

Preconception CoIN Launch Meeting

Setting the Stage Reviewing the Evidence Moving Ahead

December 11, 2017

Sarah Verbiest, DrPH, MSW, MPH

Dan Frayne, MD

Faye Johnson, BA

How can we make real change? How do we raise awareness
in an authentic, scientifically accurate way that

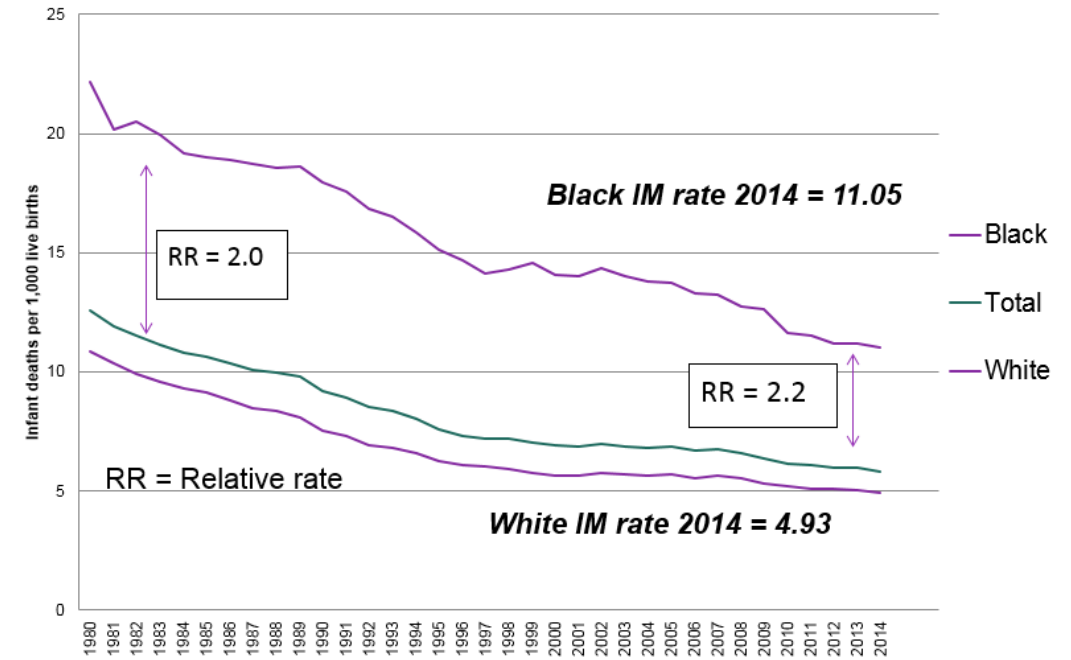
**what a person does before they become
pregnant matters?**



Disparity Rates on the Rise in the U.S.

- Failing young adults, moms and babies of color

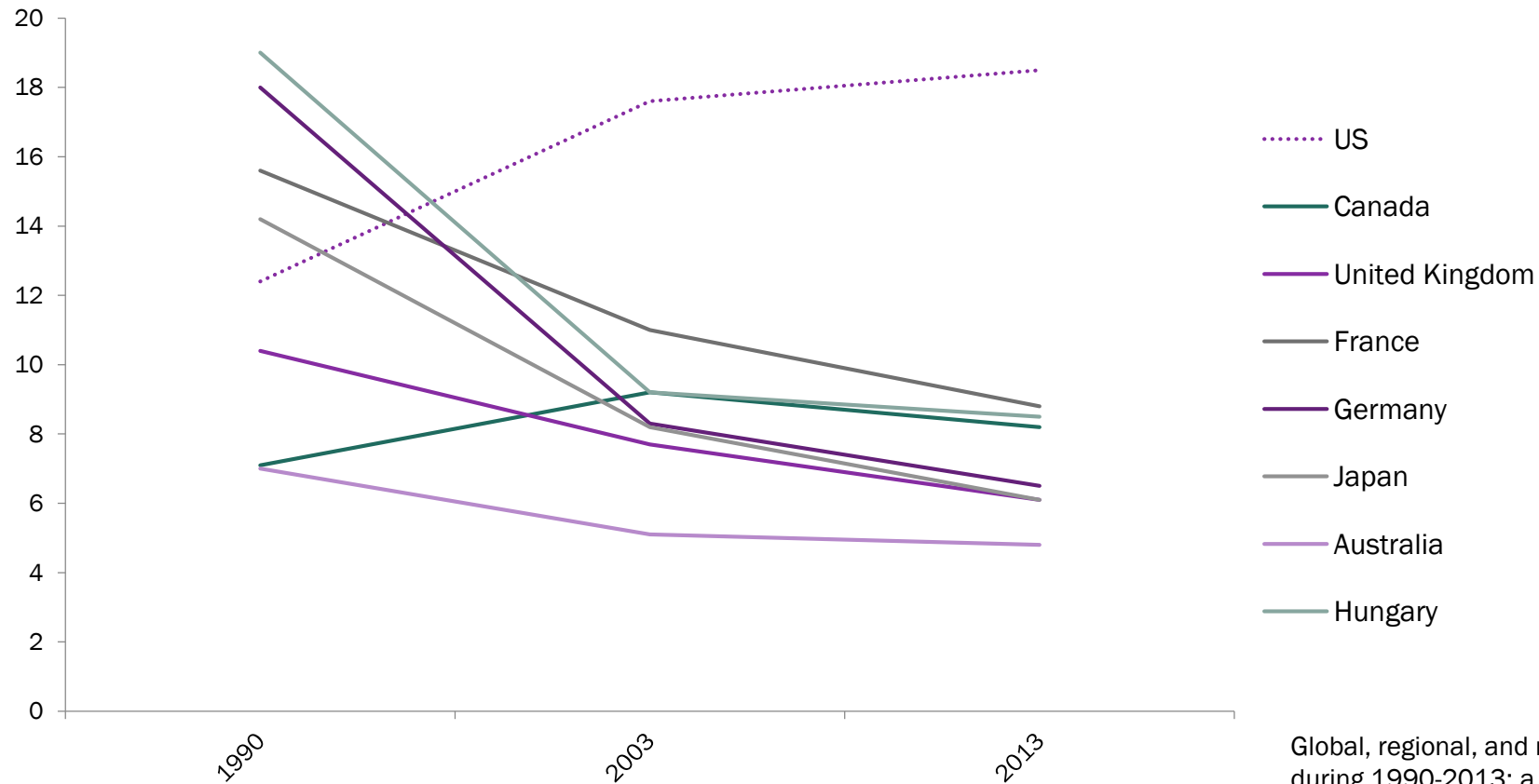
While the United States is the one of the wealthiest countries in history, **we rank 27th in infant mortality.**



