IMPLICIT interconception care toolkit

Incorporating maternal risk assessment into well-child visits to improve birth outcomes

Appendices
Appendix 1. IMPLICIT Network

Appendix 2. MAHEC prescription for a healthy family

Appendix 3. ICC office workflow examples

Appendix 4. Grant application examples

Appendix 5. Lawrence ICC paper data collection form

Appendix 6. Americorps application

All documents in the appendices are posted with permission.
Appendix 1. IMPLICIT Network

Appendix 1a. IMPLICIT Network guide
The IMPLICIT (Interventions to Minimize Preterm and Low birth weight Infants using Continuous Improvement Techniques) Network is a family medicine maternal child health learning collaborative focused on improving care for women, infants, and families through faculty, resident, and student development and quality improvement. The Network develops, implements, evaluates, and optimizes innovative models of care focused on improving birth outcomes and the health of women, infants, and families. Initiatives include:

1) Development of the IMPLICIT Pregnancy model of improving prenatal care by providing education and promoting screening and intervention for evidenced-based risk factors

2) Development of the IMPLICIT Interconception Care (ICC) model of screening women for smoking, depression, family planning, and multivitamin with folic acid intake during baby’s well child visits at 0-24 months

Family Medicine Education Consortium
The Family Medicine Education Consortium (FMEC) is a not-for-profit organization designed to foster interest in family medicine among medical students in the Northeastern United States and to support the overall growth of the discipline of family medicine. The FMEC sponsors an annual fall conference that brings together 400 family medicine faculty and residents and 300 medical students to explore cutting edge medical topics in a collegial setting. Learn more about the FMEC at http://www.fmeconline.org.

Conception of the IMPLICIT Network
At the 2003 Northeast Regional FMEC Meeting in Pittsburgh, the idea of creating a network of family medicine residencies using continuous quality improvement (CQI) methods to collectively work to reduce the incidence of premature and low birth weight babies was launched. The following year, with seed funding provided by the National March of Dimes, the Network was formally created.

The Network began by recruiting family medicine faculty members to review their prenatal care curriculum and conduct comprehensive literature reviews in the area of prematurity prevention. Based on this review, the Network developed a shared strategy to implement evidence-based prenatal interventions, known as IMPLICIT Pregnancy, aimed at improving the care of pregnant women and educating residents on best practices.

Through experiences with IMPLICIT Pregnancy, the Network recognized that pregnancy outcomes often depend on the health and lifestyle of a woman before the first prenatal visit. Thus, interventions aimed at improving prenatal care alone often fail to significantly reduce low birth weight and premature births. In 2006, the Centers for Disease Control Select Panel recommended using the interconception period, the time between pregnancies, to improve maternal health prior to the subsequent pregnancy, although no widely accepted model of providing this care existed. Knowing that many women didn’t seek care for themselves between pregnancies, yet brought their babies to well child visits, the IMPLICIT Network wanted to use this opportune time to reach women who may not otherwise receive care. In 2010, the IMPLICIT Network shifted its focus from the prenatal period and developed a model of...
interconception care known as IMPLICIT Interconception Care (ICC). IMPLICIT ICC uses baby’s well child visits as opportunities to identify and reduce mother’s risks for poor outcomes with her next pregnancy.

The Network has conducted ongoing evidence-based literature reviews and adjusted IMPLICIT Pregnancy and IMPLICIT ICC protocols based upon the best current evidence. Using results from these initiatives, the Network has collaborated to publish a variety of papers, as well as present models and outcomes at national meetings. More recently, the Network has grown beyond its initial geographical region of the Northeastern United States and its membership is no longer limited to family medicine residencies. The Network now includes practices in the South and engages a variety of primary care providers, including pediatricians. For more information about the Network’s initiatives or to join the Network, contact implicitinfo@fmec.net.

**IMPLICIT Pregnancy**

In 2004, from evidence-based reviews of 13 conditions associated with an increased risk of prematurity, a working group identified five areas of focused intervention to use as the basis of the prematurity prevention strategy: 1) asymptomatic bacteriuria 2) bacterial vaginosis screening for women with a history of preterm birth (later removed based on current data) 3) depression 4) smoking 5) family planning. In 2006, the use of 17-hydroxyprogesterone for women with a prior history of spontaneous preterm delivery was added. Network collaborators collected data at four points in the pregnancy (by 15 weeks, third trimester, delivery, and postpartum), performed CQI for the chosen interventions, and measured improvements in prenatal care quality measures.

Since 2004, the Network has reviewed the records from 10,000 pregnancies to track improvement in care and pregnancy outcomes. After nearly a decade, most Network programs shifted from IMPLICIT Pregnancy to IMPLICIT ICC. In 2015, the Network began the development of a more simplified approach to IMPLICIT Pregnancy, known as IMPLICIT Lite; although, some IMPLICIT Network sites are still using IMPLICIT Pregnancy to improve the care of pregnant women in their practices.

Other scholarly projects developed through IMPLICIT Pregnancy include the validation of a two step (2-item or PHQ2) depression screening strategy during pregnancy and the postpartum period, and evaluation of postpartum depression screening and interventions.

**IMPLICIT Interconception Care (ICC)**

The IMPLICIT ICC model addresses barriers to interconception care by screening and promoting risk reduction for mothers who accompany their children to well child visits. The model adapts the familiar 5 A’s of Behavioral Change Theory, a model recommended for smoking cessation for more than 20 years by the National Cancer Institute, to target risk factors associated with poor pregnancy outcomes.

IMPLICIT ICC incorporates brief screening and interventions that are feasible to perform within the context of a well child visit and have strong evidence for improving future birth outcomes. IMPLICIT ICC targets four maternal risk factors: 1) tobacco use; 2) depression risk; 3) lack of contraception use and; 4) lack of multivitamin with folic acid intake. IMPLICIT recommends screening for ICC at every well child visit 0-24 months to maximize the opportunity to improve maternal and family health. As of June 2017, sixteen Network sites have implemented IMPLICIT ICC as a standard of care, eleven of which are sharing data in the Network’s data management system, REDCap.
Initial IMPLICIT ICC outcomes have shown that mothers attend more than 94% of well child visits, indicating that these visits are opportune times to reach mothers for interconception care. Mothers screened positive for one or more ICC risk factor at more than 65% of well child visits, making this model successful in its ability to identify modifiable maternal risk factors. Given high rates of the four risk factors, the Network is currently developing additional strategies to improve maternal behaviors in hopes of associated with poor pregnancy outcomes with the goal of improving future birth outcomes.

Other initiatives developed by IMPLICIT Network local sites that have grown out of IMPLICIT ICC include the development of novel strategies for reducing rapid repeat pregnancies and lengthening interpregnancy intervals, promotion of pregnancy intention screening, and promotion of postpartum LARC (long-acting reversible contraception).

Financial Support
The IMPLICIT Network has been generously supported by the National and Pennsylvania March of Dimes since 2003 through various grants and initiatives. These monies enhanced the maintenance of organizational infrastructure, expansion of programs, and support of dedicated IMPLICIT staff. In addition to these streams of funding, individual Network sites have received a variety grants to improve ICC initiatives at their sites, including March of Dimes support in New York, North Carolina, and Mississippi. Most recently, Pennsylvania programs have greatly benefited from a grant from the Pennsylvania Department of Health for 2016-2019 funding to support ICC initiatives and expansion of personnel and dissemination to new sites in the commonwealth.

