



# SYRACUSE HEALTHY START NEWSLETTER

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Center for Maternal and Child Health

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- Onondaga County Health Department/  
Syracuse Healthy Start
- SUNY Upstate Medical University,  
Center for Maternal and Child Health

## Syracuse Healthy Start *at a Glance*

**Term:** 2005-2009

**Grantee:** Onondaga County Health Department

**Goal:** Eliminate disparities in Perinatal health

**Project area:** City of Syracuse

**Target population:** Pregnant and/or parenting women with children under the age of 2

### COMPONENTS

- Outreach
- Case Management/Care Coordination
- Health Education
- Consortium
- Addressing depression during the Perinatal period
- Interconception Care

### OBJECTIVES

- conduct intensive outreach to individuals at risk/minority women, to better link them with health and human services;
- provide integrated case management services to enhance the care coordination, intervention for identified risks, and cultural competence of the services
- increase provider competence in addressin multi faceted risks faced by participants
- empower consumers through education

**Commissioner of Health & Principal Investigator:**

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**Syracuse Healthy Start Hotline:** 435-2000

## Preconception/Interconception Health Care

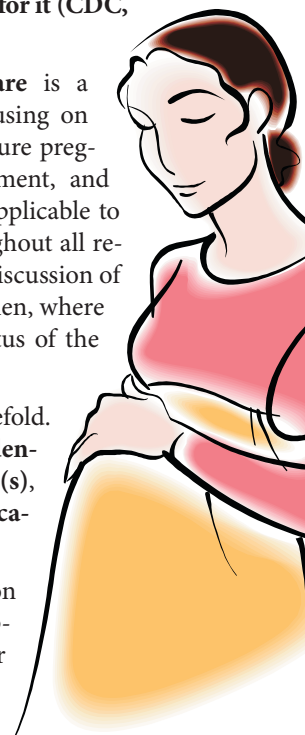
This newsletter is dedicated to Preconception/Interconception Care (PIC), women's health care delivered before or between pregnancies. Following the lead of the American College of Obstetricians and Gynecologists and Centers for Disease Control and Prevention (CDC), we are calling for attention to PIC with the hope of improving maternal and child health in our community.

**Despite major advances in medical care, poor birth outcomes continue to be a problem in the United States. Each year, 12% of babies are born premature, 8% are born with low birth weight, and 3% have major birth defects. Preconception care could succeed in improving maternal and child health where the current paradigm is failing, but most providers don't provide it, most insurers don't pay for it, and most consumers don't ask for it (CDC, 2006).**

**Definition:** Preconception/Interconception Care is a health care encounter outside of pregnancy, focusing on improving the outcome of a potential/planned future pregnancy by using preconception evaluation, treatment, and counseling of women and their partners. PIC is applicable to all health encounters in women ages 15-45, throughout all reproductive years. The newsletter is dedicated to a discussion of the principles and practical applications of PIC; when, where and by whom it should be provided; and the status of the national consensus/plan for PIC.

**Principles of PIC:** The principles of PIC are threefold. They include (a) **Risk Assessment and Problem Identification**, (b) **Medical/Psychosocial Intervention(s)**, and (c) **Overall Health Promotion, Health Education, and Anticipatory Guidance**.

**Why is PIC important?** Proper preconception care is very crucial for early embryologic development. Since prenatal care often begins at week 11 or 12 of a pregnancy, it is too late to prevent a number of serious maternal and child health problems; moreover the first 4-10 weeks of pregnancy are exceptionally critical for the development of most fetal organs and systems. Given that up to 60% of pregnancies (40% of births) are unplanned (Korenbrodt, 2002), women frequently conceive while in less than optimal health. Studies show that even when women start prenatal care in the first trimester, birth outcomes do not significantly improve (CADPH, 2007) because preconception health status is equally important for healthy pregnancy outcome.



