A PARADIGM SHIFT IN PRECONCEPTION AND INTERCONCEPTION CARE:
THE RIGHT TIME IS EVERY TIME (AND IN EVERY LOCATION)

DANIEL J. FRAYNE, MD
MAHEC FAMILY MEDICINE, ASHEVILLE NC
NATIONAL PRECONCEPTION HEALTH AND HEALTH CARE INITIATIVE
ZERO TO THREE WEBINAR, APRIL 2017
SUPPLEMENTAL SOURCE FOR 5/23/17 PRESS RELEASE
Thanks to the WK Kellogg Foundation grant funding to support the National Preconception Health and Healthcare Initiative
NATIONAL VISION

All women and men of reproductive age will achieve optimal health and wellness, fostering a healthy life course for them and any children they may have.
PCHHC PURPOSE

- Public-Private Partnership
- Foster connection & push momentum
- Multiply local impact through national collaborative efforts
- Support development of key PCC resources, science, policy, surveillance and messaging
OBJECTIVES

- The case for preconception care
- Why we (as providers and as a system) need to do things differently
- The content of preconception care and the reproductive life plan
- Opportunities and initiatives for an “every time” approach
- Consensus recommendations for measuring “preconception wellness”
US ranks 56th in the world
(CIA 2016)

Per 1000 live births
15% decline in infant mortality 2005-2014

Praised by all major MCH groups and media
- AMCHP, MOD, NICHQ, CDC, CNN

39% reduction in SIDS deaths

BUT preterm birth rates 2015 increased!

We are getting better at caring for LBW infants...
US Infant mortality by race, 1980-2014

Black IM rate 2014 = 11.05

White IM rate 2014 = 4.93

RR = Relative rate

RR = 2.0

RR = 2.2

THE BIG PICTURE: SENSE OF URGENCY

1990-2013 Country Comparison
Maternal Mortality (per 100,000 live births)

US rate is RISING!

Causes of pregnancy-related deaths, US 2011-2012

Top 5 Causes of Infant Mortality, US, 2013 (per 100,000)

- 20% Birth Defects
- 18% PTB and LBW
- 7% Maternal Complic.
- 7% SIDS
- 5% Accidents (uninten.)

CDC PRAMS 2016; National Vital Stats Aug 2015, Vol 64
HOW TO IMPROVE?

- Key drivers of maternal mortality
  - Cardiovascular and other chronic conditions
- Key drivers of infant mortality
  - => Preterm birth and birth defects
HOW TO IMPROVE?

- Most efforts to reduce maternal and infant mortality focus on prenatal or intrapartum care
- These efforts alone are not achieving the results we are hoping for...
- Key drivers of chronic disease, birth defects, and preterm birth have few effective interventions during pregnancy...
PREVALENCE OF CHRONIC CONDITIONS IN US REPRODUCTIVE AGED WOMEN

- Chronic condition requiring frequent monitoring or medication: 43%
- Overweight or Obese: 45%
- Smoking: 21%
- Depression: 10%
- Hypertension: 10%
- Diabetes: 3%

PRAMS, BRFSS, CDC
WHERE DOES YOUR STATE STAND?

2016 Premature birth report cards

[Map showing premature birth rates by state]
Many of the modifiable risks for adverse pregnancy outcomes (for both moms and babies) occur BEFORE pregnancy

BEFORE the 1st missed menses and BEFORE prenatal care begins
9 weeks gestational age by LMP (7 weeks after conception)
Critical Periods of Development

Weeks gestation from LMP

Most susceptible time for major malformation

<table>
<thead>
<tr>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Central Nervous System</td>
<td>Heart</td>
<td>Arms</td>
<td>Eyes</td>
<td>Legs</td>
<td>Teeth</td>
<td>Palate</td>
</tr>
</tbody>
</table>

Missed Period

Mean Entry into Prenatal Care

Before, Between and Beyond Pregnancy
The National Preconception Curriculum and Resource Guide for Clinicians: Module 3
EXAMPLES OF MODIFIABLE RISKS THAT DETERMINE BIRTH OUTCOMES (INFANT AND MATERNAL)

