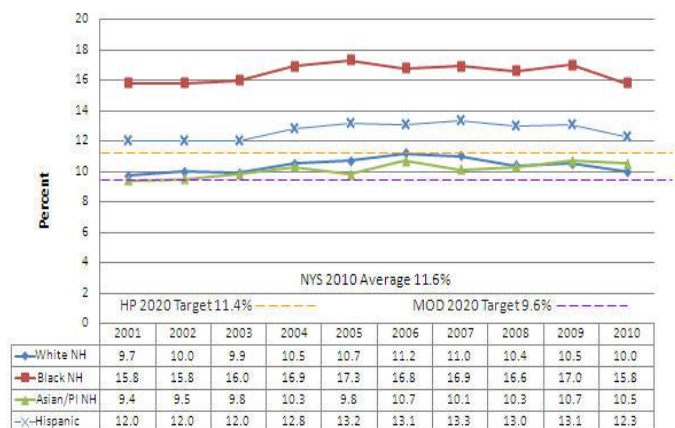
Source: New York State DOH, Bureau of Biometrics and Health Statistics

Preterm birth, defined as any birth before 37 weeks gestation, is the leading cause of infant death and long-term neurological disabilities in children.² Babies born prematurely or at low birth weight are more likely to have or develop significant health problems, including disabling impairments, compared to children who are born at full term at a normal weight. Preterm infants are vulnerable to respiratory, gastrointestinal, immune system, central nervous system, hearing and vision problems, and often require special care in a neonatal intensive care unit after birth. Longer-term

problems may include cerebral palsy, mental retardation, vision and hearing impairments, behavioral and social-emotional concerns, learning difficulties and poor growth.³ More than 70 percent of premature babies are late preterm births, delivered between 34 and <37 weeks gestation. While these infants generally are healthier than babies born earlier, they are still three times more likely than full-term infants to die during their first year.⁴

Prematurity can also pose significant emotional and

Percentage of Premature Births by Race/Ethnicity,
New York State Residents, 2001-2010



economic burdens on families. In 2010, 11.6 percent of New York State births were preterm.⁵ Babies who are born preterm cost the US health care system more than \$26 billion annually.² In 2007, about 48 percent of preterm infant hospital stays nationally were paid by Medicaid, the largest source of health insurance for preterm infants.⁶

The State's rate of preterm births has been relatively stagnant over the last decade, but significant racial, ethnic and economic disparities persist. Infants of non-Hispanic black mothers are more than 1.5 times more likely to be born preterm than those born to non-Hispanic white mothers, and infants with Medicaid coverage are 1.1 times more likely to be born preterm than infants with other insurance coverage. There are also marked disparities in mortality rates due to prematurity: Infants born to non-Hispanic black mothers were 3.4 times likely to die than white infants.² The New York State Department of Health has joined the National March of Dimes and Association of State and Territorial Health Officials (ASTHO) in a national challenge to reduce preterm births by eight percent by 2014.⁷

The causes of preterm birth are not fully understood. Known risk factors include late or no prenatal care, smoking, alcohol use, drug use, domestic violence, lack of social support, stress, long working hours, exposure to environmental pollutants, infections, poor oral health, high blood pressure, diabetes, being underweight before pregnancy, obesity and a short spacing between pregnancies.⁸ Having a preterm birth is the greatest predictor of a subsequent preterm birth.⁹ This Action Plan's focus on reducing **preterm births** complements other efforts in New York State to reduce elective cesarean sections and medical inductions in the 'early term' period, typically defined as between 37 and <39 weeks gestation.^{10 11} While important in improving birth outcomes for mothers and infants, that work is beyond this Action Plan's scope because it does not specifically target improvements in preterm births, defined as <37 weeks gestation.

Goals and Objectives

Goal #1: Reduce premature births in New York State.

Objective 1-1: By December 31, 2017, reduce the rate of preterm birth in NYS by at least 12% to 10.2%. (This target for 2017 is in alignment with the national ASTHO/March of Dimes target of 17.9% improvement by 2020 to achieve a national preterm birth rate of 9.6 %.)

Objective 1-2: By December 31, 2017, reduce the racial, ethnic and economic disparities in preterm birth rates in NYS by at least 10%.

Tracking Indicators

- Percentage of births that are premature:
 - All births. (Target: 10.2%; Baseline: 11.6%; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)
 - Ratio of Black non-Hispanic preterm birth rate to White non-Hispanic preterm birth rate. (Target: 1.42; Baseline: 1.58; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)
 - Ratio of Hispanic preterm birth rate to White non-Hispanic preterm birth rate. (Target: 1.12; Baseline: 1.24; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)
 - Ratio of Medicaid preterm birth rate to non-Medicaid preterm birth rate. (Target: 1.0; Baseline: 1.10; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)

Additional Indicators

- Infant mortality rate per 1,000 live births. (Baseline: 5.1 infant deaths per 1,000 live births; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)
- Percentage of births that are low birth weight (<2,500 grams). (Baseline: 8.2%; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)
- Percentage of births for which prenatal care begin in the first trimester of pregnancy. (Baseline: 73.2%; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county)
- Percentage of women who smoke during the last three months of pregnancy. (Baseline: 7.2%; Year: 2010; Source: Pregnancy Risk Assessment Monitoring System (PRAMS); Data Availability: State, NYC and rest of State)

Related Healthy People 2020 National Objectives

- **MICH-9:** Reduce total preterm births by at least 10%. (Target: 11.4%; Baseline: 12.7%; Year: 2007; Source: National Vital Statistics System, CDC, NCHS)
- **MICH-1.3:** Reduce the rate of all infant deaths within one year by at least 10%. (Target: 6.0 deaths per 1,000 births; Baseline: 6.7 deaths per 1,000 births; Year: 2006; Source: National Vital Statistics System—Mortality and Natality (NVSS—M, NVSS—N), CDC, NCHS)

Interventions for Action

Goal #1: Preterm Birth	
Levels of Health Impact Pyramid¹	Interventions
Counseling and Education	<ul style="list-style-type: none"> • Ask all pregnant women about tobacco use and provide augmented, pregnancy-tailored counseling for those who smoke.¹² • Identify and promote educational messages and formats that have demonstrated to improve knowledge, attitudes, skills and/or behavior related to preterm birth among target populations, including high-risk pregnant women, women of childbearing age and women with disabilities. Messages could include smoking cessation, nutrition, oral health and healthy weight, in formats including social media, and settings such as WIC sites, home visiting,¹³ preconception/Inter-conception clinical health visits,¹⁴ prenatal care visits,¹⁵ and chronic disease prevention or management programs.^{14 16 17 18} • Develop and conduct effective health communications/social marketing campaigns that promote norms of healthy behaviors before, between and during pregnancies.^{19 20 21} • Utilize paraprofessionals such as peer counselors, lay health advisors and community health workers to reinforce health education and health care service utilization and enhance social support to high-risk pregnant women.²²
Clinical Interventions	<ul style="list-style-type: none"> • Provide routine preconception/inter-conception health visits for women of reproductive age that include screening and follow up for risk factors, management of chronic medical conditions and use of contraception to plan pregnancies.^{14 23} These visits should incorporate services with United States Preventive Services Task Force (USPSTF) Grade A or B recommendations. <i>See also PHWIC Goal #6 and #7.</i> • Provide timely, continuous and comprehensive prenatal care services to pregnant women in accordance with NYS Medicaid prenatal care standards and other professional guidelines.²⁴ • Consistent with USPSTF Grade A and B recommendations, professional best practice guidelines and NYS Medicaid prenatal care standards, screen sexually active women and pregnant women for tobacco use,²⁵ sexually transmitted diseases, alcohol abuse, depression, violence and other behavioral and psychosocial risk factors. Provide behavioral counseling where indicated, and link women with identified needs to community resources.^{16 26 27 28} • Implement innovative models of prenatal care, such as <i>Centering Pregnancy</i>, demonstrated to improve preterm birth rates and other adverse pregnancy outcomes.^{29 30 31} • Build effective local systems and networks for outreach, engagement, referral and coordinated follow-up. • Provide clinical management of preterm labor in accordance with current clinical guidelines, including use of 17-alpha hydroxyprogesterone caporate (17P) and tocolytics when indicated.^{32 33 34} • Educate providers of health care and supportive services to ensure that they have knowledge, skills, tools, cultural competence and motivation to effectively counsel patients on high-impact risk behaviors such as smoking, the importance of adhering

	<p>to disease management protocols and follow-up on referrals.^{16 26 27 28 35}</p> <ul style="list-style-type: none"> • Conduct public health detailing to improve service providers' knowledge, beliefs and skills related to improved use of evidence-based clinical and community-based interventions to reduce preterm birth.³⁶
<p>Long-Lasting Protective Interventions</p>	<ul style="list-style-type: none"> • Support evidence-based home visiting programs for high-risk pregnant women.¹³ • Ensure that pregnant youth in foster care have access to timely and comprehensive prenatal care and other supportive services. • Utilize community health workers to provide enhanced social support for high-risk pregnant, preconception, inter-conception women and their families to improve practice of healthy behaviors, use of preventive health care and social services, and management of chronic medical conditions.³⁷ • Ensure that women who have experienced a preterm birth or other adverse pregnancy outcome receive inter-conception health care and other supportive services to prevent subsequent preterm births.³⁸
<p>Changing the Context to Make Individuals' Decisions Healthy</p>	<ul style="list-style-type: none"> • Engage and mobilize multiple community sectors in recognizing, discussing and intervening to promote consistent health messages, behaviors and policies. • Support mechanisms to facilitate easy, expedited enrollment of low-income women in Medicaid, including presumptive eligibility for both prenatal care and family planning coverage. • Support implementation of State-wide Medicaid standards for comprehensive prenatal care. • Utilize health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers. • Publish physician- or hospital-specific quality data to drive continuous quality improvement within the health care delivery system. • Make local and State data available more timely through electronic birth certificates to drive quality improvement. • Promote adoption and integration of National Standards on Culturally and Linguistically Appropriate Services (CLAS) in clinical practices and other community service organizations to increase accessibility and effectiveness.³⁹ • Promote reproductive health planning to reduce unintended pregnancies. <i>(see also PHWIC Goals #6 and #7).</i> • Develop and implement local service networks and coordinating strategies to ensure that women with identified risk factors are linked to appropriate community resources. • Conduct translational research to support effective evaluation, replication, dissemination and implementation of evidence-based interventions to reduce preterm births.
<p>Socioeconomic Factors</p>	<ul style="list-style-type: none"> • Work with other community sectors, government agencies to address social determinants of health: <ul style="list-style-type: none"> ○ Education ○ Affordable and healthy housing ○ Healthy community environment ○ Income/employment

- Access to health care
- Access to healthy food
- Social supports
- Chronic stress, including impact of racism
- Provide comprehensive, evidence-based health education that includes health literacy, healthy relationships and consumer skills for use of health care services for children and youth in schools.
- Utilize community-based participatory research to engage affected populations in raising awareness of health disparities and identifying, prioritizing and developing collective solutions to community health issues.⁴⁰

Goal #1: Preterm Birth

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the 'Interventions for Action' grid above for more interventions and references.

Health Care Delivery System

- Ask all pregnant women about tobacco use and provide augmented, pregnancy-tailored counseling for smokers.
- Provide timely, continuous and comprehensive prenatal care services to pregnant women in accordance with NYS Medicaid prenatal care standards and other professional guidelines.
- Work with paraprofessionals, including peer counselors, lay health advisors, and community health workers to reinforce health education and health care service utilization and enhance social support to high-risk pregnant women.
- Implement innovative models of prenatal care, such as *Centering Pregnancy*, demonstrated to improve preterm birth rates and other adverse pregnancy outcomes.
- Provide clinical management of preterm labor in accordance with current clinical guidelines.
- Implement practices to expedite enrollment of low-income women in Medicaid, including presumptive eligibility for prenatal care and family planning coverage.
- Utilize health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers.
- Refer high-risk pregnant women to home visiting services in the community.

Employers, Businesses and Unions

- Provide comprehensive health insurance for employees and their families that covers comprehensive primary care, prenatal care and enhanced supportive, e.g., home visit, services.
- Provide paid time off for employees to attend prenatal care visits.
- Provide paid maternity and family leave.

Media

- Help government and community-based organizations develop and conduct marketing campaigns that promote norms of health and healthy behaviors before, between and during pregnancies.
- Increase time/space allotted for programming that supports health promotion messages targeting high-risk reproductive-age and pregnant women.
- Support efforts to engage and mobilize multiple community sectors in recognizing, talking about and intervening to promote consistent community-wide health messages, behaviors and policies.

Academia

- Develop and evaluate educational messages and formats that have demonstrated positive impact on changes in knowledge, attitudes/beliefs, skills and behaviors related to preterm birth among target populations.
- Conduct translational research to support effective evaluation, replication, dissemination and implementation of evidence-based interventions to reduce preterm births.

- Facilitate community-based participatory research to engage affected populations in raising awareness of health disparities and identifying, developing and implementing collective solutions to community health issues.
- Develop and evaluate professional education messages, vehicles and tools to improve health and human service providers' knowledge, skills and delivery of evidence-based interventions and clinical practices.

Community-Based Organizations

- Implement evidence-based home visiting programs for high-risk pregnant women.
- Use trained paraprofessionals, including peer counselors, community health workers and promotoras to reinforce health education and health care service utilization and enhance social support to high-risk pregnant women.
- Implement practices to expedite enrollment of low-income women in Medicaid, including presumptive eligibility for both prenatal care and family planning coverage.
- Utilize health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers.
- Identify and promote educational messages in formats that have demonstrated to improve knowledge, attitudes, skills and behavior related to prevention of preterm birth among target populations.

Other Governmental Agencies

- Provide comprehensive, evidence-based health education for children and youth in schools that include health literacy, healthy relationships and consumer skills for use of health care services.
- Assess health insurance status and source of regular health care for all clients served in government programs and connect uninsured pregnant or preconception women to facilitated enrollers within the community.
- Ensure that pregnant youth in foster care have access to timely and comprehensive prenatal care and other supportive services, including home visiting programs where available.

Governmental Public Health

- Develop and conduct effective health communications/social marketing campaigns that promote norms of healthy behaviors before, between and during pregnancies.
- Support implementation of State-wide Medicaid standards for comprehensive prenatal care.
- Support or conduct public health detailing to improve health and human service providers' knowledge, beliefs and skills related to improved use of evidence-based clinical and community-based interventions to reduce preterm birth.
- Support the expansion and integration of evidence-based home visiting programs and the use of trained paraprofessionals, including lay health advisors, community health workers and promotoras to enhance social support to high-risk pregnant women.
- Support policies, systems and local practices to expedite enrollment of low-income women in Medicaid, including presumptive eligibility for prenatal care and family planning coverage.
- Support the use of health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers.

- Support development and implementation of local service networks and coordination strategies to ensure that women with identified risk factors are linked to appropriate community resources.
- Make local and State data available more timely through electronic birth certificates to drive quality improvement.

Non-Governmental Public Health

- Ask all pregnant women about tobacco use and provide augmented, pregnancy-tailored counseling to smokers.
- Work with paraprofessionals such as lay health advisors, community health workers and promotoras to reinforce health education and health care service utilization and enhance social support to high-risk pregnant women.
- Promote or implement innovative models of prenatal care demonstrated to improve preterm birth rates and other adverse pregnancy outcomes, such as *Centering Pregnancy*.
- Implement practices to expedite enrollment of low-income women in Medicaid, including presumptive eligibility for prenatal care and family planning coverage.
- Use health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers.
- Conduct public health detailing to improve health and human service providers' knowledge, beliefs and skills related to improved use of evidence-based clinical and community-based interventions to reduce preterm birth.
- Implement evidence-based home visiting programs.
- Support development and implementation of local service networks and coordination strategies to ensure that women with identified risk factors are linked to community resources.

