Preconception CoIN Launch Meeting

Setting the Stage
Reviewing the Evidence
Moving Ahead

December 11, 2017
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How can we make real change? How do we raise awareness in an authentic, scientifically accurate way that what a person does *before* they become pregnant matters?
Disparity Rates on the Rise in the U.S.

- Failing young adults, moms and babies of color

While the United States is one of the wealthiest countries in history, we rank 27th in infant mortality.

The Big Picture: Sense of Urgency

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

US rate is RISING!

Critical Periods of Development

Weeks gestation from LMP

Most susceptible time for major malformation

<table>
<thead>
<tr>
<th>Week</th>
<th>Central Nervous System</th>
<th>Heart</th>
<th>Arms</th>
<th>Eyes</th>
<th>Legs</th>
<th>Teeth</th>
<th>Palate</th>
<th>External genitalia</th>
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<td><em>Central Nervous System</em></td>
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Missed Period

Mean Entry into Prenatal Care
The Barker Theory / Epigenetics

• People who were born low birth weight have an increased risk for coronary heart disease, high blood pressure, stroke and diabetes

• Protecting the health and nutrition of girls and young women can prevent chronic disease in the next generation
"Every system is perfectly designed to achieve exactly the results it gets."

Dr. Donald M. Berwick

For U.S. = high costs, rising maternal mortality, stagnate infant mortality, and widening disparity gap
Definitions: Preconception Care

• Interventions that aim to identify and modify biomedical, behavioral, and social risks to a person’s health or pregnancy outcome through prevention and management

• Interventions emphasize factors that must be acted on before conception or early in pregnancy to have maximal impact on maternal, fetal, and infant health
Objectives of Preconception Care

• To improve wellness
• To increase intentionality of pregnancy
• To educate women/partners about risks to healthy pregnancies and reproductive outcomes
• To decrease amenable risk factors

• Achieve all of these BEFORE pregnancy occurs!!
• Received appropriate contraceptive counselling
  • 46.5% of women aged 15-44
  • 4.5% of men

• Received appropriate STI screening
  • 37.5% of all women aged 15-24 tested for chlamydia
  • 45.3% of women aged 15-44 with risk were tested for chlamydia
  • 32.5% of men tested for any STI

• Received preconception counselling
  • 33.2% of women who had a live birth
  • Most frequent topics: taking vitamins with folic acid (81.2%), achieving a healthy weight (62.9%) and how drinking alcohol (60.3%) or smoking (58.2%) during pregnancy can affect a baby.
Nationally, among women 18–44 years:
• 80.9% had their blood pressure checked by a health care professional
• 31.7% received an influenza vaccine
• 54.5% with high blood pressure were tested for diabetes
• 44.9% with obesity had a health care professional talk with them about their diet
• 55.2% current smokers had a health professional talk with them about their smoking.

Many women and men of reproductive age were not receiving recommended preventive health care services.

Differences occurred by age, race/ethnicity, family income and stability of insurance coverage
• Low income and access to insurance were key
Preconception / Interconception Health Risks and Interventions
## Preconception Health Factors

<table>
<thead>
<tr>
<th>Healthy Body</th>
<th>Healthy Mind</th>
<th>Healthy Environment</th>
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</thead>
<tbody>
<tr>
<td>• Folic Acid</td>
<td>• Mental Health</td>
<td>• Food Safety</td>
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<tr>
<td>• Nutrition</td>
<td>• Healthy Relationships</td>
<td>• Environmental Toxins</td>
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<tr>
<td>• Physical Activity</td>
<td>• Alcohol/Drugs</td>
<td>• Workplace Hazardous Materials</td>
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<tr>
<td>• Weight</td>
<td>• Vaccines</td>
<td>• Home Hazardous Materials</td>
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<td>• Tobacco</td>
<td>• Medications</td>
<td>• Financial Stability</td>
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<td>• Alcohol/Drugs</td>
<td>• STIs</td>
<td>• Healthy Relationships</td>
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<tr>
<td>• Chronic Conditions</td>
<td>• Oral Health</td>
<td>• Healthy Community</td>
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<tr>
<td>• Vaccines</td>
<td>• Pregnancy Spacing</td>
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<td>• Medications</td>
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<td>• Environmental Toxins</td>
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</tbody>
</table>
Preconception Care: Content Areas