- Pregnancy intendedness
- Interpregnancy interval (<18 months or >59 months)
- Maternal age - pregnancy choice earlier in life or disease course may be healthier/safer
- Exposure to teratogenic medications
- Infections
- Exposure to substances (alcohol, tobacco, drugs)
- Chronic disease control
  - Diabetes, obesity, cardiovascular disease, hypothyroidism, etc
- Congenital anomalies
  - Neural tube defects related to folic acid
BARRIERS TO PRECONCEPTION WELLNESS

- Unintended pregnancy 45% (2011)
- Had preconception counselling 22.8% (2013)
- No insurance 19.5% (2013)
“Preconception health visit”

Work with women who are planning pregnancy

Specific prevention, discuss at annual well woman exam
TRADITIONAL APPROACH IS SYSTEMATICALLY CHALLENGED...

- Almost half of pregnancies unintended
- Only 22.8% have had a PCC visit
  - Women may not even know how to ask for it, or its value
- Only 2 in 5 women taking folate prior
- 1 in 4 women of reproductive age have no insurance (until pregnancy)
- Many women miss their postpartum visit
- And US women of reproductive age increasingly have more risks...
  - Obesity, chronic disease, medication use, substances, mental health issues, age...
"Every system is perfectly designed to achieve exactly the results it gets."

Dr. Donald M. Berwick
(Former Administrator of the Centers for Medicare and Medicaid Services)

For U.S. = high costs, rising maternal mortality, stagnate infant mortality, and widening disparity gap
WHAT IS YOUR SOLUTION?

*Devise a system to reduce maternal and infant mortality through PCC*

- Caveats:
  - Most women are not seeking this type of care
  - Many women have no insurance coverage
  - Most women have competing priorities for their attention (children, work, school, etc)
  - Almost half of all pregnancies are unintended
  - Half of unintended pregnancies were using some form of birth control
Recommendation #3:

“As a part of primary care visits, provide risk assessment and educational and health promotion counseling to all women of childbearing age to reduce reproductive risks and improve pregnancy outcomes.”

THAT WAS 2006... IT IS 2016 – WHO IS TAKING RESPONSIBILITY?

- Few OB/GYNs are providing primary care
- <10% of FM is providing OB care
- But almost all primary care providers (FM, IM, Peds) see women and children
- Women and families are receiving services from many other health sectors (social services, WIC, childcare, home health etc)
- Preconception care is/should be important for ALL providers and in ALL locations
- We need a systematic CHANGE ...
“It is not a question of whether you provide preconception care, rather it’s a question of what kind of preconception care you are providing.”

Joseph Stanford and Debra Hobbins

- Providers see women every day in multiple settings
- Need to take the opportunity when we can
  - When she is in front of us, for whatever reason....
    - Primary care providers should be leaders in this effort
      - And all programs that serve women have a role
  - Need to change our paradigm
- Preconception Care IS Primary Care
I AM MORE THAN MY UTERUS!

- Yes, **but**...
- Most preconception **health promotion** is appropriate for all **women**, **irrespective** of pregnancy plans  
  **AND**
- Almost half of pregnancies are unintended
- Be respectful of the whole woman and where they are in their life plans...
  while recognizing that **good primary health prevention** includes preconception care for ALL women.
LIFE COURSE THEORY

Ending the toxic stress of racism is key to closing the gap.

**Fig. 1**

The key role of epigenetic mechanisms in mediating the long-term effects of exposure to intrauterine factors on offspring’s health outcomes.