Policymakers and Elected Officials

- Support policies that facilitate easy and early enrollment into Medicaid for pregnant and reproductive-age women, including presumptive eligibility.
- Support policies that promote and facilitate comprehensive preconception, prenatal and inter-conception health care for high-risk, low-income women.

Communities

- Promote consistent health messages, behaviors and policies throughout communities.
- Engage affected populations in local strategies to raise awareness of health disparities and to identify, develop, implement and evaluate collective solutions to community health issues.
- Assist in identifying paraprofessionals from affected communities who can serve in community health promotional programs.
- Help build effective local systems and networks for outreach, engagement, referral and coordinated follow-up.

Philanthropy

- Fund the engagement of affected populations in local strategies to assess their needs and challenges, such as community focus groups of women who did not use prenatal care, and disseminate findings to State and local partners to spur development of more effective intervention strategies.

- Fund the development, evaluation, replication and dissemination of evidence-based and innovative strategies to improve population health.
- Fund strategies, such as training programs and quality improvement collaborations to strengthen capacity and improve effectiveness of health and human services providers.
- Provide leadership and funding to convene multi-sector partners and promote the sharing of information to support expansion of effective strategies to improve population health.

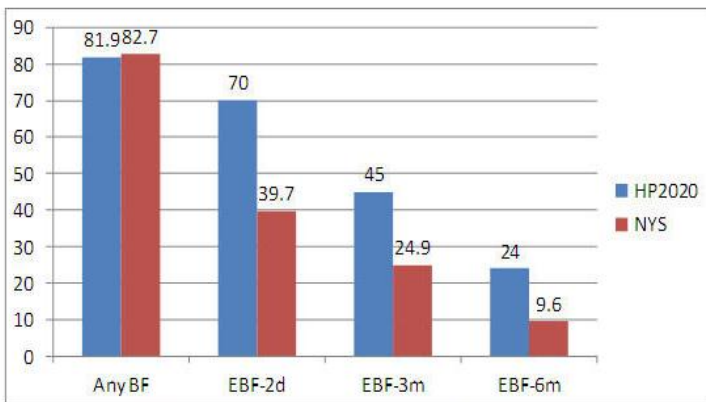
Breastfeeding

Defining the Problem

Breast milk is the optimal food for infants. Breastfed infants are less likely to develop medical problems such as childhood obesity, respiratory and gastrointestinal infections and are at lower risk for childhood cancers, asthma and Sudden Infant Death Syndrome (SIDS).⁴¹ Breastfeeding benefits mothers by decreasing risks of breast and ovarian cancers, osteoporosis and postpartum depression, and by increasing the likelihood of returning to pre-pregnancy weight.⁴¹

In addition to health benefits for the mother and infant, breastfeeding can also benefit employers and society. Employers who invest in breastfeeding support programs see increased productivity, reduced absenteeism, higher employee loyalty and lower health care costs. If 90 percent of infants were exclusively breastfed for six months, the US health care system could save as much as \$13 billion annually.⁴²

Breastfeeding Metrics
Healthy People 2020 vs. NYS

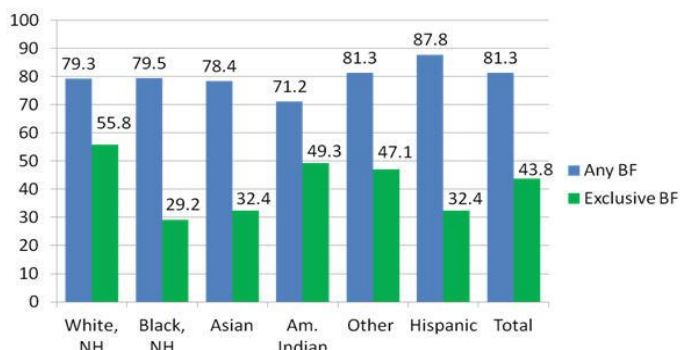


Source: NYSDOH, BHS, 2010 (Any BF, EBF-2d); National Immunization Survey for NYS, 2009 (EBF-3m, EBF-6m)

Not breastfeeding carries health risks for mothers, including increased incidence of premenopausal breast cancer, ovarian cancer, retained gestational weight gain, Type-2 diabetes, heart attack, and metabolic syndrome (a set of factors that raise a person's risk for health problems such as heart disease, diabetes and stroke).⁴³ For infants, lack of breastfeeding contributes to higher incidence of ear infections, respiratory and gastrointestinal infections, overweight and obesity. Infants who are not breastfed during their first nine months have a nearly 50 percent greater risk of becoming overweight than children who are breastfed.⁴⁴

Despite evidence of breastfeeding's benefits, far too many New York infants are receiving infant formula supplementation. NYS ranks among the highest of states for formula supplementation within the first two days of life, and NYS's exclusive breastfeeding rates at three and six months are below the national average.⁴⁵ Inadequate maternity leave contributes to decreased breastfeeding duration; hourly-wage workers face

Any and Exclusive Breastfeeding (%)
Disparities by Race/Ethnicity
NYS: 2010 (N=220,803 "Healthy Newborns"*)



*Excludes infants admitted to NICU and/or transferred in/out of hospital.

different challenges than salaried workers and often have less control over their schedules.⁴⁶ Additionally, women with certain health concerns, such as spinal cord injuries, multiple sclerosis and arthritis, may require specialized breastfeeding supports.

There are marked disparities in breastfeeding initiation, exclusivity, and duration by race and ethnicity. During the birth hospitalization in New York, whites have higher rates of exclusive breastfeeding (56%) than American Indians (49%), Asians (32%), Hispanics (32%), or blacks (29%).⁴⁷ Lower rates of breastfeeding initiation, exclusivity and duration are

reported for mothers who are younger, less-educated, or low-income women.⁴⁸ Among low-income women enrolled in the NYSWIC program, breastfeeding initiation is highest for Hispanics (86%) and higher among blacks (79%) than whites (74%).⁴⁹

Goals and Objectives

Goal #2: Increase the proportion of NYS babies who are breastfed.

Objective 2-1: By December 31, 2017, increase the percent of infants born in NYS who are exclusively breastfed by at least 10% to 48.1%.

Objective 2-2: By December 31, 2017, improve racial, ethnic and economic disparities in breastfeeding rates in NYS by at least 10%.

Tracking Indicators

- Percentage of infants exclusively breastfed in the hospital:
 - All infants (*Target: 48.1%; Baseline: 43.7%; Year: 2010; Source: NYSDOH Vital Records; Data Availability: State, county*)
 - Ratio of Black non-Hispanic to White non-Hispanic infants exclusively breastfed in the hospital (*Target: 0.57; Baseline: 0.52; Year: 2010; Source: NYS Vital Records; Data Availability: State, county*)
 - Ratio of Hispanic to White non-Hispanic percentage of infants exclusively breastfed in the hospital (*Target: 0.64; Baseline: 0.58; Year: 2010; Source: NYS Vital Records; Data Availability: State, county*)
 - Ratio of Medicaid to non-Medicaid percentage of infants exclusively breastfed in the hospital (*Target: 0.66; Baseline: 0.60; Year: 2010; Source: NYS Vital Records; Data Availability: State, county*)

Additional Indicators

- Percentage of infants exclusively breastfed at age 3 months. (*Baseline: 33.0 %; Year: 2009; Source: National Immunization Survey; Data Availability: State, NYC and Rest of State*)
- Percentage of infants exclusively breastfed at age 6 months. (*Baseline: 15.3%; Year: 2009; Source: National Immunization Survey; Data Availability: State, NYC and Rest of State*)
- Percentage of infants enrolled in WIC program breastfed for 6 months or longer. (*Baseline: 39.7%; Year: 2008-10; Source: NYS Pediatric Nutrition Surveillance System; Data Availability: State, county*).

Related Healthy People 2020 National Objectives

- **MICH -21.1:** Proportion of infants who were ever breastfed. (*Target: 81.9%; Baseline: 74.0%; Year: Birth cohort 2006, as reported in 2007-09. Source: National Immunization Survey (NIS), CDC, NCIRD, and NCHS*)
- **MICH -21.4:** Proportion of infants who were breastfed exclusively through age three months. (*Target: 46.2%; Baseline: 33.6%; Year: Birth cohort 2006, as reported in 2007-09. Data Source: National Immunization Survey (NIS), CDC, NCIRD, and NCHS*)
- **MICH-21. 5:** Proportion of infants who were breastfed exclusively through age 6 months. (*Target: 25.5%. Baseline: 14.1%; Year: Birth cohort 2006, as reported in 2007-09; Source: National Immunization Survey), CDC, NCIRD and NCHS*)

Interventions for Action

Goal #2: Breastfeeding	
Levels of Health Impact Pyramid¹	Interventions
Counseling and Education	<ul style="list-style-type: none"> • Provide structured, comprehensive breastfeeding education and professional lactation counseling, including the use of Internal Board Certified Lactation Consultants (IBCLCs) during pregnancy, in the hospital and at home.⁵⁰ • Recruit, train and support breastfeeding peer counselors, including WIC, <i>La Leche League</i> and community health workers,^{51 52 53} and explore ways to reimburse peer educators for breastfeeding education. • Identify and promote educational messages on the benefits to mother and baby, potential concerns, challenges and effective strategies. Use formats such as social media and settings including WIC, home visiting¹³, and prenatal care visits¹⁵ to improve knowledge, attitudes, skills and/or behavior related to breastfeeding initiation, exclusivity and duration. Focus on target populations, including high-risk pregnant women and women with disabilities. Integrate breastfeeding promotion messages and information on supportive resources into other educational campaigns targeting pregnant women and mothers. • Implement well-tested social marketing campaigns to change attitudes, social norms and behaviors related to breastfeeding initiation, exclusivity and/or duration among target populations.^{54 55}
Clinical Interventions	<ul style="list-style-type: none"> • Train physicians, nurses and other health care providers about the importance of breastfeeding and lactation support. • Develop and promote clinical references, such as pocket guides, for health care providers. • Address breastfeeding support needs for women with physical disabilities and other special needs, such as spinal cord injuries, multiple sclerosis, or arthritis.⁵⁶
Long-Lasting Protective Interventions	<ul style="list-style-type: none"> • Engage high-risk pregnant women and families in evidence-based home visiting programs that have demonstrated positive impact on breastfeeding.¹³ • Use IBCLC- trained lactation consultants for breastfeeding support in hospitals and pediatric offices.^{57 58 59} • Link pregnant or postpartum low-income women to local WIC services for breastfeeding and other nutritional supports.
Changing the Context to Make Individuals' Decisions Healthy	<ul style="list-style-type: none"> • Implement maternity care practices consistent with the World Health Organization's <i>Ten Steps to Successful Breastfeeding</i> and increase the number of <i>Baby Friendly Hospitals</i> in NYS.⁶⁰ • Implement policies that restrict infant formula marketing and distribution of "gifts" through health care providers and hospitals. • Implement enhancements to WIC Breastfeeding Food Package⁶¹. • Promote and support implementation of standards for Breastfeeding Friendly Childcare Centers and Homes through CACFP⁶² and Quality Stars NY.⁶³ • Ensure that employers and other businesses/organizations create an environment to support breastfeeding/pumping and provide lactation support.⁶⁴

	<ul style="list-style-type: none"> • Identify and support replication/dissemination of model practices in breastfeeding promotion among NYS employers. • Strengthen laws and regulations that promote, support, and protect breastfeeding. • Ensure public and private health insurance coverage of, access to, and incentives for breastfeeding education, lactation counseling and support. • Increase private and Medicaid reimbursement for births in <i>Baby Friendly Hospitals</i>.
<i>Socioeconomic Factors</i>	<ul style="list-style-type: none"> • Engage and mobilize multiple community sectors to support access to housing, education, health care and social supports. • Support paid maternity and family leave policies. • Provide health insurance that covers breastfeeding education, lactation counseling and high-quality breast pumps that meet NYS Medicaid specifications.

Goal #2: Breastfeeding

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the 'Interventions for Action' grid above for more interventions and references.

Healthcare Delivery System

- Implement maternity care practices consistent with WHO's *Ten Steps to Successful Breastfeeding* and increase the number of *Baby Friendly Hospitals* in NYS.
- Provide structured, comprehensive breastfeeding education and professional lactation counseling and support, including use of Internal Board Certified Lactation Consultants (IBCLCs) - during pregnancy, in the hospital and at home.
- Address special breastfeeding support needs of women with physical disabilities and other special health needs, such as spinal cord injuries, multiple sclerosis or arthritis.

Employers, Businesses, and Unions

- Create an environment to support breastfeeding/pumping in the workplace and provide lactation support.
- Provide paid maternity and family leave.
- Provide health insurance for employees and their families that cover breastfeeding education, lactation counseling and high-quality breast pumps that meet NYS Medicaid specifications.

Media

- Create or use existing public service announcements to promote breastfeeding.
- Increase the time allotted for programming that supports breastfeeding.
- Help community organizations develop communication strategies to promote breastfeeding.
- Conduct breastfeeding promotion/obesity prevention media campaigns.

Academia

- Train physicians, nurses and other health care providers in the importance of breastfeeding and lactation support.
- Identify and support replication/dissemination of model practices in breastfeeding promotion among NYS employers.

Community-Based Organizations

- Ensure employers create an environment to support breastfeeding-friendly practices in the workplace and advocate for maternity leave policies.
- Implement evidence-based home visiting programs for high-risk pregnant women and families.
- Recruit, train and support peer counselors and community health workers to provide breastfeeding education and support.

Other Governmental Agencies

- Create an environment to support and reinforce breastfeeding for agency clients, e.g., private space in waiting areas or offices to nurse.
- Link pregnant or postpartum low-income women to local WIC services for breastfeeding and other nutritional supports.

Governmental Public Health

- Identify and promote educational messages and vehicles that have demonstrated to improve knowledge, attitudes, skills and/or behavior related to successful breastfeeding.
- Increase private and Medicaid reimbursement for births in *Baby Friendly Hospitals*.
- Collaborate with Child and Adult Care Food Program (CACFP) and WIC to promote breastfeeding-friendly early childcare centers.
- Strengthen laws and regulations that promote, support, and protect breastfeeding.
- Ensure public and private health insurance coverage of, access to, and incentives for breastfeeding education, lactation counseling and support.

Non-Governmental Public Health

- Support stronger laws and/or regulations to promote, support and protect breastfeeding.
- Help hospitals become 'breastfeeding friendly'.
- Identify and promote educational messages and vehicles that have demonstrated to improve knowledge, attitudes, skills and/or behavior related to successful breastfeeding.

Policymakers and Elected Officials

- Develop and implement paid maternity leave policies.
- Enforce policies of breastfeeding-friendly practices in the workplace.
- Educate and advocate for restrictions on infant formula marketing and distribution of 'gifts' through health care providers and hospitals.
- Strengthen NYS Labor Law and business practices that promote, support and protect breastfeeding at work.
- Adopt regulations and policies to implement standards that will promote, support and protect breastfeeding.

Communities

- Advocate for stronger enforcement of laws supporting breastfeeding at work.
- Advocate for restriction of marketing of baby formula.
- Encourage the awareness of and demand for breastfeeding counseling/education messages that have demonstrated to improve knowledge, attitudes, skills and/or behavior.