IMPLICIT Network Members
The Network membership has grown significantly since its inception in 2003 and now includes a governing Leadership Council, Data Review Team, and Scholarly Activity Committee. As of June 2017, there are 23 programs in the IMPLICIT Network. Sites are categorized by Active, Active-Not Sharing Data, Emerging, and Affiliate members. Active members have implemented IMPLICIT Pregnancy or ICC and are sharing data with the Network. Active-Not Sharing Data members have implemented IMPLICIT Pregnancy or ICC but are not sharing data with the Network. Emerging members are in the process of implementation. Affiliate sites are part of the Network but do not yet have the infrastructure to implement IMPLICIT Pregnancy or IMPLICIT ICC. Please contact implicitinfo@fmec.net for an updated list of Network Sites.
<table>
<thead>
<tr>
<th>Network Site (As of June 2017)</th>
<th>Location</th>
<th>Network Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forbes Family Medicine Residency</td>
<td>Monroeville, PA</td>
<td>Emerging</td>
</tr>
<tr>
<td>Hunterdon Medical Center Family Medicine Residency</td>
<td>Flemington, NJ</td>
<td>Emerging</td>
</tr>
<tr>
<td>IFH Mid-Hudson Family Practice</td>
<td>Kingston, NY</td>
<td>Active</td>
</tr>
<tr>
<td>IFH Walton</td>
<td>Bronx, NY</td>
<td>Emerging</td>
</tr>
<tr>
<td>Lancaster General Hospital Downtown Family Medicine</td>
<td>Lancaster, PA</td>
<td>Active</td>
</tr>
<tr>
<td>Lancaster General Hospital Family and Maternity Medicine</td>
<td>Lancaster, PA</td>
<td>Active</td>
</tr>
<tr>
<td>Lawrence Family Medicine Residency</td>
<td>Lawrence, MA</td>
<td>Active- Not Sharing Data</td>
</tr>
<tr>
<td>Middlesex Hospital Family Medicine Residency</td>
<td>Middletown, CT</td>
<td>Active- Not Sharing Data</td>
</tr>
<tr>
<td>Mountain Area Health Education Center Family Medicine Residency</td>
<td>Asheville, NC</td>
<td>Active</td>
</tr>
<tr>
<td>New Hanover Family Medicine Residency</td>
<td>Wilmington, NC</td>
<td>Active</td>
</tr>
<tr>
<td>Temple University Family Medicine Residency</td>
<td>Philadelphia, PA</td>
<td>Affiliate</td>
</tr>
<tr>
<td>UHS Wilson Family Medicine Residency</td>
<td>Binghamton, NY</td>
<td>Emerging</td>
</tr>
<tr>
<td>University of North Carolina Family Medicine Residency</td>
<td>Chapel Hill, NA</td>
<td>Emerging</td>
</tr>
<tr>
<td>University of Massachusetts Family Medicine Residency</td>
<td>Worcester, MA</td>
<td>Active- Not Sharing Data</td>
</tr>
<tr>
<td>University of Mississippi Family Medicine and Pediatrics Residencies</td>
<td>Jackson, MS</td>
<td>Emerging</td>
</tr>
<tr>
<td>University of Pennsylvania Family Medicine Residency</td>
<td>Philadelphia, PA</td>
<td>Active</td>
</tr>
<tr>
<td>University of Rochester Medical Center Family Medicine Residency</td>
<td>Rochester, NY</td>
<td>Active</td>
</tr>
<tr>
<td>UPMC McKeensport Family Medicine Residency</td>
<td>McKeesport, PA</td>
<td>Active</td>
</tr>
<tr>
<td>UPMC Shadyside Family Medicine Residency</td>
<td>Pittsburgh, PA</td>
<td>Active</td>
</tr>
<tr>
<td>UPMC St. Margaret Family Medicine Residency</td>
<td>Pittsburgh, PA</td>
<td>Active</td>
</tr>
<tr>
<td>UPMC Matilda Theiss Health Center</td>
<td>Pittsburgh, PA</td>
<td>Active</td>
</tr>
<tr>
<td>Williamsport Hospital Family Medicine Residency</td>
<td>Williamsport, PA</td>
<td>Active</td>
</tr>
<tr>
<td>York Family Medicine</td>
<td>York, PA</td>
<td>Emerging</td>
</tr>
</tbody>
</table>
Appendix 1b. IMPLICIT Network brochure
What is IMPLICIT?

“Preventing prematurity one woman at a time.”

IMPLICIT (Interventions to Minimize Preterm and Low Birth Weight Infants through Continuous Improvement Techniques) is a unique collaboration of family medicine residency programs throughout the Northeast United States. The purpose of the collaborative is to educate faculty and residents about primary prevention of preterm birth.

Initially conceived in 2003, IMPLICIT began by recruiting family medicine residencies in the Northeastern United States to review their current prenatal care processes and the curriculum they used to train their residents. Individual faculty members from these programs were also recruited to conduct a comprehensive literature review in the area of prematurity prevention. Based on this review, the project participants developed a collective strategy to implement evidence-based prenatal interventions aimed at decreasing the rates of premature and low birth weight babies.

Since implementation in April 2005, members have performed continuous quality improvement monitoring of these interventions, noting marked improvements in prenatal care and birth outcomes. However, IMPLICIT recognizes that pregnancy outcomes often depend on the health and lifestyle of a woman before the first prenatal visit. Thus, health interventions aimed at improving health in the prenatal period alone often fail to significantly reduce low birth weight and premature births. For this reason, IMPLICIT has developed an innovative new model for providing maternal care called the Interconception Care (ICC) Project.

IMPLICIT Members

(as of May 2017)

**Pennsylvania**
- Forbes Family Medicine
- Lancaster General Health
- Downtown Family Medicine
- Family and Maternity Medicine
- Reading Hospital & Medical Center
- Temple University
- University of Pennsylvania
- University of Pittsburgh Medical Center (UPMC)
  - McKeesport
  - Shadyside
  - St. Margaret
  - Theiss
- Williamsport Hospital
- York Family Medicine Residency

**Connecticut**
- Middlesex Hospital

**Massachusetts**
- Lawrence
- University of Massachusetts

**Mississippi**
- University of Mississippi Medical Center

**North Carolina**
- Mountain Area Health Education Center (MAHEC)
- New Hanover Regional Medical Center
- University of North Carolina Chapel Hill

**New Jersey**
- Hunterdon Medical Center

**New York**
- Institute for Family Health
  - Mid-Hudson
  - Walton

**Pennsylvania**
- United Health Services Wilson
- University of Rochester Medical Center

**IMPLICIT Interconception Care**

The IMPLICIT Network - An FMEC Collaborative Initiative

IMPLICIT and its projects are supported by March of Dimes.

This material is for information purposes only and does not constitute medical advice. The opinions expressed in this material are those of the author(s) and do not necessarily reflect the views of the March of Dimes.
An Innovative Model for Providing Maternal Care

When a mother accompanies her child to a well child visit when the child is between 0 and 2 years of age, faculty and residents screen mother for four health risks:

1. Smoking
   The benefits of smoking reduction and cessation to both maternal and fetal outcomes are multifold. Since only 20% of smokers quit successfully during pregnancy, it is recommended that efforts to help women quit continue before the subsequent pregnancy.

   Well child visits afford physicians an opportunity to discuss the benefits of living a smoke free life, not only for new mothers and babies, but for the whole family. Physicians can also provide new mothers with smoking cessation resources and referrals at well child visits.

2. Depression
   During pregnancy, women may choose to stop taking depression medications to avoid possible side effects or they may attend fewer depression counseling sessions in order to attend prenatal visits. Sometimes they do not return to their depression treatments following pregnancy. Furthermore, untreated postpartum depression is associated with poor parenting practices and infant behavioral development.

   Using brief depression screening tools at well child visits, physicians can identify and monitor mothers showing symptoms of depression and recommend treatment options for depression management.

3. Contraception Use
   Lack of birth spacing has been associated with detrimental long-term maternal health outcomes. Additionally, there is strong evidence that shortened inter-pregnancy intervals are associated with low birth weight and prematurity.

   Screening for maternal contraception use at well child visits allows physicians to identify women at risk of having a short pregnancy interval. Physicians can then provide necessary prescriptions and/or referrals to ensure optimal pregnancy spacing.

4. Multivitamin Intake
   Folic acid supplementation prior to pregnancy has been associated with reductions in neural tube defects, particularly when the supplement is taken in the form of a multivitamin.

   Since only 24% of reproductive age women consume the daily recommended dose of folic acid, physicians can utilize well child visits to recommend a daily multivitamin and help women prepare for future pregnancies.

**Continuous Quality Improvement**

Continuous Quality Improvement (CQI) is the constant process of identifying and analyzing strengths and weaknesses and then developing, implementing, and revising solutions.

