

## **SUPPLEMENT**

**Sample sizes.** We analyze six pain measures. The information was collected in different years and on different subsamples; the sample sizes differ accordingly, from N=57,518 for high-impact chronic pain to 273,972 for 'any pain' and widespread pain. Table 1 in the main document describes the sample size, years of collection, and construction of each of the six pain measures.

This paragraph provides additional details on the sample sizes for each of the six measures. Any pain and widespread pain items were collected from all sample adults in each year 2010-2018 (274,868 respondents). From this group, 99.7% answered all five pain questions needed for the two summary pain indicators (any pain and widespread pain, see below) and also provided valid information on race. This yields N=273,972 used in all analyses of any pain and widespread pain (383 individuals or 0.01% had one or more components missing on pain while an additional 512 individuals or 0.02% did not answer the race question). Second, persistent pain over 6 months and high-impact chronic pain were collected in a special module administered in 2016 and 2017 to 57,737 adults. Of this group, 99.7% answered both pain frequency and race items, yielding an analytic sample of size N=57,541 for persistent pain over 6 months (64 respondents or 0.01% did not answer the pain frequency question and 132 or 0.02% did not provide a valid race information). An additional 23 individuals (<.01%) did not answer a followup questions about interference, yielding a sample size of N=57,518 (99.6% of those administered the items) for analyses of high-impact chronic pain. Third, data on persistent pain over 3 months and severe pain were collected consistently in years 2010-2015 and 2018 (104,156 respondents were administered the questions). From this group, 99.3% provided valid information on the pain frequency and also race, yielding a sample size of N=103,439 for analyses of persistent pain over 3 months (521 or 0.5% did not answer the pain frequency question, and additional 186 did not provide valid race answer). Finally, an additional 90 (0.09%) respondents did not answer a followup question on pain intensity, which was necessary to construct the severe pain measure, yielding a sample size of N=103,349 for analyses of severe pain, or 99.2% of the targeted sample.

## Racial/Ethnic Disparities in Chronic Pain

Supplement Table S1. Weighted proportion with pain across different pain measures and associated sample sizes by gender, US adults age 18+.

	Severe pain	High-impact	Widespread	Persistent (3 mo)	Persistent (6 mo)	Any pain
<b>Men</b>						
<b>Total</b>	5.3 (5.0,5.6)	6.7 (6.3,7.2)	8.8 (8.6,9.1)	17.9 (17.3,18.4)	18.2 (17.4,18.9)	46.6 (46.1,47.1)
<b>Race/ethnicity</b>						
White	5.7 (5.4,6.1)	7.3 (6.8,7.8)	9.8 (9.5,10.1)	20.9 (20.2,21.6)	21.4 (20.5,22.2)	50.8 (50.3,51.3)
Black	6.0 (5.0,6.9)	6.3 (5.1,7.4)	7.4 (6.8,7.9)	14.8 (13.3,16.2)	13.3 (11.7,15.0)	40.6 (39.5,41.7)
Hispanic	3.5 (2.9,4.2)	5.1 (4.1,6.2)	6.8 (6.3,7.3)	10.3 (9.1,11.4)	12.5 (10.9,14.1)	37.8 (36.8,38.7)
Asian	2.2 (1.4,3.1)	3.2 (1.9,4.5)	3.6 (3.1,4.2)	7.8 (6.3,9.3)	5.8 (4.2,7.4)	30.3 (28.9,31.8)
AIAN	8.9 (5.5,12.3)	16.8 (10.5,23.1)	14.4 (11.7,17.2)	27.2 (20.3,34.1)	25.3 (17.5,33.2)	52.3 (46.9,57.8)
Multiracial	8.4 (5.8,10.9)	11 (7.2,14.8)	15.4 (13.3,17.5)	23.4 (19.1,27.7)	23.5 (18.8,28.2)	53.5 (50.6,56.4)
<b>Women</b>						
<b>Total</b>	7.5 (7.2,7.8)	8.6 (8.2,9.1)	14.3 (14.0,14.5)	21.3 (20.8,21.8)	21.7 (20.9,22.4)	55.1 (54.7,55.5)
<b>Race/ethnicity</b>						
White	7.8 (7.4,8.2)	9.1 (8.6,9.6)	15.2 (14.9,15.6)	24.0 (23.3,24.7)	24.2 (23.3,25.0)	58.4 (57.9,58.9)
Black	9.0 (8.0,10.0)	9.2 (8.1,10.4)	13.2 (12.5,13.8)	19.0 (17.7,20.4)	21.1 (19.1,23.0)	52.5 (51.6,53.5)
Hispanic	6.5 (5.6,7.3)	7.3 (6.2,8.5)	12.8 (12.2,13.4)	15.5 (14.2,16.8)	16.0 (14.1,17.8)	48.0 (47.1,48.9)
Asian	2.6 (1.7,3.6)	3.8 (2.7,4.9)	6.6 (5.9,7.4)	9.5 (7.9,11.1)	9.5 (7.6,11.3)	39.8 (38.2,41.4)
AIAN	12.9 (7.4,18.3)	12.8 (8.1,17.5)	19.1 (16.0,22.2)	30.9 (25.2,36.7)	23.1 (17.2,29.0)	56.7 (52.2,61.1)
Multiracial	9.1 (6.2,11.9)	12.8 (9.4,16.3)	20.6 (18.4,22.9)	22.1 (18.0,26.3)	26.7 (22.0,31.5)	60.2 (57.4,63.1)

The cells show estimated weighted percentage (i.e., estimated population percentage) with pain and their 95% confidence intervals.

