

# ***WHAT WORKS TO SAVE BABIES' LIVES?***

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## ***Reviews of Interventions to Reduce Mortality among African American and Rural Community Infants***

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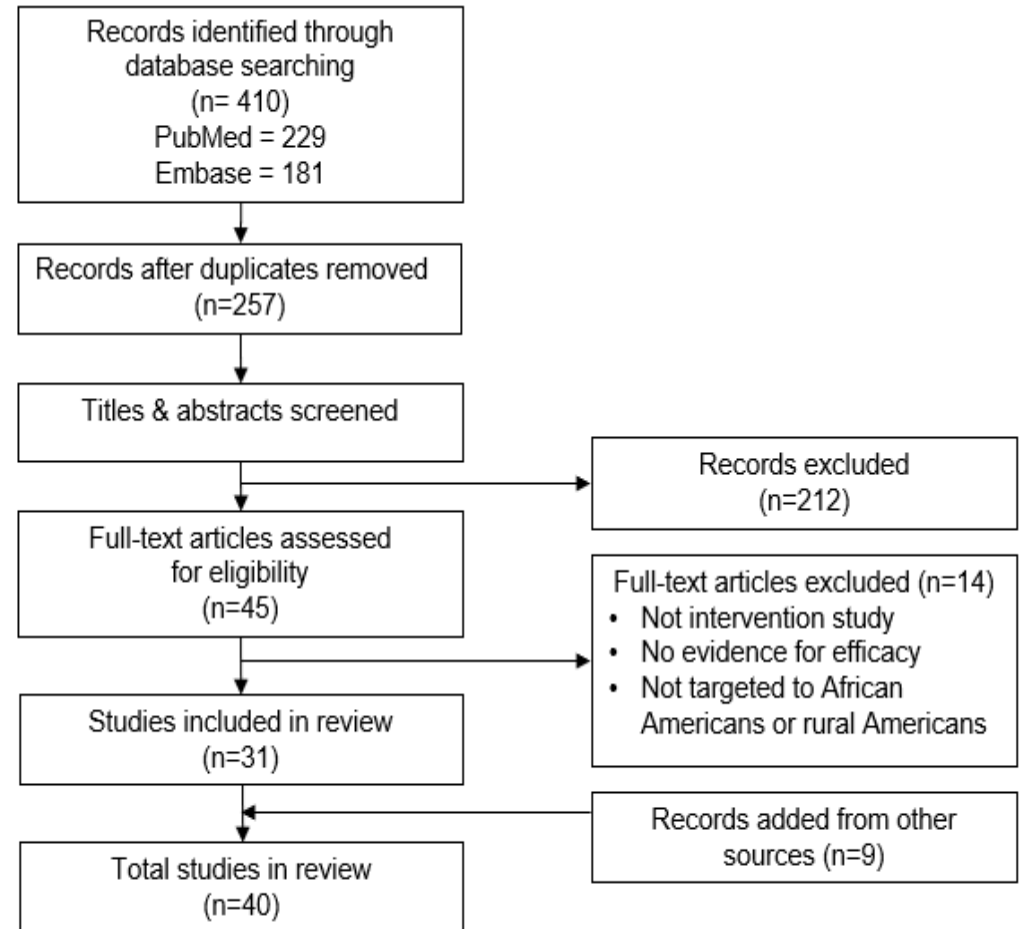
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# Our Methods

- Adapted Systematic Procedures
- Inclusion/Exclusion criteria
- Key search terms
- Blinded review of abstracts
- Full text review
- Final categorization and analysis.



# Summary of Articles Included and Types of Interventions

Summary	
Unique Articles	41
African American	34
Rural American	14
Behavioral intervention	7
Centering Pregnancy	2
Community-based	8
Home visiting	16
Infant mortality review	1
Telemedicine/ mHealth	4
WIC	3
<b>Total</b>	<b>41</b>

	African American	Rural American
Behavioral intervention	6	1
Centering Pregnancy	2	1
Community-based	5	5
Home visiting	15	3
Infant mortality review	1	0
Telemedicine/ mHealth	2	4
WIC	3	0
<b>Total</b>	<b>34</b>	<b>14</b>

# What we Found: Evaluated Programs with Evidence of Efficacy

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Established Programs - Healthy Start, WIC

Mixed evidence on improving Black birth outcomes.

Insufficient evidence on rural programs.

Newer Programs with promise:

- Community Health Worker Home Visiting
- Centering Pregnancy
- Behavioral interventions (smoking, IPV, depression)
- Community-based innovative interventions
- mHealth /phone-based interventions

# Home Visiting with Community health workers (CHW) – Promising results

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CHW = Trained member of community, shares language, culture, race with target group. knows of local resources for referral.