IMPLICIT is committed to this process. Residency programs in IMPLICIT continually analyze project implementation rates and attend biannual meetings to develop strategies for improvement. IMPLICIT’s commitment to CQI ensures that patients receive high quality, standardized care.
Appendix 2. MAHEC prescription for a healthy family
For __________________________ Age ______

Address __________________________

☐ Take a daily multivitamin
   ___ Multivitamins given

☐ Minimize smoke exposure
   ___ Decrease cigarettes smoked per day
   ___ Stop smoking   ___ Smoke Free House and Car

☐ Boost your emotional well being
   ___ Stress reduction   ___ Deep breathing
   ___ Emotional support

☐ Use birth control for family planning and healthy birth spacing
   ___ Continue breastfeeding   ___ Tubal ligation
   ___ Birth control pills, patch or ring   ___ Barrier
   ___ Long acting contraception (IUD, implant, Depo)
   ___ Other __________________________

☐ Exercise
   ___ Muscular strength   ___ Aerobic fitness   ___ Hydration
   How often?_______________

Circle all that apply:   Pelvic   Abdominal
                          Low Back Muscle Exercises

☐ Eat healthy
   ___ 5 fruits and veggies daily   ___ Minimize sugary drinks
   ___ Prepare more meals at home

☐ Other: __________________________
Receta para una Familia Sana

Para ___________________________ Edad ________

Dirección ___________________________

- Tomar una multivitamina diaria
  - Multivitamina dado

- Minimizar la exposición al humo
  - Reducir el número de cigarrillos fumado al día
  - Dejar de fumar
  - Casa y coche sin humo

- Aumentar su bienestar emocional
  - Reducción del estrés
  - Respiración profunda
  - Apoyo emocional

- Usar control de natalidad para planificación familiar y para una cantidad de tiempo sano entre nacimientos
  - Seguir amamantando
  - Ligadura de trompas
  - Las píldoras anticonceptivas, el parche o el anillo
  - Método de barrera (condón, etc)
  - Anticoncepción de acción prolongada (dispositivo, implante, Depo)
  - Otro

- Ejercicio
  - Fuerza muscular
  - Estado físico aeróbico
  - Hidratación
  - ¿Con qué frecuencia?______________________________________

  Trazar un círculo alrededor de todos los que le aplican:
  - Pélvico
  - Abdominal
  - Ejercicios musculares de la espalda baja

- Comer saludable
  - 5 frutas y vegetales diarios
  - Preparar más comidas en casa
  - Minimizar la cantidad de bebidas azucaradas

- Other:____________________________________________________
Appendix 3. ICC office workflow examples

Appendix 3a. University of Pittsburgh Medical Center (UPMC) Shadyside ICC workflow
Interconception Care (ICC) Screening Flow Chart
Shadyside Family Health Center
June 2016

Child ≤ 24 months presents for Well Child Visit (WCV).

Is the child’s mother present today?

No
Continue WCV as usual.

Yes

Check Encounter Comments—does mother need to fill out Yellow Maternal ICC Questionnaire?

No

Attach pink ICC reminder sticker to facesheet.

Is the child’s mother present today?

No
Continue WCV as usual.

Yes

Is mother currently smoking?

No
Document negative smoking status on pink ICC reminder sticker.

No

Administer 2Q depression screen (2QDS) to mother. Was 2QDS positive?

Yes
Document positive smoking status on pink ICC reminder sticker and give mother smoking brochure in exam room.

Yes
Document positive 2QDS status on pink ICC reminder sticker and give mother PHQ-9 questionnaire to complete. Document that PHQ-9 was given on pink ICC sticker.

Continue WCV as usual.

If mom completed Maternal ICC Questionnaire, return to ICC bin at nurses station.

Is the child’s mother present today?

No
Continue WCV as usual.

Yes
If mom completed Maternal ICC Questionnaire, return to ICC bin at nurses station at end of visit.

Screen mothers for ICC risk factors and document ICC screening and interventions in child’s chart using Primary care Ped Well smart set (.ICC auto populates) or type “.ICC” into progress note in child’s chart.

Review pink ICC reminder sticker.
Assess mother’s smoking status.

Not Smoking.

Document and continue with ICC/WCV.

Current Smoker.

Intervention required (May include 5 As).

Document and continue with ICC/WCV.

Does mom require additional visit?
**Depression**

- **PHQ-9 < 10**
  - Consideration for follow-up appointment with PCP.

- **PHQ-9 ≥ 10**
  - Schedule follow-up with PCP within one to two weeks before leaving the office.

- **Assess PHQ9 results.**
  - Document PHQ-9 results.

- **Review question #9 of PHQ-9 and assess mother for SI/HI.**
  - **Yes**
    - Document and refer mother to ReSOLVE or WPIC immediately.
  - **No**
    - Document and continue with ICC/WCV.

- **Does mom require additional visit?**

- **Review 2QDS status.**
  - 2QDS is negative
    - Document and continue with ICC/WCV.

- **Document and continue with ICC/WCV.**
Contraception

Has mother been pregnant since last visit?

- No
- Yes

Is mother using contraception?

- No
  - No: Currently Pregnant.
  - No: Trying to conceive.
  - Encourage preconception appointment. Give MVI, if appropriate.

- Yes
  - Yes: Other.
  - Yes: IUD or Implant.
  - Yes: Permanent Sterilization methods.

Assess BCM and educate on LARC.

Document and continue with ICC/WCV.

Does mom require additional visit?

Document and continue with ICC/WCV.
Assess mother’s MVI/Folic Acid intake.

- Not taking a multivitamin/folic acid supplement routinely.
  - Intervention required.
    - Recommend and provide MVI.
    - Recommend but not provide MVI.
      - Document and continue with ICC/WCV.

- Taking a multivitamin/folic acid supplement routinely.
  - Document and continue with ICC/WCV.

Does mom require additional visit?
Does mom require additional visit?

Is the mother a patient at SHY FHC?

No

Does the mother have a PCP?

Yes

Will the mother sign a release of information?

Yes

Complete Maternal Health Referral Form and have mother sign release form. Place both forms at ICC bin at nurse station for faxing and continue with ICC/WCV.

No

No

Document refusal in child's chart and continue with ICC/WCV.

Yes

Does the mother want to become a patient at SHY FHC?

Yes

Open informational encounter in mother’s chart. Document ICC positive ICC risk factor screen, intervention given, and need for follow-up visit.

No

No

Schedule a follow-up appointment for mother.

Continue with ICC/WCV.
Appendix 3b. MAHEC ICC workflow
Appendix 3c. UPMC St. Margaret workflow
If 2-question screen is positive for either item, give patient the PHQ-9 and document in chart.

If PHQ-9 score >9:
- Assess for maternal safety NOW!
- Schedule mandatory follow up appointment at FHC
- Copy chart to primary care physician and social work team for phone follow up and assessment
- Referral to case manager if patient has UPMC insurance

TOBACCO

- 5A’s for tobacco use: ask, advise, assess, assist, arrange
- Offer medication
- Copy chart to med management team for phone follow up

DEPRESSION

- Screen mothers who are present with their children at WELL CHILD VISITS from birth to 24 months
- Use EPIC dotphrase (.icc) if not already in Primary Care Ped Well smartset

ICC SCREEN

- Advise mother to take DAILY multivitamin with folic acid
- Free multivitamins are available at all FHC’s (write on clipboard)
- Assess what other medications mother has resumed since delivery

MULTIVITAMINS

- Document (-) pregnancy test and refill current contraception method
- Schedule follow up appointment for Long Acting Reversible Contraception (LARC)
- If patient declines contraception, educate about ideal inter-pregnancy interval and give prescription for emergency contraception pills and condoms

CONTRACEPTION
Appendix 3d. Middlesex ICC workflow
Middlesex ICC Workflow

1. Mother and Child to Exam Room for WCC
2. Nursing gives questionnaire to mother
3. Mother completes questions
4. Nursing reviews answers, provides intervention materials
5. Physician addresses maternal risks
6. Advice
7. Referral or Appt
8. Rx
9. Crisis Team
10. Physician completes data form
11. Data form to office staff for data entry

Legend:
- Nursing
- Physician
- Data Entry
Appendix 4. Grant application examples

Appendix 4a. March of Dimes community grant cover sheet
March of Dimes
Chapter Community Grants Program
APPLICATION COVER SHEET

* ALL SECTIONS MUST BE COMPLETED for proposal to be considered *

Applicant Organization

Project Title

Address

Contact Name

Phone/Fax

E-mail

Please provide a brief synopsis of your project (2 sentences are sufficient):

Approximately how many unduplicated individuals will be served during the grant year?