Epigenetics
- DNA methylation

Prenatal maternal stress
- Maternal depressive symptoms
- Maternal psychosocial stress

Fetal / postnatal health outcomes
- Immune
- Metabolism
- Brain development
STRESS RELATED CONDITIONS

- Obesity
- Diabetes and other endocrine disorders
- Heart disease
- Anxiety and other mood disorders
- Digestive issues
- Decreased immune response
- Preterm birth...
PRECONCEPTION CARE: CONTENT AREAS

- Family Planning
- Nutrition
- Infectious disease/immunizations
- Chronic Disease
- Medication exposures
- Substance Use
- Previous Pregnancy Outcomes
- Genetic History
- Mental Health
- Interpersonal Violence/Abuse
FRAMING THE DISCUSSION: REPRODUCTIVE LIFE PLAN

- **Do you plan to have any (more) children at any time in the future?**
  - **If YES:**
    - How many?
    - How long would you like to wait until you become pregnant?
    - What family planning method would you like to use until you are ready?
    - How sure are you that you will be able to use this method without any problems?
  - **If NO:**
    - What family planning method will you use to avoid pregnancy?
    - How sure are you that you will be able to use this method without any problems?
    - People’s plans change. Is it possible you or your partner could ever decide to become pregnant?

Advancing women’s health in the primary care setting.

Learn how to incorporate preconception health efficiently into routine well woman care.

Read Toolkit ➤

NEW Quality Family Planning Guidelines have recently been released by the Office of Population Affairs and the Centers for Disease Control and Prevention. Guidelines include recommendations for preconception health services for women and men. Click here to read more.
NEW PRECONCEPTION CARE
CLINICAL TOOLKIT

Desires Pregnancy

At Risk / Unsure

Does Not Desire Pregnancy

About This Toolkit

Reproductive Life Planning Assessment

At Risk / Unsure

At Your Fingertips
Family Planning and Contraception
Nutrition
Infectious Disease and Immunizations
Chronic Disease
Medication Use
Substance Use
Previous Pregnancy Outcomes
Genetic History
Mental Health History
Intimate Partner Violence

Before, Between & Beyond Pregnancy
REPRODUCTIVE LIFE PLANNING CONTINUUM
Opportunistic Triage of Risk

- Reproductive Action Plan
  NOW

- Reproductive Plan
  (1-2 years)

- Life Plan (Includes Reproduction)
Pregnancy Intention Screening:

Would you like to become pregnant in the next year?
INTO THE WORKFLOW...

- Paradigm shift of provision of routine care to include reproductive desires and risks
- Provider vs. MA driven?
- Incorporate into EHR?
- What happens after the answer?
- Does this need to be done in a clinical setting???
  - It’s just a question...

**Identify, engage and connect**
Patient response will influence the medical decision making of prescriptions, follow up care, and preventive reproductive health services provided.

*Patient already screened for medical eligibility: age 18-45, reproductive capacity, etc.

Ask*: “Would you like to become pregnant in the next year?”

- **YES**: Review Chronic Health Conditions, Urgent Psychosocial Concerns, Prescribe Multi-vitamin with Folic acid
  - Medication Review
  - Review birth spacing recommendations and optional timing for wellness
  - Develop follow up plan for additional preconception care and assess contraception needs

- **OK EITHER WAY**: Screen for current contraception use

- **UNSURE**: Assess satisfaction of method and compliance of use

- **NO**: Review effectiveness, offer all options including LARC and Emergency Contraception
REDUCE SYSTEM BARRIERS

- Need systematic ways to address identified needs in timely manner
  - May not be able to handle in the moment
  - Care for patient’s agenda...
  - But it may be your only opportunity!
- QuickStart methods for immediate contraceptive use
- Emergency Contraception
- Identify ways to optimize billing for time and screenings
AND BEYOND...
EVERY WOMAN, EVERY TIME

- Every woman with a chronic disease should be aware of the potential effects of her disease and its treatments on herself, her pregnancy and her offspring (should she conceive), as well as opportunities for maximizing a healthy outcome.

- All women of childbearing age should be taking a **MVI with folic acid** daily.

