



The Missing “P” in MCH:

Paternal Reproductive Health & Its Impact on Birth Outcomes

Guest Presenter: Randy Wall, Community Health Consultant

Co-presenter: Brenda Stubbs, NCPHC Triad Regional Program Coordinator



March 2018

March of Dimes North Carolina Preconception Health Campaign

- A statewide initiative aimed at improving birth outcomes in NC by reaching out to women and men with important health messages before they become pregnant
- Formerly functioned as the NC Folic Acid Campaign
- Goals of the Campaign are to reduce infant mortality, birth defects, premature birth, and chronic health conditions in women, while also aiming to increase intended pregnancies in NC
- Seeks to raise awareness and inspire positive action among the general public, health care professionals, and community agencies



Acknowledgements

- This educational content was developed by the March of Dimes North Carolina Preconception Health Campaign
- We appreciate Randy Wall, and his significant contribution in developing and presenting this educational training.
- Thanks to Wake AHEC for administering and procuring Continuing Education Credits to participants.

Announcements



- Evaluation
 - Groups viewing together should email ***randerson@marchofdimes.org***
 - Asking questions
- Accessing slides at a later date
 - Credits and Evaluation

Credits



Nursing: 1.0 Contact Hours

Wake AHEC, Nursing Education, is an approved provider of Continuing nursing education by the North Carolina Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

Wake AHEC CEU: Wake AHEC will provide 0.1 CEU to participants upon completion of this activity.

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Application has been made for 1.0 total Category I continuing education hours. NCHEC Provider # 98985. Approval is pending.

National Association of Social Workers (NASW)

NC AHEC is a 2018 NASW-NC approved provider of distance continuing education. This program has been approved for 1.0 contact hours



A participant must attend 100% of the webinar to receive credit. Partial session credit will not be awarded.

Contact Hours: Wake AHEC will provide up to 1.0 Contact Hours to participants.

Wake AHEC is part of the North Carolina AHEC Program.



Disclosures

- Neither Brenda Stubbs, Randy Wall, or their respective partners, have relationships with commercial companies that could be perceived as a conflict of interest (within the past 12 months).

Objectives

- To discuss the status of men's preconception and reproductive health, and factors affecting it
- To discuss historical and societal beliefs about men's health and roles, and how these have affected their access to care
- To discuss the critical role men play in women's preconception and perinatal health, and how men impact birth outcomes
- To learn how engaging fathers during pregnancy and after birth can impact the child's early development

The status of men's preconception and reproductive health in America

New report on Men's Health:



<https://www.youtube.com/watch?v=pbzbJQcu080>



4 health behaviors men can practice to improve preconception health



- Maintaining a Healthy Weight
- No tobacco/ENDs products
- Good sleeping habits
- Exercising/being active

What factors may be keeping men from practicing healthy behaviors and healthy choices?

SOCIETAL?

GENETIC/BIOLOGICAL?

ENVIRONMENTAL?

SOCIO-ECONOMIC?

The (Original) ACE Study

Adverse Childhood Experiences



Joint Study commissioned by CDC & Kaiser Permanente in 1995

Lead Investigators:

- Dr. Vincent Filetti and Dr. Robert Anda
- Designed to assess the “scientific gaps” about the origins of risk factors for poor health conditions using whole life perspective
- 1995-1997: followed/collected data from 17,000 adult patients (physical exams; confidential surveys re: childhood experiences, current health status and health behaviors)
- CDC continues ongoing surveillance of medical status of participants

ACEs Questionnaire

3 Categories of Experiences up to 18 years old

Childhood abuse:

- emotional, physical, or sexual

Childhood Neglect:

- emotional or physical

Household Dysfunction:

- domestic violence, substance abuse (alcohol or drugs), mental illness, parental discord, crime

Summary of Findings



- Adverse Childhood Experiences (ACEs) are very common, but largely unrecognized.
- ACEs are strong predictors of later social functioning, well-being, health risks, disease, medical costs, and early death.
- ACEs are thus the basis for much of adult medicine and of many major public health and social problems.
- Adverse childhood experiences often co-occur

The Impact of ACEs

High ACE scores have a **direct** correlation with higher rates of **depression/anxiety**, substance abuse, **smoking**, and **difficulties earning a living**.

