# Preconception Care Can Reduce Risks of Stillbirth

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#### Background

Preventive strategies for stillbirth (SB) and other adverse pregnancy adverse outcomes (AOs) are underappreciated.



#### Goals

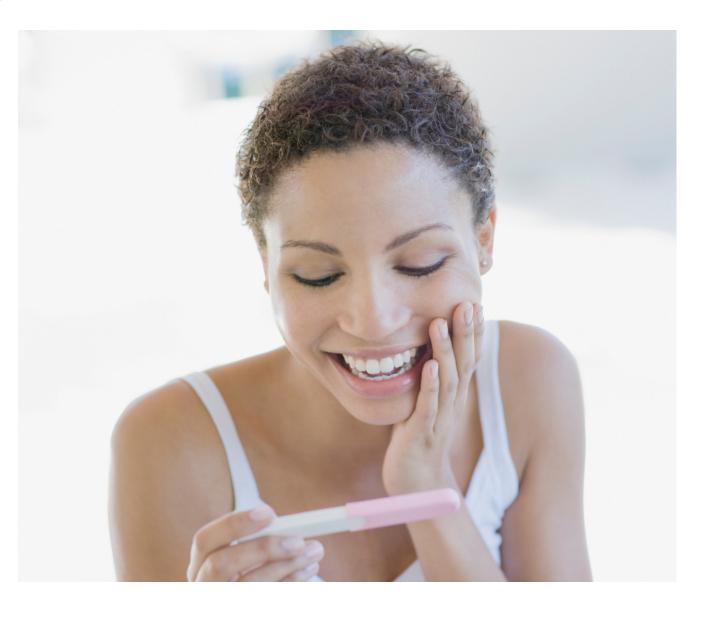
- 1. Utilize a Logic Model analysis to identify and prioritize life course, lifestyles, and medical strategies to reduce risks of SB
- 2. Suggest individual family community payor and public health opportunities to utilize preconception care and education to reduce SB incidence
- 3. Establish an annotated bibliography

#### Results

- 1. Recommendations are authoritatively available (CDC-P, ACOG, AAFP, WHO, Cochrane and Gates/Aga Khan)
- 2. The authors estimated the efficacy of consensus recommendations for reducing SB
- 3. The most applicable strategies for individual and family were suggested as:
  - a. Age > 17 years
  - b. Interpregnancy interval > 1 ½ year < 3 years
  - c. Avoidance of toxic substances and environment

#### Methods

We employed electronic databases (PubMed, Medline, Google) to search information using "preconception care" and "stillbirth" or "fetal death" as search terms (1990 -2018).



#### **Evidence-Based**

# Life Habits

- Nutrition: quality food, safe, "style," and frequency
- Be active: fit
- Timing: > 17yrs; interval > 6mo < 3 yr</p>
- Body: > 19 body mass index (BMI) , < 26/ 34</li>
  BMI

# Checklists

- Manage stress
- Partner violence /abuse intervention
- "Agency": family planning, CONCEPTION, economic circumstances, health insurance, housing, food security
- REDUCE/ ELIMINATE: smoking (indoor/ outdoor), pollution (indoor/outdoor), toxicants, substances, ETOH, THC
- Learn family history, genetics
- PREVENT MATERNAL AND FETAL INFECTION: exposure vectors, update vaccinations, MMR, HA, HB, pertussis, tetanus

# Start

• Daily supplements, multivitamins, folic acid, vitamin D, iodine, LDASA

## **Medical Consult**

- Prior complications, loss
- Screens TSH, CBC, urine, bacteruria, SS,

- d. Maintenance of recommended BMI
- 4. The most effective medical strategies were judged to be:
  - a. Pregnancy planning/spacing service
  - b. Nutritional and BMI counseling
  - c. Fetal supplementation started preconception
  - d. Prevision of genetic and vaccination services
  - e. Prevision of evidence-based SB prevention services

#### Discussion

All women and families require life course, lifestyle, and fertility knowledge and services including: recommended nutrition, STI prevention, family planning and means to avoid toxicants and environmental hazards, as well as screening for ACEs and violence or abuse.

## Conclusion

- .. Recommendations for PC services are available and can reduce risks of SB
- 2. Specific evidence-based, high level studies were not found including nutrition, violence and bad stress
- 3. Because of generalized applicability, life course, lifestyles and evidence-based modeled strategies will likely be most effective for reducing SB in differing populations
- Public health approaches can be effective in both rich and poor country settings, family planning, violence, nutrition, and general medical services are deemed most likely to reduce risks of SB
- 5. Specialized PC services should be implemented and measured for efficacy

All men, mothers, future children and generations benefit from preconception knowledge and performance

# Make your plan and take action!

# No one expects an unplanned pregnancy

# Life course and life skills progression "future is real"



syphilis, HIV, IPV, depression

#### Work

Standing, exposure, toxic stress

#### **Document Education**

• "TORCHES," STI, GBS, B-19, RTIs, vaginitis, herpes viruses, CMV

## "New Century Preconception Care"

Inspired by research-based advances in reproductive care science and clinical obstetrics, we suggest

- 1. Expanding the purview of pregnancy care to include recognition of
  - a. Transgenerational benefits
  - b. Optimization of pregnancy outcomes
  - c. Individual and trauma-informed care as well as developmental outcomes for each child including EPIGENETIC and future progeny benefits as well as optimized societal goals
- 2. We suggest that the benefits and practices of a Preconception Care Principles be included in Universal Medical and Family Life Education availability

# Preconception life influences pregnancy outcomes



# Preconception care ideally starts

- in previous generations
- in early childhood and adolescent/adult development
- with Universal Health Care and knowledge
- formally beginning more than a year before conception in both women and men

Preconception personal health and health knowledge are individual, family and public responsibilities.