Maternal and perinatal health disparities among Middle Eastern and North African and non-Hispanic White women and children in the United States

Tiffany B. Kindratt,[1] Florence J. Dallo,[2] Kyrah K. Brown [1]

[1]University of Texas at Arlington; [2]Oakland University

UTA
Health Survey
Research Lab
DEPARTMENT OF KINESIOLOGY

INTRODUCTION

- Maternal and child health (MCH) literature in the US traditionally focuses on health disparities among women and children using the US federal government's required minimum reporting categories for race/ethnicity
- "White" represents heterogeneous group defined as:
  - "Any of the original peoples of Europe, the Middle East, or North Africa"
- Growing body of literature focused on MCH outcomes among MENA women and children
  - Fails to address national objectives and performance measures (e.g., Healthy People 2030)

OBJECTIVES

To estimate and compare the odds of:
1. well-visits among foreign-born MENA women
2. preventive health behaviors among foreign-born pregnant MENA women
3. LBW, MLBW, and VLBW among foreign-born MENA children

compared to US- and foreign-born White women and children before and after adjusting for covariates

METHODS

Sample and Participants
- 2000-2018 National Health Interview Survey (NHIS)
- Non-Hispanic White women ages 18+ years (n=411,709)
- Non-Hispanic White pregnant women (n=3,908)
- Non-Hispanic White children ages 0-17 years (n=311,961)

Independent variable: Combined variable describing race, ethnicity and nativity status (3 groups)
- US-born non-Hispanic Whites
- Foreign-born non-Hispanic Whites from Europe/Russia
- Foreign-born Middle Eastern or African (MENA)

Dependent variables:
Women:
- Well-visit (OB/GYN, general doctor) in past 12 months
Pregnant women:
- Dentist visit in past 6 months
- Current smoking ("every day" or "some days")
Children: Weight at birth
- Low birth weight (LBW) <2500 grams
- Moderately low (MLBW) 1500-2499 grams
- Very low birth weight (VLBW) <1500 grams

Covariates:
- Age, sex, family income/poverty level (<200% and ≥200%)
- Health insurance coverage (covered and not covered)

RESULTS

Table 1. Selected characteristics of US- and foreign-born women, NHIS 2000-2018, n=411,709

	A	B	C	
	US-born White n=395,570 *Weighted %*	Foreign-born White n=12,893 *Weighted %*	Foreign-born MENA n=3,246 *Weighted %*	Significant Differences p<.05
Age *(mean)*	47.0	50.0	**44.7**	AC, BC
Pregnant	3.1	2.9	**6.1**	AC, BC
Bachelors' degree or higher	29.4	36.6	**43.1**	AC, BC
<200% income federal poverty level	28.5	29.7	**45.3**	AC, BC
No health insurance coverage	9.3	11.0	**15.5**	AC, BC

Table 2. Selected characteristics of US- and foreign-born children, 2000-2018, n=311,961

	A	B	C	
	US-born White n=305,454 *Weighted %*	Foreign-born White n=4,738 *Weighted %*	Foreign-born MENA n=1,769 *Weighted %*	Significant Differences p<.05
Age *(mean)*	8.7	9.4	**9.1**	--
Female	48.7	50.0	**49.8**	--
<200% income federal poverty level	36.1	33.9	**61.8**	AC, BC
No health insurance coverage	7.6	11.0	**13.8**	AC

Table 3. Logistic regression models among women, NHIS 2000-2018, n=411,709

	Model 1[a] OR (95% CI)	Model 2[b] OR (95% CI)
Well Visit, past 12 months		
US-born White	1.00	1.00
Foreign-born White	0.88 (0.81, 0.97)	0.83 (0.76, 0.91)
Foreign-born MENA	**0.75 (0.62, 0.91)**	**0.73 (0.60, 0.89)**

Table 4. Logistic regression models among pregnant women, NHIS 2000-2018, n=3,908

	Model 1[a] OR (95% CI)	Model 2[b] OR (95% CI)
Dentist, past 6 months		
US-born White	1.00	1.00
Foreign-born White	1.12 (0.68, 1.84)	0.99 (0.61, 1.60)
Foreign-born MENA	0.84 (0.38, 1.85)	0.70 (0.30, 1.62)
Current Smoking		
US-born White	1.00	1.00
Foreign-born White	0.29 (0.10, 0.79)	0.39 (0.13, 1.18)
Foreign-born MENA	--	--

[a]*Unadjusted model,* [b]*Adjusted for age, education, and marital status*
All groups non-Hispanic or Latino

Table 5. Logistic regression models among children, NHIS 2000-2018, n=311,961

	Model 1[a] OR (95% CI)	Model 2[b] OR (95% CI)
LBW (<2500 grams)		
US-born NH white	1.00	1.00
Foreign-born NH white	1.25 (1.04, 1.50)	1.27 (1.04, 1.55)
Foreign-born MENA	**1.71 (1.25, 2.33)**	**1.65 (1.16, 2.35)**
MLBW (1500-2499 grams)		
US-born NH white	1.00	1.00
Foreign-born NH white	1.22 (0.99, 1.50)	1.23 (0.98, 1.53)
Foreign-born MENA	**1.90 (1.34, 2.69)**	**1.78 (1.19, 2.66)**
VLBW (<1500 grams)		
US-born NH white	1.00	1.00
Foreign-born NH white	1.29 (0.92, 1.81)	1.36 (0.95, 1.95)
Foreign-born MENA	1.03 (0.63, 1.69)	1.14 (0.69, 1.90)

[a]*Unadjusted model*
[b]*Adjusted for age, sex, family income, health insurance coverage*
All groups non-Hispanic or Latino

DISCUSSION

- Results provide first estimates for foreign-born MENA women and children in alignment with national MCH priorities
- Study limited to foreign-born MENA populations
  - The NHIS removed country of birth question in 2019 making no future estimates available
- Results highlight the need for creating a separate racial/ethnic category for federal reporting standards for baseline health estimates among US- and foreign-born MENA populations

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Contact: Tiffany.Kindratt@uta.edu