• Family Planning
• Nutrition
• Infectious disease/immunizations
• Chronic Disease
• Medication exposures
• Substance Use

• Previous Pregnancy Outcomes
• Genetic History
• Mental Health
• Intimate Partner Violence/Abuse
Preconception Care: Content Buckets

• Giving Protection
• Managing Conditions
• Avoiding Exposures known to be teratogenic
• Identifying historical risk
Giving Protection

• **Family planning**
  • Prevention of unintended pregnancy
  • Preventing rapid repeat pregnancy (short interpregnancy intervals)

• **Immunization and Infection prevention**
  • Rubella, Varicella, Hep B, HIV, tuberculosis

• **MVI and Folic acid supplementation**

• **Intimate Partner Violence and Sexual Abuse**
Managing Conditions

• Diabetes
  • Reduction in birth defects from ~10% to 2-3% with strict glycemic control PRIOR to pregnancy
• Obesity
• Hypothyroidism
• Hypertension and Cardiovascular disease
• Asthma
• Autoimmune disorders
• Coagulopathies
• HIV disease
• Seizure disorders
• Depression and bipolar disorder
Avoiding Exposures

• Alcohol
• Tobacco
• Drugs
  • Prescribed opiates, methadone, illicit
• Environmental toxins
  • Mercury, lead, radiation, pesticides, BPA

• Medications
  • Anti-seizure meds (valproic acid and others)
  • Warfarin
  • ACE-Inhibitors
  • Statins
  • Isotretinoin
  • Psych meds (valproic acid, lithium)
Identifying historical risk

- Genetic/Family history
  - Ethnic background

- Maternal age
  - Shared decisions about timing of pregnancy
  - Women with chronic conditions...earlier/younger may be safer

- Prior pregnancy outcomes
  - Preterm birth
  - GDM, preeclampsia
  - Congenital anomalies
  - Recurrent miscarriages
Advancing women's health in the primary care setting.

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

Read Toolkit >
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
So what are we going to do differently to get different results?
Preventive / Well Woman Visit Cascade
Screening to inform care discussions...USPSTF

• Many evidence based preventive health screening recommendations for women and men of reproductive age (Level A & B)
  • Depression
  • Alcohol, Tobacco
  • Substance use (I)
  • Weight and physical activity
  • Intimate partner violence
  • STI’s
  • Chronic disease (diabetes, hypertension, cholesterol) in select groups

• Each of these are recommended and performed in routine clinical and preventive care
• Each has an evidence based intervention for identified risk
• Note that pregnancy intention screening is not there...no lens toward reproductive health
Keys to Incorporating Routine Preconception Care into Practice

• Pregnancy intention screening
• Add reproductive/preconception counselling to routine health maintenance problem list
• Include reproductive/preconception counselling as part of chronic disease management plan

• Then, when the routine screenings are done, there is context on which to understand/guide discussions
• Problem List:

• HTN: on ACE-I, well controlled
• Prediabetes: last A1C 5.9, check annually
• BMI 35: Diet/exercise counselling
• Smoking: 5-As reviewed, contemplative
• Preconception Counselling: Not interested in pregnancy in next year, taking MVI, has progesterone implant (placed 2016)
Example

• Diabetes Care Plan:
  • A1C goal <7
  • On metformin, GLP-1, statin, ACE-I
  • No complications: annual microalbumin, eye and foot exam
  • Vaccines: pneumonia, annual flu
  • Weight loss and activity goals reviewed
  • Reproductive/Preconception Planning: LARC, MVI, interested in pregnancy in near future...
What is Reproductive Life Planning?