Impact of ACEs on brain development

- The human brain continues to develop until age 26
- Repeated exposure to trauma or toxic levels of stress alters brain chemistry and gene expression; disrupts normal brain development
- **Largest impact on:**
 - Prefrontal cortex/frontal lobe* – responsible for impulse control, critical thinking, sound judgement/reasoning
 - Limbic System/amygdala* – responsible for emotions, the fight/flight/freeze response; memory

Biological Brain Differences

In response to stress or depression, males and females alike may turn to risky health behaviors to get a “dopamine hit” to the brain and activate the “reward center” of the limbic system

- Female brains - larger, thicker limbic system (more in touch with emotions); produce more serotonin and oxytocin – the “calming, anti-stress chemicals” – facilitates compromising and problem-solving skills
- Male brains naturally produce more testosterone, an “aggression chemical” -- males tend to exhibit more aggressive risky behaviors in search of the dopamine hit
 - Testosterone has specific implications for the ***fight, flight or freeze*** response to stress in men

The Fight-Flight-Freeze response in men

(response to an acute state of stress)

- ***Fight or Flight*** - reaction to a perceived imminent threat to your survival; sympathetic branch activates
 - **Fight mode** – you believe you have the power to defeat the threat; testosterone and adrenaline are released to prime you “for battle”
 - **Flight mode** – you believe you can’t overpower the threat; cortisol and adrenaline are released to prepare you to “escape” or flee the situation
- Parasympathetic branch activates when the threat has passed; tells the body it doesn’t need to be on alert anymore
- However, with *chronic* stress, cortisol levels can remain high and be problematic

The Fight-Flight-Freeze response

Continued...

Freeze mode – believe you can't fight back OR flee from the threat; become overwhelmed and paralyzed by fear; parasympathetic nervous system activates

- Can “dissociate” from a situation beyond your capacity to handle; “numb out”
- More common in children/adolescence – can be an adaptive, self-preservation response, but can also lead to emotional dysregulation
- Can become maladaptive in adulthood; can't “let go of” fear even once danger has passed; can lead to anxiety disorder, phobias, panic attacks, OCD, etc.
- Can be easily re-triggered, repetitive, and a predictor for developing PTSD later on

Symptoms of cortisol imbalance in men

- Fatigue
- Weight gain
- Depression
- Bone and muscle loss
- Foggy thinking/poor concentration
- Anxiety
- Irritability

Medical conditions linked to high cortisol in men

- Hypertension
- Hyperglycemia
- Obesity
- Cardiovascular issues
- Weakened immune response
- Accelerated/premature aging
- *Low libido, impotence, fertility issues*
(due to testosterone production being blocked)

Men's poor health choices in the preconception period

- Overeating/poor diet
- Sedentary lifestyle
- Using tobacco/nicotine products
- Using alcohol or drugs
- Risky (or even criminal) behavior
- Having multiple sex partners (can lead to STIs)
- Not seeking help for depression, chronic stress or trauma

Adverse health conditions in preconception/reproductive years

- Obesity
- Diabetes
- Hypertension
- Cardiovascular disease
- Substance use disorder
- Tobacco/nicotine addiction
- Mental Health disorders
- ***Impact on fertility, DNA, sperm count and quality***

Research: OTC meds, and vitamin deficiencies in men

- **Folic Acid deficiency:**

Research published in 2013 suggests that FA deficiency in a man may increase his baby's risk of birth defects.

- **Vitamin D deficiency:**

Studies indicate that VitD deficiency in men is associated with fertility issues due to lower quality sperm; can adversely affect mood

- **Overuse of Ibuprofen:**

Small, preliminary study published in Jan. 2018 suggests that men who routinely take Ibuprofen in high doses can develop a hormonal condition that is linked to lower fertility

The role of men's preconception health in impacting reproductive outcomes



Preconception Health: Reproductive Life Planning

- #1 CDC preconception health recommendation is to encourage all men and women to have a reproductive life plan
- A reproductive life plan is more than birth control



Are you ready? Sex and your future

Are you...



Having sex
but not
ready for
kids?



Ready to
think about
if children
fit into your
future?

Already a
parent and
want to
think about
if more
children fit
into your
plan?



Not sure
you're ready
to plan but
willing to
talk about it?



What's your plan?

This booklet will help you consider:

- Whether or not you want to have children
- How many children you want to have and when you want to have them
- Preventing a pregnancy until you are ready
- Your goals to improve your personal health

¿Qué harás en tu futuro?



