Factors Contributing to the Inability to Access Care Amongst MIDUS Participants

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Abstract

Healthcare access includes the ability to gain entry into the healthcare system, to access places to obtain needed services, and to connect with providers that address the needs of their patients [1]. Factors such as insurance status, ability to pay for healthcare services, neighborhood, race and ethnicity, gender, and age influence individuals' ability to access the care they need and in turn, how they utilize healthcare resources. [1,2]. The implementation of the Patient Protection and Affordable Care Act (ACA) in 2010 has shifted healthcare structures in an effort to improve access to health insurance, minimize healthcare costs, and expand access to care [3]. It is important to assess healthcare access prior to and after the implementation of the ACA to better understand the shifts in the US healthcare structure in recent years .We analyzed phone interview and survey responses from 2 cohorts from the Midlife in the US (MIDUS) Study: respondents to a follow-up survey in 2004-2006 (N=5555) from the original cohort and first-time respondents from the cohort recruited 2011-2014 (N=3577). We used chi-square and t-tests to evaluate differences by cohort for healthcare access, defined as needed care but couldn't get it within the past 12 months, and demographic and psychosocial variables: gender, age, race, education, income, insurance type, perceived neighborhood quality, experiences of lifetime discrimination, experiences of receiving inferior medical care, negative work-to-family spillover, and negative family-to-work spillover. We then examined relationships between needed care and the other variables through bivariate analyses and logistic regression. No differences by cohort were observed. Several variables were significantly associated with needing care in the logistic model: gender (men less likely to need care (OR=0.62, 95% CI 0.47-0.82), insurance type (those with no insurance more likely to need care vs those with insurance of different types), race (White participants less likely to need care than Black participants (0.55, 0.38-0.79) and other non-White participants (0.59, 0.42-0.83)), education (those with high school or less (1.51, 1.06-2.16) and with some college/Associates' degree (1.76, 1.26-2.43) were more likely to need care than those with college education), lifetime experiences discrimination (1.26, 1.19-1.35), and negative work-to-family spillover (1.13, 1.08-1.18). Several demographic variables were associated with needing care but being unable to get it. Of note, two psychosocial variables (lifetime discrimination and negative work to family spillover) were also associated with needing care. Such findings illustrate how problems with access to care require multi-faceted solutions.

Objectives

- Characterize healthcare access for two cohorts of MIDUS participants.
- Investigate factors that can impact self-reported inability to get care needed.

Introduction

Healthcare access includes the ability to enter into the health-care system, to access places to obtain needed services, and to connect with providers that address the needs of patients [1].

- Factors such as insurance status, ability to pay for healthcare services, neighborhood, race and ethnicity, gender, and age influence individuals' ability to access the care they need and in turn, how they utilize healthcare resources [1,2].

- There have been significant changes in the US healthcare structure to improve insurance coverage and access to care following the ACA's implementation in 2010 [3].

- The Midlife Development in the US (MIDUS) study is a national longitudinal cohort study designed to investigate long-term psychosocial effects on health for individuals between the ages of 24-85 [4].

- Investigation of data from two MIDUS cohorts can elucidate factors that impact healthcare access within and between cohorts overtime.

Acknowledgements

Methods

Study Sample:
- We evaluated phone and survey responses from 2 cohorts from MIDUS Project 1 Data
  - Cohort M2 (N=5555), aged 35-86 years old, collected in 2004-2006
  - Cohort MR (N=3577), aged 25-74 years old, collected in 2011-2014.
- Each cohort was modified with a sample of Black/African American participants from the Milwaukee area to correct for underrepresentation in the original cohort.

Exclusions:
- Participants that had no answer, refused to answer, or answered as "I don't know" for the outcome or predictor variables were excluded from the analysis.

Outcome:
- "In the past 12 months, was there a time when you needed medical care but could not get it?"

Predictors:
- Gender, Age, Race, Education, Income, Insurance Type, Perceived Neighborhood Quality, Experiences of Lifetime Discrimination, Experiences Receiving Inferior Medical Care, Negative Work-to-Family Spillover, and Negative Family-to-Work Spillover

Data Analysis:
- Descriptive statistics to characterize healthcare access and the listed predictors for M2 and MR;
  - Chi-square and t-tests used to evaluate differences by cohort.
- Bivariate analyses to examine relationships between needed care and predictors.
- Logistic regression to model predictors .