• A set of personal goals about having (or not having) children
  • Whether or not to have children
  • When?
  • How many?
  • How far apart?
• Includes statements about how to achieve those goals
• Based on personal values and resources

http://www.cdc.gov/ncbddd/preconception/default.htm
PATH

• **Pregnancy Attitudes**
  • Do you think you might like to have (more) children at some point?

• **Timing**
  • If considering future parenthood: When do you think that might be?

• **How Important is Prevention**
  • How important is it to you to prevent pregnancy (until then)?
Why Should Providers Encourage Reproductive Life Planning?

A reproductive life plan can support:

• **Pregnancy Intendedness**: help women and men recognize they have choices around risk taking for pregnancy and that there are ways to improve health/decrease health risks prior to pregnancy

• **Method Matching**: method matching to short and long term goals may result in increased adherence to chosen/prescribed method

• **Personal Goals**: help individuals formulate, based on their own values and resources, a set of personal goals about whether or when to have children

• Unfortunately, RLP is yet to be proven to improve outcomes (Burgess 2017)
  • Hypothesis – it cannot occur in a vacuum, it needs to be updated and reflected upon routinely, and it is all about the risks!
Timing Matters

• Women 35 and older are at greater risk for
  • Infertility, chromosomal abnormalities, high blood pressure, GDM, pregnancy loss, prematurity and LBW
  • Sperm does get old too!
• Inter-pregnancy interval of 18-23 months has lowest risks for:
  • Preterm birth, Low birth weight, Small for gestational age
  • Recommendations may vary for older women
• Less than 6 months between pregnancies
  • 40% increased risk of preterm birth, 61% increased risk of low birth weight, 26% increased risk of being small for gestational age
• > 59 months between pregnancies also showed increased risk of poor birth outcomes
• For women with chronic disease (eg. Diabetes), achieving pregnancy before macrovascular complications develop may carry less risk for both mom and infant

*All of these risks increase with a previous poor birth outcome
• Would you like to become pregnant in the next year?

• Every Woman, Every Time
  • Good medical records can avoid discomfort by documenting any history of loss or infertility or permanent method
  • Make it a vital sign

• Tailor care to help her achieve her goals
• Be aware of implicit bias – ideas about who should become pregnant and when they should become pregnant
Ask*: “Would you like to become pregnant in the next year?”

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<table>
<thead>
<tr>
<th>YES</th>
<th>OK EITHER WAY</th>
<th>UNSURE</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>Review Chronic Health Conditions, Urgent Psychosocial Concerns,</td>
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<tr>
<td>Prescribe Multi-vitamin with Folic acid</td>
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<tr>
<td>Medication Review</td>
<td>Screen for current contraception use</td>
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<tr>
<td>Review birth spacing recommendations and optional timing for wellness</td>
<td>Assess satisfaction of method and compliance of use</td>
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<tr>
<td>Develop follow up plan for additional preconception care and assess contraception needs</td>
<td>Review effectiveness, offer all options including LARC and Emergency Contraception</td>
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</tbody>
</table>
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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.*
Contraceptive Method Matching

• Contraceptive method matching based on goals:
  • CHOICE Project contraceptive counseling videos:
    • English: http://youtu.be/u9SHoy1C3tU
    • Spanish: http://youtu.be/HgenzQUCugg
  • Additional resources, including contraceptive menu handouts and method fact sheets in English & Spanish: http://larcfirst.com/sessions.html

• Quick Start Algorithm
  • Providing contraceptive of choice on the day it is asked for
  • Removing barriers to access
Folic Acid Recommendations

• Daily
  • 0.4 mg of folic acid daily and at least 3 months before pregnancy
  • 0.8 mg with a previous Neural Tube Defect (NTD)

• Folic Acid Awareness
  • 84% of women surveyed reported having heard of folic acid
  • 39% reported taking a vitamin containing folic acid daily
  • 20% of women aware of folic acid mentioned that folic acid prevents birth defects
  • ONLY 11% of women aware of folic acid mentioned that folic acid should be taken before pregnancy