Philanthropy

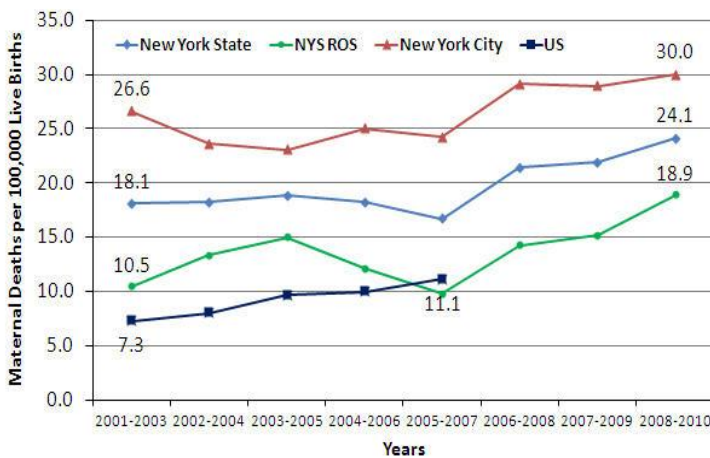
- Support programs for health care staff on breastfeeding related regulations and legislation.
- Support the development of educational messages.

Maternal Mortality

Defining the Problem

The World Health Organization defines maternal death as the death of a woman while pregnant or within 42 days of the end of a pregnancy, from any cause related to the pregnancy or its management. Maternal death is devastating, with profound impact on infants, other children, partners, families and health care teams. The US ranks behind 40 nations in maternal deaths, and New York's maternal mortality rate is unacceptably high, ranking the State 47 out of 50. In 2010, there were 23.1 maternal deaths per 100,000 live births in New York State.⁶⁵ Healthy People 2020 calls for a reduction in the maternal mortality rate to 11.4 maternal deaths per 100,000 live births.

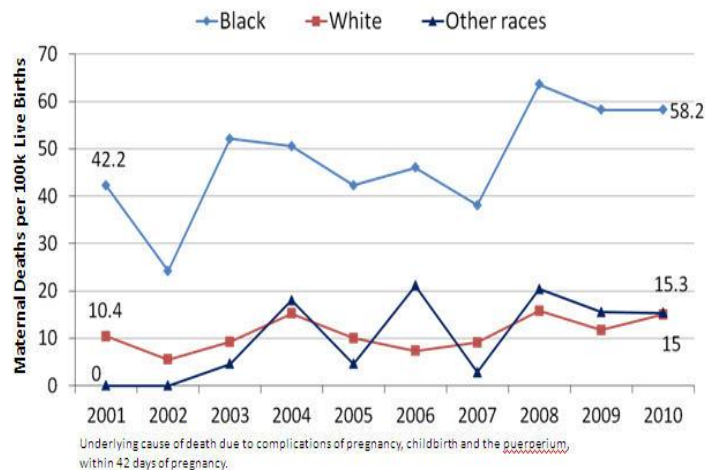
3 Yr Rolling Average Maternal Mortality Rate:
NYS, 2001–2010



There are dramatic racial, ethnic, socioeconomic and geographic disparities in New York's maternal mortality rate. In New York City, pregnancy-related mortality rates were seven times higher for Blacks and twice as high for Hispanics and Asian/Pacific islanders than for Whites.⁶⁶ For New York State overall, the maternal mortality rate for black women was approximately 3.7 times the rate for White women.⁶⁷ Additionally, some poorest neighborhoods had rates almost five times higher than affluent neighborhoods. Women without health insurance had pregnancy-related death rates almost four times higher, than those covered by Medicaid or private insurance.⁶⁶

The leading causes of maternal death in New York are hemorrhage, pregnancy-induced hypertension, cardiac disorders and embolism.⁶⁸ Cesarean deliveries, induced preterm births, and obesity increase the risk for complications during delivery. Many of the deaths reviewed are believed to have been preventable. For prevention measures to work, the review system will require a major overhaul to provide more detailed information to providers and communities. The links between underlying maternal health, chronic medical conditions and maternal mortality highlight the importance of addressing the preconception and inter-conception health of high-risk women, as well as prenatal and intra-partum health and clinical care.⁶⁹

Maternal Mortality Rate by Race,
NYS Vital Records, 2001–2010



Goals and Objectives

Goal #3: Reduce the rate of maternal deaths in New York State.

Objective 3-1: By December 31, 2017, reduce the rate of maternal mortality in NYS by at least 10%.

Objective 3-2: By December 31, 2017, improve racial and ethnic disparities in maternal mortality rates in NYS by at least 10%.

Tracking Indicators

- Number of maternal deaths per 100,000 live births:
 - All maternal deaths (*Target: 21.0 deaths per 100,000 births; Baseline: 23.3; Year: 2008-2010 (3-year average); Source: NYSDOH Vital Statistics; Data Availability: State, county*)
 - Ratio of Black non-Hispanic to White non-Hispanic maternal mortality. (*Target: 4.76; Baseline: 5.29; Year: 2008-2010 (3-year average); Source: NYSDOH Vital Statistics; Data Availability: State*)

Related Healthy People 2020 National Objectives

- **MICH-5:** Maternal deaths per 100,000 live births. (*Target: 11.4 deaths per 100,000 births; Baseline: 12.7s; Year: 2007; Source: National Vital Statistics System, CDC, NCHS*)

Interventions for Action

Goal #3: Maternal Mortality	
Levels of Health Impact Pyramid¹	Interventions
Counseling and Education	<ul style="list-style-type: none"> • Identify and promote educational messages and guidance documents that have demonstrated to improve knowledge, attitudes, skills and/or behavior related to maternal mortality among targeted populations, such as preconception/inter-conception women, teens, women with disabilities, and partners. • Conduct health communications and social marketing campaigns to address women’s health, chronic disease, domestic violence and pregnancy planning. <ul style="list-style-type: none"> ▪ Enhance public, professional and patient education highlighting population trends for women giving birth, as well as risk factors for maternal mortality and morbidity. ▪ Use paraprofessionals, such as lay health advisors, community health workers and promotoras to reinforce health education and health care service utilization and enhance social support to high-risk pregnant women.
Clinical Interventions	<ul style="list-style-type: none"> • Ensure health care providers are sensitive to the cultural beliefs and practices of the population served. • Expand provider use of guidance for clinical management of chronic disease and other risk factors or events, such as obesity, hypertension, and hemorrhage, during pregnancy and delivery.^{70 71} • Establish comprehensive, State-wide hospital-based surveillance systems to track pregnancy-related deaths, disparities and cesarean sections. • Promote and facilitate comprehensive preconception, prenatal and inter-conception health care for high-risk, low-income women. • Assess and address pregnancy planning, including use of effective contraception, among women with severe chronic conditions that make pregnancy a life-threatening event. • Improve birthing hospitals’ access to patients’ pre-pregnancy and prenatal health records to inform intra-partum care. • Implement comprehensive, coordinated systems and protocols for early identification, management and rapid response to high-risk pregnant women during prenatal period, labor and delivery. • Expand coverage and services offered to uninsured pregnant women determined to be at high risk during pregnancy. • Investigate the viability of a pregnancy health record (card) that describes health status and pregnancy risks for women throughout their reproductive years. • Institute an immediate fatality debriefing and review by those directly involved and provide feedback to policymakers to prevent recurrences through policy changes. • Improve data acquisition to support the understanding of maternal mortalities, including providers’ timely completion of death certificates. • Involve medical examiners/coroners and pathologists in discussions to determine whether autopsies are indicated. • Introduce payment changes and regulation to curtail sharply all elective deliveries

	<p>before 39 weeks gestation.^{72 73 74 75 76 77}</p> <ul style="list-style-type: none"> • Improve medical education to include the social determinants of women’s health.
Long-Lasting Protective Interventions	<ul style="list-style-type: none"> • Enhance cardiovascular and non-cardiovascular disease prevention and treatment interventions, including tobacco cessation and restricted alcohol use, as well as weight, nutrition and hypertension management. • Support evidence-based home visiting programs for high-risk pregnant women.¹³
Changing the Context to Make Individuals’ Decisions Healthy	<ul style="list-style-type: none"> • Strengthen the emphasis on preventive health care. • Improve community-based disease prevention interventions. • Use a school-wide curriculum incorporating maternal health and risk factors. • Conduct research to increase the understanding of the causes of maternal death, emphasizing disparities. • Provide comprehensive health insurance (for employees and their families), which covers preventive, disease management and enhanced supportive services such as home visiting. • Facilitate easy and early enrollment into Medicaid for pregnant and reproductive-age women, including presumptive eligibility. • Provide incentives for employees and their families to use clinical and community preventive and disease self-management programs and services, including time off or flextime. • Provide comprehensive wellness programs.
Socioeconomic Factors	<ul style="list-style-type: none"> • Improve education. • Improve access to health care. • Improve access to and education about healthy foods and physical activity to reduce the prevalence of chronic health conditions • Reduce poverty. • Improve community social and emotional support systems, and link women to community resources, such as safe housing, nutritional services, drug treatment and mental health services. • Empower women to advocate for their own health during pregnancy, birth and postpartum periods through expanded health education.

Goal #3: Maternal Mortality

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the 'Interventions for Action' grid above for more interventions and references.

Healthcare Delivery System

- Assess and address pregnancy planning, including the use of effective contraception, among women with severe chronic conditions that make pregnancy a life-threatening event.
- Use guidelines for clinical management of chronic diseases and other risk factors or events, such as obesity, hypertension and hemorrhage, during pregnancy and delivery.
- Identify high-risk women upon entry into prenatal care to refer to experienced prenatal care providers with specialized services.
- Flag high-risk pregnant women upon arrival at the emergency rooms or other hospital portals to assure appropriate level of care.
- Provide routine preconception and inter-conception health visits for women of reproductive age that include screening and follow up for risk factors, management of chronic medical conditions and use of contraception to plan pregnancies.

Employers, Businesses, and Unions

- Provide comprehensive health insurance (for employees and their families) which covers preventive, disease management and enhanced supportive services.
- Provide incentives for employees and their families to access clinical and community preventive and disease self-management programs and services, including time off or flextime.
- Provide employees with comprehensive wellness programs.

Media

- Help government and community-based organizations develop effective health communications/social marketing campaigns that promote norms of health and healthy behaviors before, between and during pregnancies.
- Conduct health communications and social marketing campaigns on women's health, chronic disease, domestic violence and pregnancy planning.
- Increase time/space allotted for programming that supports health promotion messages targeting high-risk women of reproductive age and pregnant women.

Academia

- Partner with public health to conduct research to increase the understanding of the causes of maternal death, emphasizing disparities.
- Improve medical education to include the social determinants of women's health.
- Expand health education for young women that addresses reproductive health and chronic disease.

Community-Based Organizations

- Implement evidence-based home visiting programs for high-risk pregnant women.
- Utilize paraprofessionals, such as lay health advisors, community health workers, and promotoras, to reinforce health education and health care service utilization and enhance social support to high-risk pregnant women.

- Link women with community resources, such as safe housing, nutritional services, drug treatment and mental health services.

Other Governmental Agencies

- Increase outreach to link women in need to services from other State agencies their local counterparts.
- Partner with other agencies in translation of maternal mortality review findings to develop and implement prevention initiatives.

Governmental Public Health

- Continue State-wide maternal mortality review efforts.
- Enhance surveillance to identify all cases of maternal mortality.
- Identify gaps in health services and systems to prevent future deaths.
- Disseminate DOH Guidelines on Hypertensive Disorders of Pregnancy and Managing Maternal Hemorrhage.
- At the local level, use outreach and existing programs in high-risk communities to educate, provide support and connect women to services.

Non-Governmental Public Health

- Partner with public health to disseminate information on women's and reproductive health.
- Advocate for resources to address the needs of high-risk communities and populations on reproductive health.

Policymakers and Elected Officials

- Support policies that facilitate easy and early enrollment into Medicaid for pregnant and reproductive age women, including presumptive eligibility.
- Support policies that promote and facilitate comprehensive preconception, prenatal and inter-conception health care for high-risk, low-income women.
- Support policies that promote housing, nutritional services and safe communities.

Communities

- Support educational messages and outreach to high-risk women.
- Provide social and emotional support to affected families throughout the community.
- Improve access to healthy housing and foods.

Philanthropy

- Support efforts to reduce maternal mortality.
- Support educational initiatives on women's health and reproductive health.
- Support public health efforts to enhance maternal mortality review.

New York State Prevention Agenda

Promoting Healthy Women, Infants and Children Action Plan

Focus Area 2: Child Health

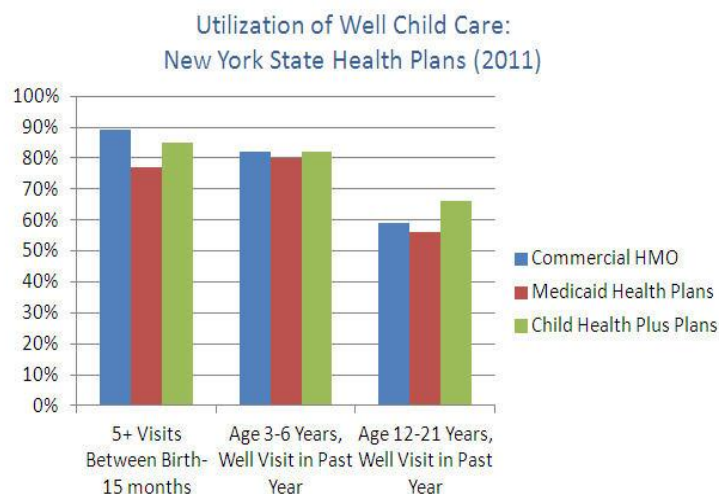
Making health a priority for children ensures the health of future generations. During this time of physical and mental growth, children can learn to build a strong foundation for healthy behavior. Research has shown that many medical conditions affecting adults have roots in childhood.⁷⁸

Consistent with the need to develop a targeted, actionable prevention plan, two priority maternal and infant health outcomes were established for the 2013-2017 Prevention Agenda/State Health Improvement Plan: **use of comprehensive well-child care** and **prevention of dental caries**. These outcomes complement other sections of the State Plan related to children’s health, including: injury prevention, environmental air quality, obesity prevention, asthma prevention and management, promoting child and adolescent immunizations, prevention of STIs/HIV among youth, preconception/reproductive health care, promotion of mental, emotional and behavioral health and prevention of substance abuse among youth.

Use of Comprehensive Well-Child Care

Defining the Problem

Routine preventive health care visits are essential to promote health in children and youth. Well-child visits allow children and parents to assess and address concerns, obtain information and guidance from pediatricians, reinforce healthy behaviors and parenting practices, identify and address health risks and special needs, receive long-lasting protective interventions, such as immunizations, build health literacy, and establish and maintain positive provider-family relationships. The American Academy of Pediatrics’ (AAP) *Bright Futures*:

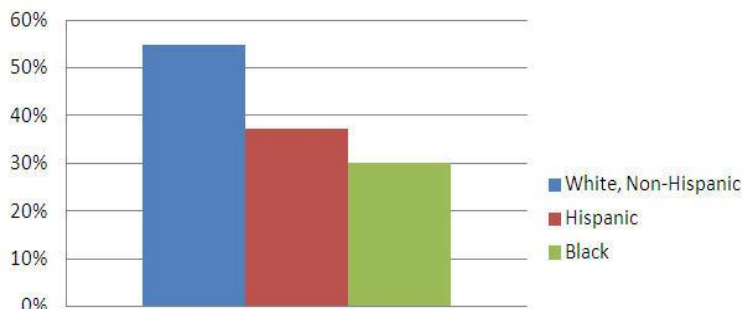


Source: 2011 NYS Managed Care Plan Performance: A Report on Quality, Access to Care and Consumer Satisfaction

Guidelines for Health Supervision of Infants, Children and Adolescents (third edition) provides comprehensive, evidence-based and consensus guidelines for preventive health care for children.