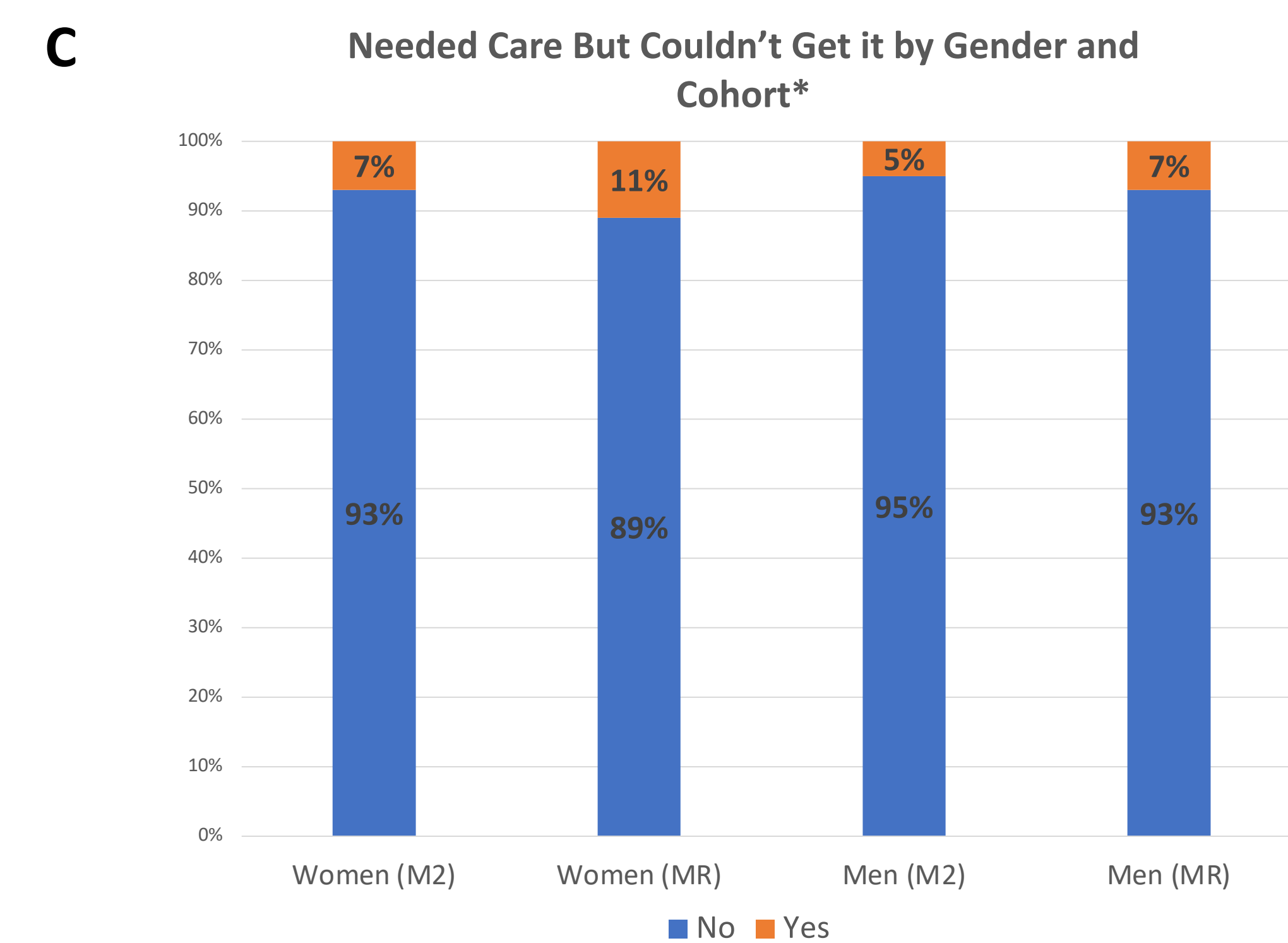