

What Did We Learn from Intervention Studies? NIH-DC Initiative to Reduce Infant Mortality in Minority Populations



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Infant Mortality Rates

(Deaths per 1,000 Live Births)

	United States		District of Columbia	
	1990-1992	2005	1990-1992	2005
All races	8.9	6.9	20.4	14.1
White	7.3	5.7	10.9	8.8
African American	17.5	13.7	24.0	17.0



- *In 1990, African American births represented 77% of all births in the District of Columbia*

Importance of Research on Minorities

- Reduction of racial/ethnic health disparities is an important public health objective
 - Prevalence of many maternal and infant health problems is higher and outcomes are poorer
- Inclusion of minorities in research
 - Permits the study of potential racial/ethnic differences
 - Improves the generalizability of the results

NIH-DC Initiative (1993–present)

- **Collaborating Institutions**

- Children’s National Medical Center
- George Washington University Medical Center
- Georgetown University Medical Center
- Howard University Hospital
- *Eunice Kennedy Shriver* National Institute of Child Health and Human Development
- National Center on Minority Health and Health Disparities
- RTI International

NIH-DC Initiative: Goals

- Identify risk factors and reasons for the high infant morbidity and mortality rates among minority populations in Washington, DC
- Develop, test, and evaluate community-based interventions aimed at reducing infant mortality risks

NIH-DC Initiative: 15 Studies

- **6 Multi-site Observational Studies**

- prenatal care
- immunization
- child injuries
- fetal alcohol effects
- characteristics of neonatal intensive care units

- **9 Multi-site Randomized Controlled Trials**

- parenting skills
- adolescent pregnancy
- smoking
- depression
- domestic violence
- lead exposure
- nicotine replacement therapy

NIH-DC Initiative: Coverage

- Over 10,000 subjects were studied
 - prenatal and postpartum women
 - teen mothers
 - elementary and middle school students
 - children under 3 years of age
 - newborns

NIH-DC Initiative: Enrollment

- Targeted strategies in research studies provide high enrollment rates
 - Use prenatal care visits for project activities involving pregnant women
 - Show respect and cultural sensitivity to participants and their life demands
 - Engage and solicit inputs from members of the community
 - Involve culturally sensitive field staff to build rapport with participants
 - Maintain close, frequent, and consistent contacts
 - Partner with local community leaders to gain effective cooperation
- NIH-DC Initiative, when applying such strategies, successfully recruited and retained minority populations in the study addressing multiple risk factors (smoking, secondhand smoking, depression, and domestic violence)
 - 77% of eligible minority women were recruited
 - 79% of this group were followed and retained to study end

Lesson 1: Apply Comprehensive Evidence-Based Risk Screening Tool

- Offers a standardized methodology for screening and assessing multiple risks early in pregnancy
- Produces more honest reporting of at-risk behaviors, leading to more targeted and effective interventions
- Identifies high-risk groups for outreach services
- Reduces the burden for health care providers



Lesson 2: Promote Longer Interpregnancy Spacing

- Reduces health problems to mothers and infants
- Promotes pregnancies that are planned and wanted
- Provides better and longer preconception care and thus reduces adverse outcomes



Lesson 3: Increase Access to Neonatal Intensive Care Unit for High Risk Pregnancies

- Decreases racial and ethnic disparities in quality health care
- Provides long-term economic savings with increased neonatal intervention



Lesson 4: Train Providers to Educate Patients and the Public about Risks

- Motivates women and families to adopt behaviors and strategies to reduce infant mortality
- Builds public awareness and knowledge about important health risks



Lesson 5: Integrate Counseling and Education on Preconception Health and Risks to Pregnancy Outcomes into Primary Care

- Provides women who may become pregnant with information that can enhance preconception health by
 - Changing risky health behaviors and maintaining healthy practices
 - Educating pregnant women about the risks of smoking, depression, intimate partner violence, alcohol and drug use, etc.



Lesson 6: Standardize Electronic Medical Records and Data Management Systems

- Enhances health care quality by sharing information across provider sites
- Allows monitoring of both mothers' and infants' health status across provider sites
- Improves health care outcomes by having all of patients' information easily accessible



Lesson 7: Use New Communication Technologies (cell phones, the Internet, etc.)

- Prolongs contacts with patients, especially for follow-up
- Addresses barriers to behavioral counseling interventions



Future Research

- Replication of the NIH-DC Initiative in other regions/cities with high infant mortality rates
- Additional research
 - Assess the role of biological/genetic risk factors
 - Assess the role of clinical and medical decision-making
 - Improve understanding of the causes of infant morbidity and mortality
 - Assess behavioral risks and identify women at high risk of adverse pregnancy outcomes
 - Compare similarities and differences among various areas and racial/ethnic groups
 - Develop interventions targeted to different populations

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For more information on the NIH-DC Initiative,
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