List the race/ethnicity of the majority of individuals served (if applicable):

Please indicate the positive impact that the project will measure and report on:

- [ ] Improved birth outcomes
- [ ] Increase in knowledge
- [ ] Behavior change
- [ ] Other

Please list the one primary funding priority that the application addresses from the numbered funding priority areas on page 2 of the RFP:

Total amount requested: ____________________ Cost per individual: ______________

Check should be made out to: ________________________________

Is your agency willing to accept partial funding? [ ] Yes [ ] No

Does the budget include funds for a consultant or other subcontract? [ ] Yes [ ] No

___________________________ / / _____________ ________________________________
Signature - Primary Staff Person Date Type Name and Title

___________________________ / / _____________ ________________________________
Signature - Executive Director Date Type Name and Title
Appendix 4b. MAHEC, North Carolina
March of Dimes grant narrative
PROJECT NARRATIVE

A. Project Abstract

Interconception care (ICC) is care that is provided to women during the period following childbirth until the birth of a subsequent child. It consists of medical and psychosocial interventions that improve a woman’s health and modify risk factors in future pregnancies. While the potential benefit of ICC is widely recognized, it has rarely been implemented due to factors such as lack of access to care for women between pregnancies, the loss of insurance coverage during this period, a woman’s focus on the infant to the exclusion of her own health, lack of awareness among providers, limited clinician time, and the lack of an established delivery model for ICC.

With the assistance of our membership in the IMPLICIT network of family medicine residency programs, MAHEC will develop, implement, evaluate and refine a system of identification, assessment, treatment and referral for issues that will reduce both the mother’s immediate health risks and the future health risks of her children. During year one, we will target up to 750 women who bring their children to the MAHEC Family Health Center for well child visits. Each woman will be screened and assessed for issues related to multivitamin use, smoking, depression, and contraception use. Those with identified issues will receive education, on-site treatment, and/or referral to community programs. During year two, we will expand the project to pediatric offices in our region by training them to screen and assess women who bring children in for well child visits. We will also promote the use of ICC model throughout the state to both family medicine residency programs and pediatric practices.
B. Project Description

1. Which funding priority is the project addressing?

Priority #1: Providing or enhancing preconception health education and/or services which align with and/or complement the NC Preconception Health Strategic Plan.

2. What needs or problems of the target population are addressed?

Premature birth is the leading cause of death in the first month of life and a major risk factor for illness and long-term disability in children. Among the risk factors for premature birth are maternal smoking, and short intervals between births. On a local level, tobacco use remains a widespread health issue. In Buncombe County, 13% of women smoked during pregnancy during 2004-2008, compared to 11.5% for the state (State Center for Health Statistics). In addition, those who manage to quit during their pregnancy often restart during the postpartum period, and have no one counseling them about the importance of quitting or ongoing quitting strategies.

In North Carolina in 2008, the State Center for Health Statistics reports that 43% of women had an unintended pregnancy, and 42% who gave birth had delivered another baby 18 months previously or sooner. Of those babies born after such a short inter-pregnancy interval, 53% weighed less than 2500 grams at birth. Among other indicators, depression is a risk factor for both unintended pregnancy and poor birth outcomes. The 2009 North Carolina BRFSS reports that 16% of women aged 18-44 stated that their mental health was not good for at least 14 of the past 30 days.

Finally, neural tube birth defects, serious defects of the brain and spine, can be prevented when women consume multivitamins containing folic acid prior to and during the early months
of pregnancy. The 2008 NC PRAMS survey found that over half of North Carolina women surveyed did not take a multivitamin in the month prior to becoming pregnant.

Until recently, strategies for improving pregnancy outcomes have focused on prenatal care, yet many of the issues that impact the health of babies are best addressed by physicians before a woman becomes pregnant. Preconception care is an opportunity to address health risks, but only a small percentage of women who become pregnant have had a preconception visit. In addition, most new mothers do not seek care for themselves following delivery, and often have no medical home after they give birth to their child, much less the time or energy to attend to their own health needs during the all-consuming first two years of their child’s life.

Family physicians have a unique opportunity to interact and intervene with women who are between pregnancies because they can engage them during their children’s medical visits. In that setting, they can provide both medical and psychosocial interventions that are the core of the interconception care (ICC) model, designed to improve a woman’s health and modify risk factors that will promote a healthy outcome with future pregnancies. While the potential benefit of ICC is widely recognized, the lack of an established model for the delivery of ICC has prevented widespread implementation.

3. **How will the project impact the needs or problems?**

This two-year project addresses the need for an established and replicable delivery model for ICC. We will join phase two of the IMPLICIT Network (Interventions to Minimize Preterm and Low birth weight Infants through Continuous Improvement Techniques), which focuses on interconception care. A collaboration of family medicine residency programs, the Family Medicine IMPLICIT Network began in 2003 in the Northeast as an effort to educate family
medicine residents and practicing physicians about primary prevention of low birth weight and preterm birth. We propose to participate and lead the development of a pilot project, the first in the Southeast that is part of the IMPLICIT Network, which has the potential to benefit women of childbearing age and their infants across the entire state of North Carolina.

4. Who are the primary beneficiaries of the project?

Our target audience is all mothers who bring their babies to our Family Health Center (FHC) in Asheville for well child visits during the first two years of their child’s life, regardless of each woman’s insurance status or whether or not she herself is a MAHEC FHC patient. Typically, a woman is seen only one time after a routine birth (and she often even misses that important postpartum follow up visit). In a family medicine practice, while we may or may not have provided prenatal care to the mom, or delivered the child, we come in contact with these women at their child’s well child visits, which occur at least 7 times in the first year of life. Therefore, by focusing on well child visits we have an more opportunity to interact and perform interventions with them than any typical maternal follow up care.

In the first year, the project has the potential to reach up to 750 women of childbearing age at the MAHEC FHC. We will also teach the model, as it is developed and refined, to our family medicine residents. In the second year, as we promote the model to other family medicine residency programs, private family medicine practices, and pediatric practices, we will greatly extend the potential impact of this project across the state.

5. What is the capacity of the applicant to carry out the project?

Established in 1974, MAHEC serves a 16-county Western North Carolina region. The MAHEC Division of Family Medicine provides family physicians with comprehensive training
so that they may help meet the primary care needs of WNC. The program, with locations in Asheville and Hendersonville, graduates 12 family physicians per year. Direct patient care by our family physicians and mid-level providers at our Family Health Centers includes primary care for adults and children, care for the elderly, family centered obstetrics, wellness visits, laboratory services, X-rays, minor surgery, family therapy, and individual counseling.

MAHEC has expertise in achieving and maintaining nationally recognized standards of care that are based on evidence based guidelines and in measuring results of quality care efforts. The MAHEC Family Health Center recently received recognition from the NCQA as a Level III Patient-Centered Medical Home. In the search for a higher quality, more affordable health care system, the patient centered medical home is rapidly gaining momentum and attention as an innovative approach to primary care. This Level III recognition - the highest awarded by NCQA - is a reflection of the commitment to excellence on the part of the faculty and staff at the Family Health Center. MAHEC is the only practice in the area with this recognition. MAHEC is also involved in the Improving Performance in Practice (IPIP) project, a quality improvement initiative that gives doctors the tools and systems they need to provide high quality care to all patients at all times and improve patient outcomes. The Division of Family Medicine’s tradition of quality will serve as a foundation for implementing this model of interconception care.

C. Project Objectives, Activities, & Outcomes

1. What planning activities will take place before startup?

Through our membership in the Family Medicine Education Consortium, we have joined the IMPLICIT Network. Through the Network, we have assisted in the development of a baseline survey to collect data on current practices at the MAHEC Family Health Center related
to multivitamin use, smoking, depression, contraception use and other issues among new mothers who bring their children to our practice for well child visits. This survey tool has received IRB approval (see attached).

In addition, we have started a Continuous Quality Improvement (CQI) team focused on the implementation of the ICC model. The team includes faculty, residents, behavioral medicine providers, pharmacists, nurses, and other staff. We are also planning the electronic medical record (EMR) modifications that are necessary to assist with the project.

Finally, we are part of the North Carolina multivitamin distribution project. To date, we have distributed 996 bottles of vitamins to 250 women.

2. What are the measurable process and/or outcome objectives?

The overarching goal is to reduce the rates of preterm births and congenital birth defects among North Carolina women of childbearing age using evidence-based interventions and quality improvement techniques centered on interconception care. During year one, we will establish a pilot project in the MAHEC Family Health Center in Asheville. The project will develop and implement a system of identification, assessment, treatment and referral for issues that will reduce the mother’s immediate health risks as well as the future health risks of her children. Our first step will be to develop materials and a systematic process of referring patients with positive depression screens, desire for contraception, or counseling on smoking cessation. This process will take into account each woman’s insurance status, and her primary care provider of choice, since she may or may not be a MAHEC FHC patient.

Measurable objectives for the first year of the project include:
1. By December 2011, 85% of women who bring their children in for well child visits in the first 2 years of life will be screened and assessed for issues related to multivitamin use, smoking, depression, and contraception use.