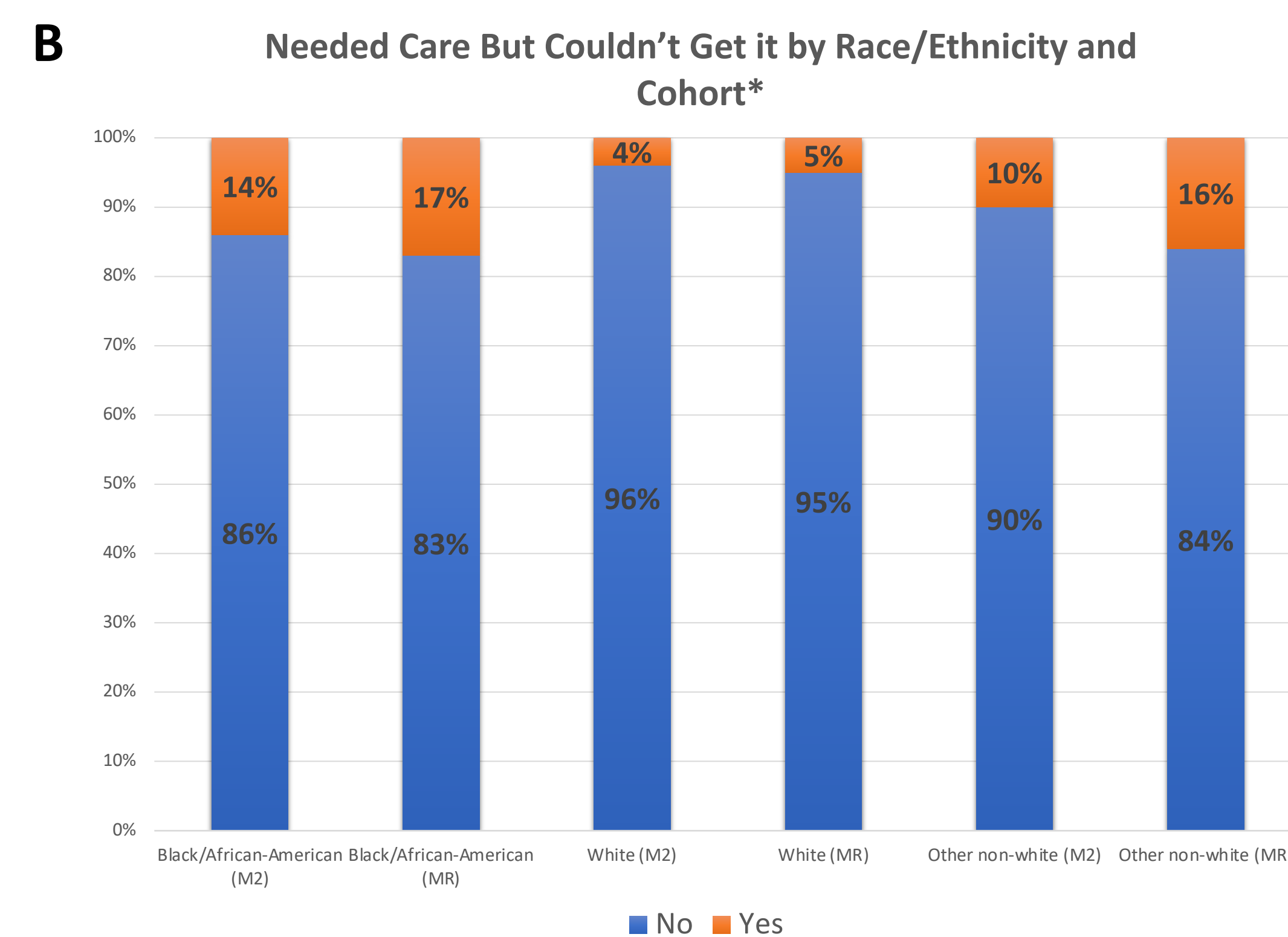