Ensuring that all children receive comprehensive preventive care services in New York State will require attention to both health care **access/utilization** and **content/quality** of care. *Bright Futures’* guidelines address the frequency of care and components of each well-child visit. While elements of a comprehensive well-child visit apply across the age span, the specifics vary by age for medical history, observation of parent-child

**Quality of Well Child Care:
Summary Measure (2007 Survey Data)**

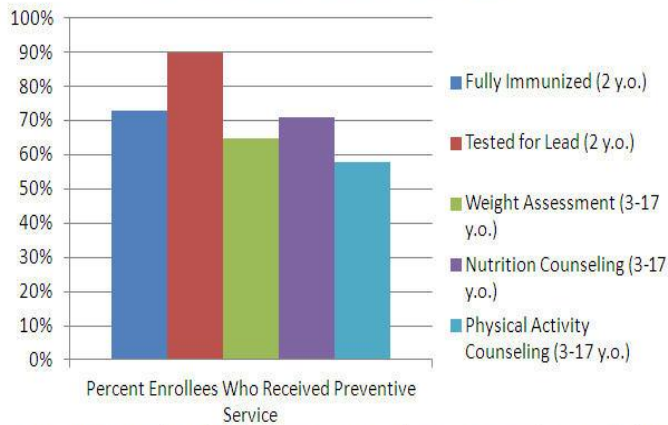


Percent children (0-17 yo) whose parent reports they meet all three criteria: 1) Adequate health insurance; 2) Ongoing and coordinated care within a medical home; 3) At least 1 preventive visit in past year

Source: 2007 National Survey of Children’s Health, www.childhealthdata.org

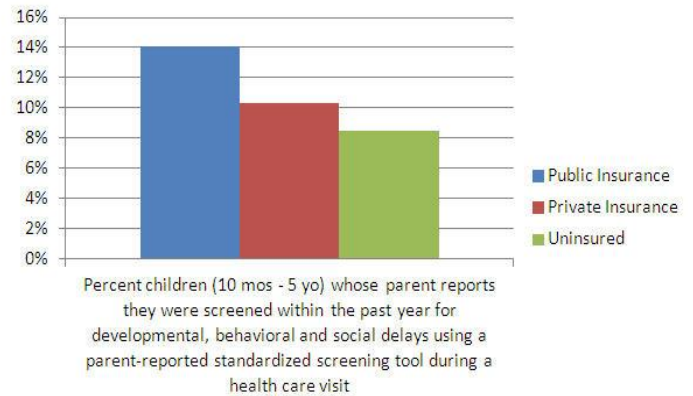
interaction, physical examination, developmental surveillance, screening, immunizations and anticipatory guidance. In addition, factors that influence whether or not children and families can access well-child care need to be identified and addressed. In particular, health insurance status, including eligibility and continuity of coverage, needs to be considered in any strategy to improve the use of preventive health services.

Quality of Well Child Care:
New York State Medicaid Plans (2011)



Source: 2011 NYS Managed Care Plan Performance: A Report on Quality, Access to Care and Consumer Satisfaction

Quality of Well Child Care:
Developmental Screening (2007 Survey Data)



Source: 2007 National Survey of Children's Health, www.childhealthdata.org

In New York State, data from managed care plans and national parent surveys show that most children receive the recommended number of preventive visits, but there are racial, ethnic and economic disparities. In addition, utilization declines considerably as children age, with only about 60 percent of adolescents getting an annual preventive visit compared to 80-90 percent of younger children. There is also significant variation in how key preventive services are provided as part of routine health care, including immunizations, weight assessment, developmental screening, and counseling/anticipatory guidance.^{79 80}

Goals and Objectives

Goal #4: Increase the proportion of NYS children who receive comprehensive well-child-care in accordance with AAP guidelines.

Objective 4-1: By December 31, 2017, increase the percentage of children ages 0-15 months, 3-6 years and 12-21 years who have had the recommended number of well-child visits among NYS Government sponsored managed care health insurance programs by 10%.

Objective 4-2: By December 31, 2017, increase the proportion of NYS children who receive key recommended preventive health services as part of routine well-child care by at least 10%.

Objective 4-3: By December 2017, increase the percentage of children ages less than 19 years with any kind of health coverage to 100%.

Tracking Indicators

- Percentage of children ages 0-15 months, 3-6 years and 12-21 years who have had the recommended number of well-child visits among NYS Government sponsored managed care health insurance programs. (*Target: 76.9%; Baseline: 69.9%; Year: 2011; Source: NYSDOH Office of Patient Quality and Safety; Data Availability: State, county*)
- The percentage of children ages less than 19 years with any kind of health coverage. (*Baseline: 94.9%, Year: 2010, Source: U.S. Census Bureau, Small Area Health Insurance Estimates; Data Availability: State, county*)

Additional Indicators

- Percentage of children ages 0-15 months, three to six years and 12-21 years who have had the recommended number of well-child visits among individual or employer-sponsored managed care health insurance. (*Baseline: 62%; Year: 2012; Source: NYS eQARR ; Data Availability: State only*)
- Percentage of children who have had the recommended number of well-child visits. (*Source: NYS eQARR ; Data Availability: health plan*):
 - ages 0-15 months,
 - 3-6 years, and
 - 12-21 years
- Percentage of children age ten months to five years whose parent reports screenings for developmental, behavioral and social delays using an age-appropriate standardized screening tool during a health care visit (*Baseline: 11.7%; Year: 2007; Source: National Survey of Children's Health; Data Availability: State only*)
- Percentage of children tested for lead exposure at least twice by age three. (*Baseline : 52.9%; Year: 2010 (birth cohort 2007); Source: NYSDOH Childhood Blood Lead Registry; Data Availability: State, county*)
- Percentage of 19-35 month olds who have received the 4:3:1:3:3:1:4 immunization series (4 DTaP, 3 polio, 1 MMR, 3 Hep B, 3 Hib, 1 Varicella, 4 PCV13) by 23% to 80% or higher. (*Baseline: 65.1%; Year: 2011; Data Source: NIS; Data Availability: State, county (NYSIIS/CIR)*)

- Percentage of adolescent females age 13-17 years who have received the three-dose HPV immunization series. (*Baseline: 34.2%, Year: 2011; Data Source: NIS; Data Availability: State, county (NYSIIS/CIR)*)
- Percentage of children ages 2 to 17 years enrolled in managed care plans who had a visit with a health care provider and whose weight was assessed by Body Mass Index. (BMI). (*Baseline: 65% (Medicaid); 64% (Child Health Plus); 62% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
- Percentage of children enrolled in managed care plans, ages 3-17 years, who were counseled on nutrition or referred for nutrition education by their health care provider. (*Baseline: 71% (Medicaid); 70% (Child Health Plus); 66% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
- Percentage of children ages 3-17 years enrolled in managed care plans that were counseled on physical activity or referred for physical activity by their health care provider. (*Baseline: 58% (Medicaid); 61% (Child Health Plus); 59% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
- Percentage of adolescents ages 12-17 years enrolled in managed care plans who had at least one visit with a PCP or OB/GYN provider during the measurement year, and who received assessment, counseling, and/or education on:
 - Risk behaviors and preventive actions associated with sexual activity. (*Baseline: 60% (Medicaid); 59% (Child Health Plus); 54% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
 - Depression (*Baseline: 52% (Medicaid); 49% (Child Health Plus); 44% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
 - Tobacco use, including cigarettes, chew or cigars. (*Baseline: 64% (Medicaid); 63% (Child Health Plus); 58% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
 - Substance use, including alcohol, street drugs, non-prescription drugs, prescription drug misuse and inhalant use. (*Baseline: 60% (Medicaid); 62% (Child Health Plus); 57% (Commercial); Year: 2010; Source: eQARR Managed Care Plan Performance; Data Availability: State only*)
- Percentage of children enrolled in public health insurance managed care plans who have a primary care provider that is a NCQA-certified Patient-Centered Medical Home:
 - Medicaid Managed Care plans. (*Baseline: 40%; Year: 2011; Source: NYSDOH Office of Patient Quality and Safety; Data Availability: State, county*)
 - Child Health Plus plans. (*Baseline: 36%; Year: 2011; Source: NYSDOH Office of Patient Quality and Safety; Data Availability: State, county*)
- Percentage of children under 19 without health insurance. (*Baseline: 5.1%, Year: 2010; Source: U.S. Census Bureau, Small Area Health Insurance Estimates; Data Availability: State, county*)

Closely Related Healthy People 2020 National Objectives

- **AH-1:** Proportion of adolescents who have had a wellness check up in the past 12 months. (*Target: 75.6%; Baseline: 68.7%; Year: 2008; Source: National Health Interview Survey, CDC, NCHS*)
- **MICH-29.1:** Proportion of young children who are screened for Autism Spectrum Disorder (ASD) and other developmental delays by 24 months of age. (*Target: 21.5%; Baseline: 19.5%; Year: 2007; Source: National Survey on Children's Health), HRSA, MCHB and CDC, NCHS*)

Goal #4: Use of Comprehensive Well-Child Care	
Levels of Health Impact Pyramid¹	Interventions
Counseling and Education	<ul style="list-style-type: none"> • Identify patient-centered, low-literacy education messages that have demonstrated increased knowledge, attitudes/beliefs, skills and behaviors about the importance of well-child visits and other preventive care. Promote use of materials in hospitals, health plans, primary care, childcare, home visiting and other programs that serve high need populations. • Use social media such as Facebook and Text4Baby to reach families and youth with information about the importance, timing and content of preventive care visits. • Engage WIC, home visiting, childcare and other partners in educating and making referrals for routine well childcare for their clients. • Improve health care providers' knowledge, skills and delivery of <i>Bright Futures</i> guidelines and other evidence-based clinical practices through public health detailing. • Use peer counselors, lay health advisors, community health workers and promotoras to reinforce health education and health care service utilization and enhance social support to high-risk children and their families.
Clinical Interventions	<ul style="list-style-type: none"> • Gather direct input from families through surveys or focus groups to understand better why families do not use all recommended services. Apply findings to inform changes in business practices that meet families' needs, such as office hours, scheduling policies, reminders, etc. • Incorporate low-cost changes in office systems to integrate screening and other preventive services into well-child visits, such as paper or computerized standardized screening tools that can be completed in the office or at home before the family sees the physician.⁸¹ • Develop, disseminate, promote and utilize tools for providers to prompt/facilitate well-child visit components, including checklists, registries/data systems and electronic health records. • Educate health care providers on American Association of Pediatricians/<i>Bright Futures</i> guidelines for well-child care, including recent changes related to developmental screening and the needs of adolescents and disabled children. • Conduct/participate in structured learning collaborative discussions to identify and address areas for improvement in clinical practice and its management, such as developmental screening and reducing no-show rates. • Assess children's health care quality measurements required for health plans, and add or refine as needed to drive quality improvements in key areas of preventive care, such as developmental screening. • Promote models that use allied health staff to complete assessment, interview/counsel families, make referrals and provide follow-up. • Educate, monitor and track conditions and compliance via health applications and Personal Health Records. • Adopt electronic health records and connect to regional health information systems

	<p>to improve quality and coordination of services.</p>
<p><i>Long-Lasting Protective Interventions</i></p>	<ul style="list-style-type: none"> • Implement home visiting programs with documented positive impacts on improving use of well-child care services. • Engage partners across child-serving system, including early child care organizations, to promote access to and use of health insurance and preventive health care services. • Facilitate initial and continuous enrollment of low-income children in Medicaid and Child Health Plus, including use of presumptive eligibility.
<p><i>Changing the Context to Make Individuals' Decisions Healthy</i></p>	<ul style="list-style-type: none"> • Use automated reminders for routine preventive visits. • Promote and support NCQA Patient-Centered Medical Home (PCMH) certification for primary care providers. Target providers serving children of low-income families.⁸² • Maintain and expand the availability of school-based health centers in targeted high-need, underserved communities. • Make health care services available in locations and times that are convenient for children and families. • Streamline and simplify health insurance enrollment and renewal. • Conduct focus groups to understand better why families do not use recommended services, and disseminate findings to practitioners and policymakers.
<p><i>Socioeconomic Factors</i></p>	<ul style="list-style-type: none"> • Provide or facilitate transportation for families to routine medical visits. • Ensure that children have comprehensive, affordable and continuous health insurance that covers all recommended well-child care and follow-up services. • Ensure that parents have access to paid time off, flextime and other incentives for their children's well-child visits. • Provide comprehensive, evidence-based health education, including health literacy on the use of health care services, for children and youth in schools.⁸³ • Ensure that all children in foster care have a regular source of health care that includes comprehensive, up-to-date, age appropriate well-child/ preventive care services.

Goal #4: Use of Comprehensive Well-Child Care

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the 'Interventions for Action' grid above for more interventions and references.

Health Care Delivery System

- Utilize the American Academy of Pediatrics' *Bright Futures* guidelines and resources.
- Implement reminder systems for routine well-child visits.
- Obtain NCQA patient-centered medical home certification.
- Participate in structured, evidence-based learning collaborations to identify and address areas for improvement in clinical practice and its management, such as increased developmental screenings and reducing no-show rates.
- Adopt electronic health records and connect to regional health information systems to improve service quality and coordination.
- Maintain and expand the availability of school-based health centers in high-need, underserved communities.

Employers, Businesses and Unions

- Provide health insurance for employees and their families that covers preventive and disease management services for children and youth.
- Provide employees with paid time off, flextime and other incentives for their children's well-child visits.

Media

- Help government and community-based organizations develop effective marketing campaigns that promote routine well-child visits.
- Develop innovative marketing strategies to promote well-child care.
- Make increased advertising space and resources available for health promotion campaigns.

Academia

- Develop and evaluate educational messages and vehicles that have demonstrated increased knowledge, attitudes/beliefs, skills and behaviors about well-child care among target populations.
- Develop and evaluate messages, vehicles and tools to improve health and human service providers' knowledge, skills and delivery of *Bright Futures* guidelines and other evidence-based clinical practices, with an emphasis on new standards and areas with lowest quality measures.
- Conduct focus groups to understand better why families do not use recommended well-child services, and disseminate findings to practitioners and policymakers to inform improvement strategies.

Community-Based Organizations

- Utilize the American Academy of Pediatrics' *Bright Futures* research on family care resources.
- Facilitate initial and continuous enrollment of low-income children in Medicaid and Child Health Plus, including use of presumptive eligibility.
- Promote educational messages and vehicles that have demonstrated increased knowledge, attitudes/beliefs, skills and behaviors about well-child health care among target populations.

- Assess health insurance status and source of regular health care for all client children, and connect families in need to facilitated enrollers and community health care providers.
- Implement evidence-based home visiting programs with documented improvements in the use of well-child health care services.
- Use peer counselors, lay health advisors, community health workers and promotoras to reinforce health education and service utilization and enhance social support to high-risk children and their families.

Other Governmental Agencies

- Provide comprehensive, evidence-based health education in schools that includes health literacy and consumer skills for use of health care services.
- Assess health insurance status and source of regular health care for all client children, and connect families in need to facilitated enrollers.
- Ensure that all children in foster care have a regular source of health care, including comprehensive, age-appropriate well-child and preventive care services.

Governmental Public Health

- Support the expansion and integration of evidence-based home visiting programs.
- Support expedited enrollment of low-income children in Medicaid and Child Health Plus, including presumptive eligibility.
- Facilitate the adoption of electronic medical records and connections to regional health information systems to improve the timeliness, quality and coordination of care for children.
- Continue implementation of quality assurance and improvement strategies for child health measures in managed care plans, and adopt additional new quality measures for key preventive services, such as developmental screening.
- Support or conduct public health detailing to improve health and human service providers' knowledge, beliefs and skills related to delivery of comprehensive well-child care in accordance with *Bright Futures* guidelines.
- Incentivize primary care practices that serve low-income children to obtain NCQA certification as patient-centered medical homes and the enrollment of publicly insured children in these certified practices.
- Support continued viability and targeted expansion of State-wide network of school-based health centers in high-need, underserved communities.