6 findings: Men's preconception health and its impact on pregnancy and birth outcomes

Father's Role in Preconception Health; Maternal Child Health J (2017) 21: 2025-2039

Authors: Dr. Milton Kotelchuck, Dr. Michael Lu

1. Improving men's PCH is critical for insuring that all pregnancies are planned and wanted
2. Improving men's PCH can result in improved pregnancy outcomes by enhancing men's biologic and genetic contributions to pregnancy conception

Continued...6 findings: Men's preconception health and its impact on pregnancy and birth outcomes

Father's Role in Preconception Health; Maternal Child Health J (2017) 21: 2025-2039

Authors: Dr. Milton Kotelchuck, Dr. Michael Lu

3. Preconception health for men can result in improved reproductive health biology for women
4. Preconception health for men can result in improved reproductive health practices and outcomes for women

Continued...6 findings: Men's preconception health and its impact on pregnancy and birth outcomes

Father's Role in Preconception Health; Maternal Child Health J (2017) 21: 2025-2039
Authors: Dr. Milton Kotelchuck, Dr. Michael Lu

5. Preconception health for men can result in their OWN improved capacity for parenthood and fatherhood
6. Preconception health for men can be a venue for enhancing the health of men through access to primary health care



Paternal Mental Health

- “Numerous studies have documented the direct and indirect impact of the father’s mental health, especially depression, on infant outcomes.”
- Increased paternal depression has been associated with premature birth
- 10% of dads will experience post-partum depression

Father’s Role in Preconception Health; Maternal Child Health J (2017) 21: 2025-2039
Authors: Dr. Milton Kotelchuck, Dr. Michael Lu

Paternal engagement: crucial for a healthy family



Dads play a critical role in early childhood attachment and bonding, and in all facets of early childhood development!



Evidence suggests that the father's brain biologically changes in response to becoming a parent!

- Recent study found changes in the gray matter volume in the paternal brain within 4 months postpartum
- Changes were in the part of the brain that involves decision-making and motivation
- The “reward center” in the paternal brain is stimulated



“The early postnatal transition to fatherhood is the MOST sensitive and transformational life course period for men’s psychosocial development and maturation as a father.”

-- Dr. Kotelchuck



Bottom line...

- Men's reproductive health, not just their role in the female's reproductive health, has significant impact on the health of the pregnancy, the baby, and the family!
- This truth provides justification of why mom, dad and baby/child need to be viewed and treated as one unit!

The “P” is missing in MCH!

Maternal, Paternal and Child Health



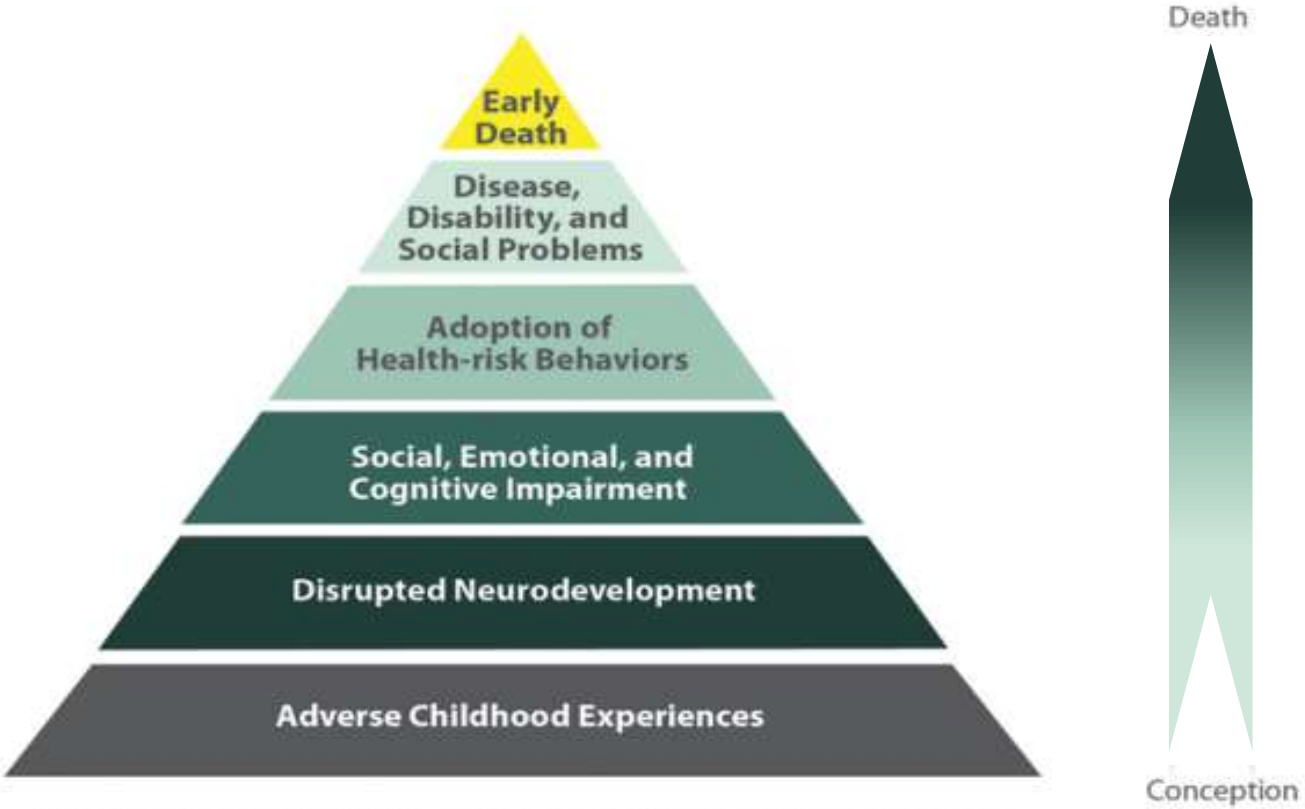
Missed opportunities...