Natl Vital Stat Reports, Vol 65 2016

The Big Picture: Sense of Urgency

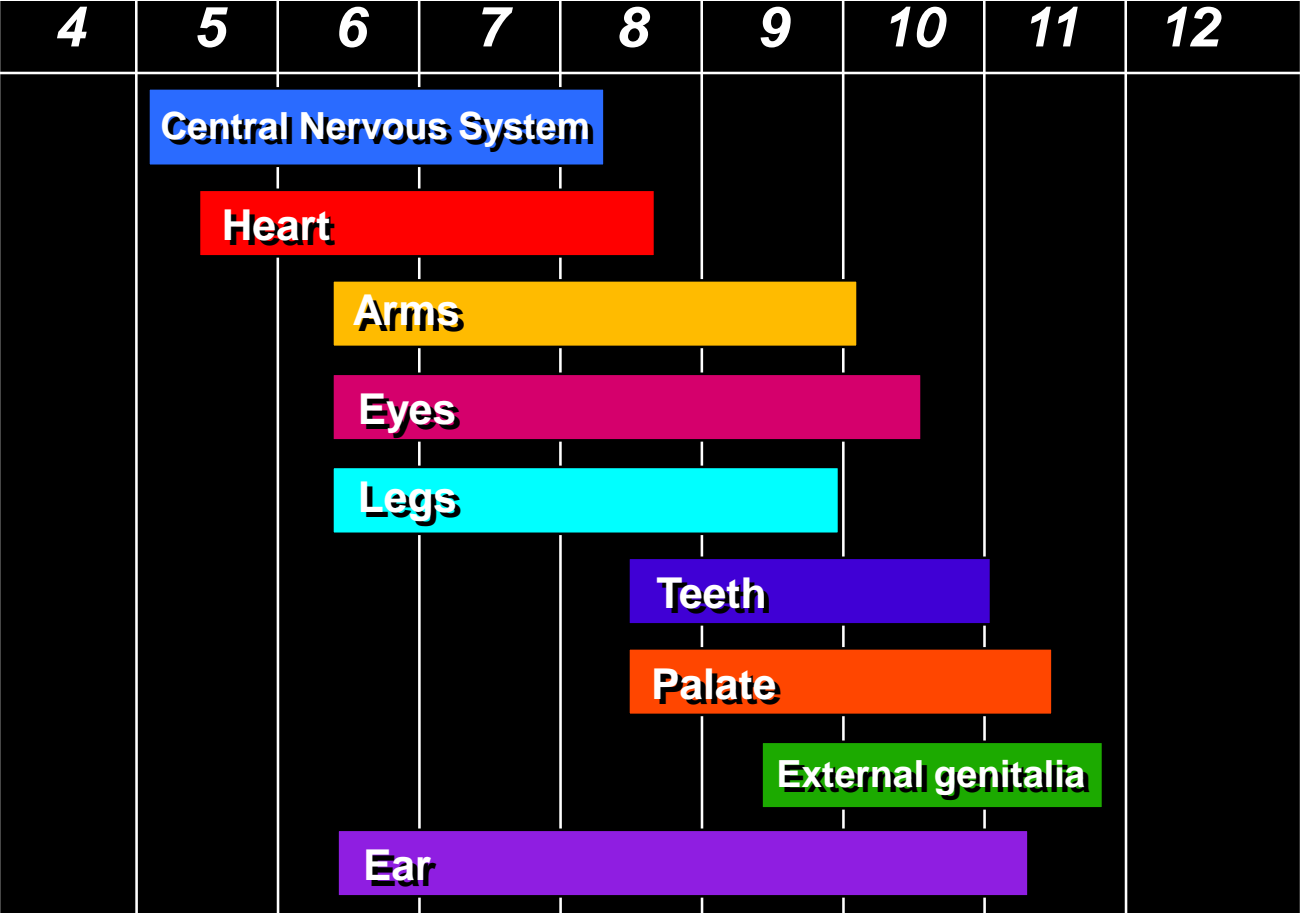
1990-2013 Country Comparison
Maternal Mortality (per 100,000 live births)



US rate is RISING!

