Supporting information

Nutrition in Pregnancy: Creating a National Blueprint for Healthy Mothers and Children

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Text S1. Gaps and detailed Action Goals identified during the Nutrition in Pregnancy: Creating a National Blueprint for Healthy Mothers and Children conference

Question 1: What are the significant (most urgent) gaps that must be filled to improve maternal nutrition across the nation?

The gaps identified covered the following categories:

- 1. Presence of food insecurity and inadequate access to healthy foods.
- Inadequate awareness and coordination of social services (including Medicaid, Special Supplemental Nutrition Program for Women, Infants, and Children [WIC], and Supplemental Nutritional Assistance Program [SNAP]).
- 3. Lack of public policies that benefit the health of women before pregnancy, during pregnancy, and during lactation.
- 4. Inadequate funding for nutrition research applied to developmental health.
- 5. Lack of emphasis and resources devoted to medical nutrition education for all medical professionals.
- 6. Requirement of community involvement to change the nutritional landscape at the local level; women and communities are currently not engaged in developing solutions.
- Presence of implicit bias and racial disparities in women's health and birth outcomes.
 There is also a lack of diversity among nutrition professionals.
- 8. Nutrition is not embraced as a form of disease prevention on a societal level and among health professionals.
- 9. Inadequate knowledge of and support for breastfeeding.

10. Lack of comprehensive family leave which is associated with reduced rates of breastfeeding and family nutritional care and increased family stress.

Question 2: What Action Goals will fill these gaps?

CROSS-CUTTING GOALS

- Make maternal and infant health a visible priority for government and nonprofit organizations. Educate leaders about how good nutrition during development and across the lifespan can positively impact maternal and infant health outcomes and long-term population health.
- 2) Focus on broad and swift implementation of evidence-based strategies for developing effective programs for improving nutrition and stress environments in women of reproductive age. Examples include providing resources for the expansion of WIC and the Supplemental Nutritional Assistance Program (SNAP). Food & Friends is example of medically tailored food delivery.
 - a. Expand the impact of WIC and SNAP programs.
 - b. Increase the amount and duration of WIC and SNAP benefits.
 - c. Standardize better options in the WIC food package, extend the Cash-Value Benefit benefit and make it permanent.
 - d. Dramatically increase eligibility for WIC and SNAP (consider universal eligibility).
 - e. Provide stable and consistent funding for WIC.
 - f. De-stigmatize receiving social services such as WIC and SNAP.
 - g. Streamline qualification and application processes for various benefit programs.
- 3) Reduce racial disparity in pregnancy and childbirth outcomes.
 - a. Identify and expand programs that improve health disparities.
 - b. Address structural racism (eg, breastfeeding, implicit bias in healthcare, health promotion, food deserts).
- 4) Prioritize community-driven and community-centered messaging and solutions.
 - a. Engage with communities to identify needs and develop solutions.
 - b. Value expertise from people with lived experience.
 - c. Use community-based participatory research methods.
 - d. Personalize messaging to meet the needs of specific communities.
 - e. Develop and use simple, community-centered nutrition messages and education

strategies.

- f. Take an affirming, strength-based approach that connects to cultural foods.
- g. Create simple tools and resources (eg, endorsement system for nutrition messaging, simplified nutrition labels, education toolkits).
- h. Use social media campaigns to reach communities where they are.
- i. Leverage the power of personal stories (not facts) to communicate key messages.
- j. Provide nutrition and cooking education "early and often".

POLICY AND INTERVENTION GOALS

- 1) Ensure high-quality and culturally competent clinical care.
 - a. Provide culturally sensitive interventions.
 - b. Require cultural competence, implicit bias, and anti-racism training for providers.
 - c. Implement patient surveys to evaluate provider's cultural competence.
 - d. Increase presence of registered dieticians/registered dietitian nutritionists in clinics.
 - e. Promote a team approach for patients (eg, leverage a patient navigator role).
- 2) Improve the coverage of nutrition, maternal, lactation, and neonatal services under Medicaid and other insurance.
 - a. Add additional billable Current Procedural Terminology® codes for specific nutrition services.
 - b. Extend Affordable Care Act credits for 12-month post-partum medical care.
 - c. Present to the National Association for Medicaid Providers on the importance of nutrition, the developmental origins of health and disease, and racial health disparities.
 - d. Promote coverage of successful interventions with positive patient outcomes and economic benefits.
- 3) Increase access to affordable and nutritious food.
 - a. Set a minimum number of grocery stores required per population density and provide grants to support start up for new stores in food deserts.
 - b. Increase community demand for fruits and vegetables.
 - c. Coordinate grocery delivery to underserved communities.
 - d. Work with National Grocers Association to eliminate food deserts.
 - e. Support improvements to school lunch programs.
 - f. Ensure prenatal vitamins with adequate iodine supplementation are available.
- 4) Integrate nutrition interventions with social support services.

- a. Integrate nutrition education and/or food delivery with home-health care visits and/or doula-based care.
- b. Include support at preconception, during pregnancy, and postpartum.
- c. Provide grants for pilot projects on integrated services.
- 5) Implement universal paid family leave to facilitate the institution of early good nutritional practices.
- 6) Enhance support and education for breastfeeding and lactation.
 - a. Grow the lactation consultant workforce by incentivizing training and/or training community health workers.
 - b. Destigmatize public breastfeeding.
 - c. Support parents who return to work with easy access to lactation suites, breast pumps, and other support.
- 7) Provide greater financial security as a means to help people make healthy choices.
 - a. Increase support for childcare.
- 8) Partner with community-based organizations to deliver care and resources.

HEALTHCARE PROFESSIONAL TRAINING GOALS

- Expand nutrition education across healthcare professional training programs and mandate some degree of competency in Continuing Medical Education-related or board renewal activities.
 - a. Set meaningful requirements for nutritional knowledge in professional colleges.
 - b. Inspire health care professionals to elevate the role of nutrition to their patients.
- 2) Require internships for registered dietitians to be paid.
- Build a medical consensus statement across the largest associations (AHA, American Medical Association [AMA], AAFP, AAP, ACOG) about the powerful role of nutrition in maternal and child health.

RESEARCH GOALS

- Advocate for National Institutes of Health (NIH) to support longer grant cycles (beyond 3–5 years) to support transgenerational research, mechanistic studies in epigenetics, and nutritional interventions in order to more robustly study mother/infant dyads across the lifespan.
- 2) Suggest the addition of a Community Advisory Board for community-based NIH grants.

Encourage NIH grants that support community development, community investments, and peer-to-peer support.

- 3) Prioritize cost analysis research of effective programs to demonstrate economic as well as health benefits.
- 4) Diversify the scientific pipeline so that racial and ethnic influences and inequalities can be better understood and more effectively addressed.
- 5) Encourage all 50 states to provide 12 months of postpartum Medicaid coverage.