2. Among those women with identified issues related to the four areas, 100% will receive education, treatment, referral, and follow-up care, as appropriate, that is designed to result in behavior change in the area of identified need by December 2011.

3. By December 2011, we will create a model of interconception care that is easy to implement, efficient, and transferable to a range of practice settings.

We will develop a transferable system of screening and assessment of women’s health issues, as well as a packet of information about services and resources that are available in the community to address identified issues that impact women’s health. As a result, our project will be a model of ICC care that can be implemented efficiently and effectively in other family medicine residencies and practices, pediatric practices in our region, and throughout the state.

During year two, we will continue to screen and assess women within our practice, and also expand the project to include local pediatric offices by training them to screen and assess women who bring children in for well child visits. We will also promote the use of the system of care throughout the state to both family medicine residency programs and pediatric practices.

3. **What are the staff responsibilities?**

Dan Frayne, MD, will serve as project director. He will be responsible for organizing and implementing the project, including creation of materials, designing systems of screening and referral, and educating physicians and residents on the ICC model.
The administrative assistant will assist in designing brochures, disseminating educational materials, copying and scheduling meetings and appointments. The CQI team will meet every three weeks to oversee the process and serve as a think tank related to every aspect of the development and implementation of the project. Finally, technical staff will develop EMR templates and quality indicators to run reports and send information to the IMPLICIT Network.

4. What is the role of collaborating organizations (if applicable)?

The IMPLICIT Network will provide data pooling, support, and analysis, oversight to the evaluation process, networking and troubleshooting implementation issues.

D. Evaluation Plan

1. What do we want to decide about the project as a result of the evaluation?

Previously the work of the IMPLICIT Network focused on interventions delivered in the context of pregnancy care. Through the proposed project, we seek to develop a system of care that addresses the opportunity to deliver maternal interventions at well child visits that may decrease the incidence of preterm birth and other issues that affect the health of the child.

Through the evaluation, we seek to learn if we can develop a model of interconception care that is effective and efficient in delivering evidence based services to women at well child visits. It is also important to learn if a system of screening and assessment can be created for women who are not our patients, as well as for those who are our patients. In addition, we will want to know if our systems approach is feasible for duplication in pediatric practices. Finally, we hope to learn if we can educate family medicine residents in CQI techniques centered on preconception health.
2. **What information and data are needed to make these decisions?**

Using the recently developed baseline survey, we will gather baseline data on how we are currently doing in educating and assessing women who bring their children in for well child visits in the areas of multivitamin use, smoking, depression, and contraception use. During the year we will track interventions (education and/or referrals) related to identified issues. At certain intervals we will collect data to determine if the questions we are asking are appropriate and effective in getting women the interventions they need. At the end of the first project year we will gather information, through a follow-up survey and a focus group of participants, related to the current status of identified risk factors in each woman and compare to baseline information.

3. **How will progress be monitored and outcomes measured?**

We have a Continuous Quality Improvement (CQI) process in place. The services offered through this project will become part of this ongoing CQI process through an additional team formed to address barriers, assess opportunities, and monitor progress toward development and implementation of the model. In addition, we will utilize the resources of, and participate in, the established evaluation system of the national IMPLICIT Network to pool data and evaluate change in the group of targeted women in the four areas of intervention.

4. **How, where, and from whom will information be gathered?**

Information will be gathered from all mothers bringing children for well child visits within the first four months after the birth through the age of two. Enrollment in the project will be determined by the age of the baby as four months or younger.
5. **How will participant input be incorporated?**

Participant input will be incorporated through information gathered from the baseline survey, and information gathered at certain intervals throughout the project. At the end of the first project year, we will conduct a focus group of participants and distribute a follow-up survey. In addition, the CQI process will insure that the interests of all parties are addressed in order to improve delivery of services and meet project objectives.

6. **How will this information measure the outcome for project objectives?**

Information will be used to improve the delivery of services, including systems of assessment and education, as well as linkages and referrals to outside agencies that address smoking cessation and other issues that cannot be treated on site.

7. **Who will design and carry out the evaluation?**

The CQI team will design the practice based delivery systems that are the core features of the ICC model. The IMPLICIT Network will play a key role in the evaluation by providing a place for us to pool our data, and by providing data analysis for the project.

**E. Project Impact and Visibility**

1. **How will the project make a difference in the lives of participants?**

This project will result in a set of strategies that improves the delivery of health care services to women who are between pregnancies. These strategies will contribute to preventing preterm birth, birth defects and low birth weight. Participating women will reap the benefit of better health, increased spacing of pregnancies, and healthier babies.
2. **How will the project be announced to the community?**

The Division of Family Medicine will work with the MAHEC Department of Marketing and Design to create and disseminate public announcements to local print and broadcast media outlets.

3. **How will the project results be shared?**

Project results will be shared with the IMPLICIT Network, as well as at professional meetings and conferences. Results will also be shared with other family medicine residencies and practices, as well as pediatric practices in our region and throughout the state. During year two, in addition to expanding the project to include local pediatric offices, we will promote the use of the model throughout the state to family medicine residency programs and pediatric practices.

4. **Describe the potential for sustainability beyond the funding period.**

Once effective educational materials are created and efficient systems in place to assess, refer and treat issues related to tobacco use, multivitamin use, depression and contraception use, and we have obtained buy-in from the medical community, the cost to sustain the model is minimal.
Appendix 4c. Rochester, New York
March of Dimes ICC project application
Project Overview (2 pages)

Applicant Organization: University of Rochester Department of Family Medicine - Highland Family Medicine

Address: 777 South Clinton Avenue

City: Rochester, NY 14620

Project Title: Implementation of an evidence based interconception care program

Contact Name: Scott Hartman, MD

Phone: (585) 690-3615, Fax: (585) 244 9048

E-mail: scott_hartman@urmc.rochester.edu Website: http://www.urmc.rochester.edu/highland/departments-centers/family-medicine.aspx

Institution Type (choose one):
[ X ] Clinic [ ] Community-based Organization [ ] Educational Institution
[ ] Health Department (State/Local) [ ] Other For-Profit Organization
[ ] Professional Association [ ] Other ________________________________

Have you previously received March of Dimes grant funding for the same project in the last 5 years? [ ] Yes, please specify years_____________ [X ] No

Please provide a brief synopsis of your project (2 sentences are sufficient): To provide comprehensive interconception care to a multicultural underserved population in Monroe County, and through the project to specifically demonstrate decreases in tobacco use and increases in depression care utilization for women of childbearing age.

Please list the one primary March of Dimes priority funding area that the proposal addresses (funding priority areas listed in Section II): Interconception education and healthcare.

Please list the one primary and one secondary purpose category that the proposal addresses (categories listed in Appendix B):
Primary: Preconception education and healthcare.
Secondary: Risk reduction education/services (smoking cessation)
Approximately how many unduplicated individuals will be served during year one? 600
Does this project target adolescents (17 and under)? [ ] Yes [ X ] No

Does this project aim to reduce disparities? [X] Yes [ ] No

Select the race/ethnicity of the *majority* of individuals expected to be served by this project (if applicable):

RACE:
[ ] White  [ X] Black or African American  [ ] American Indian or Alaska Native
[ ] Asian  [ ] Native Hawaiian or Other Pacific Islander  [ ] Other ________________

ETHNICITY:
[ ] Hispanic

Please indicate what will be measured and reported on throughout the project:
[ ] Change in knowledge  [ X ] Change in behavior  [ ] Change in birth outcomes
[ ] Other ___________________________________________________________________

Does the budget include funds for a consultant or other subcontract? [ ] Yes [ X ] No

Does the budget include funds to conduct an evaluation? [ X ] Yes [ ] No

Will your agency or an evaluator be collecting personal health information (PHI) from any individuals? [ ] Yes [ X ] No

Will your agency or an evaluator be seeking the following?
[ ] Full review by an Institutional Review Board (IRB)
[ ] Expedited review by an Institutional Review Board (IRB)
[ X ] No review by an Institutional Review Board (IRB)

Total amount request: $62,369.00  Cost per individual: $103.95 (for 600 individuals)

Is your agency willing to accept partial funding? [ X ] Yes [ ] No

If awarded, check should be made out to: University of Rochester Medical Center

________________________________   ___/___/
Scott Hartman, MD
Director of Women’s and Maternity Services, Highland Family Medicine
Project Abstract

**Problem Statement:** Efforts to improve access to prenatal care have not significantly reduced disparities observed in birth outcomes. Preconception and interconception care (ICC) have thus been advocated as opportunities for assessment and intervention. A majority of mothers accept inquiry about their own health when bringing children for care - our project will thus target needs for maternal health screening and risk reduction during well child visits (WCVs).