Global, regional, and national levels and causes of maternal mortality during 1990-2013: a systematic analysis for the Global Burden of Disease Study. Kassebaum NJ, et al. Lancet 2014; 384:980-1004.

Critical Periods of Development



*Weeks gestation
from LMP*

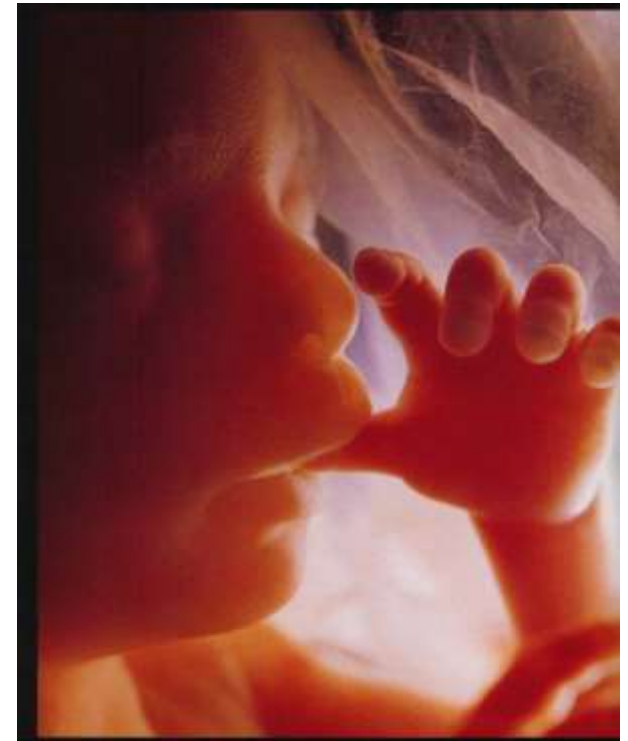
Most susceptible
time for major
malformation

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!!**

Receipt of Preventive Health Services 2011-2013

- 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.

Receipt of Preventive Health Services 2011-2013

- 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

| Healthy Body | Healthy Mind | Healthy Environment |
|--|---|---|
| <ul style="list-style-type: none">• Folic Acid• Nutrition• Physical Activity• Weight• Tobacco• Alcohol/Drugs• Chronic Conditions• Vaccines• Medications• STIs• Oral Health• Pregnancy Spacing | <ul style="list-style-type: none">• Mental Health• Healthy Relationships• Alcohol/Drugs | <ul style="list-style-type: none">• Food Safety• Environmental Toxins• Workplace Hazardous Materials• Home Hazardous Materials• Financial Stability• Healthy Relationships• Healthy Community |

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





Preconception Health+Health Care Initiative

A National Public-Private Partnership

Before, Between
& Beyond Pregnancy

[Home](#)

[CE Modules](#)

[Key Articles](#)

[Guidelines](#)

[Practice Resources](#)



THE NATIONAL PRECONCEPTION CURRICULUM
AND RESOURCES GUIDE FOR CLINICIANS

NEW PRECONCEPTION CARE
CLINICAL TOOLKIT

Tool Kit

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.](#)