- 2 of 3 articles in home visiting/case management with AA women showed lower rates of LBW in program participants.
- 1 article in rural review on CHW home visiting – small RCT showed *improved safe sleep, breastfeeding, decreased depression*
- 1 article in AA review + rural review on coordination of care by nurses, social workers + “paraprofessionals” (CHW) – **reduced PTB**

# Centering Pregnancy

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Group prenatal care, support + education for low-risk pregnant women. 10 group visits, self assessment, discussion, nutrition education + individual visit with clinician. (9 sites in Maryland)

1 article in AA review : reduced rates in levels of PTB among black women participants. Confirms earlier study results

1 article in AA review and rural review: Centering Pregnancy program in Southwest Georgia had reduced overall PTB.

# Smoking Cessation + Other Behavioral Health Interventions

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AA review: Smoking Cessation + IPV + depression intervention for AA women– trained psychologists or social workers one-on-one – Significantly reduced behaviors in participants, reduced VPTB.

Rural review – trained motivational interviewers > one-on-one smoking cessation with pregnant rural women: significantly lower rates of fetal death, longer gestation, higher birthweight

# Safe Sleep Interventions: AA Review

- Bedtime Basics for Babies: Free safe crib + crib sheets + wearable blanket + educational materials on how to prevent SIDS and other sleep-related deaths
  - Reduced self-reported bed sharing among all participants (~42% African American).
- 2<sup>nd</sup> program: Educational brochure on safe sleep given at hospital
  - No change in bed sharing practices among AA women



# Community-Based Interventions

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Sisters United: Volunteers from African American sororities (AA review) Provided mini-trainings to African American women on how to have a healthy baby: taking folic acid prenatally, getting flu shots, infant safe sleep practices, breastfeeding. Participants *increased knowledge*.

Community Baby Showers (2 models): Educated women on infant health and provided free giveaways (cribs, wearable blankets, shower gifts) Both reported *increases in knowledge about safe sleep, infant health, breastfeeding, smoking cessation*.

- No measures of birth outcomes.

# Community-Based Prenatal Education – AA Review

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**Moms2B**: Trained facilitators led weekly discussion of prenatal nutrition, pregnancy + parenting topics + one-on-one meetings to discuss social factors influencing pregnant woman's health, connect to needed services.

*No infant mortality among participants (195) and overall neighborhood infant mortality rate dropped. Not large enough sample to measure statistical significance.*

# Community-Based Prenatal Education in Rural Communities

*Becoming a Mom/Comenzando bien* : Developed by March of Dimes. Implemented in rural Kansas, Texas. Community providers wrote prescription for program to high-risk women.

- Six sessions on prenatal health, stress mgmt., nutrition, substance use, smoking, labor + birth, infant care, postpartum care, community support services; breastfeeding, safe sleep, smoking cessation.
- Incentives: diapers - 1<sup>st</sup> class, safe sleep crib after six classes.
- Surveys: participants significantly *increased knowledge* of safe sleep, preterm labor, postpartum symptoms, (Kansas) used tobacco at a *significantly lower rate* than avg. rate in region. (Texas) increased % *intended to breastfeed*, *PTB lower* but not statistically significant

# Telehealth/mHealth Interventions

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- Telemedicine: women w/ high-risk pregnancies video chat at midlevel health center w/maternal-fetal medicine specialist. Avoid long travel. **Lower PTB than overall pop.**
- mHealth: Health messages + videos by email, text to new mothers, about overcoming barriers to safe sleep, breastfeeding, testimonials from new parents. Participants reported **more safe sleep practices** than control group.
- GoMo Healthy – developed with community advisory board. Text, videos websites: prenatal health information, instructional videos, wellness tips to pregnant women +weekly contact w/CHW. Enrollment challenges. **Lower PTB, LBW** but not statistically significant.

# Telephone Intervention with Pregnant Medicaid Recipients

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- Program in eight counties of South Carolina Low country (2 rural)
- 1) Identify pregnant participants by phone.
- 2) risk assessment on behaviors for a healthy pregnancy, via phone;
- 3) perinatal nurses available 24/7 for consultation by phone;
- 4) “patient centered” case management by phone for women who had identified risk factors for PTB.
- Participants had *significantly reduced rates of PTB*, infants spent *significantly fewer days in the NICU*.

# SUMMARY

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- Home visiting with CHWs and case management/care coordination shows promise. Can supplement limited Healthy Start programs.
- Behavioral interventions work: could combine w/home visiting to reduce risk of smoking, IPV, ETS, depression.
- Education + provision of crib+ community support (multi-pronged approach) seems best way increase safe sleep.
- mHealth can overcome structural barriers to education about parenting and healthy pregnancy.