- 52% of men report they have never heard a preconception health message
- Only 8.3% of men of men report discussing preconception health issues with their healthcare provider
- 60% of men age 15-44 are in need of/don't receive preconception health care services

Questions to discuss:

- **What keeps you personally from talking with males about their PCH within your professional role?**
 - Is it a level of discomfort?
 - Feeling a lack of knowledge regarding men's health issues?
- **Can you incorporate a health risk assessment for males into your clinic or program?**
 - Can they fill it out in the lobby and discuss it briefly with you/other staff? Even if they are just there to accompany a female partner to a clinic or program appointment?
- **How/where else can you create opportunities to assess or talk with males about their PCH?**

Summary



Mechanism by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Summary, continued...

Preconception Health Assessment
(physical/mental health, ACEs)



Informed preconception health counseling
(including giving resources and proper referrals for intervention, treatment, and/or resiliency building)



Healthier behaviors and lifestyle; better health choices
Improved preconception/reproductive health



Healthier pregnancies, babies and families!!



NORTH CAROLINA
PRECONCEPTION
HEALTH CAMPAIGN



**MARCH
OF DIMES**

Resources/Contacts:

Wise Guys Program

- Male Responsibility and Teen Pregnancy Prevention Education for Young Men
- Nationally recognized program helping young men understand how teen fatherhood can impact their goals and aspirations in life
- Contact:
Ted Sikes, Wise Guys Business Development Manager
Children's Home Society of North Carolina, Inc.
tsikes@chsnc.org
336-553-9710

Resources/Contacts:

- The Family Resource Center of Raleigh, Inc.
Serving Wake, Durham, Orange, Edgecombe
(Day 2 Day Dads Initiative, Parenting Wisely Program)
919-834-9300
- National Responsible Fatherhood Clearinghouse:
www.fatherhood.gov
- National Fatherhood Initiative:
www.fatherhood.org/programs-and-resources



Resources/Contacts:

March of Dimes NC Preconception Health Campaign:

- Middle School Curriculum:
Healthy Squared: Now & Later
- High School Curriculum:
Healthy Before Pregnancy

*Each contains Life Planning/Reproductive Life Planning Lesson;
for males and females*

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Questions? Comments?

More trainings/webinars to come!

Date	Time	Webinar Topic
April 25, 2018	11:30 am – 1:00 pm	Preconception and Maternal Health: Equity and Inclusiveness
May 16, 2018	11:30 am – 1:30 pm	The Link Between ACEs, Preconception Health, and Birth Outcomes



Preconception Health's Journey to a Healthier North Carolina



SAVE THE DATE!

Andrews Center
3024 New Bern Ave
Raleigh, NC

May 3, 2018
7:45 am - 3:30 pm

Thank you!

- For more information about the Campaign and other preconception health topics visit:

EveryWomanNC.com

LatinaSanaNC.org

- Find us on Facebook & Twitter:
[@everywomannc](https://www.facebook.com/everywomannc)



THANK YOU!



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