Desires Pregnancy

At Risk / Unsure

Does Not Desire Pre

About This Toolkit

Reproductive Life Planning Assessme

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

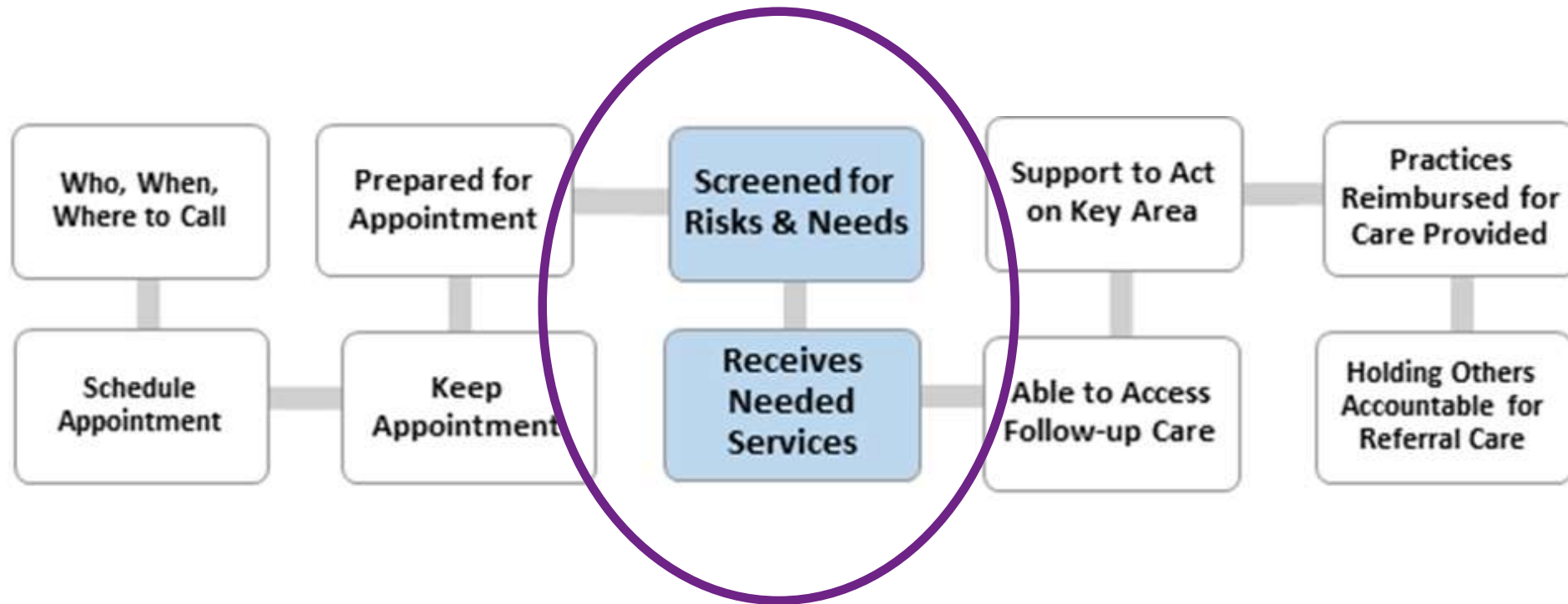
Mental Health History

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***

Example

- 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)?

Callegari. Avoiding pitfalls of reproductive life planning. Am J Obstet Gynecol 2017

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!

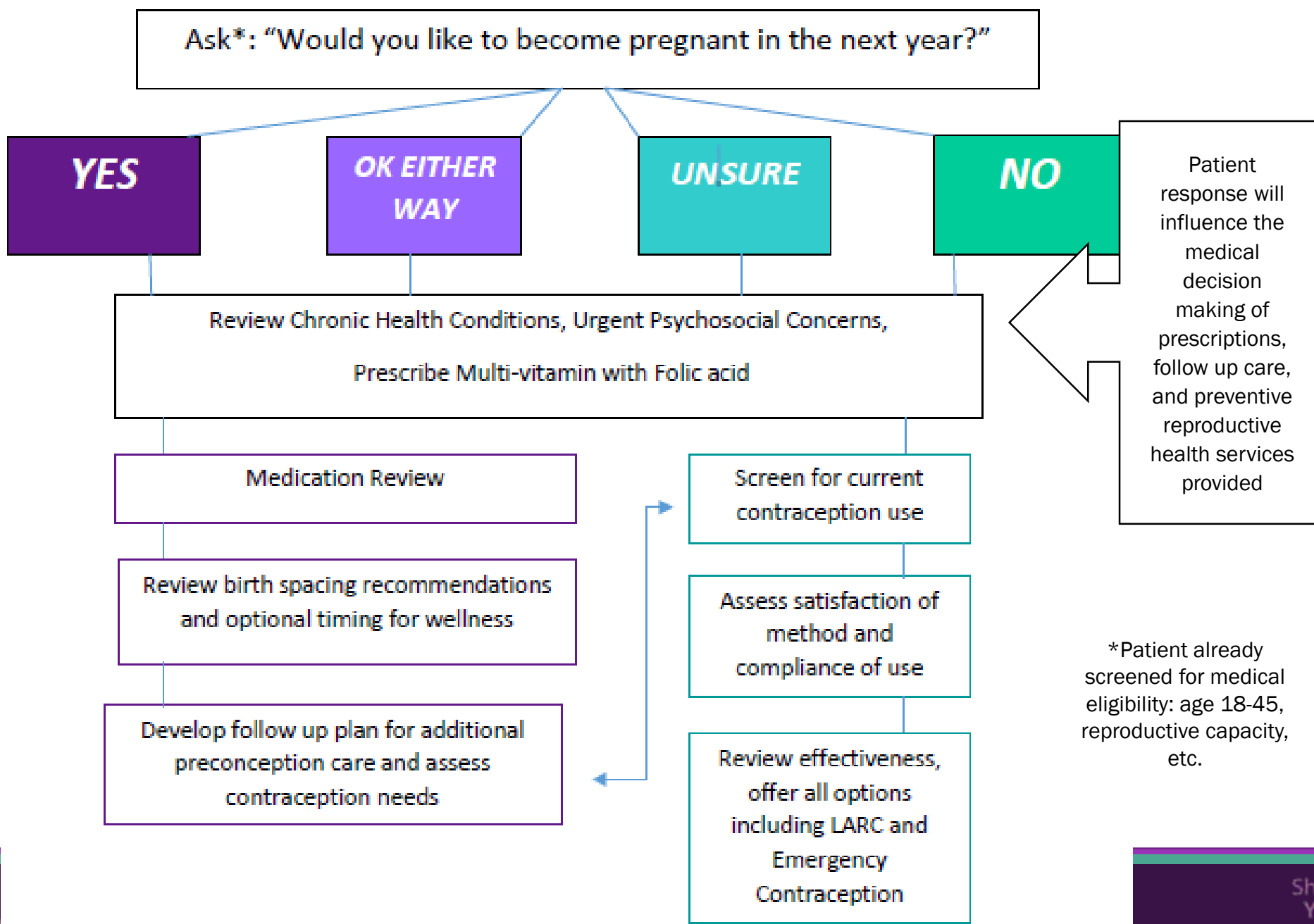
Timing Matters

- 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

ONE KEY QUESTION[®]