Non-Governmental Public Health

- Implement evidence-based home visiting programs with documented improvements in the use of well-child health care services.
- Conduct public health detailing to improve health and human service providers' knowledge, beliefs and skills related to improved use of evidence-based clinical and community-based interventions to improve use of well-child care.
- Support streamlining and simplifying enrollment and renewal of health insurance.

Policymakers and Elected Officials

- Implement Affordable Care Act reforms to ensure comprehensive, affordable health insurance for all children.
- Support the viability and targeted expansion of school-based health centers in high-need, underserved communities.

Communities

- Gather direct input from families to understand better why families do not use all well-child services, and share information with practitioners and policymakers to inform improvements.
- Disseminate information to community members about the importance of well-child care, including health insurance resources and health care providers.
- Assess health insurance status and regular source of health care for all children in early care and education programs, and connect families in need to facilitated enrollers.

Philanthropy

- Fund the development, evaluation, replication and dissemination of evidence-based and innovative strategies to improve use of well-child care among affected populations.
- Fund training programs and quality improvement collaboration to help health care providers effectively deliver well-child care that meets *Bright Futures* guidelines.
- Provide leadership and funding to support community-wide, cross-sector practices, networks and systems to ensure that all children are enrolled in health insurance and have a usual source of primary health care.

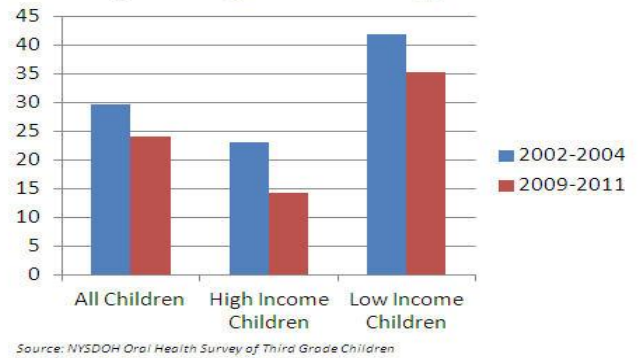
Dental Caries

Defining the Problem

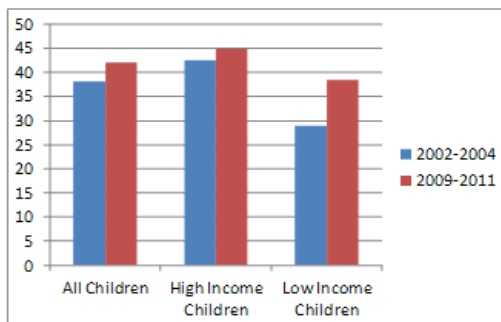
Dental caries, or tooth decay, is the most common chronic disease among children,⁸⁴ and dental care is the greatest unmet service need. If untreated, dental caries can be painful and disrupt learning, school performance and daily activities. In extreme cases, dental caries can be fatal. Dental care accounts for almost 15 percent of all health care expenditures among school-aged children. Insurance coverage is uneven, and out-of-pocket expense is significant.

Through water fluoridation, improved oral hygiene and access to dental care, New York State has reduced the prevalence and severity of tooth decay. Approximately 80 percent of untreated tooth decay has been found in 25 percent of children aged 5-17.⁸⁵ Applying the national estimates to State population counts,⁸⁶ approximately 3.4 million New York children will experience tooth decay by high school graduation.⁸⁷

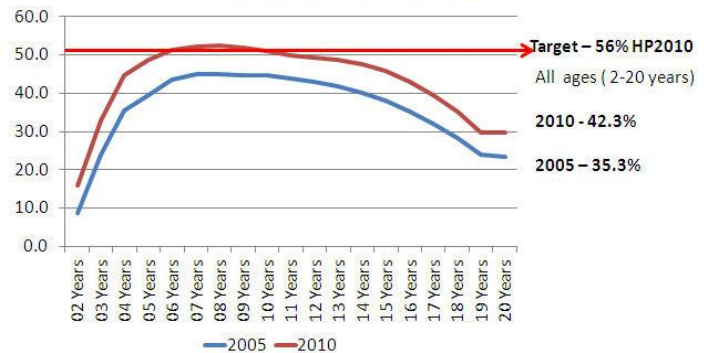
Untreated Tooth Decay in 3rd Grade Children
(Excluding New York City)



Percentage of 3rd Grade Children with Protective Dental Sealants on at Least One Permanent Molar
(NYS excluding New York City)



% of Medicaid enrollees (ages 2-20 years) who had at least one dental visit within the last year
NYS Medicaid Data, 2005-2010



A survey of third-grade children conducted every five years delineates the economic disparities in oral health and unmet needs in New York State. Compared to children in higher income groups, low-income children have more caries experience including evidence of untreated tooth decay, fewer dental visits, fewer sealants and lower use of fluoride tablets.⁸⁵ Children with special health care needs are also disproportionately susceptible to dental caries.⁸⁷

Goals and Objectives

Goal #5: Reduce the prevalence of dental caries among NYS children.

Objective 5-1: By December 31, 2017, reduce the prevalence of tooth decay among NYS children by at least 10%.

Objective 5-2: By December 31, 2017, increase the proportion of NYS children who have protective dental sealants by at least 10%.

Objective 5-3: By December 31, 2017, increase the proportion of NYS children who receive regular dental care by at least 10%.

Objective 5-4: By December 31, 2017, increase the percentage of NYS population receiving fluoridated water by 10%.

Objective 5-5: By December 31, 2017, strengthen systems to improve the oral health of people with special health needs.

Tracking Indicators

- Percentage of third-grade children with evidence of untreated tooth decay.
 - All third-grade children. (*Target: 21.6%; Baseline: 24%; Year: 2009-2011; Source: NYSDOH Oral Health Survey of Third-Grade Children; Data Availability: State, county*)
 - Ratio of low-income children to high-income children. (*Target: 2.21; Baseline: 2.46; Year: 2009-2011; Source: NYSDOH Oral Health Survey of Third-Grade Children; Data Availability: State, county*)

Additional Indicators

- Percentage of third-grade children with evidence of treated or untreated tooth decay. (*Baseline: 45%; Year: 2009-2011; Source: NYSDOH Oral Health Survey of Third Grade Children; Data Availability: State, county*)
- Percentage of third-grade children who have protective dental sealants on at least one permanent molar. (*Baseline: 42%; Year: 2009-2011; Source: NYSDOH Oral Health Survey of Third Grade Children; Data Availability: State, county*)
- Percentage of children and youth enrolled in Medicaid, age 2-20 years, who at least one dental visit within the last year. (*Baseline: 40.8 %; Year: 2008-2010; Source: NYSDOH Medicaid Data; Data Availability: State, county*)
- The percentage of residents served by community water systems with optimally fluoridated water (*Baseline: 71.4%; Year: 2012; Target: 78.5%; Source: CDC Water Fluoridation Reporting System; Data Availability: State, county*).
- Proportion of Children with Special Health Care Needs (CSHCN) ages 0-17 years who received any preventive dental service during the past year. (*Baseline: 86%; Year: 2009-10; Data Source: National Survey of Children with Special Health Care Needs; Data Availability: State only*)
- Proportion of Children with Special Health Care Needs (CSHCN) ages 0-17 years who reported an unmet need for dental care or orthodontia service during the past year. (*Baseline: 5%; Year: 2009-10; Data Source: National Survey of Children with Special Health Care Needs; Data Availability: State only*)

Closely Related Healthy People 2020 National Objectives

- **OH-1.2:** Children ages six to nine with dental caries experience. *(Target: 49.0 percent; Baseline: 54.4% of children ages 6-9 who had dental caries experience in at least one primary or permanent tooth; Years: 1999-2004; Data Source: National Health and Nutrition Examination Survey, CDC, NCHS)*
- **OH-2.2:** Children aged six to nine with untreated decay in at least one tooth. *(Target: 25.9; Baseline: 28.8%; Years: 1999-2004; Data Source: National Health and Nutrition Examination Survey, CDC, NCHS)*

Interventions for Action

Goal #5: Reducing the Prevalence of Dental Caries	
Levels of Health Impact Pyramid	Interventions
<i>Counseling and Education</i>	<ul style="list-style-type: none"> • Identify and promote educational messages and formats that have been shown to improve knowledge, attitudes, skills and/or behavior on preventing dental caries among key populations, including children, pregnant women, parents and caregivers. Messages should address prevention, including reducing consumption of sugary drinks, increased tooth brushing and the use of supplemental fluoride. • Integrate oral health messages and practices across providers and programs that serve young children, including birthing hospitals, childcare, home visiting and WIC. • Use social marketing campaigns to improve oral health literacy, knowledge, attitudes and skills. • Educate stakeholders about the unique oral health challenges facing low-income children and children with special health care needs. • Develop, evaluate, replicate and disseminate evidence-based and innovative strategies to improve oral health literacy behaviors and use of dental services.
<i>Clinical Interventions</i>	<ul style="list-style-type: none"> • Facilitate enrollment in public health insurance programs. • Link children and families to dental services and ensure access to a quality system of care.⁸⁴ • Conduct periodic assessments to monitor progress.⁸⁸ • Integrate oral health preventive practices, such as application of fluoride varnish, into pediatric primary care. Establish referral links with community dental providers. Provide training and continuing education programs for primary care practitioners to support implementation. • Facilitate co-location of medical and dental programs and development of effective referral networks. • Promote dental sealant, fluoride varnish, fluoride supplementation for children whose primary water source is deficient in fluoride and annual dental visits.⁸⁹ • Provide training and continuing education to general dentists to expand services for children, including the use of clinical practice guidelines. • Update competencies and standards to enhance the treatment of children with special health care needs. • Integrate oral health in training for medical students and primary care residents and support continuing education/ professional development for primary care practitioners on preventive dental health practices that can be provided as part of pediatric primary care. • Standardize insurance reimbursement and treatments, and improve dissemination of information to practitioners about reimbursements, including Medicaid coverage for fluoride varnish. • Participate in structured, evidence-based quality improvement collaborations to identify and address areas for improvement in clinical practice such as management of early childhood caries and reduced no-show rates.

	<ul style="list-style-type: none"> • Adopt electronic health records and connect to regional health information systems to improve quality and coordination of services. • Conduct annual community health assessments to determine availability of dental practices, including capacity for new clients, what kinds of insurances are accepted and distribute information in up-to-date local resource guides. • Explore innovative workforce solutions to address the shortage of dental professionals in underserved communities and inefficient use of existing providers.
<i>Long-Lasting Protective Interventions</i>	<ul style="list-style-type: none"> • Support continued viability and targeted expansion of State-wide network of school-based dental sealant and fluoride programs in high-need, underserved communities.^{90 91} • Require dental examinations as part of school and Head Start examinations, with referral networks and linkages to dental providers.⁹² • Provide an essential dental health benefit package that includes oral health preventive and treatment services for children and adults. • Facilitate initial and continuous enrollment of low-income children in Medicaid and Child Health Plus, including presumptive eligibility. • Assure comprehensive, affordable health insurance that includes dental coverage for all NYS children.
<i>Changing the Context to Make Individuals' Decisions Healthy</i>	<ul style="list-style-type: none"> • Maintain and expand fluoridation of public water supplies in high-need communities.^{93 94} • Promote healthy school lunch standards and prohibit vending machines and soda pouring rights in schools. • Promote acceptance of Medicaid reimbursement among dentists to expand the supply of dental providers for low-income children. • Maintain and expand the availability of school-based preventive dental programs in targeted high-need, underserved communities. • Develop Medicaid reimbursement incentives and strategies for providers and hospitals, which reflect the additional time and resources needed to treat low-income children and those with special health needs. • Implement quality standards for early care and education programs that promote healthy meals and snacks and promote personal oral health care practices.
<i>Socioeconomic Factors</i>	<ul style="list-style-type: none"> • Address oral health literacy. • Make dental insurance available to employees and families, including oral health preventive and treatment services.

Goal #5: Reduce the Prevalence of Dental Caries

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the 'Interventions for Action' grid above for more interventions and references.

Healthcare Delivery System

- Integrate oral health preventive practices, such as application of fluoride varnish, into pediatric primary care. Establish referral links with community dental providers.
- Maintain and expand the availability of school-based preventive dental programs in targeted high-need, underserved communities.
- Participate in structured, evidence-based learning collaborations to identify and address areas for improvement in clinical practice, including the management of early childhood caries and dental sealant and reductions in no-show rates.
- Adopt electronic health records and connect to regional health information systems to improve quality and coordination of services.

Employers, Businesses, and Unions

- Provide dental insurance for employees and their families, including oral health preventive and treatment services.

Media

- Help government and community-based organizations develop effective marketing campaigns that improve oral health literacy, knowledge, attitudes and skills.
- Make increased advertising space and resources available for health promotion/social marketing campaigns.
- Develop strategies to educate stakeholders about the unique oral health challenges facing low-income children and children with special health needs.

Academia

- Provide clinical training and continuing education to general dentists to expand services for children.
- Encourage educational and training programs to update competencies and standards to enhance the treatment of children with special health care needs.
- Integrate oral health in training for medical students and primary care residents. Support continuing education/professional development for primary care practitioners on preventive dental health practices that can be provided as part of pediatric primary care.

Community-Based Organizations

- Integrate oral health messages across all providers and programs that serve children, including childcare, home visiting and WIC, and establish linkages with community dental providers to refer families in need of services.
- Conduct annual community assessments to determine availability of dental practices, including capacity for new clients, and what insurances are accepted, and distribute information in up to date local resource guides.

Other Governmental Agencies

- Require dental examinations as part of school and Head Start examinations, with referral networks and linkages to dental providers.
- Promote healthy school lunch standards and prohibit vending machines and soda pouring rights in schools.
- Integrate oral health messages across all providers and programs that serve children, including childcare, home visiting and WIC, and establish linkages with community dental providers to refer families in need of services.

Governmental Public Health

- Implement an essential dental health benefit package that includes coverage for oral health preventive and treatment services.
- Support efforts to enroll low-income children in Medicaid and Child Health Plus, including presumptive eligibility.
- Support continued viability and targeted expansion of State-wide network of school-based dental sealant and fluoride programs in high-need, underserved communities.
- Promote acceptance of Medicaid reimbursement among dentists to expand the supply of dental providers for low-income children.
- Facilitate co-location of medical and dental health services.
- Maintain and expand fluoridation of public water supplies in high-need communities.

Non-Governmental Public Health

- Support efforts to enroll low-income children in Medicaid and Child Health Plus, including presumptive eligibility.
- Promote acceptance of Medicaid reimbursement among dentists to expand the supply of dental providers for low-income children.
- Support efforts to maintain and expand fluoridation of public water supplies in high-need communities.

Policymakers and Elected Officials

- Implement Affordable Care Act reforms to assure comprehensive, affordable health insurance that includes coverage for dental health services for all NYS children.
- Develop and implement innovative policies for maintaining and expanding water fluoridation.
- Explore innovative workforce solutions to address the shortage of dental professionals in underserved communities and inefficient use of existing providers.

Communities

- Integrate oral health messages across all providers and programs that serve children, including child care, home visiting, and WIC, and establish linkages with community dental providers to refer families in need of services.
- Implement quality standards for early care and education programs that promote healthy meals and snacks.

Philanthropy

- Fund the development, evaluation, replication and dissemination of evidence-based and innovative strategies to improve oral health literacy, behaviors and use of preventive dental services among affected populations.
- Fund training programs and quality improvement collaboration to strengthen capacity and improve effectiveness of children's oral health services.
- Provide leadership and funding to support community-wide, cross-sector efforts to maintain and expand fluoridation of public water supplies.