The National Preconception Curriculum and Resource Guide for Clinicians: Module 3
AND BEYOND...
EVERY WOMAN, EVERY TIME

- All women/couples should be encouraged to develop a reproductive life plan

- All women should be routinely assessed and counseled about BMI, exercise, tobacco/alcohol/other exposures, and immunizations
NOVEL EXAMPLES OF PROVIDING PRECONCEPTION CARE “DIFFERENTLY”

- Interconception care during pediatric visits
  - The IMPLICIT Model of Interconception Care
- Public Health Programs for multivitamin distribution
- Pregnancy intendedness screening in routine care
IDEAL OPPORTUNITY FOR INTERCONCEPTION CARE: INCORPORATE MATERNAL ASSESSMENTS INTO WELL CHILD VISITS

- Mothers bring children to WCV though may not seek care for themselves
- Mother’s health and behaviors directly impact child’s health – positively and negatively
  - Tobacco use, depression
- Women accept inquiry and advice about own health at pediatric visits
  - Even if not their provider

Kahn and Wise, Pediatrics, 1999
Gjerdingen et al., Ann Fam Med, 2009
Focus on 4 behavioral risks affecting future birth outcomes

Smoking
Depression
Family planning & birth spacing
Multivitamin with folic acid use

IMPLICIT ICC Model
During well child visit
IMPLICIT ICC Model

- Repeatedly **screen** mothers during WCVs from 0-24 months of age for behavioral risk factors
- **Assess** current risks at each WCV 0-24 mo
- **Reinforce** desired behaviors
- **Connect** with primary providers or community resources to address risks
- Collect and analyze data
- **Develop strategies** to improve care delivery and patient outcomes
IMPLICIT interconception care toolkit
Incorporating maternal risk assessment into well-child visits to improve birth outcomes

Download the ICC Toolkit:
✓ https://prematurityprevention.org/Toolkits-Reports/IMPLICIT-interconception-care-toolkit

Contact us:
✓ implicitinfo@fmec.net
✓ http://www.fmec.net/implicitnetwork.htm
Preventing Neural Tube Birth Defects in North Carolina

A STATEWIDE MULTIVITAMIN DISTRIBUTION PROGRAM

march of dimes®

North Carolina Preconception Health Campaign
After 4 years of pushing this message in a family medicine residency clinic, mostly during well child visits, but frequently during routine primary care visits with the NC State multivitamin distribution program as a point of care intervention strategy
5 new OB visits in a row which were intended, appropriately spaced, on MVIs for >3 months prior and emotionally well!

Most of these were uninsured prior to pregnancy
STORIES FROM THE FIELD

- Type 1 diabetic at 6 month well child visit not on contraception, not on MVIs, had been discharged from primary care practice for financial reasons – identified and reconnected

- (Emergency care given and started on OCPs that day to bridge to next appointment - risks averted)
STORIES FROM THE FIELD

- Mother of a 10 month old, bringing child in for “ER follow up.” Had missed the 9 month WCV.
- IMPLICIT ICC risks performed – all 4 positive
  - Restarted smoking
  - Stopped birth control pill
  - Screened positive for depression with increased stress at home
  - Stopped multivitamins
- Intervention performed that day, given MVIs, connected with beh health for assessment and support, reinforced smoking cessation and family planning risks
- Came in 2 weeks later for Nexplanon placement
- At 15 month WCV all 4 screens are now negative
<table>
<thead>
<tr>
<th>Patient Visit</th>
<th>Routine Care</th>
<th>PCC Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes follow up</td>
<td>Adjust meds and assure quality measures (ACE-I, statin, A1C, foot exam, pneumonia vaccine)</td>
<td>Family planning, education on risks, MVI with folic acid</td>
</tr>
<tr>
<td>Asthma follow up from ED after exacerbation, has bipolar controlled on valproic acid</td>
<td>Counsel on appropriate inhaler use, asthma action plan, smoking cessation</td>
<td>Family planning, education on risks, MVI with folic acid, consider switching valproic acid</td>
</tr>
<tr>
<td>Recent sex, stopped depo due to side effects, here for pregnancy test (neg)</td>
<td>Reassurance, encourage routine appt for birth control, safe sex</td>
<td>Emergency contraception, birth control that day, STI screening, MVI with folic acid</td>
</tr>
<tr>
<td>Acute ankle sprain, college student, no meds</td>
<td>Ankle sprain management</td>
<td>Family planning, MVI with folic acid, STI screening</td>
</tr>
<tr>
<td>Chronic back pain f/u for pain med refill</td>
<td>Pain management, refill</td>
<td>Family planning, MVI with folic acid</td>
</tr>
</tbody>
</table>
WHAT ABOUT THE MEN?