- 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

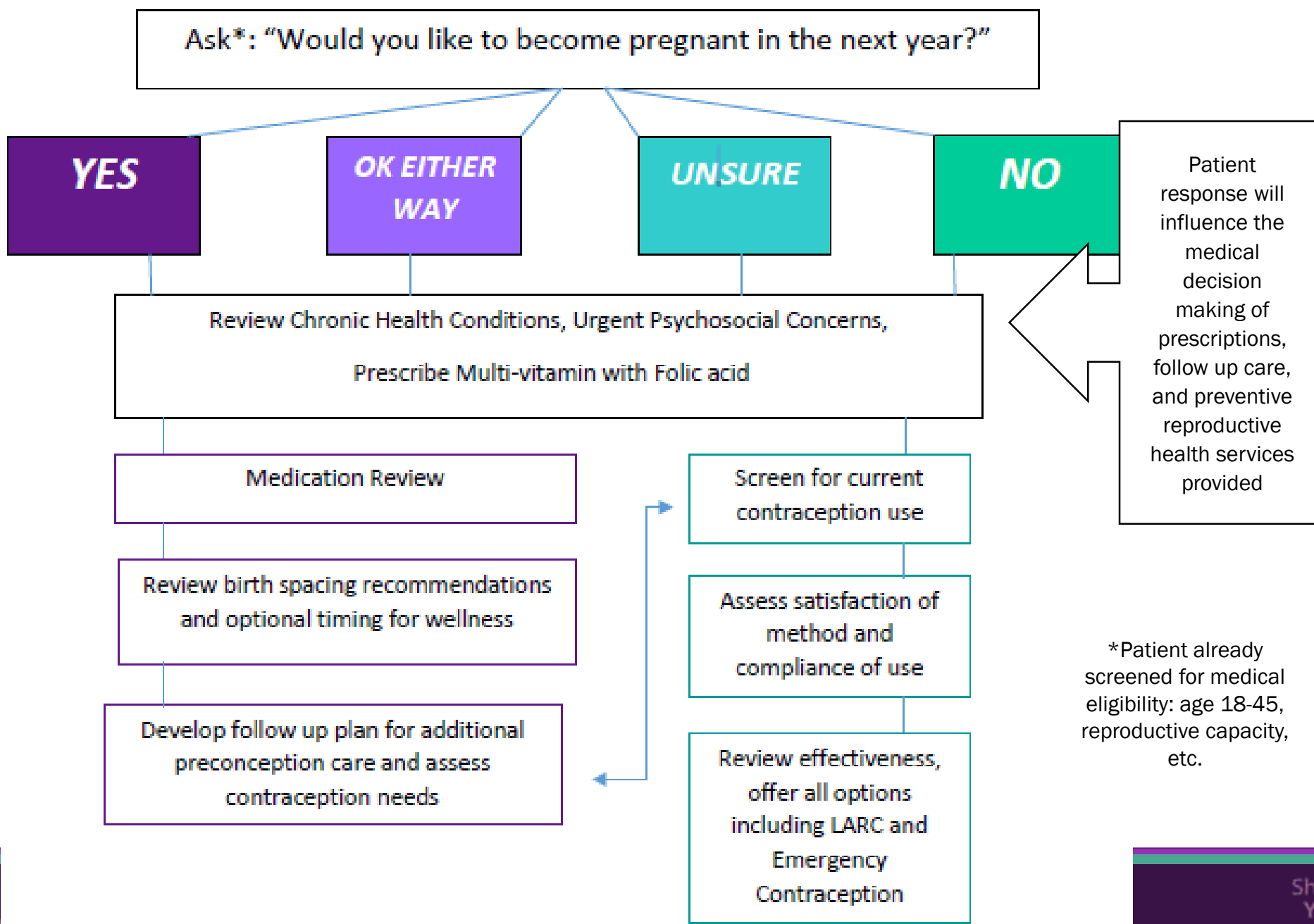


Contraceptive Method Matching

- 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
 - <https://www.reproductiveaccess.org/wp-content/uploads/2014/12/QuickstartAlgorithm.pdf>