New York State Prevention Agenda
Promoting Healthy Women, Infants and Children Action Plan
Focus Area 3: Reproductive, Preconception and Inter-Conception Health

To achieve further improvement in birth outcomes, women must practice healthy behaviors and be engaged in primary and preventive health care services throughout their reproductive lives, including before they become pregnant (preconception) and between pregnancies (inter-conception). This focus on health across the life course encompasses family planning services to help women prevent or plan pregnancies. It also recognizes that approximately half of all pregnancies are unplanned, underscoring the importance of routine preventive care and promotion of women’s health and wellness across the lifespan, regardless of pregnancy plans.

Two priority preconception/reproductive health outcomes were established for the 2013-2017 Prevention Agenda and State Health Improvement Plan: **prevention of unintended and adolescent pregnancy** and **use of preventive health services by women of reproductive age**. These outcomes complement other sections of the State plan that influence reproductive, preconception and inter-conception health, including: injury and violence prevention, prevention and management of chronic diseases, prevention and cessation of tobacco use, HIV/STI prevention, maternal and infant health, use of preventive health care services during childhood and adolescence and promotion of mental health and prevention of substance abuse.

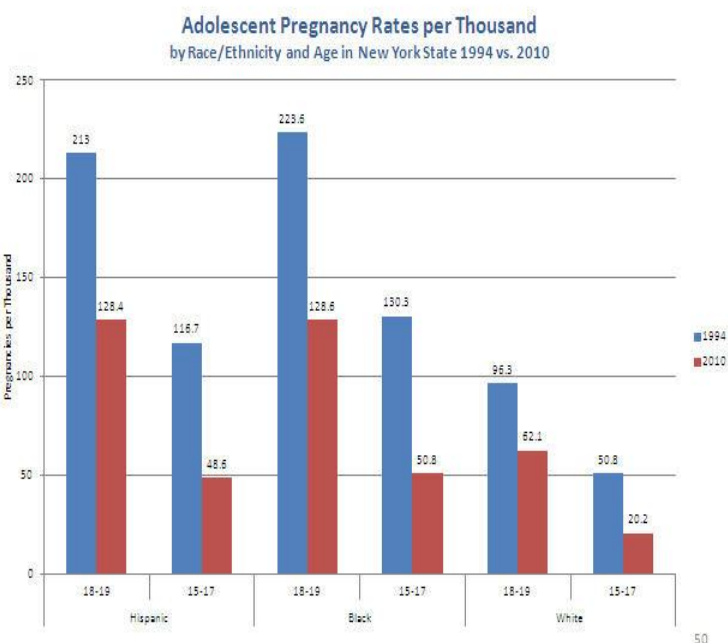
Prevention of Unintended and Adolescent Pregnancy

Defining the Problem

A pregnancy is considered unintended if it is mistimed, unplanned or unwanted at the time of conception. Unintended pregnancies can be associated with negative health and economic outcomes.⁹⁵ Approximately half of all pregnancies in the United States are unintended.⁹⁶ Unintended pregnancy may significantly impact a woman’s life course, education and work plans, income potential and future relationships.

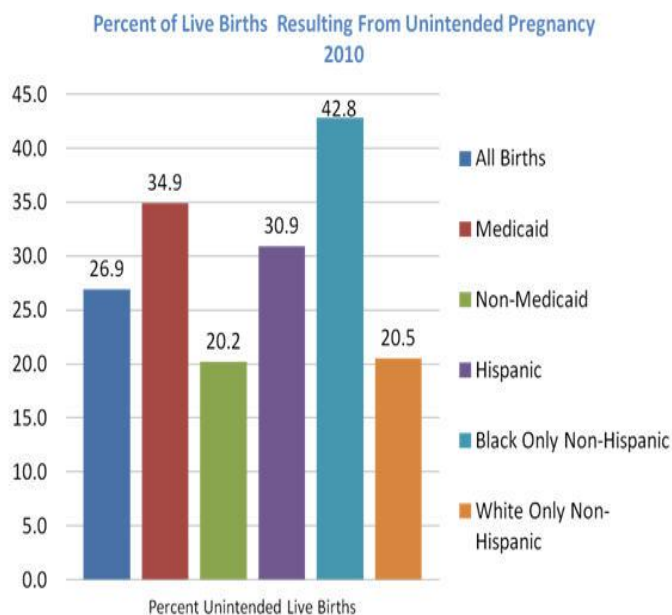
Significant attention has given to preventing pregnancy among adolescents. Four of five pregnancies among women age 19 and younger were unintended and three in ten girls get pregnant before the age of 20.⁹⁷ Although the teen pregnancy rate is declining, significant racial, ethnic, educational and economic disparities remain. Non-Hispanic Black and Hispanic young women are twice as likely to have an unintended pregnancy as their non-Hispanic White counterparts. Studies have also shown that 20 percent of pregnant teens were enrolled in special education classes.⁹⁸

Whether planned or not, there are significant public health and societal concerns about teen pregnancy. Adolescent mothers are more likely to drop out of



school, remain unmarried and live in poverty. Adolescent fathers are more likely to have lower economic stability, income, educational attainment, and more turbulent relationships. Children born to single teen mothers have more emotional and behavioral problems; poorer physical health; are more likely to use drugs, tobacco and alcohol; more likely to enter the juvenile justice system, and less likely to do well in school.⁹⁹ However, the most recent rigorous research on adolescent pregnancy challenges the prevailing view, teen-childbearing causes a life of poverty and disadvantage. The research instead demonstrates that the lives of teen mothers and fathers (compared to older parents) are more likely to be marked by poverty, poor academic performance, and low expectations *before* they become parents, factors that explain a substantial part of their later-life disadvantage.^{100 101 102} These findings emphasize the need to target profoundly disadvantaged youth with comprehensive interventions that can positively change their life opportunities and aspirations, and that support them to set and achieve their own goals.

While continued attention to prevention of adolescent pregnancy is needed, the majority of unplanned pregnancies occur among unmarried women aged 20-29, highlighting the need for heightened attention to prevention of unintended pregnancy among young adults. A 2012 Guttmacher Institute report indicated that 73 percent of pregnancies among unmarried women age 20-24 were unintended.¹⁰³ Unplanned pregnancy increases the risk for less-than-optimal health at the time of conception, including management of chronic diseases, such as diabetes and high blood pressure, which are increasingly common among young adults in the United States. Unintended pregnancy is associated with delayed use of prenatal care, reduced likelihood of breastfeeding and increased risk of maternal depression, low birth weight and birth defects.^{94 104 105} Poverty, race, class and educational attainment remain the greatest indicators of unintended pregnancy, coupled with the women’s low expectations for their futures.



There are striking racial, ethnic and economic disparities in unintended pregnancy rates. In NYS in 2010, the percent of births that resulted from an unintended pregnancy was twice as high among Black women, and about 1.5 times higher among Hispanic women, compared to White women. Previous studies have shown that low-income young women are more than three times as likely to have unintended pregnancies as young women in the highest income group. Similarly, young women with some college education have half as many unintended pregnancies as high school graduates and one-third that of non-graduates. Unmarried young women with no high school diploma have the highest unintended pregnancy rate.¹⁰⁶

While the predictors and consequences of unintended pregnancy are well documented, more research is needed to better understand the factors that influence women’s use of family planning services and methods to plan pregnancies.

Goals and Objectives

Goal #6: Reduce the rate of adolescent and unplanned pregnancies in NYS.

Objective 6-1: By December 31, 2017, reduce the proportion of NYS births that result from unintended pregnancies by at least 10%.

Objective 6-2: By December 31, 2017, reduce racial and ethnic disparities in unintended pregnancy rates by at least 10%.

Objective 6-3: By December 31, 2017, reduce the rate of pregnancy among NYS adolescents age 15-17 years by at least 10%.

Objective 6-4: By December 31, 2017, reduce racial and ethnic disparities in unintended and adolescent pregnancy rates by at least 10%.

Tracking Indicators

- Percentage of live births resulting from a pregnancy that was unintended
 - All live births. (*Target: 24.2%; Baseline: 26.9%; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county*)
 - Ratio of unintended pregnancy rates for Black non-Hispanics to White non-Hispanics. (*Target: 1.88; Baseline: 2.09; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county*)
 - Ratio of unintended pregnancy rates for Hispanics to White non-Hispanics. (*Target: 1.36; Baseline: 1.51; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county*)
 - Ratio of unintended pregnancy rates for Medicaid to non-Medicaid. (*Target: 1.56; Baseline: 1.73; Year: 2010; Source: NYSDOH Vital Statistics; Data Availability: State, county*)
- Adolescent pregnancy rate (number of pregnancies per 1,000 adolescents age 15-17 years):
 - All adolescents age 15-17 years. (*Target: 25.6; Baseline: 28.5; Year: 2010; Source: NYS Vital Statistics Data; Data Availability: State, county*)
 - Ratio of pregnancies among adolescents age 15-17 for Black non-Hispanics to White non-Hispanics. (*Target: 4.9; Baseline: 5.47; Year: 2010; Source: NYS Vital Statistics Data; Data Availability: State, county*)
 - Ratio of pregnancies among adolescents age 15-17 for Hispanics to White non-Hispanics. (*Target: 4.1; Baseline: 4.58; Year: 2010; Source: NYS Vital Statistics Data; Data Availability: State, county*)

Additional Indicators

- Percentage of live births resulting from an unintended pregnancy. (*Target: TBD; Baseline: 34.4%; Year: 2010; Source: Pregnancy Risk Assessment Monitoring System (PRAMS); Data Availability: State only*)
- Ratio of births resulting from unintended pregnancy for Black non-Hispanics to White non-Hispanics. (*Target: TBD; Baseline: 1.87; Year: 2010; Source: PRAMS; Data Availability: State only*)

Closely Related Healthy People 2020 National Objectives

- **FP-8.1:** Pregnancies per 1,000 females ages 15-17. (*Target: 36.2; Baseline: 40.2; Year: 2005; Source: Abortion Provider Survey, Guttmacher Institute; Abortion Surveillance Data, CDC, NCCDPHP; National Vital Statistics System-Natality (NVSS-N), CDC, NCHS; National Survey of Family Growth (NSFG), CDC, NCHS*)

Goal #6: Prevention of Unintended and Adolescent Pregnancy	
Levels of Health Impact Pyramid	Interventions ¹⁰⁷
Counseling and Education	<ul style="list-style-type: none"> • Conduct outreach efforts to engage high-risk populations in clinical family planning services and community-based prevention programs.¹⁰⁸ • Identify and promote educational messages on delaying sexual activity, consistent contraceptive use, preventive health care, taking individual responsibility and the male’s role in preventing pregnancy. Messages should be put in formats that have been demonstrated to improve knowledge, attitudes, skills and/or behavior related to pregnancy prevention among targeted populations such as young women and men, women and teens with disabilities and disparate populations.^{109 110 111 112 113} • Promote access to contraceptive counseling to teach women about the use of specific methods, and to increase their correct and consistent use.¹¹⁴ • Provide patient education on correct, consistent use of highly effective contraception, use of dual protection and negotiating contraception use with partners. • Educate sexually active teen and adult women and men on the availability and use of emergency contraception. • Develop effective health communication/social marketing campaigns that promote planning pregnancies, preventing unintended pregnancies and using family planning services.^{115 116}
Clinical Interventions	<ul style="list-style-type: none"> • Promote the use of the most effective contraception, including long-acting reversible contraceptives (LARCs).¹¹⁷ • Increase knowledge of, and access to, emergency contraceptives, and ensure their availability to rape victims.¹¹⁸ • Improve post-abortion counseling and contraceptive methods to prevent future unintended pregnancies.¹¹⁹ • Screen for and address factors that increase the risk for and multiply the effects of teen pregnancy/parenting, such as depression, poor education and adverse childhood experiences.^{120 121} • Integrate preconception care, including strategies to prevent unintended pregnancy, into care delivered by pediatricians, obstetricians/gynecologists, adolescent medicine specialists and family practice physicians.^{122 123} • Improve health center services at two- and four-year colleges/universities to ensure a comprehensive approach that incorporates preconception care into primary care visits.¹²⁴ • Provide same-day post-abortion and post-partum contraception, including provision of LARC. • Provide fertility education to family planning providers and federally qualified health centers. • Deliver comprehensive clinical family planning services across the State, targeting resources to the highest-need communities and populations.

	<ul style="list-style-type: none"> • Establish referral networks to link clients in need of services to available resources.
<p>Long-Lasting Protective Interventions</p>	<ul style="list-style-type: none"> ▪ Implement comprehensive, evidence-based, age-appropriate sex education in schools.¹²⁵ ▪ Develop and provide media literacy programs for adolescents to counteract the prevalent media messages about sex.¹²⁶ ▪ Provide referrals for mental health services. ▪ Expedite enrollment of low-income men and women family planning clients in public health insurance, including presumptive eligibility for Family Planning Benefit Program. • Engage high-risk pregnant women and families in evidence-based home visiting programs that have demonstrated positive impact on subsequent pregnancy spacing and economic self-sufficiency.¹³
<p>Changing the Context to Make Individuals' Decisions Healthy</p>	<ul style="list-style-type: none"> • Conduct research to better understand and develop interventions to address the multiple dimensions related to pregnancy intention.¹²⁷ • Conduct translational research to support evaluation, adaptation, replication, dissemination and implementation of evidence-based interventions to prevent unintended pregnancy. • Promote healthy choices, provide comprehensive health information and enhance the skills/self-efficacy required to act on that knowledge.¹²⁸ • Ensure access to, and affordability of, confidential contraceptive services¹²⁹ and access to no-cost contraception in accordance with the federal Affordable Care Act (ACA). • Facilitate reimbursement for providers for contraceptive services, particularly LARCs. • Improve work with faith-based organizations, focusing on dissemination of facts to their members.¹³⁰ • Consider cultural norms regarding teen pregnancy when creating objectives and interventions.¹³¹ • Ensure that all youth in foster care have information about and access to comprehensive primary care services, including reproductive health and family planning.¹³² • Increase the number of school-based health centers in middle and high schools providing comprehensive reproductive health care/family planning services, or foster relationships between schools and nearby reproductive health care providers.¹³³ • Allow nurses to distribute condoms in middle and high schools.¹³⁴ • Eliminate the practice of sending Explanations of Benefits (EOBs) for reproductive health care services to protect confidentiality of patients.¹³⁵ • Provide access to comprehensive reproductive health care services to women and men regardless of income or ability to pay, and require health plans to provide enrollees with access to all contraceptive methods. • Promote annual preconception/inter-conception care visits to develop and review of reproductive health plans. • Adapt medical school curricula to integrate preconception and reproductive care

	<p>into primary care visits to ensure physicians address pregnancy planning and adequate birth spacing.</p> <ul style="list-style-type: none"> • Expand quality assurance/performance measures for managed care plans and health care providers regarding timely access to appointments, confidentiality protections, comprehensive provision of birth control and quality counseling.
<p><i>Socioeconomic Factors</i></p>	<ul style="list-style-type: none"> • Create economic and educational opportunities for women in high-risk communities and circumstances.¹³⁶ • Raise the minimum wage and require paid sick leave policies.* • Provide health insurance for employees and their families that covers preventive services, including the full range of effective contraceptives. • Provide employees with paid time off, flextime and other incentives for preventive health care visits. • Assess health insurance status and source of regular health care and connect uninsured men and women to facilitated enrollers in the community. • Train paraprofessionals in community health promotion programs and other individuals to serve as health care practitioners in their communities.¹³⁷ • Engage affected populations in local strategies to raise awareness of health disparities and to identify, develop, implement and evaluate collective solutions to community health issues.

Goal #6: Prevention of Unintended and Adolescent Pregnancy

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the 'Interventions for Action' grid above for more interventions and references.