Each column shows a different pain definition. The six pain definitions are ordered from the lowest prevalence in the total population.

Within each gender, the cells are color-coded from red=high percentage with pain to green=low percentage.

All race/ethnic categories, other than Hispanic, are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American.

Persistent pain (3 mo) was asked with respect to the past 3 months; persistent pain (6 mo) was asked with respect to the past 6 months.

We also tested whether the variation by race/ethnicity within each gender is statistically significant, using design-adjusted F-test equivalent to chi-squared tests. All six pain measures for both genders vary across race/ethnicity at  $p < .001$ .

## Racial/Ethnic Disparities in Chronic Pain

Supplement Table S2 Weighted percent with pain (95% CI) across different pain measures, multiracial US adults age 18+ by main stated racial background.

	Severe pain		High-impact		Widespread		Persistent (3 mo)		Persistent (6 mo)		Any pain	
<b>Total</b>	6.4	(6.2,6.7)	7.7	(7.4,8.0)	11.6	(11.4,11.8)	19.6	(19.2,20.0)	20.0	(19.4,20.6)	51.0	(50.7,51.4)
<b>Multiracial adults, by main racial background</b>												
White	11.4	(8.4,14.5)	11.2	(8.0,14.5)	20.7	(18.4,23.1)	26.5	(21.9,31.1)	28.0	(22.9,33.0)	61.2	(58.0,64.3)
Black	7.4	(3.2,11.7)	8.4	(3.9,12.8)	13.8	(10.9,16.7)	18.2	(11.9,24.5)	17.1	(11.0,23.3)	51.0	(46.5,55.5)
Asian	0.0	(0.0,0.0)	19.6	(-0.6,39.8)	7.5	(4.1,10.8)	14.0	(1.7,26.3)	26.9	(7.4,46.4)	49.3	(41.1,57.6)
AIAN	13.2	(7.2,19.3)	22.8	(11.6,33.9)	31.6	(25.5,37.6)	29.5	(19.8,39.3)	38.8	(25.6,52.0)	68.7	(62.7,74.7)
Other	3.8	(1.4,6.2)	9.9	(3.9,15.8)	13.2	(10.3,16.2)	18.1	(11.6,24.6)	20.2	(13.3,27.2)	50.1	(45.2,55.0)
<b>All racial/ethnic groups for comparison, estimates identical to those shown in Table 2</b>												
White	6.8	(6.5,7.1)	8.3	(7.9,8.6)	12.6	(12.4,12.8)	22.5	(22.0,23.0)	22.8	(22.1,23.5)	54.7	(54.3,55.1)
Black	7.6	(6.9,8.3)	7.9	(7.1,8.7)	10.6	(10.1,11.0)	17.1	(16.1,18.1)	17.6	(16.2,19.0)	47.2	(46.4,48.0)
Hispanic	5.0	(4.5,5.5)	6.3	(5.4,7.1)	9.8	(9.4,10.2)	12.9	(12.0,13.7)	14.2	(12.9,15.5)	42.9	(42.1,43.6)
Asian	2.4	(1.8,3.0)	3.5	(2.6,4.4)	5.2	(4.8,5.7)	8.7	(7.6,9.7)	7.7	(6.6,8.9)	35.3	(34.2,36.5)
AIAN	11.1	(7.5,14.7)	14.7	(10.5,18.9)	17.0	(14.8,19.3)	29.3	(24.7,33.9)	24.2	(18.7,29.6)	54.7	(50.9,58.5)
Multiracial	8.7	(6.9,10.6)	12.0	(9.4,14.5)	18.2	(16.6,19.7)	22.7	(19.8,25.7)	25.2	(21.9,28.4)	57.1	(54.9,59.2)

The cells show estimated weighted percentage (i.e., estimated population percentage) with pain and their 95% confidence intervals.

Each column shows a different pain definition. The six pain definitions are ordered from the lowest prevalence in the total population. Within each column, the cells are color-coded from red=high percentage with pain to green=low percentage.

All race/ethnic categories, other than Hispanic, are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American.

Persistent pain (3 mo) was asked with respect to the past 3 months; persistent pain (6 mo) was asked with respect to the past 6 months.

We also tested whether the pain prevalence differs significantly across the main racial background among multiracial adults, using a design-adjusted F-test. The estimated p-values were p=.008 for severe pain, p<.001 for widespread pain, p=.066 for persistent pain (3mo), and p=.048 for persistent pain (6 mo). The differences for high-impact and 'any pain' were not statistically significant.

## Racial/Ethnic Disparities in Chronic Pain

Supplement Table S3. Sample sizes for all analyses, US adults age 18+.