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



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

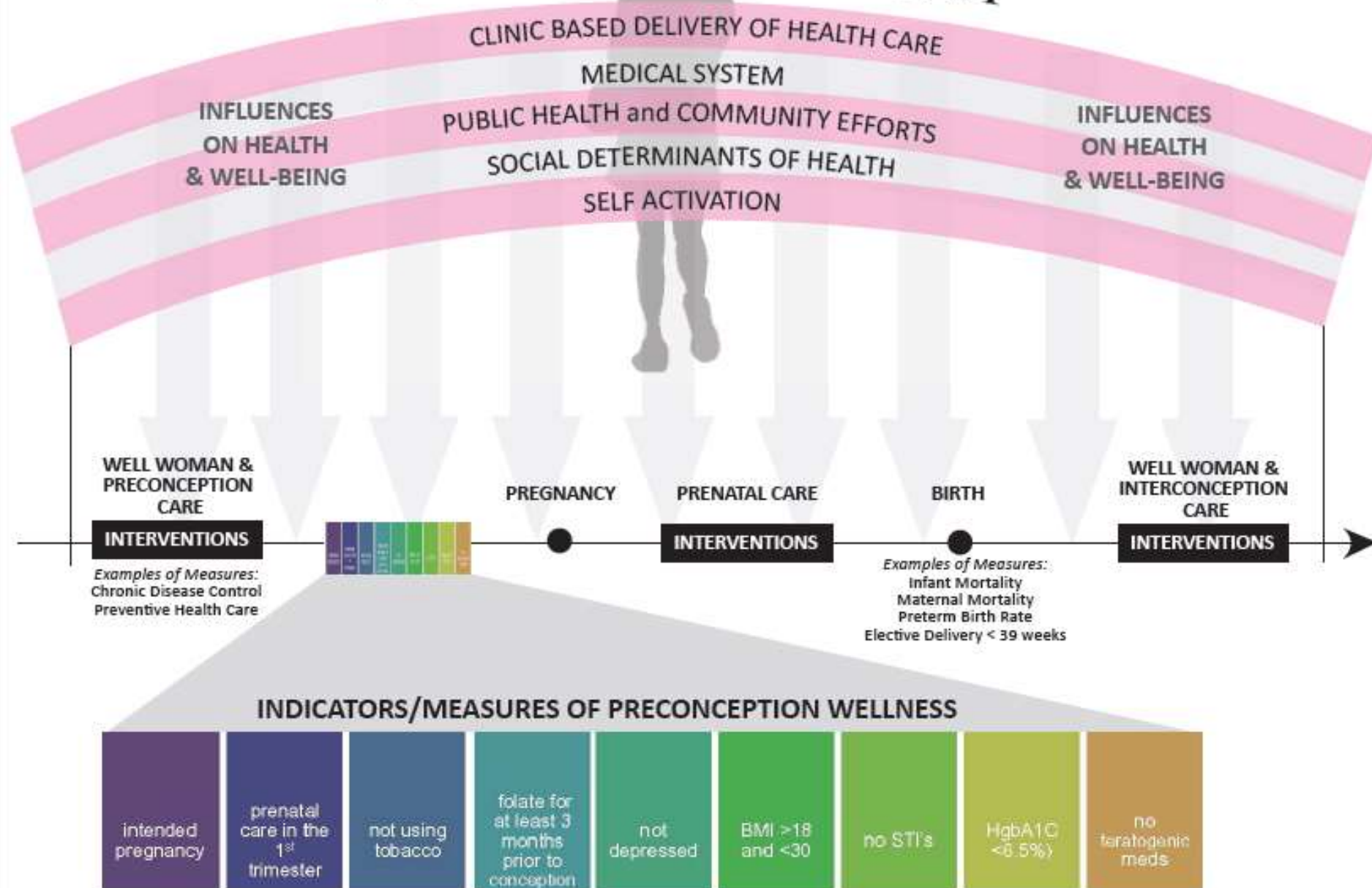
No single measure alone is sufficient to describe “preconception wellness”