Health Care Delivery System

- Promote the use of the most effective contraceptive methods, including long-acting reversible contraceptives (LARCs).
- Provide patient education that focuses explicitly on correct, consistent use of highly effective contraception, use of dual protection (hormonal/LARC plus condoms) and teaching teens and young adults to negotiate contraceptive use with their partners.
- Educate sexually active patients on the use of and access to emergency contraception.
- Provide same-day post-abortion and post-partum contraception, including provision of LARC.
- Integrate preconception care, including strategies to prevent unintended pregnancy, into primary care delivered by pediatricians, obstetricians/gynecologists, adolescent medicine specialists and family practice physicians.
- Implement practices to expedite enrollment of low-income men and women family planning clients in public health insurance, including presumptive eligibility for Family Planning Benefit Program.

Employers, Businesses and Unions

- Provide health insurance for employees and their families covering preventive services, including effective contraceptives.
- Provide employees with paid time off, flextime and other incentives for preventive health care visits.

Media

- Help government and community-based organizations develop effective health communications/social marketing campaigns that promote planning pregnancies, delaying the onset of sexual activity, use of effective and emergency contraception and the availability of family planning services in the community for young men and women.
- Develop, evaluate and implement media literacy programs for adolescents to counteract prevalent media messages about sex.
- Increase time/space allotted for programming that supports health promotion messages targeting high-risk populations.

Academia

- Conduct research to better understand and develop interventions to address multiple dimensions of pregnancy intention.
- Conduct translational research to support effective evaluation, adaptation, replication, dissemination and implementation of evidence-based interventions to prevent unintended pregnancy among teens and young adults.
- Adapt training programs for medical students and residents to better integrate reproductive health care and family planning services into primary health care visits.

- Improve health services at two- and four-year colleges/universities to ensure a comprehensive approach that incorporates preconception care and reproductive/family planning services are integrated into primary care visits.

Community-Based Organizations

- Conduct enhanced outreach to engage high-risk populations in clinical family planning services and prevention programs.
- Implement comprehensive, evidence-based sexual health education programs in schools and other community settings.
- Establish referral relationships with facilitated enrollers and clinical family planning providers, and connect clients to health insurance and clinical pregnancy prevention services.

Other Governmental Agencies

- Implement comprehensive evidence-based, age-appropriate sexual health education in schools.
- Ensure that all youth in foster care have information about and access to comprehensive primary care services, including reproductive health/family planning services.
- Assess health insurance status and source of regular health care for all clients, and connect uninsured men and women to facilitated enrollers in the community.
- Eliminate the practice of sending Explanations of Benefits (EOBs) for reproductive health care services to protect confidentiality of patients.

Governmental Public Health

- Support the implementation of comprehensive evidence-based adolescent pregnancy prevention programming in targeted high-need communities.
- Support the delivery of comprehensive clinical family planning services, targeting resources to the highest-need communities and populations. At the local level, facilitate referral networks to link clients in need of services to available resources.
- Implement changes to expand and streamline access to public health insurance coverage for family planning services, including implementation of presumptive eligibility.
- Work with insurers to eliminate the practice of sending EOBs for reproductive health care services to protect the confidentiality of patients.
- Partner with State Education Department and local school districts to advance the implementation of evidence-based age-appropriate sexual health education in schools.

Non-Governmental Public Health

- Conduct enhanced outreach to engage high-risk populations in clinical family planning services and community-based prevention programs.
- Implement comprehensive, evidence-based sexual health educational programs in schools and other community settings.
- Directly provide, or establish referral relationships with, facilitated enrollment and clinical family planning services.
- Provide fertility education to family planning providers and federally qualified health centers.

Policymakers and Elected Officials

- Create economic and educational opportunities for women in high-risk communities and circumstances.

- Support the implementation of evidence-based, age-appropriate sexual health education in schools.
- Support continued access to comprehensive clinical family planning and reproductive health services.

Communities

- Disseminate facts and health promotion messages on pregnancy planning and prevention to members of organizations/ congregations.
- Engage affected populations in local strategies to raise awareness of health disparities and to identify, develop, implement and evaluate collective solutions to community health issues.
- Help identify and recruit 'natural helpers' from affected communities who can serve as trained paraprofessionals in health promotion programs, and individuals for professional education/training to serve as health care practitioners in their community.

Philanthropy

- Fund enhanced assessments of needs and challenges experienced by affected populations, such as community focus groups of women do not use contraception or family planning, and disseminate findings to State and local partners to help develop more effective interventions.
- Fund the development, evaluation, adaptation, replication and dissemination of evidence-based and innovative strategies to prevent unintended and teen pregnancy among affected populations.
- Fund training programs and quality improvement collaborating to strengthen capacity and improve effectiveness of health and human services providers related to reproductive health/family planning services.

Use of Preventive Health Care Services by Women of Reproductive Age

Defining the Problem

Pre-conception health care is critical for women of reproductive age. Whether before a first or subsequent pregnancy, pre-conception care promotes women's health before conception, increasing the chances for a healthy, full-term birth.¹³⁸ Health promotion, screening, and medical and psychosocial interventions addressed before conception can reduce risks that might affect future pregnancies. This enhanced approach to women's comprehensive primary and preventive care recognizes that whether planned or unplanned, approximately half the women in the United States experience at least one birth by age 25, and approximately 85 percent of them give birth by age 44. Although a central goal of pre-conception and inter-conception health care is to improve birth outcomes for women and their children, pre-conception care is fully consistent with broader goals of engaging all women in preventive health care services and promoting women's health and wellness across the lifespan. Use of preventive health care services by women of reproductive age thus may be viewed as part of a continuum that begins with well-child care during childhood and adolescence and continues throughout adult life.

Pre-conception care can identify key medical, behavioral, psychosocial and environmental risks for adverse birth outcomes and modify them before pregnancy (some risks must be addressed before conception). Pre-conception health status is one of many reasons for the persistent and widening racial, ethnic and economic disparities in birth outcomes.¹⁴¹ At least one study has demonstrated that pre-conception care can increase pregnancy planning and intention, which brings women into prenatal care services early in pregnancy.^{139 140} Addressing pre-conception health status in high-need populations could shrink the racial, ethnic and economic disparities in birth outcomes.¹⁴¹

Because many health factors can affect birth outcomes, women should obtain regular preventive care during their reproductive years.¹⁴² Rather than a single dedicated 'pre-pregnancy' planning visit, all health encounters during a woman's reproductive years should include counseling on medical care and behavioral changes that will optimize pregnancy outcomes. Care should include screening and risk assessment. The areas of inquiry should be for exposure to environmental hazards and toxins; medication use; nutrition, folic acid intake and weight management; genetic conditions and family history. Additionally, looking at substance use and social and mental health concerns, i.e., depression, social support, domestic violence and housing; identification and management of chronic medical conditions such as diabetes, hypertension and oral health; and immunizations; and discussion of child spacing, family planning and effective contraception methods. Women at risk may need additional counseling, testing, brief interventions (e.g., for smoking or alcohol), or referral to specialty care or supportive services. The approach is even more important for women who have endured an adverse birth outcome, to manage their contributing risks and reduce the likelihood of recurrence. In

Utilization of Preventive Health Care Services

The 4 goals proposed by the CDC to improve preconception health:

1. Improve the knowledge and attitudes and behaviors of men and women related to preconception health.
2. Assure that all women of childbearing age in the US receive preconception care services (i.e., evidence-based risk screening, health promotion, and interventions) that will enable them to enter pregnancy in optimal health.
3. Reduce risks indicated by a previous adverse pregnancy outcome through interventions during the interconception period, which can prevent or minimize health problems for a mother and her future children.
4. Reduce the disparities in adverse pregnancy outcomes.

Johnson, K, Posner, SF, Biermann, J, Condero, JF, Atrash, HK, Parker, CS, Boulet, S, Curtis, MG. (2006). Recommendations to Improve Preconception Health and Health Care - United States. *MMWR*, 55(RR06), 1-23.

addition, women with disabilities often have not had access to reproductive health services and face barriers when seeking these services.^{143 144}

An emerging appreciation for the fundamental importance of preconception health care is reflected throughout this Action Plan, highlighted by the decision to incorporate a specific priority focus on preconception preventive care. There is a significant need to develop further data systems and measures to support the development, implementation and evaluation of public health interventions to improve preconception and inter-conception health. The objectives and indicators selected for this component of the State Health Improvement Plan reflect currently available data, and should be expanded and refined as the evidence base and surveillance capacity related to preconception health further evolves.

Goals and Objectives

Goal #7: Increase utilization of preventive health care services among women of reproductive ages.

Objective 7-1: By December 31, 2017, increase the percentage of reproductive-age women who have health insurance to the Healthy People 2020 target of 100%.

Objective 7-2: By December 31, 2017, increase the percentage of women of reproductive age who receive routine primary and preventive health care services before or between pregnancies by at least 10%.

Objective 7-3: By December 31, 2017, improve birth spacing by at least 10%.

Tracking Indicators

- Percentage of women ages **18-64** who report they have any kind of health coverage (as a proxy for women of reproductive age using data that are available). (*Target: 100%; Baseline: 86.1, Year: 2010, Data Source: U.S. Census Bureau, Small Area Health Insurance Estimates; Data Availability: State, county*)
- Percentage of live births that occur within 24 months of a previous pregnancy. (*Target: 17.0%; Baseline: 18.9%; Year: 2010; Data Source: NYSDOH Vital Statistics; Data Availability: State, county*)

Additional Indicators

- Percentage of women ages **18-44** who report that they have any kind of health care coverage. (*Target: TBD; Baseline: 86.8%; Year: 2008-2010; Data Source: NYS BRFSS; Data Availability: State only [county level approximately every 5 years]*)
- Percentage of women ages **18-44** who report that they have seen a doctor for a routine checkup within the last year. (*Target: TBD; Baseline: 70.8%; Year: 2008-2010; Data Source: NYS BRFSS; Data Availability: State only [county level approximately every 5 years]*)
- Percentage of women ages **18-44** who report that they had a dental visit within the last year. (*Target: TBD; Baseline: 74.9%; Year: 2006, 2008, 2010 combined; Data Source: NYS BRFSS; Data Availability: State only [county level approximately every 5 years]*)

Closely Related Healthy People 2020 National Objectives

- **AHS-1.1:** Proportion of people with health insurance. (*Target: 100%; Baseline: 83.2%; Year: 2008; Data Source: National Health Interview Survey (NHIS), CDC, NCHS*)
- **FP-1:** Proportion of pregnancies that are unintended. (*Target : 56.0%; Baseline: 51.0%; Year: 2002; Data Source: National Survey of Family Growth (NSFG), CDC, NCHS; National Vital Statistics System (NVSS), CDC, NCHS; Abortion Provider Survey, Guttmacher Institute; Abortion Surveillance Data, CDC, NCCDPHP*)
- **FP-5:** Percentage of pregnancies conceived within 18 months of a previous birth. (*Target: 31.7%; Baseline: 35.3%; Year: 2008. Data Source: National Survey of Family Growth, CDC, NCHS*)

Interventions for Action

Goal #7: Use of Preventive Health Care Services by Women of Reproductive Age	
Levels of Health Impact Pyramid	Interventions
Counseling and Education	<ul style="list-style-type: none"> • Identify and promote educational messages that have improved knowledge, attitudes, skills and/or behavior related to the use of preventive health services among selected targeted populations, including women of reproductive age, men, and women with disabilities. Key topics should include nutrition,¹⁴⁵ folic acid supplementation,¹⁴⁶ safe sex practices, contraceptives,¹⁴⁷ exposure to hazardous chemicals¹⁴⁸ and general preconception topics in formats and settings such as media campaigns, primary care settings, obstetric or gynecology care, and adolescent medicine. • Develop effective health marketing campaigns that promote norms of wellness, healthy behavior and regular use of preventive health care services throughout the lifespan. • Identify, promote and implement best practices for improving women’s health and wellness, and assess the projects to determine their effectiveness.¹⁴⁹ • Engage parents of at-risk populations, such as adolescents, LGBTQ and women with disabilities, to improve their use of health care services, and provide information and support to assist young adults with their transition to the adult health care system.¹⁵⁰ • Empower teens and young adults to demand access to preventive health care, and to make decisions about reproductive health, using social media and promoting health literacy.¹⁵¹ • Educate consumers about the impact of parental age, fertility and IVF treatments on reproductive health and birth outcomes. • Engage men in health care decision-making to provide support and promote their well-being.¹⁵² • Use peer counselors, lay health advisors, community health workers and promotoras to reinforce health education and health care service utilization and enhance social support to high-risk preconception and inter-conception women.
Clinical Interventions	<ul style="list-style-type: none"> • Integrate preconception/inter-conception care into routine primary care for women of reproductive age to include screening and follow-up for risk factors, management of chronic disease and contraception. • Increase availability of examination tables, which can be raised and lowered to ensure women with disabilities, can obtain routine screening and preventive care. • Implement reminder systems for routine preventive health and follow-up visits. • Adopt electronic health records and connect to regional health information systems as a tool for improving quality and coordination of services. • Engage members of at-risk populations to provide input and feedback on strategies to improve utilization of health care services among these groups. • Utilize evidence-based guidelines and tools for health care providers to promote optimal well-being through utilization of preventive health services to providers. • Utilize every health care encounter to address preconception health for women of

	<p>childbearing age.¹⁴⁵</p> <ul style="list-style-type: none"> • Promote risk screening, review of medications, and management of chronic diseases by health care providers before pregnancy.¹⁴⁶ • Conduct oral health assessments and provide appropriate referrals.¹⁵³ • Conduct multi-component nutrition counseling interventions to reduce weight or maintain weight loss for obese patients.¹⁵⁴ • Promote use of preventive care and preconception health visits by adolescents through incentives to providers to improve rates of adolescents’ preventive visits. Encourage clients to develop a reproductive health plan.¹⁵⁵ • Enhance pediatric care to address reproductive health of young adults and teens, including comprehensive risk screening, discussion of sexual history and contraceptive counseling. • Develop and disseminate to providers evidence-based clinical guidelines and tools to promote patients’ optimal well-being through use of preventive health services.¹⁴⁹ • Train health practitioners on disability literacy regarding women’s reproductive health. • Increase awareness of effective communication techniques with parents concerning the importance and benefits of providing confidential services to adolescents.¹⁵⁶ • Conduct public health detailing to improve providers’ knowledge, beliefs and skills related to delivery of comprehensive, integrated preconception and inter-conception preventive health care services.
<p>Long-Lasting Protective Interventions</p>	<ul style="list-style-type: none"> • Expedite enrollment of low-income reproductive-age women in Medicaid, including presumptive eligibility for family planning coverage. • Engage high-risk pregnant women and families in evidence-based home visiting programs that have demonstrated positive impact on use of primary and preventive health care services.¹³
<p>Changing the Context to Make Individuals’ Decisions Healthy</p>	<ul style="list-style-type: none"> • Support training, coaching and consultant services to help primary care providers achieve NCQA certification for patient-centered medical homes. • Require health insurance coverage of preconception/ inter-conception health care services. • Create referral networks and practices to streamline and simplify enrollment and renewal of health insurance for low-income women. • Ensure access to reproductive health services for adolescents and adults, including implementation of ACA requirements for full coverage of preventive health services. • Engage managed care organizations to develop and implement expanded quality standards related to reproductive and preconception health services. • Engage in research to ascertain underlying barriers and facilitators to family planning success. • Use health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers. • Explore options for expanding existing public health surveillance systems such as the Behavioral Risk Factor Surveillance System (BRFSS) to incorporate measures of

	reproductive and preconception health and health care.
Socioeconomic Factors	<ul style="list-style-type: none">• Increase awareness of the impact of health disparities on birth outcomes within high-risk communities.• Address social justice, poverty, racism, employment, disability-related stigma when designing interventions.• Provide comprehensive health insurance that covers preventive, disease management and home visiting.• Provide paid time off, flextime and other incentives for preventive health care visits.• Provide comprehensive, evidence-based health education, including health literacy for children and youth in schools.¹⁵⁷• Assess health insurance status and source of regular health care for all clients served in other government programs and connect families to facilitated enrollers within the community.