• A MULTI-vitamin has additional benefits above folic acid alone
  • Data not as robust, but present in many different birth and child outcomes studies
  • Biggest effects of multivitamin with folate are in nutritionally poor populations
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.
What We Measure Matters: 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
CDC Population Preconception Health Indicators

- Heavy alcohol consumption
- Depression
- Diabetes
- Folic acid intake
- Hypertension
- Normal weight
- Current smoking
- Recommended physical activity
- Unwanted pregnancy
- Use of contraception

The CDC reviewed over 65 indicators to develop a “short list” of measures that could be used to track preconception health among states. Data sources: PRAMS and BRFSS. Papers on the methods, commentaries and an MMWR on national status coming soon from the CDC! (See Cheryl Robbins who is here)
FIGURE 1. Family planning and related and other preventive health services

Family planning services
- Contraceptive services
- Pregnancy testing and counseling
- Achieving pregnancy
- Basic infertility services
- Preconception health
- Sexually transmitted disease services

Related preventive health services
(e.g., screening for breast and cervical cancer)

Other preventive health services
(e.g., screening for lipid disorders)
Figure 2. Clinical pathway of family planning services for women and men of reproductive age

- Determine the need for services among female and male clients of reproductive age
  - Assess reason for visit
  - Assess source of primary care
  - Assess reproductive life plan

Reason for visit is related to preventing or achieving pregnancy

- Contraceptive services
- Pregnancy testing and counseling
- Achieving pregnancy
- Basic infertility services

If needed, provide services

Clients also should be provided preventive health services, per clinical recommendations

Initial reason for visit is not related to preventing or achieving pregnancy

- Acute care
- Chronic care management
- Preventive services

Assess need for services related to prevents or achieving pregnancy

If services are not needed at this visit, reassess at subsequent visits

Preconception health services

Sexually transmitted disease services
Title X Preconception Guidelines

- Daily Supplement with 0.4 to 0.8 mg of folic acid
- Reproductive life plan and sexual health assessment
- Medical History
- Intimate Partner Violence
- Alcohol and Other Drug Use
- Tobacco Use
- Immunizations
- Depression
- Height, Weight and Body Mass Index
- Blood Pressure
- Diabetes
Screening vs. Diagnostic Testing

• **Screening test** = for a defined population/group who is asymptomatic
  • Pap smears for cervical cancer (women age >21)
  • Fecal occult blood testing or screening colonoscopy for colon cancer (all age >50)
  • PHQ-9 for depression
  • ASQ in children

• **Diagnostic test** = has a symptom or a positive screen, looking to diagnose or follow a disease
  • Strep test
  • CT head in someone with stroke symptoms
  • Glucose or A1C in someone with polyuria and polydipsia to diagnose or follow diabetes
  • Diagnostic interview for depression (positive PHQ9)
  • Using PHQ9 to follow depression treatment towards remission

• **Our goal is to improve the SCREENING process to engage and connect patients and clinicians around preconception health risk factors.**
Incorporating this all into a routine women’s health screening...