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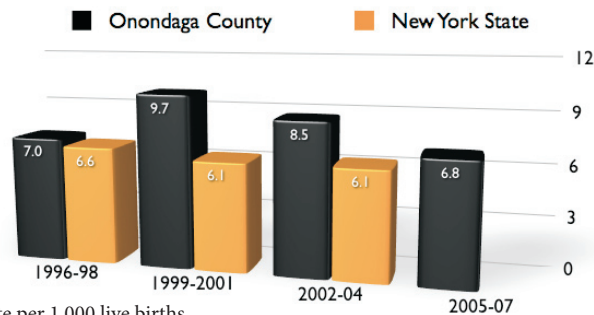
*Preconception/Interconception health care, continued from page 1*

It is estimated that as much as half of all poor pregnancy outcomes are determined by potentially treatable prepregnancy health problems and could be improved by the preventive measures of PIC. However, a study showed that only one of six obstetricians/gynecologists or family phy-

sicians provided preconception care to the majority of women under their prenatal care (Henderson, 2002). Persistent poor outcomes of pregnancy continue to be a problem nationally and locally. The United States has the second worst newborn mortality rate in the developed world. Ameri-

can babies are three times more likely to die in their first month as children born in Japan, and newborn mortality is 2.5 times higher in the United States than in Finland, Iceland or Norway, countries that use PIC as part of basic health care (SWMR, 2007).

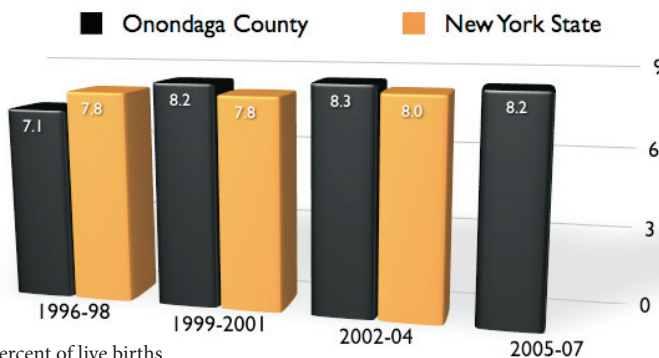
**Infant mortality rates: New York State and Onondaga County, 1996-2007**



\* Rate per 1,000 live births  
NYS data for years 2005-07 are not available.

In New York State in 2004, infant mortality rate was 6.1 per 1,000 live births. It was slightly lower than the national average (6.79); however, NYS still ranked 17th among all states. In Onondaga County in 2003, the infant mortality rate (8.5 per 1,000 live births) was significantly higher than the NYS rate for that year (NCHS, 2006).

**Low Birth Weight: New York State and Onondaga County, 1996-2007**



\* Percent of live births  
NYS data for years 2005-07 are not available.

In 2004, 1 in 12 babies (8.2% of live births) was low birthweight in New York State. The Onondaga County low birthweight rate (8.5%) was again slightly higher than State and National levels (8.1%) and significantly higher than the Healthy People 2010 objective of no more than 5% (NCHS, 2006).

PIC requires a major “paradigm shift” in the area of maternal – child health care. In 1900, the rate of maternal deaths from toxemia led to the initiation of prenatal care. By 1930, the rate of maternal deaths from home births led to the promotion of hospital births. In the 1960’s, the maternal/perinatal/infant mortality in high-risk cases led to the regionalization of perinatal care. Finally, in the 2000s, the failure of prenatal care to further reduce maternal/perinatal/infant mortality has resulted in development of the principles of PIC. There is growing evidence of the potential benefits of PIC as can be seen in the impact of family planning services and folic acid use; a better understanding of influence of certain medications on pregnancy; and improved control of diabetes.❖

**How should PIC be implemented?**

**Risk Assessment/Problem Identification**

Each healthcare encounter should include a search for risk factors in the following areas.

**Nutrition**

Identify:

- non-optimal weight (BMI ≤ 20 or ≥ 29)
- unbalanced diet (calories, protein, Fe, Ca, vitamins, micronutrients, excess vitamin A & D)
- inadequate folic acid intake (need 400 micrograms/day or up to 4 mg/ day if at risk)
- any Pica issues (ingestion of starch, clay, ice, etc.)

Advise for cautious intake of fish, deli meats and cheeses.

**Exercise**

Advise 30+ minutes/day of exercise, 5 days/week.