Goal #7: Use of Preventive Healthcare Services by Women of Reproductive Age

Distribution of Interventions by Sector

NOTE: The chart below provides a sample of interventions that can be carried out by sector. Please refer to the “Interventions for Action” grid above for more interventions and references.

Healthcare Delivery System

- Provide routine preconception/inter-conception care for women of reproductive age that includes screening and follow up for risk factors, management of chronic medical conditions and use of contraception to plan pregnancies. Preconception/inter-conception care should be integrated in routine primary care delivered by family practice, pediatric, OB-GYN and internal medicine primary and specialty care practitioners.
- Make available examination tables that can be raised and lowered to ensure that women with physical disabilities can obtain routine screening and preventive care.
- Implement reminder systems for routine preventive health and follow-up visits.
- Obtain NCQA Patient-Centered Medical Home (PCMH) certification.
- Adopt electronic health records and connect to regional health information systems to improve quality and coordination of services.

Employers, Businesses, and Unions

- Provide comprehensive health insurance for employees and their families that covers preventive, disease management and home visiting services.
- Provide employees with paid time off, flextime and other incentives for preventive health care visits.

Media

- Help government and community-based organizations develop effective marketing campaigns that promote norms of wellness, healthy behaviors and regular use of preventive health care services throughout the lifespan.
- Make increased advertising space and resources available for health promotion campaigns.

Academia

- Adapt training programs for medical students and residents, and continuing education programs for current practitioners, to better integrate preconception and reproductive health in routine care.
- Include disability literacy when training health practitioners in women’s reproductive health.
- Conduct research to develop and evaluate educational messages and vehicles that have demonstrated improvement in knowledge, attitudes/beliefs, skills and behaviors related to health and wellness and the use of preventive health care services across the lifespan.

Community-Based Organizations

- Engage members of at-risk populations, including adolescents, LGBTQ, women with disabilities, low-income women, immigrant women and others, to provide input and feedback on strategies to improve their use of health care services.
- Use peer counselors, lay health advisors, community health workers and promotoras to reinforce health education and health care service utilization and enhance social support to high-risk preconception and inter-conception women.
- Expedite enrollment of low-income reproductive-age women in Medicaid, including presumptive eligibility for family planning coverage.

- Use health information technology to facilitate more robust intake/enrollment, screening/risk assessment, referral, follow up and care coordination practices across health and human service providers.

Other Governmental Agencies

- Identify and promote educational messages and vehicles that have demonstrated to improve knowledge, attitudes, skills and/or behavior.
- Provide comprehensive, evidence-based health education that includes health literacy and consumer skills for use of health care services, for children and youth in schools.
- Assess health insurance status and source of regular health care for all clients served in other government programs, and connect families in need to facilitated enrollers within the community.

Governmental Public Health

- Expand the development and tracking of preconception and inter-conception health indicators and data sources to support public health program and policy development and evaluation.
- Support requirements for health insurance coverage of preconception/inter-conception health care services.
- Expand support for community-based programs that engage paraprofessionals from the community health workers to enhance social support to high-risk preconception and inter-conception women.
- Develop and disseminate evidence-based clinical guidelines and tools for health care providers to promote optimal well-being through utilization of preventive health services.
- Support or conduct public health detailing to improve health care providers' knowledge, beliefs and skills related to delivery of comprehensive, integrated preconception and inter-conception preventive health care services.

Non-Governmental Public Health

- Use home visiting programs to reinforce importance of inter-conception preventive health care services, including family planning.
- Conduct public health detailing to improve health and human service providers' knowledge, beliefs and skills related to delivery of comprehensive, integrated preconception and inter-conception preventive health care services.
- Streamline and simplify processes for health insurance enrollment and renewal for low-income women.
- Support development and implementation of local service networks, use of health information technology and coordination strategies to ensure that women with identified risk factors are linked to appropriate community resources and that follow-up occurs.

Policymakers and Elected Officials

- Implement Affordable Care Act reforms to ensure comprehensive, affordable health insurance for all NYS women, including coverage for family planning and reproductive health care services.

Communities

- Raise awareness about health disparities, and empower teens and young adults to demand access to preventive health care and to make decisions about reproductive health.
- Gather direct input from affected populations to understand better why some women do not use recommended preventive health care services, and share information with practitioners and policymakers to inform improvements.

- Disseminate information about community resources for health insurance, health care and other supportive services.

Philanthropy

- Fund the development, evaluation, replication and dissemination of evidence-based and innovative strategies to improve use of preventive health care among affected populations.
- Fund training programs and quality improvement collaboration to strengthen capacity and improve health care providers' effectiveness in delivering comprehensive and integrated preconception/inter-conception care as part of primary and specialty health care services.
- Provide leadership and funding to support community-wide, cross-sector practices, networks and systems to ensure that all women enrolled in health insurance and have a usual source of primary health care.

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Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
Focus Area 1: Maternal and Infant Health						
Preterm Births						
Rate of preterm birth <i>(Objective 1-1)</i>	NYS NYSDOH Vital Statistics	Annual	State, county		11.6% (2010)	10.2% (12% improvement)
Racial/ethnic and economic ratio of preterm birth <i>(Objective 1-2)</i>	NYS NYSDOH Vital Statistics	Annual	State, county	<ul style="list-style-type: none"> • Black NH/White NH • Hispanic/White NH • Medicaid/non-Medicaid 	1.58 1.24 1.10 (2010)	1.42 1.12 1.0 (10% improvement)
Infant mortality rate <i>(Objective 1-2)</i>	NYS NYSDOH Vital Statistics	Annual	State, county	Race/ethnicity	5.1 per 1,000 (2010)	
Percentage of births that are low birth weight	NYS NYSDOH Vital Statistics	Annual	State, county	Race/ethnicity	8.2% (2010)	
Percentage of births with prenatal care starting in the first trimester	NYS NYSDOH Vital Statistics	Annual	State, county	Race/ethnicity	73.2% (2010)	
Percentage of women who smoke during the last three months of pregnancy	NYS PRAMS	Annual	State, NYC and Rest of State		7.2% (2010)	
Breastfeeding						
Percentage of infants who are exclusively breastfed in delivery hospital <i>(Objective 2-1)</i>	NYS NYSDOH Vital Statistics	Annual	State, county		43.7%	48.1% (10% improvement)
Racial/ethnic and economic ratio of exclusive breastfeeding in delivery hospital <i>(Objective 2-2)</i>	NYS NYSDOH Vital Statistics	Annual	State, county	<ul style="list-style-type: none"> • Black NH/White NH • Hispanic/White NH • Medicaid/non-Medicaid 	0.52 0.58 0.60 (2010)	0.57 0.64 0.66 (10% improvement)
Infants exclusive breastfed at 3	National	Annual	State, NYC		33.0 %	

Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
months	Immunization Survey		and Rest of State		(2009)	
Infants exclusively breastfed at 6 months	National Immunization Survey	Annual	State, NYC, Rest of State		15.3% (2009)	
Percentage infants enrolled in WIC who were breastfed for at least 6 months	Pediatric Nutrition Surveillance System	Annual	State, county		39.7% 2008-2010	
Maternal Mortality						
Maternal mortality rate <i>(Objective 3-1)</i>	NYS NYSDOH Vital Statistics	Annual	State, county		23.1/100,000 live births (2008-10)	19.7/100,000 live births (10% improvement)
Racial/ethnic ratio of maternal mortality Rates <i>(Objective 3-2)</i>	NYS NYSDOH Vital Statistics	Annual	State	• Black NH/White NH	5.29 (2008-2010)	4.76 (10% improvement)
Focus Area 2: Child Health						
Comprehensive Well-Child Care						
Percentage of children (ages 0-15 months, 3-6 years and 12-21 years) who received recommended # of well-child care visits among children enrolled in government sponsored managed care health plans <i>(Objective 4-1)</i>	NYSDOH Office of Patient Quality and Safety	Annual	State, county		69.9% (2011)	77% (10% improvement)
Percentage of children who have had the recommended number of well-child care visits: <ul style="list-style-type: none"> ages 0-15 months, 3-6 years, and 12-21 years 	NYS eQARR	Annual	Health plan			
Percentage of children (ages 0-15 months, 3-6 years and 12-21 years) who received recommended # of well-child care visits among children enrolled in employer sponsored managed care	eQARR Managed Care Performance	Annual	State		62% (2012)	

Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
health plans						
Percentage of children ages 10 months to 5 years screened for developmental, behavioral and social delays	National Survey of Children's Health	Every 5 years	State		11.7% (2007)	
Percentage of children tested for lead exposure at least twice by age 3	NYSDOH Childhood Blood Lead Registry	Annual	State, county		52.9% (2010) (birth cohort 2007)	
Percentage of children ages 19-35 months who are fully immunized (4 DTaP, 3 Polio, 1 MMR, 3 Hep B, 3 Hib, 1 Varicella, 4 PCV13)	National Immunization Survey, NYSIS	Annual	State, county		65.1% (2011)	
Percentage of adolescent females ages 13 – 17, who received HPV immunization series	National Immunization Survey, NYSIS	Annual	State, county		34.2% (2011)	
Percentage of children ages 2-17 enrolled in managed care plans whose weight was assessed by body mass index (BMI)	eQARR Managed Care Plan Performance	Annual	State	<ul style="list-style-type: none"> • Medicaid • Child Health Plus • Commercial 	65% 64% 62% (2010)	
Percentage of children enrolled in managed care plans, ages 3-17 years, counseled on nutrition or referred for nutrition education	eQARR Managed Care Plan Performance	Annual	State	<ul style="list-style-type: none"> • Medicaid • Child Health Plus • Commercial 	71% 70% 66% (2010)	
Percentage of children enrolled in managed care plans, ages 3-17 years, counseled on physical or referred for physical activity	eQARR Managed Care Plan Performance	Annual	State	<ul style="list-style-type: none"> • Medicaid • Child Health Plus • Commercial 	58% 61% 59% (2010)	
Percentage of adolescents ages 12-17 years enrolled in managed care who had at least one visit with a PCP or OB/GYN and received an assessment, counseling and/or education for:						
<ul style="list-style-type: none"> • Risk behaviors and preventive actions associated with sexual 	eQARR Managed Care Plan Performance	Annual	State	<ul style="list-style-type: none"> • Medicaid • Child Health Plus 	60% 59%	

Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
activity	nce			• Commercial	54% (2010)	
• Depression	eQARR Managed Care Plan Performance	Annual	State	• Medicaid • Child Health Plus • Commercial	52% 49% 44% (2010)	
• Tobacco use (cigarettes, chew or cigars)	eQARR Managed Care Plan Performance	Annual	State	• Medicaid • Child Health Plus • Commercial	64% 63% 58% (2010)	
• Substance use (alcohol, street drugs, non-prescription drugs, prescription drug misuse and inhalant use)	eQARR Managed Care Plan Performance	Annual	State	• Medicaid • Child Health Plus • Commercial	60% 62% 57% (2010)	
Children enrolled in public health insurance managed care plans who have a primary care provider, NCQA-certified Patient-Centered Medical Home	NYSDOH Office of Patient Quality and Safety	Annual	State, county	• Medicaid • Child Health Plus	40% 36% (2011)	
Percentage of children under the age of 19 with health insurance <i>(Objective 4-3)</i>	U.S. Census Bureau, Small Area Health Insurance Estimates	Annual	State, county		94.9% (2010)	100%
Dental Caries						
Percentage of 3 rd grade children with evidence of untreated tooth decay <i>(Objective 5-1)</i>	NYSDOH Oral Health Survey of Third-Grade Children	Every 5 years	State, county		24% (2009-2011)	21.6% 10% improvement
Economic ratio of evidence of untreated tooth decay among 3 rd grade children	NYSDOH Oral Health Survey of Third-Grade Children	Every 5 years	State, county	High income/low-income 3 rd grade children	2.46	2.21 10% improvement

Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
Percentage of 3 rd grade children with treated or untreated tooth decay	NYSDOH Oral Health Survey of Third-Grade Children	Every 5 years	State, county		45% (2009-2011)	
Percentage of NYS children who have protective dental sealants on at least one molar <i>(Objective 5-2)</i>	NYSDOH Oral Health Survey of Third-Grade Children	Every 5 years	State, county		42% 2009-2011	
Percentage of children ages 2-20 years enrolled in Medicaid who had at least one dental visit in past year. <i>(Objective 5-3)</i>	NYSDOH Medicaid Data	Annual	State, county	Medicaid children ages 2-20	40.8% 2008-2010	
Percentage of NYS residents served by community water systems with optimally fluoridated water <i>(Objective 5-4)</i>	CDC Fluoridation Reporting System	Annual	State, county		71.4% 2012	78.5% 10% improvement
Percentage of children with Special Health Care Needs (CSHCN) ages 0-17 years who received preventive dental care in the past year <i>(Objective 5-5)</i>	National Survey of Children with Special Health Care Needs		State	Insurance type, race, age	86% (2009-2010)	
Percentage of children with Special Health Care Needs (CSHCN) ages 0-17 years who reported unmet dental care or orthodontia in the past year	National Survey of Children with Special Health Care Needs		State	Insurance type, race, age	5% (2009-2010)	

Focus Area 3: Reproductive, Preconception and Inter-conception Health

Unintended Adolescent Pregnancy

Percentage of live births resulting in an unintended pregnancy	NYSDOH Vital Statistics		State, county		26.9% (2010)	24.2% 10% improvement
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Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
<i>(Objective 6-1)</i>						
Racial/ethnic and economic ratio of births that were unintended <i>(Objective 6-2)</i>	NYSDOH Vital Statistics	Annual	State, county	<ul style="list-style-type: none"> Black NH/White NH Hispanic/White NH Medicaid/non-Medicaid 	2.09 1.51 1.73 (2011)	1.88 1.36 1.56 10% improvement
Adolescent pregnancy rate ages 15-17 years per 1,000 people of same age group <i>(Objective 6-3)</i>	NYSDOH Vital Statistics		State, county		28.5 per 1,000 (2010)	25.7 per 1,000 10% improvement
Racial/ethnic ratio of teen pregnancies <i>(Objective 6-4)</i>	NYSDOH Vital Statistics		State, county	<ul style="list-style-type: none"> Black NH/White NH Hispanic/White NH 	5.47 4.58 (2010)	4.9 4.1 10% improvement
Percentage of live births resulting from an unintended pregnancy	Pregnancy Risk Assessment Monitoring System		State		34.4%	
Racial/ethnic ratio of births resulting from unintended pregnancy	Pregnancy Risk Assessment Monitoring System		State	<ul style="list-style-type: none"> Black NH/White NH 	1.87	

Use of Preventive Health Care Services by Women of Reproductive Age

Percentage of women ages 18-64 years with health coverage <i>(Objective 7-1)</i>	U.S. Census Bureau, Small Area Health Insurance Estimates	Annual	State, county		86.1 (2010)	100%
Percentage of births within 24 months of a previous pregnancy <i>(Objective 7-3)</i>	NYSDOH Vital Statistics	Annual	State, county		18.9% 2010	17.0% 10% improvement
Percentage of women ages 18-44 years report they have any kind of health care coverage	NYS BRFSS		State		86.8% (2008-2010)	

Indicator	Data Source	Frequency	Geographic Granularity	Sub-Populations	Baseline (Year)	2017 Target (Method)
Percentage of women ages 18-44 years reported seeing a doctor for a routine checkup within the last year <i>(Objective 7-2)</i>	NYS BRFSS	Annual	State		70.8% (2008-2010)	
Percentage of women ages 18-44 years who report that they had a dental visit within the last year	NYS BRFSS	Annual	State		74.9% (2006,2008, 2010)	