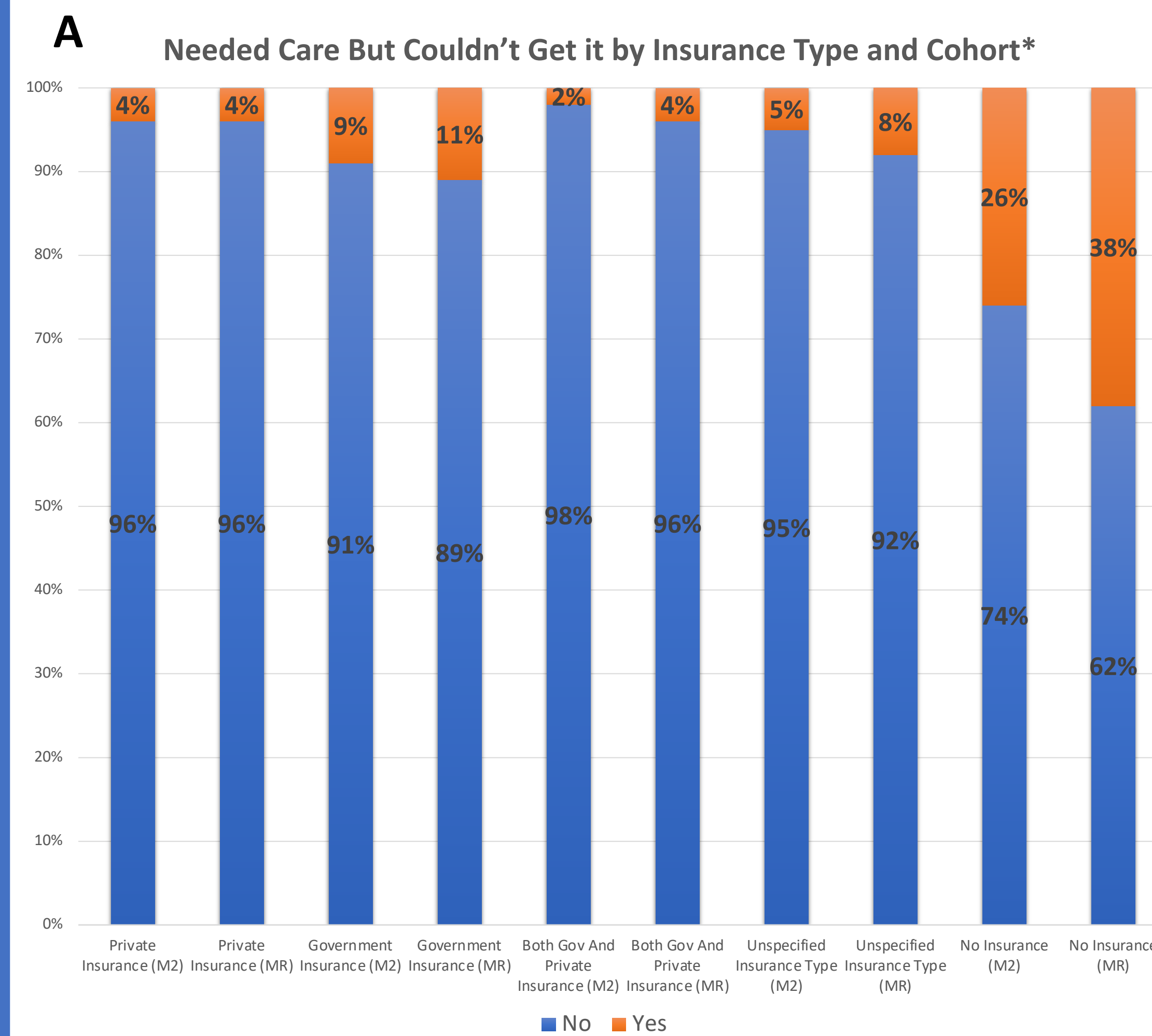## Results