**Methods:** We will hire and train a nurse coordinator to implement an ICC program that has been successfully used in other practices. It utilizes brief screening for smoking, depression, contraception and folate use, coupled with point-of-care interventions. We will screen mothers of children presenting for well child visits under two years of age. We will collect data on smoking and depression prevalence in this group and monitor for improvements with the project.

**Expected Results:** We expect the project to decrease the target group’s smoking prevalence by 30%. We expect to increase the prevalence of depression screening among the same mothers to 100%, and increase the rates of depression treatment for this group by 30%. We expect to reach 600 women.

**Conclusions/implications:** Decreases in smoking prevalence and increases in depression treatment should translate into reduced rates of prematurity, low birth weight and preeclampsia in our urban underserved population. We do not expect to observe this in a twelve-month period, but will continue the project beyond the grant duration.
Project Narrative

Project goal

Our project goal is to initiate a comprehensive interconception care program for a multicultural underserved population in Monroe County, and through the project to specifically demonstrate decreases in tobacco use and increases in depression care utilization for women of childbearing age. The project should ultimately reduce preterm birth rates, but that outcome would not be achieved within a twelve-month period. We aim to accomplish the desired outcomes by using established protocols in connection with the regional family medicine IMPLICIT network (Interventions to Minimize Preterm and Low birth weight Infants through Continuous Improvement Techniques).  

Target population

The target population is the patient population of Highland Family Medicine, specifically women presenting to the practice for postpartum care or with their children for well child visits (WCVs). The practice population reflects a microcosm of urban Rochester. Our practice population is 50% non-Hispanic Black (of African or African American descent), 30% non-Hispanic white, 10% Hispanic, and 10% Asian or Asian American. The anticipated unduplicated number of individuals served by the project will be 600.

Preterm birth is the leading cause of death in the first few months of life and a major risk factor for illness and long-term disability. Low infant birth weight (less than 2500 grams at birth) is similarly a highly significant cause of morbidity and mortality. Both of these problems are well known to disproportionately impact newborns of Black and Hispanic race or ethnicity, as well as newborns born to women of lower socioeconomic status. Maternal smoking, maternal
depression (especially untreated) and short interconceptual periods have been demonstrated in many studies to greatly increase the likelihood of preterm delivery and low birth weight.\textsuperscript{4,5,6} National efforts to improve access to prenatal care have not significantly reduced racial and socioeconomic disparities observed in birth outcomes. Approximately half of the pregnancies in the United States are unintended,\textsuperscript{6} and by the time women enter prenatal care it is often too late to impact birth outcomes. Preconception and interconception care have thus been advocated in recent years as opportunities for health promotion, assessment and intervention. Many women, however, do not seek health care for themselves during the preconceptual or postpartum periods. The rates of uptake for newborn healthcare are exponentially higher, and research has demonstrated that the majority of mothers accept inquiry about their own health (and referrals for services) when bringing their children for WCVs.\textsuperscript{7,8}

Our project will target the needs for maternal health screening and risk reduction via the interconception model of care, which offers benefits due to the factors above. We will use a model developed by the family medicine IMPLICIT network, a coalition of health centers in the Northeastern United States, which emphasizes screening and interventions related to smoking, maternal depression, family planning and multivitamin/folic acid use.\textsuperscript{1} The network included folic acid in their model of care due to evidence based recommendations for preconception use for prevention of congenital anomalies,\textsuperscript{9} and the fact that only 24\% of United States women ages 15-44 consume the recommended intake of this important nutrient.\textsuperscript{10} During the one year period of the project, we will be able to address the screening needs for the four interconception care (ICC) components by having our family medicine clinicians utilize a concise screening and referral tool during WCVs. This should increase screening rates and
translate into enhanced care for women in the interconception period, in terms of general health and also behaviors that impact future pregnancies.

**Project objectives:**

Our objective will be implementation of the IMPLICIT network ICC model of care within our family health center. We will implement all four components: smoking screening and intervention; depression screening and treatment; family planning screening and counseling; and multivitamin/folate counseling. We specifically aim to track our smoking prevalence with a goal of a 30% decrease for mothers of children under two years of age, as well as implement depression screening and project a 30% increase in treatment for women with young children who screen positive for depression.

**Project activities and timeline:**

We have already formed an ICC team consisting of three clinicians and one registered nurse (RN). We have already developed and piloted some of the key tools for this project, such as the “smartphrases” in our electronic health record (EHR) and our perinatal database. Smartphrases are standardized text segments in EHRs that prompt clinicians to provide and document health interventions in an efficient manner. In March 2015 we will recruit an hire a Licensed Practical Nurse (LPN) with a prenatal or women’s health background as the ICC Coordinator, and provide him/her with the practice’s standard training in use of the EHR and perinatal database. During the first few days the ICC Coordinator will meet with our previously-identified evaluator, who will review overall evaluation plans and use of the data systems already in place.

After initial training and throughout March 2015 the ICC Coordinator (with assistance from the ICC team) will order March of Dimes patient education materials for the practice and develop a specific ICC patient education brochure. During the same period, the ICC Coordinator will hold
a series of small-group trainings for HFM clinicians to ensure proper understanding and utilization of the care algorithms and EHR smartphrases. All clinicians in the practice will be expected to be using the ICC algorithms and smartphrases by March 31 for all WCVs in children under two years of age.

The ICC project involves a series of questions that clinicians ask of mothers during their children’s WCVs. If screening questions are positive for smoking or depression, brief interventions can be initiated at the WCV, with appropriate follow-up planned or scheduled. Prescriptions for family planning and multivitamins/folate can be given during the WCV. The ICC questions and care algorithms are attached in Appendix A.

From March 2015 to January 31, 2016, the ICC coordinator will conduct monthly chart reviews to assess clinicians’ adherence to the project. This information will be reviewed at monthly ICC team meetings and periodically discussed with the project evaluator.

**Evaluation plan and tools**

From March 2015 to January 31, 2016, the ICC coordinator will conduct monthly chart reviews to assess clinicians’ adherence to the project. This information will be reviewed at monthly ICC team meetings and periodically discussed with the project evaluator. We have identified a project evaluator, who will provider 200 hours for the project. She possesses extensive experience in maternal-child health research and clinical quality programs.

We will evaluate for a reduction in smoking prevalence compared to baseline rate for women presenting with their children to WCVs. Maternal smoking is routinely recorded in WCV records in the EHR. Smoking prevalence will be calculated after data extraction by the Coordinator at the beginning of the project. It will be reassessed by chart review at the end of the 12 month period.

Maternal depression screening is not currently tracked, but will be mandated for clinicians to
conduct at WCVs at project onset via EHR tools already developed. The percent of women screened and referred for treatment will be calculated after data extraction by the Coordinator at 6 and 12 months after the beginning of the project. Increase in treatment rate will be calculated by comparing the 6 and 12 month rates.

We hope in the future to monitor and evaluate results regarding family planning and multivitamin utilization, but feel these would be beyond the scope of a one-year project.

**Expected results and outcomes**

We expect the project to decrease the prevalence of smoking among mothers of children in the practice under two years of age by 30% compared to the practice baseline for the same group.

We also expect to increase the prevalence of depression screening among the same mothers to 100%, and increase the rates of depression treatment for this group by 30% (in those with positive screens). Based on our baseline practice data, we average 950 WCVs for children under two years of age in our practice annually, and for the vast majority of those, the biologic mother is a patient enrolled in our practice as well. The biologic mother is not present at about 25 percent of WCVs, so to leave a margin of error we estimate being able to serve 600 women via this project in eleven months (one month needed for staff hiring).

Decreases in smoking prevalence and increases in depression treatment for those needing it should exert far reaching impacts on maternal-child health in our community. These changes should ultimately translate into positive impacts on birth outcomes, such as reduced rates of prematurity, low birth weight and preeclampsia. We do not expect to observe impacts on birth outcomes in a twelve-month period, but will continue to monitor data far beyond the project duration via our perinatal database.
**Organizational capacity and staffing**

Highland Family Medicine (HFM), located in Rochester’s South Wedge neighborhood, has been providing primary care, including maternity and postpartum care since 1968. It is the teaching practice for the University of Rochester Department of Family Medicine, and benefits from the energy and enthusiasm generated by resident physicians as it carries out its mission to serve the community in all of its socioeconomic and cultural diversity. It also benefits by employing a large group of behavioral health practitioners and family nurse practitioners in addition to faculty-level family physicians, and by maintaining collaborative relationships with the University’s Departments of Pediatrics and Obstetrics and Gynecology.