### Psychosocial /Lifestyle

Discuss/explore at each visit:

- possible use of cigarettes, alcohol, marijuana, and/or other illicit drugs
- other potential problem areas (domestic/sexual abuse, depression/anxiety/stress, other mental health issues including prescribed medications).

### Environmental and Occupational Exposures

Screen patients for exposure to:

- second hand smoke
- lead and mercury
- herbicides and pesticides
- kitty litter, etc.

Discuss the prescribed medications patients may be taking (of special significance are anticoagulants, antiepileptics, accutane, ACE inhibitors, as well as OTC and alternative medications).

### Medical History

Screen for:

- |                    |                   |
|--------------------|-------------------|
| • diabetes         | • cardiac disease |
| • hypertension     | • HIV, TB         |
| • seizure disorder | • Hepatitis       |
| • collagen disease | • thyroid disease |
| • asthma           | • renal disease   |

Check for lack of immunizations:

- |               |                        |
|---------------|------------------------|
| • rubella     | • tetanus              |
| • varicella   | • polio                |
| • hepatitis B | • flu                  |
| • MMR         | • pneumococcal vaccine |

### Family History/Genetic History

Screen for positive family history for:

- hypertension
- diabetes
- multiple births
- birth defects.

### OB/GYN History

Note any problems with:

- STD
- dysplasia, LEEP
- menstrual disorder, D&C, infertility, repeated SAB
- perinatal mortality, mid-trimester loss, perinatal loss, preterm birth, C/S
- pre-eclampsia/eclampsia.

### Physical Exam

Screen for abnormalities in heart, lung, breast, pelvis, etc.

### Laboratory Tests

Check for abnormalities in CBC, RPR Blood type/Rh, rubella, varicella, TB skin test; post-prandial blood sugar, lead level, Pap, G.C., Chlamydia, B.V., etc.

## **Specific Medical/Psychosocial Interventions**

Referrals to appropriate professionals for possible interventions if problems are noted in the following areas:

### Family Planning

- review available methods
- teach methods chosen
- provide prescriptions.

### Genetics

Referral to a genetic counselor for testing based on:

- advanced maternal age
- self/prior/family history of birth defects
- racial/ethnic pre-disposition.

### Psychosocial

Referrals to:

- social workers
- mental health practitioners
- public health nurses
- health insurers
- substance abuse counselors, etc.

### Nutrition/Exercise/Environment

Referrals to:

- nutritionist/dietician
- substance abuse counselor
- smoking cessation specialist
- dentist, etc.

## **Overall Health Promotion/Education**

Provide health education in each encounter thereby allowing self-guidance to help patients improve the outcome of any potential future pregnancy.❖

## **When, Where and By/To Whom Should PIC be Provided?**

PIC should be a part of all health system encounters by all health care providers to all reproductive aged women and men – typically between the ages of 15 and 45 years old.

### **Practical Application of PIC**

Ideally, the PIC dimensions would be applied to all encounters. Special opportunities are present at women's health visits as well as at postpartum visits. The incorporation of PIC into the current medical system is facilitated by using a standard screening form (attached). Part of this form could be completed by the patient and reviewed by the provider with links to appropriate services. This would be accompanied by overall health education/information.

### **Lingering Concerns**

This type of medical care will require a shift in the provider's perspective as well as in the public's perspective and priorities. Furthermore, it will require proper funding to agencies and adequate reimbursement to providers. Finally, it will require a national consensus, policy and action plan as well as a strong research component that is evidence based.

### **Status of National Consensus/Plan for PIC**

Support for PIC is strong and growing. Supporters include: USDHHS, USPHS, IOM, MOD, AHRQ, ACOG, AAP, AAFP, ACNM, and Healthy Start. In June 2005, the CDC held a "National Summit on Preconception Care: Program, Policy, Challenges."

## **Summary**

For PIC to succeed, a major "paradigm shift" is needed. PIC is both sensible, evidence based, and likely to succeed if properly funded and supported. Providers must find a way to practically implement PIC. The uniform risk assessment/intervention/health education guide/tool is critically important for improving pregnancy outcomes and its use is highly recommended.❖

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