<table>
<thead>
<tr>
<th>Topic</th>
<th>Screening Tool Examples</th>
<th>Intervention Examples</th>
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<tbody>
<tr>
<td>Pregnancy intention/family planning</td>
<td>OKQ, RLP</td>
<td>Quick Start, PCC review</td>
</tr>
<tr>
<td>MVI with Folate</td>
<td>Do you take a MVI with folate daily?</td>
<td>Education, provision</td>
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<tr>
<td>Weight/BMI</td>
<td>How do you feel about your weight?</td>
<td>Patient centered counselling, referral to nutrition</td>
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<tr>
<td>Physical activity levels</td>
<td>Frequency, type of exercise</td>
<td>Goal 150 minutes/week</td>
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<tr>
<td>Tobacco use</td>
<td>Current, Former, Never</td>
<td>5-As</td>
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<tr>
<td>Alcohol misuse screening</td>
<td>AUDIT</td>
<td>SBIRT</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>CRAFFT, NIDA, DAST</td>
<td>SBIRT</td>
</tr>
<tr>
<td>Depression screening</td>
<td>PHQ2/9, Edinburgh</td>
<td>Safety assessment, structured diagnostic interview, referral to behavioral health</td>
</tr>
<tr>
<td>Intimate Partner Violence screening</td>
<td>HARK, HITS</td>
<td>DA-5, Safety plan, domestic violence program referral</td>
</tr>
<tr>
<td>Safe sex and STI screening</td>
<td>Sexual activity, condom use, STI risk</td>
<td>Education, condoms, STI screening</td>
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<tr>
<td>Vaccines</td>
<td>Assessment of age/disease appropriate status</td>
<td>Encourage and provide</td>
</tr>
<tr>
<td>Any chronic disease screening or follow up</td>
<td>Medication review, goals, primary and secondary prevention, QI measures</td>
<td>Disease specific management</td>
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</table>
The Challenge with screening questions...

- Many evidence based screening questionnaires
- No evidence on what happens when they are “bundled” or “stacked”
  - What happens to the validity of the results when a PHQ9, AUDIT, DAST, and HARK are all asked together?
  - Question fatigue
  - Lack of trust about what will be done with the responses
    - Are we just “checking the box?”
    - “I don’t have time for this.”
- **How** we ask/perform screening questions **MATTERS**.
Our new enhanced screening approach will need to be developed by and with the users...

Both providers and consumers
A sign for every clinician’s office:

You are your own primary care provider 99.9% of the time, so how can I help you take care of YOU?
Consumer Perspectives
Key Consumer Lessons Learned (so far)

• Consumers need to SEE themselves in the message
• Need to have trust that information is not just “to check a box.”
• Peril of screening question fatigue
• Provide actionable, local resources and tools
• Keep messages focused and simple, but make the time to talk more if needed
• Consider health, digital, financial, and reading literacy levels
• Watch out for inadvertent guilt factors
• Include faith-based communities
• Link self care with preconception care = self love concept works
• Don’t forget the guys!
Well Woman Story Key Findings

• Healthcare delivery system is not woman-friendly.
• Women’s competing demands and priorities make accessing healthcare difficult.
• Women weigh costs vs. benefits when deciding to access care.
• Relationships with providers are key to women’s decisions about accessing care.
• Health and insurance literacy empower women to advocate for themselves and others.

http://www.citmatch.org/sites/default/files/documents/citylights/CityLights_Spring%202017_The%20Well-Woman.pdf
Well Woman Story Key Findings

• Positive mental health is integral to being a “healthy” woman.
• Healthy food, safe environments, and opportunities for physical activity are vital for women.
• Social support systems facilitate women’s willingness and ability to seek care.
• Lack of childcare and transportation are major impediments to accessing healthcare.
• Fear is a pervasive component of many women’s healthcare experiences.

http://www.citymatch.org/sites/default/files/documents/citylights/CityLights_Spring%202017_The%20Well-Woman.pdf
Show Love to Yourself and Your Children by practicing Good Nutrition! Eat Fruits and Vegetables instead of Junk Food!

Dance! Run! Walk
Show Love to Yourself by exercising 30 minutes a day

Cheza
Ngoma! Kimbia! Tembea!
Jipe upendo kwa kufanya mazoezi dakika thelathini kila siku!
LGBTQ Groups challenge the use of gendered language and images. Why have website sections for women and men separately? How do we use pronouns? Unique needs for different groups.
Intergenerational messages and outreach are very important. Young adults live in families surrounded by friends which can either support or hinder health. Her health is everyone’s responsibility!
Magnolia Clinic in Jacksonville, FL

MODEL PROJECT!

DISCUSSION
Before, Between, & Beyond Pregnancy
Thank you!

Connect with Us - @PCHHC, @UNCCMIH, @ShowYourLoveToday