HFM has achieved national recognition as a Patient Centered Medical Home for its team-based, patient-focused approach to primary care, with a history of constantly utilizing new innovations such as nurse care managers and group medical visits. Last year, HFM entered into collaboration with the Perinatal Network of Monroe County to create a CenteringPregnancy group prenatal care program.

All medical assistants (MAs) will be responsible for flagging charts in the electronic medical record with a “smartphrase” that prompts clinicians to complete the interconception care template for all scheduled WCVs.

All clinicians will be responsible for answering the ICC template questions and completing interventions or referrals as needed. Staff RNs will ultimately be responsible for logging data into the ICC database for monitoring of outcomes. We already have excellent follow-up resources at HFM include a behavioral health treatment team, a behavioral crisis protocol, a depression care manager a smoking cessation group.
The ICC Coordinator funded by this grant will develop patient education materials as well as flowcharts and reference guides for staff. The Coordinator will also help implement the use of the ICC smartphrases in the electronic health record and the use of the perinatal database. S/he will train HFM staff RNs in use of the database. S/he, along with the three physician leaders, will maintain constant communication with the IMPLICIT network.

**Sustainability**

We have already developed and piloted some of the key tools for this project, such as the smartphrases in our electronic health record and our perinatal database. We already have an RN on each “suite” (the practice is divided into seven suites, or micropractices) utilizing parts of the perinatal database, and these RNs will continue the data management aspect of the project after the grant period. The ICC Coordinator will help develop efficient systems for full implementation and interface between clinicians, nursing and the regional IMPLICIT network. After implementation, the model should be incorporated into routine care, and thus be fully sustainable at minimal cost. Other IMPLICIT network sites in the Northeast have proven this to be the case in their experience.

**Collaborating organizations:** In addition to the March of Dimes, our main collaborator will be the regional IMPLICIT network. The network currently consists of 27 family health centers and has recently been expanding. IMPLICIT was initially formed in 2006-2008 and its ICC project arm was fully implemented in 2012. Although large volumes of aggregate data are not yet available, practice sites have noted positive outcomes in their interconception care programs.¹

**Sharing results and outcomes**

In addition to the March of Dimes, project results will be shared with other Northeast region family medicine IMPLICIT network practices. Our project is a continuous quality improvement
program and not research. Outcome measures will only be reported via aggregate data with no reporting or sharing of patient protected health information. We also hope, after implementation, to share our outcomes with other local practices and community health centers providing well child and postpartum care. The network as a whole hopes to expand the ICC model beyond family medicine to collaborate with pediatricians, and possibly midwives and obstetricians.

Visibility

We hope to obtain consent from March of Dimes to utilize the March of Dimes logo on our patient educational materials. Women participating in the project will be given existing March of Dimes educational materials on preconception care and prematurity prevention. We plan to develop one additional brochure that specifically describing our interconception care project. When attending conferences for the regional IMPLICIT network, we will present our local project as a collaboration with the March of Dimes and give proper credit for the funding provided.

References: Attached as appendix B.
## Project Objectives/Activities/Evaluation Methods/Outcomes Template

<table>
<thead>
<tr>
<th>Description of Objective and Activities to Achieve Objectives</th>
<th>Person/ Agency Responsible</th>
<th>Start/End Dates</th>
<th>Number of ( \text{Individuals Expected to be Served/ Reached/ Educated} )</th>
<th>Description of Expected Outcomes/Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBJECTIVE # 1. Decrease the prevalence of smoking among mothers of children in the practice under 2 years of age by 30% compared to the practice baseline for the same group.</strong></td>
<td></td>
<td></td>
<td>600</td>
<td>30% reduction in smoking from baseline. Parental smoking is routinely recorded during WCVs. Prevalence calculated by Coordinator at beginning of project and at 12 months.</td>
</tr>
<tr>
<td><strong>Activity:</strong> Hire a LPN (Licensed Practical Nurse) as the Interconception Care (ICC) Coordinator.</td>
<td>ICC team, nursing and medical director</td>
<td>02/01/2015 – 03/01/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> ICC Coordinator will receive electronic health record (EHR) &amp; perinatal database training.</td>
<td>Lead prenatal RN at HFM</td>
<td>03/01/2015 – 03/04/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> Train family medicine MA’s and clinicians use of smartphrases in EHR (used by some already) - practice-wide use by 3/31/2015.</td>
<td>ICC coordinator – small resident and clinician lunch conferences</td>
<td>03/04/2015 – 03/31/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> Order educational materials and develop an ICC brochure to be given at prenatal and WCVs.</td>
<td>ICC coordinator</td>
<td>03/04/2015 – 03/31/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> Practice-wide use of ICC algorithms tracked throughout grant period. Data reviewed at monthly ICC team meetings.</td>
<td>ICC coordinator, clinicians, ICC team</td>
<td>03/04/2015 – 01/31/2016</td>
<td></td>
<td>Data collection on outcomes as above by January 31, 2016.</td>
</tr>
<tr>
<td>Description of Objective and Activities to Achieve Objectives</td>
<td>Person/ Agency Responsible</td>
<td>Start/End Dates</td>
<td>Number of Individuals Expected to be Served/ Reached/ Educated</td>
<td>Description of Expected Outcomes/Impact</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>OBJECTIVE # 2. Increase depression screening among mothers of children in the practice under 2 years of age to 100%, and increase rates of depression treatment for this group by 30%.</td>
<td></td>
<td></td>
<td>600</td>
<td>Mandated for clinicians to conduct at WCVs at project onset via tools already developed. Percent of women screened and treated will be calculated by Coordinator at 6 and 12 months.</td>
</tr>
<tr>
<td>Activity: Hire a LPN (Licensed Practical Nurse) as the Interconception Care (ICC) Coordinator.</td>
<td>ICC team, nursing director, medical director</td>
<td>02/01/2015 – 03/01/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity: ICC Coordinator will receive electronic health record (EHR) &amp; perinatal database training.</td>
<td>Lead prenatal RN at HFM</td>
<td>03/01/2015 – 03/04/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity: Train family medicine MA’s and clinicians use of smartphrases in EHR (used by some already) - practice-wide use by 3/31/2015.</td>
<td>ICC coordinator, small resident and clinician lunch conferences</td>
<td>03/04/2015 – 03/31/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity: Coordinator will order educational materials and develop an ICC brochure to be given to patients at prenatal and WCVs.</td>
<td>ICC coordinator</td>
<td>03/04/2015 – 03/31/2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity: Practice-wide use of the ICC algorithms tracked by coordinator throughout grant period. Data reviewed at monthly ICC team meetings in conjunction with the Evaluator.</td>
<td>ICC coordinator, clinicians, ICC team</td>
<td>03/04/2015 – 01/31/2016</td>
<td></td>
<td>Data collection on outcomes as above by January 31, 2016.</td>
</tr>
</tbody>
</table>
**Budget Form and Written Justification.** Complete the budget form and provide a one-page written budget justification to detail the items on the budget form. Please include the calculation(s) used to estimate costs. The attached budget form is not acceptable without a written budget justification.

<table>
<thead>
<tr>
<th>BUDGET</th>
<th>APPLICATION (Total Budget)</th>
<th>PROPOSED</th>
<th>EXPENDED (Progress reports only)</th>
<th>EXPENDED (Final Report)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Salaries (include name, position, and FTE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interconception Care Coordinator – to be hired</td>
<td></td>
<td>$44,825.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sub-total A</strong></td>
<td>$44,825.60</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>B. Expendable Supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient education brochures</td>
<td></td>
<td>1800.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laminated algorithm cards for clinicians</td>
<td></td>
<td>17.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sub-total B</strong></td>
<td>$1817.00</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>C. Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop computer for ICC Coordinator</td>
<td></td>
<td>$1,777.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sub-total C</strong></td>
<td>$1,777.14</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>D. Other Expenses/Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluator (200 hours) – Individual to be hired if grant approved</td>
<td></td>
<td>$6,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional IMPLICIT one-time fee</td>
<td></td>
<td>$1,850.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional conferences</td>
<td></td>
<td>$1,850.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sub-total D</strong></td>
<td>$6,850.00</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>TOTAL COSTS (Sub-total A+B+C+D)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>$56,699.00</strong></td>
<td>$0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Indirect Costs 10% (only for proposals $25,000 or over)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$4,670.00</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL AMOUNT REQUESTED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$62,369.00</strong></td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

*Scott Hartman*  
Signature - Primary Staff Person  
Scott Hartman, MD  
Director of Women’s and Maternity Services, Highland Family Medicine  

**Budget Narrative**
A. Salaries: Interconception Care Coordinator - will carry out development and ordering of patient materials, education of clinicians, oversee implementation and interface with ICC team and the regional IMPLICIT network. **Full time (1.0 FTE) position $34,000.00 salary + $10,825.60 (annual rate x 0.3184) benefits, consistent with similar positions at Highland Family Medicine. Total salary + benefits = 44,825.60.**

B. **Indirect Cost at 10% = $5,599.26.**

C. Expendable supplies: production and copying of new ICC brochure not available through March of Dimes. Will include 2000 brochures x 0.90 = $1800.00. Also 20 laminated algorithm cards for provider reference on the clinical practice suites at $0.85 per sheet = $17.00.