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

WOMEN'S HEALTH



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

Quality
Family
Planning
Guidelines
for Title X
Programs

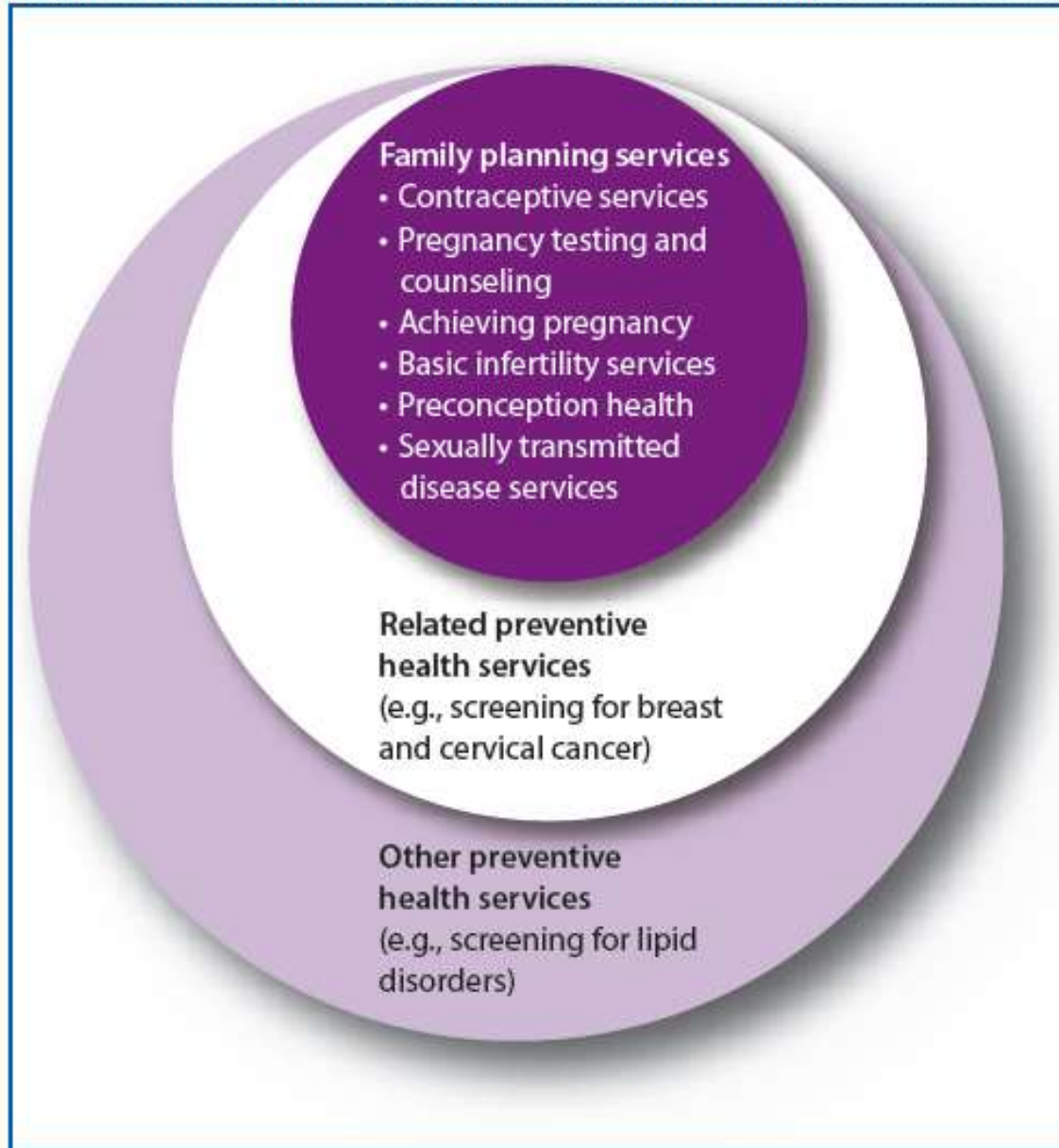
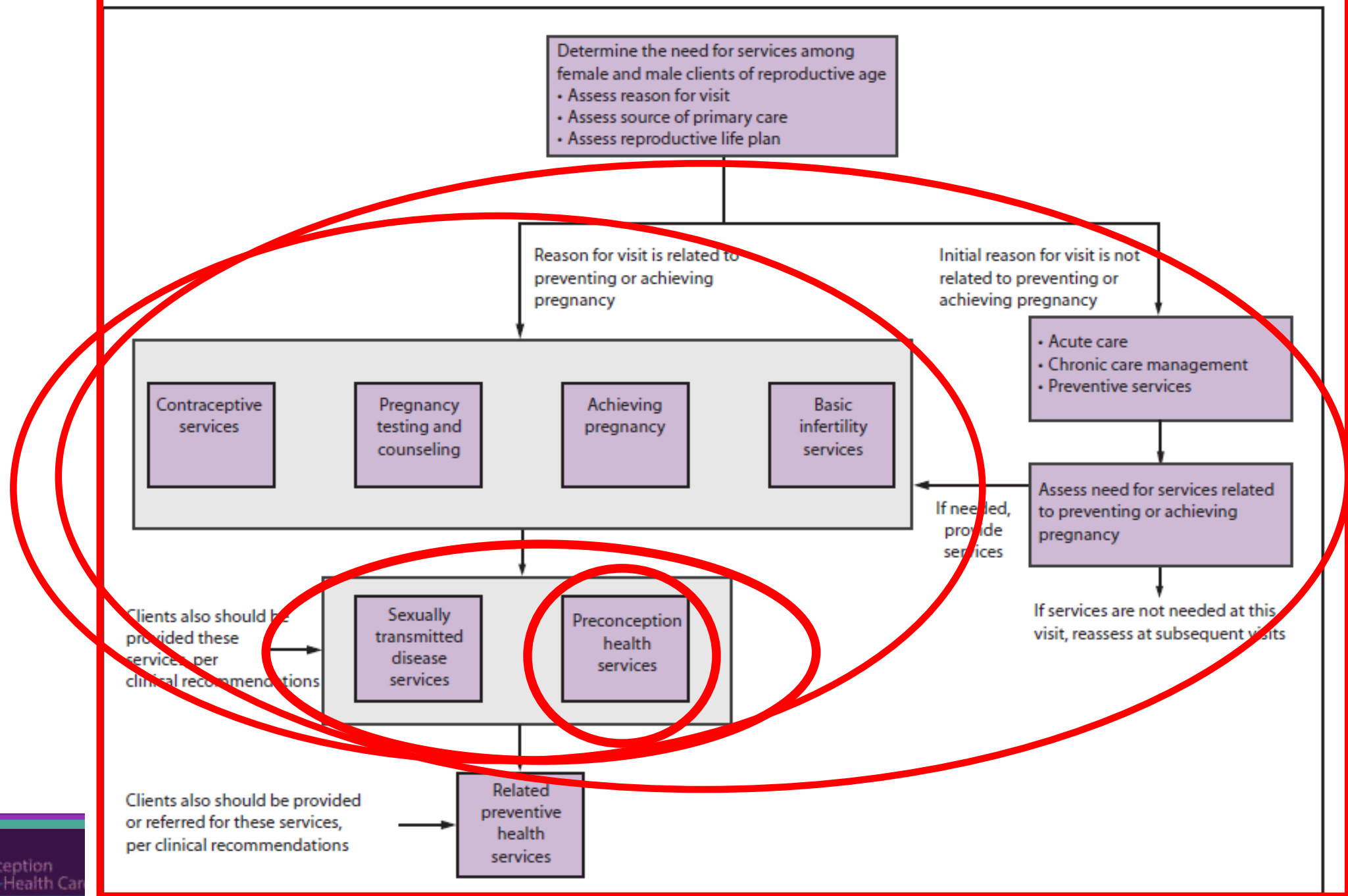


FIGURE 2. Clinical pathway of family planning services for women and men of reproductive age



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...

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

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

Patient Advocacy Foundation...