- OKQ can be used to engage with men, too
- In men aged 35-39
  - 40% in need of family planning
  - 33% in need of PCC
- Similar health promotion
  - Reproductive Planning and Contraception
  - Infection/Immunizations
  - Genetics/Family History
  - Social and behavioral issues, domestic violence
- Opportunity to counsel about role in parenting
SO WHAT IS IT GOING TO TAKE?

- What do we need to change?
  - Buy-in (individual and organizational)
  - Education
  - Motivation
    - Financial incentives
    - Quality measures
  - System supports
“Measurement is the first step that leads to control and eventually to improvement. If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it.”

― H. James Harrington
CURRENT SYSTEM QUALITY MEASURES

- Focused on chronic disease management and preventive service delivery, e.g.
  - Immunizations (influenza, pneumococcal)
  - BMI assessment and dietary counselling
  - Tobacco screening and counselling
  - HTN, diabetes, CHF evidence based screens, management, and target goals
  - Colon, breast, cervical cancer screening
  - But none focus on reproductive age women as a special group
CURRENT SYSTEM QUALITY MEASURES

- For pregnancy outcomes...
  - Prenatal care (access, 17-P, STI screening)
  - Intrapartum management (no elective deliveries <39 weeks, hemorrhage, NTSV rates)
  - Birth outcomes (Apgars, prematurity, BW, neonatal and infant mortality, maternal morbidity and mortality)
CURRENT SYSTEM QUALITY MEASURES

For preconception care...

Actually, there are! Just not being addressed in this way....

Good PCC starts with good women’s health...

- Immunizations, BMI, depression screening, tobacco, STI screening, diabetes management...
Preconception wellness is the state of a woman’s health at the time of conception.

Preconception care is the care provided to promote and achieve preconception wellness.

Preconception care is provided in multiple settings across clinical and public health sectors.

Thus it is difficult to measure and difficult to hold any one group/domain accountable!
ACCOUNTABILITY FOR CHANGE

- Women are not achieving a high level of PC wellness
- An intermediate measure of a woman’s “preconception wellness” upon entering pregnancy would serve as a surrogate marker of the state of preconception care in the community – this could drive decisions on processes, programs, and quality improvement
PCHHC CLINICAL WORKGROUP CONSENSUS PANEL

- Broad expert representation
  - MFM, FM, OB-GYN, CNM, Public Health, Nursing
- Reviewed available evidence based PCC recommendations
- Current quality measure crosswalk (HEDIS, NCQA, NQF, ACO, CMS, PQRS, etc)
- Current EHR collection practices and abilities
- Feasibility and reliability of collecting and reporting data through the EHR
- Impact for improving perinatal outcomes
CLINICAL MEASURES FOR PRECONCEPTION WELLNESS*

- Intended/planned to become pregnant
- Entered prenatal care in the 1st trimester
- Daily folic acid/multivitamin consumption
- Tobacco free
- Not depressed (mentally well / under treatment)
- Healthy BMI
- Free of sexually transmitted infections
- Optimal blood sugar control
- Medications (if any) are not teratogenic

No single measure alone is sufficient to describe “preconception wellness”

But taken in aggregate can be a marker of wellness and receipt of quality preconception care

Current Quality Measure

* Obstet Gynecol. 2016 May;127(5):863-72
Consumer Engagement is KEY
Healthy woman

Healthier pregnancy

Healthier children

Healthier community

Healthier nation
JOIN THE LOVE!

www.ShowYourLoveToday.com

@SYL_Today | #ShowYourLoveToday
@ShowYourLoveToday
Facebook.com/ShowYourLoveToday