D. Laptop computer: Necessary because the ICC Coordinator will need to move between clinical suites and sometimes attend meetings, such as the Regional IMPLICIT Meeting, so he/she will not have a full time workstation. **$1,777.14.**

E. Other expenses and fees:

1. Evaluator – 66.66 hours maximum at $75.00 per hour = $5,000.00. To be hired.

2. IMPLICIT portal fee – (one time for entry into regional network) - $500.00.

3. Attendance at regional IMPLICIT conferences – usually twice yearly in Lancaster, PA. Will send ICC Coordinator and 2 clinicians to each meeting. Hotel at $200.00/night for 1 night for 3 people = $600.00. Airfare at $400.00 roundtrip/person for 3 people = $1,200.00. One time conference registration fee = $50.00. **Total = $1,850.00.**
Appendix B. References for Project Narrative.

1. Full description of the network http://www.fmec.net/implicitnetwork.htm
Appendix 5. Lawrence ICC
paper data collection form
Dear Mother,

We want to give your child the best care we can. To do this, we would like to know a little more about you. YOUR health is very important. When you are healthy, it helps your family be healthy. This information is voluntary and is used to support your care as a mother and to help us learn more how to support all our mothers. This paper will be part of the child's record.

Are you a patient at the Greater Lawrence Family Health Center?  Yes  No

1. Your age at this child's birth: _______ years

2. Are you breastfeeding?  Yes  No
   If yes: Breastfeeding (no formula)  Breast and formula

3. Are you taking vitamins right now?  Yes  No
   If yes: Prenatal Vitamins  Regular multi-vitamins  Other

4. Your smoking history:  Never smoked
   Currently smoking and never quit
   Previously quit and now smoking again
   Quit and not smoking now

5. During the past month, have you often been bothered by feeling down, depressed, or hopeless?  Yes  No

6. During the past month, have you often been bothered by having little interest or pleasure in doing things?  Yes  No

7. Have you been pregnant since the birth of this child?
   Yes, I am pregnant now  Yes, but I am no longer pregnant  No

8. Are you using birth control now?  Yes  No
   If yes, what method(s) are you using?
   Pill  Condoms  Plan B
   IUD  Nuva Ring  No sex
   Nexplanon  Rhythm Method  Other
   Surgery (Tubes tied)  Depo Provera (The Shot)
   If no, do you want to be pregnant?  Yes  No

For Doctor:
1. Smoking Intervention:  None  Intervention given (Advice, Rx, and/or referral)
2. Depression Intervention: PHQ-9 ; Self-Harm (PHQ-9 #9>0)?  Yes  No;
   If Self Harm Expressed, Assessed?:  No  Yes  Contract for Safety, Sec 12
   Depression Intervention:  None  Offered (Refer, same day appt, ect)
3. Contraception Intervention:  None  Intervention Given (Advice, Rx, Refer)
4. Folic Acid Intervention:  None  Advise without Rx  Advice and Rx
Appendix 6. Americorps application
# Organizational Information

<table>
<thead>
<tr>
<th>Organization Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing Address</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Zip</td>
</tr>
<tr>
<td>Phone</td>
<td>Fax</td>
</tr>
</tbody>
</table>

## Director Site Supervisor Information

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td></td>
</tr>
</tbody>
</table>

Will this person be the contact throughout the interview & matching process?  
Yes [ ] No [ ]

If no, please provide the Contact Information

| Contact Name |  |
| Contact Position |  |
| Contact Phone |  |
| Contact email |  |

## Organization Mission

**Type of organization**  
☐ 501c(3) ☐ Government ☐ Other/describe:

**Scope of organization**  
☐ National ☐ State ☐ Citywide ☐ Neighborhood

How did you hear about Health Corps?  
☐ Staff ☐ E-mail ☐ Host Site ☐ Current/former member ☐ Other______________

Has your organization hosted a Health Corps member in the past?  
Yes [ ] No [ ]

# of members requested

## Organizational Infrastructure


What need does your organization or community have that a PHC member can address? What will the member’s role be in addressing this need? How does this role align with the PHC’s mission and performance measures?

<table>
<thead>
<tr>
<th>Behavioral Risk</th>
<th>0-7 Months (N=267 WCV)</th>
<th>8-16 Months (N=99 WCV)</th>
<th>17-25 Months (N=27 WCV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>Smoking Screening Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women still smoking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intervention performed for those still smoking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>Depression Screening Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive PHQ2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHQ9 Score Reported</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intervention performed for those at risk for depression/already in treatment who screened positive with the PHQ2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contraception</td>
<td>Contraception Screening Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women pregnant since birth of this child</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women not using contraception</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intervention performed for those not using contraception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVI/folic acid</td>
<td>MVI/folic acid intake Screening Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women not on MVI/folic acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intervention performed for those not taking an MVI/folic acid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How will you ensure that your member’s position does not duplicate or displace an existing employee or position?
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host site mentors are expected to supervise as well as mentor members and support their career and professional skills development. What will the organization and the site mentor do to promote the members’ professional development?</td>
<td></td>
</tr>
<tr>
<td>Please describe the skills and qualifications of the designated site mentor that will serve as a National Health Corps member site supervisor/mentor?</td>
<td></td>
</tr>
<tr>
<td>Describe in detail your plan for supervising &amp; mentoring members, and how it ensures that members will receive adequate support, feedback and guidance throughout their term.</td>
<td></td>
</tr>
<tr>
<td>Should the site mentor change during the year, what is your organization’s plan to orient the new site mentor to the member and the Health Corps program?</td>
<td></td>
</tr>
<tr>
<td>Who are the key people at your agency the member needs to know &amp; how will they be introduced?</td>
<td></td>
</tr>
<tr>
<td>How will you inform your staff about the role and duties the member will be performing at your site?</td>
<td></td>
</tr>
</tbody>
</table>
Current Host Sites Only: If you were not able to retain your member(s) during your last year of program operation, provide an explanation, and describe your plan for improvement.

READ AND INITIAL TO AGREE TO YOUR ORGANIZATION’S COMMITMENT TO THE FOLLOWING:

• Participate in the recruitment and member matching process by scheduling & conducting member interviews in a timely fashion;
• Attend quarterly Host Site Mentor meetings during the program year;
• Provide direct supervision & member support throughout the term of the program including weekly meetings with your member;
• Provide training to members to support them in successfully completing their service activities;
• Provide growth and learning opportunities for the member;
• Complete all required paperwork for the member and the program including reviewing & approving member timesheets and completing a mid & end of year performance review;
• Provide the member with an extensive orientation to their service activities during the first month of service and provide ongoing training as necessary to allow the member to successfully complete the tasks described in their position description;
• The PHC member, though providing service rather than work, will be treated with the same respect of any staff member of the organization;
• The PHC member will not be asked to do things beyond their position description unless discussed and approved by the PHC Program Director;
• The PHC member will not be asked to do administrative tasks beyond their position description;
• The PHC member will not be asked to engage in prohibited member activities.

_____Initial confirming you have read and agree to sections above (prohibited activities, host site responsibilities, site supervisors, and training).
**Signatures of approval**

By signing below, you acknowledge that you read and understood the contents of this document, as well as the application for host site designation. In addition, you are affirming that you have given consideration to the goals and guidelines of the NHC, and have designed this description to align with those program goals and guidelines.

<table>
<thead>
<tr>
<th>Host Site Mentor Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Site Mentor Name</td>
<td></td>
</tr>
<tr>
<td>Agency Exec Director Signature</td>
<td>Date</td>
</tr>
<tr>
<td>Agency Exec Director Name</td>
<td></td>
</tr>
</tbody>
</table>