

Covid-19 mortality among Arab Americans compared to non-Hispanic whites, non-Hispanic blacks, Hispanics and Asians in Michigan

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Introduction

- Covid-19 mortality rates have been estimated for non-Hispanic Blacks, Asians, Hispanics and non-Hispanic Whites in the US
- Less is known about Covid-19 mortality rates among Arab Americans who are descents from countries in the Middle East and North Africa (MENA)

Introduction

- “White” represents heterogeneous group defined as:
 - “Any of the original peoples of Europe, the Middle East, or North Africa”
- Research shows the health and lived experiences of individuals from the Middle East and North Africa differs from White individuals of Anglo/European ancestry
- Arab Americans have not been included in the Covid-19 discourse due to the inability to identify them in health records

Objective

To estimate and compare 1) case-fatality and 2) cause-specific mortality rates for Arab American adults (ages 18+ years) compared to non-Hispanic Whites, non-Hispanic Blacks, Hispanics and Asians in Michigan

Methods

Michigan Vital Records
(March 1, 2020, to July 30, 2021)

Arab and Chaldean Surname List

2014-2019 American Community Survey
(Race, Ethnicity, Nativity, Ancestry)

Table 1: Sample characteristics of adults with Covid-19 as underlying cause of death in Michigan, n=14,001

Demographics	N	%
Mean Age at Death 76.5 years		
Sex		
Male	7,615	54.4
Female	6,385	45.6
Race/Ethnicity		
Arab or Arab Ancestry	458	3.3
Asian	212	1.5
Non-Hispanic Black	3,311	23.8
Hispanic	493	3.6
Non-Hispanic White	9,426	67.8

Table 1: Sample characteristics of adults with Covid-19 as underlying cause of death in Michigan, n=14,001

Demographics	N	%
Education		
Less than high school	3,177	23.2
High school diploma or GED	5,839	42.6
Some college, but no degree	2,056	15.0
College degree or higher	2,639	19.2
Marital Status		
Never married	5,025	36.2
Married (includes legally separated)	4,711	33.9
Divorced/widowed	4,149	29.9

Table 2: Frequency of Covid-19 Underlying Cause of Deaths by Race and Sex among adults (ages 18 and older), Michigan, March 1, 2020 – July 30, 2021

	Male Covid-19 Deaths		Female Covid-19 Deaths	
	<i>N</i>	<i>Column %</i>	<i>N</i>	<i>Column %</i>
Race/Ethnicity				
Arab or Arab Ancestry	276	3.7	182	2.9
Asian	128	1.7	84	1.3
Non-Hispanic Black	1,786	23.6	1,524	24.0
Hispanic	303	4.0	190	3.0
Non-Hispanic White	5,058	67.0	4,368	68.8

Table 3: Covid-19 deaths, cases, and case fatality for adults by sex and race/ethnicity, Michigan, March 1, 2020 – July 30, 2021

Both Sexes Race/Ethnicity	Covid-19 Deaths <i>N</i>	Covid-19 Cases <i>N</i>	Covid-19 Case Fatality Rate %
Arab or Arab Ancestry	458	29,751	1.54
Hispanic	493	38,921	1.27
Non-Hispanic Black	3,310	98,489	3.36
Non-Hispanic White	9,426	433,863	2.17
Asian	212	10,750	1.97

Race/Ethnicity	Covid-19 Deaths <i>N</i>	Covid-19 Cases <i>N</i>	Covid-19 Case Fatality Rate %
Males			
Arab or Arab Ancestry	276	14,996	1.84
Hispanic	303	18,908	1.60
Non-Hispanic Black	1,786	47,586	3.75
Non-Hispanic White	5,058	208,395	2.42
Asian	128	5,300	2.41
Females			
Arab or Arab Ancestry	182	14,755	1.23
Hispanic	190	20,013	0.94
Non-Hispanic Black	1,524	50,903	2.99
Non-Hispanic White	4,368	225,468	1.94
Asian	84	5,450	1.54

Table 4. Age-specific and sex-adjusted Covid-19 case-fatality rates by race/ethnicity in Michigan, March 1, 2020 – July 30, 2021

	18-39 years	40-59 years	60-79 years	80+ years
	%	%	%	%
Race/Ethnicity				
Asian	0.05	0.52	8.76	31.47
Arab or Arab Ancestry	0.02	0.46	5.26	30.72
Non-Hispanic Black	0.13	1.53	10.01	28.86
Hispanic	0.06	0.94	6.02	21.93
Non-Hispanic White	0.03	0.37	3.90	18.28

Table 5: Covid-19 deaths, cases, and cause-specific mortality for adults by sex and race/ethnicity, Michigan, March 1, 2020 – July 30, 2021

Both Sexes Race/Ethnicity	Covid-19 Deaths <i>N</i>	ACS Population Estimates <i>N</i>	Covid-19 Cause Specific Mortality %	Covid-19 Cause Specific Mortality <i>Per 100,000 persons</i>
Arab or Arab Ancestry	458	172,316	0.27	265.79
Hispanic	493	325,494	0.15	151.46
Non-Hispanic Black	3,310	1,012,656	0.33	326.86
Non-Hispanic White	9,426	5,863,238	0.16	160.76
Asian	212	243,872	0.09	86.93

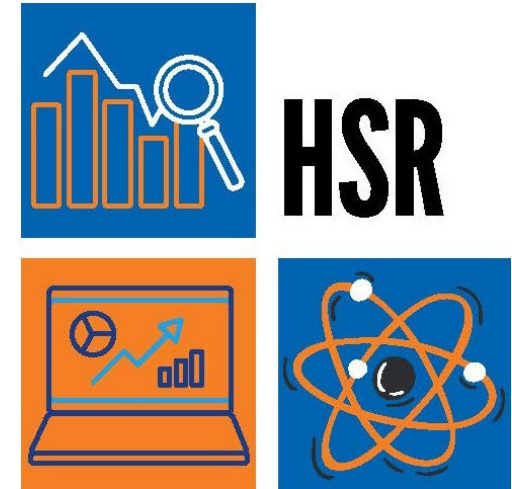
Race/Ethnicity	Covid-19 Deaths <i>N</i>	ACS Population Estimates <i>N</i>	Covid-19 Cause Specific Mortality <i>%</i>	Covid-19 Cause Specific Mortality <i>Per 100,000 persons</i>
<i>Males</i>				
Arab or Arab Ancestry	276	86,907	0.32	317.58
Hispanic	303	164,748	0.18	183.92
Non-Hispanic Black	1,786	466,849	0.38	382.56
Non-Hispanic White	5,058	2,870,530	0.18	176.20
Asian	128	119,185	0.11	107.40
<i>Females</i>				
Arab or Arab Ancestry	182	85,409	0.21	213.09
Hispanic	190	124,687	0.15	152.38
Non-Hispanic Black	1,524	545,807	0.28	279.22
Non-Hispanic White	4,368	2,992,708	0.15	145.95
Asian	84	160,746	0.05	52.26

Discussion

- This study suggests the severity of Covid-19 is higher among Arab Americans compared to other groups
- Targeted intervention and prevention efforts need to be designed, implemented and evaluated to ensure that Covid-19 does not continue to disproportionately affect the minority, immigrant and underserved population of Arab Americans
- Results highlight the need for creating a separate racial/ethnic category for federal reporting standards for baseline health estimates among for Arab Americans as part of the proposed MENA category on the US Census and other federal forms

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