Table 1: Characteristics of Participants by Cohort

	Cohort M2 (N=5555)*	Cohort MR (N=4085)*
Categorical Variables		
Women	3018 (54.3%)	2145 (52.5%)
Age (years)**		
23-32	3 (0.1%)	605 (14.8%)
33-42	1025 (18.5%)	855 (20.9%)
43-52	1491 (26.8%)	877 (21.5%)
53-62	1450 (26.1%)	791 (19.4%)
63-72	986 (17.8%)	766 (18.8%)
73+	600 (10.8%)	191 (4.7%)
Race**		
Black	641 (11.5%)	587 (14.4%)
White	4276 (77.0%)	2735 (66.95%)
Other	638 (11.5%)	763 (18.7%)
Education**		
HS, GED or Less	1965 (35.4%)	1064 (26.1%)
Some College or AA Degree	1667 (30.1%)	1292 (31.7%)
Bachelor's or Higher	1915 (34.5%)	1722 (42.2%)
Income**		
Poverty Line or Lower (for a 4 Person Household)	1790 (32.2%)	1635 (40.0%)
Above Poverty Line (for a 4 Person Household)	3765 (67.8%)	2450 (60.00%)
Perceived Neighborhood Quality**		
Lower perception of neighborhood quality	668 (14.5%)	631 (20.5%)
Higher perception of neighborhood quality	3941 (85.5%)	2450 (79.5%)
Continuous Variables		
Lifetime Discrimination**	01.0 ±1.6	1.2± 1.8
Received Inferior Care	0.3±4.4	0.3±2.4
Negative Work to Family Spillover**	10±2.9	10.5±3.1
Negative Family to Work Spillover**	8.1±8.7	2.6±2.6

*The value for N ranges within each cohort since certain questions are not applicable to all participants
**Significantly different between cohorts, p<0.05

Results

Figure 1 (A-C): Differences in Healthcare Access by Cohort

A Needed Care But Couldn't Get it by Insurance Type and Cohort*

B Needed Care But Couldn't Get it by Race/Ethnicity and Cohort*

C Needed Care But Couldn't Get it by Gender and Cohort*

*Significantly different by response category and cohort p<.05

Results

Table 2: Predictors (Odds Ratio) of Needing Care but Couldn't Get It*

Predictors	OR (95%CI)
Cohort	0.79 (0.60, 1.04)
Men	0.63 (0.47, 0.83)
Private Insurance	0.13 (0.10, 0.18)
Government Insurance	0.31 (0.20, 0.50)
Both Government and Private Insurance	0.09 (0.05, 0.18)
Unspecified Insurance	0.16 (0.06, 0.41)
Black/African-American	0.55 (0.38, 0.79)
Other non-White	0.59 (0.42, 0.84)
HS, GED or Less	1.51 (1.06, 2.16)
Some College or AA Degree	1.76 (1.27, 2.44)
Lifetime Discrimination	1.27 (1.19, 1.35)
Work-to-Family Spillover	1.13 (1.08, 1.18)

* Trimmed Logistic Regression Model using predictors with significant associations with healthcare access.

Results Summary

- Chi-square and t-tests showed significant differences in the predictor variables between the cohorts (See **Table 1**).
- Several of these variables differed by needing care and cohort as seen in **Figure 1 (A-C)**.
- In the logistic regression model, there were no significant differences by cohort as seen in **Table 2**.
- Several variables were significantly associated with needing care in the logistic model:
  - Gender: men were less likely to need care
  - Insurance type: those with no insurance more likely to need care vs those with insurance of different types
  - Race/Ethnicity: White participants less likely to need care than Black participants and other non-White participants
  - Education: those with high school or less and with some college/Associates' degree were more likely to need care than those with college education
  - Participants with experiences of lifetime discrimination and negative work-to-family spillover were more likely to need care

Conclusions and Limitations

- There were significant differences between the cohorts on several variables as seen in **Table 1,** but differences by cohort were not found in the logistic model.
  - A difference by cohort was initially expected due to the implementation of the ACA, however this was not seen.
- As previous studies have shown, there were significant differences for needing care based on factors such as gender, insurance type, race/ethnicity, and education level. This reflects social, environmental, and economic barriers to care that disproportionately impact certain groups more than others.
- Self-reported experiences like lifetime discrimination and negative work-to-family spillover were significantly associated with needing care. It is likely that experiences of discrimination extend into healthcare settings for marginalized groups and results in unmet health needs. Employment in a stressful work environment that spills over into a person's family life can act as a barrier to access care when needed.
- One limitation of this study is the racial/ethnic composition of the sample. Many of the Black/African-American participants come from one geographic area (Milwaukee) and the "Other" category is heterogenous. Further research is needed to assess how access to care may be related to the healthcare utilization and health practices of MIDUS participants.

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