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

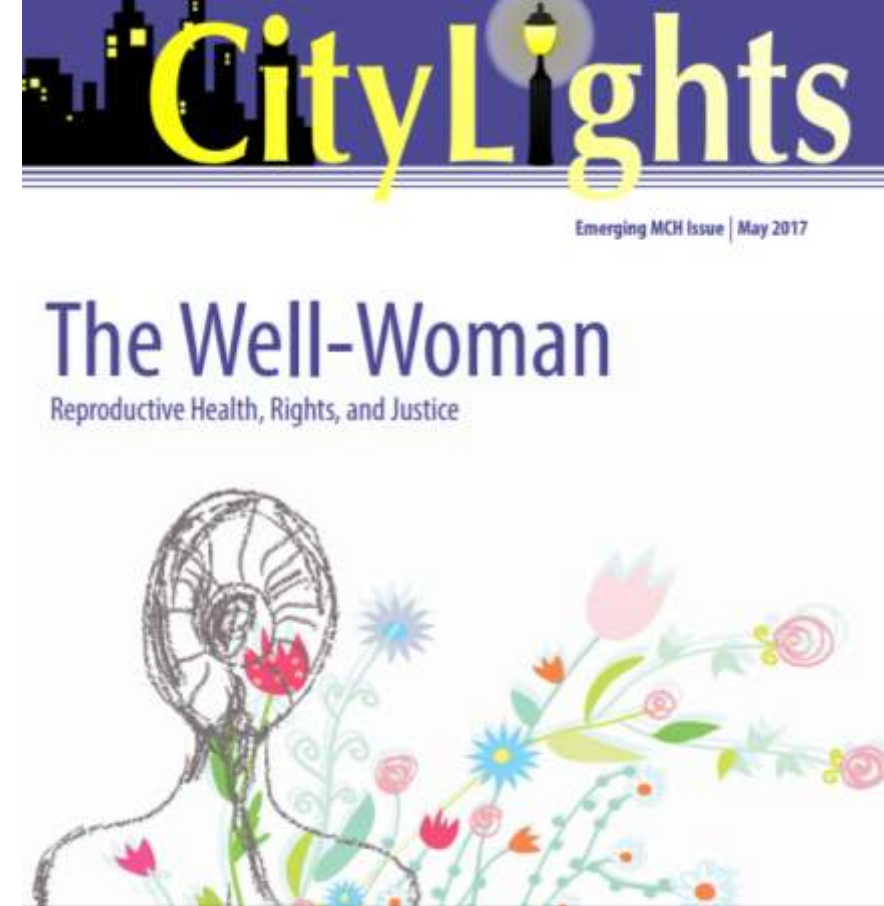


Key Consumer Lessons Learned (so far)

- 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.

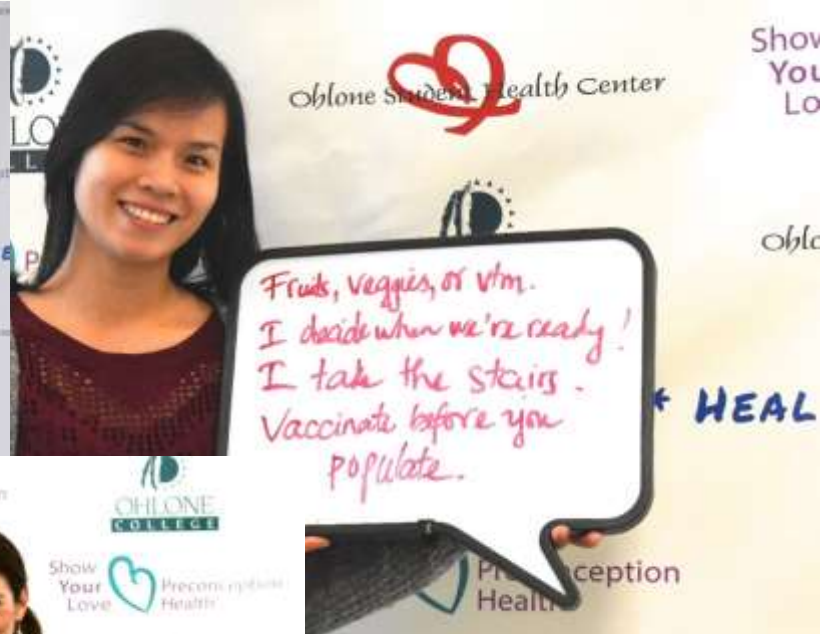


http://www.citymatch.org/sites/default/files/documents/citylights/CityLights_Spring%202017_The%20Well-Woman.pdf

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







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.



Show Your Love

Show Your Love Preconception Health

You're ready to get pregnant. It's time to nurture and love yourself by planning and preparing your body for pregnancy. Take these steps to improve your preconception health.

What is preconception health?

- Preconception health is simply your health before you get pregnant.
- How healthy you are before getting pregnant can affect the health of your baby.

What can you do?

- Eating a healthy diet, being physically active and taking folic acid every day is awesome!
- Reevaluate your habits around drinking alcohol, smoking, and drugs. Considering stopping if you're planning on getting pregnant.
- Get screened and tested for possible medical problems like infections or diabetes.
- Talk with your health care provider about how to best manage your medical conditions and any medicines you're taking.

For more information visit www.cdc.gov/showyourlove.

FamilyTreeClinic.org



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!



Show Your Love  Preconception Health

How will you #ShowYourLoveToday?


Magnolia Clinic in Jacksonville, FL

MODEL PROJECT!

DISCUSSION

Before, Between, & Beyond Pregnancy

BEFORE, BETWEEN & BEYOND PREGNANCY

[ABOUT](#) [RESOURCES](#) [EDUCATIONAL MODULES](#) [PROGRAMS](#) [CONTACT](#)   



Welcome to the National Preconception Health and Health Care Initiative Website! Click to learn more.

beforeandbeyond.org

Thank you!

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