	Severe pain	High-impact pain	Widespread pain	Persistent pain (3 mo)	Persistent pain (6 mo)	Any pain
Total	103,349	57,518	273,972	103,439	57,541	273,972
Race/ethnicity						
White	64,629	40,324	172,782	64,694	40,342	172,782
Black	13,749	6,086	36,357	13,759	6,089	36,357
Hispanic	16,698	6,800	43,160	16,709	6,801	43,160
Asian	5,816	2,815	15,289	5,818	2,815	15,289
AIAN	743	482	1,920	744	483	1,920
Multiracial	1,714	1,011	4,464	1,715	1,011	4,464
Multiracial						
White	766	477	1,977	767	477	1,977
Black	375	163	911	375	163	911
Asian	106	68	303	106	68	303
AIAN	164	107	455	164	107	455
Other	303	196	818	303	196	818

All categories other than Hispanic are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American. For parsimony, we omit sample sizes for men and women; each gender comprises roughly 50% of the total or each race/ethnic group.

All race/ethnic categories, other than Hispanic, are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American.

Persistent pain (3 mo) was asked with respect to the past 3 months; persistent pain (6 mo) was asked with respect to the past 6 months.

## Racial/Ethnic Disparities in Chronic Pain

Supplement Table S4. Prevalence ratios from Poisson regression models of each pain measure as a function of race/ethnicity and different covariate sets															
	Severe pain					High-impact					Widespread				
Race/ethnicity (white)															
Black	1.12*	1.19**	1.22***	1.12*	0.85**	0.96	1.07	1.11	1.01	0.77***	0.84***	0.86***	0.88***	0.84***	0.71***
Hispanic	0.73***	0.89*	1.11	1.08	0.82*	0.76***	0.96	1.16	1.12	0.87	0.78***	0.82***	0.98	0.96	0.83***
Asian	0.36***	0.40***	0.56***	0.56***	0.62***	0.43***	0.48***	0.68**	0.69**	0.72*	0.41***	0.41***	0.55***	0.55***	0.60***
AIAN	1.63**	1.78***	1.78***	1.68**	1.12	1.79***	1.95***	1.96***	1.78***	1.22	1.35***	1.30***	1.30***	1.25**	0.99
Multiracial	1.29*	1.61***	1.62***	1.51***	1.25*	1.45***	1.84***	1.86***	1.76***	1.43***	1.44***	1.55***	1.56***	1.50***	1.34***
Covariates															
Interview year	1.00	0.99	0.99	0.99	1.01*	0.89***	0.88***	0.88***	0.88***	0.91**	1.01*	1.01	1.01	1.01	1.02***
Age		1.10***	1.09***	1.05***	1.00		1.19***	1.19***	1.15***	1.09***		0.93***	0.93***	0.90***	0.87***
Age squared		0.92***	0.92***	0.91***	0.89***		0.91***	0.91***	0.90***	0.89***		0.93***	0.92***	0.92***	0.91***
Female		1.39***	1.39***	1.34***	1.30***		1.24***	1.24***	1.19***	1.16***		1.61***	1.61***	1.57***	1.55***
Region (Northeast)															
Midwest		1.28***	1.25***	1.25***	1.13*		1.02	0.99	0.99	0.90		1.14***	1.12***	1.12***	1.04
South		1.30***	1.28***	1.27***	1.16**		1.09	1.06	1.06	0.97		1.14***	1.12***	1.12***	1.04
West		1.22**	1.19**	1.19**	1.17**		1.11	1.08	1.08	1.08		1.25***	1.22***	1.22***	1.19***
Nativity (US-born)															
In US 15+ years			0.74***	0.77***	0.75***			0.69***	0.72***	0.70***			0.77***	0.78***	0.76***
In US <15 years			0.42***	0.44***	0.40***			0.39***	0.41***	0.36***			0.50***	0.52***	0.47***
Unknown			0.53	0.55	0.51			0.22**	0.22**	0.22**			0.54***	0.55**	0.56**
Interview not English			0.98	0.99	0.68***			1.18	1.17	0.83			1.04	1.04	0.82***
Marital status (married)															
Previously married				1.59***	1.03				1.59***	1.04				1.39***	1.04**
Never married				1.30***	0.88*				1.37***	0.93				1.13***	0.91***
Unknown				1.45	1.09				1.63	1.23				1.13	0.97
Parent (no children)															
1 child at home				1.05	1.13*				1.06	1.15**				1.03	1.06**
2+ children at home				0.90	0.98				0.91	0.99				0.95*	0.97
Education (MA +)															
Less than HS					2.71***					2.00***					1.70***
High school (HS)					1.95***					1.45***					1.26***
Some college					2.07***					1.60***					1.47***
AA degree					2.12***					1.47***					1.48***
BA degree					1.15					0.93					1.02

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## Racial/Ethnic Disparities in Chronic Pain

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Family income (100k+)															
\$0-29,999					3.21***					3.22***					2.00***
\$30-74,999					1.94***					1.86***					1.42***
\$75-99,999					1.43***					1.32**					1.16***
Unknown					1.50***					1.86***					1.17***
Homeowner (yes)															
No, rents					1.28***					1.26***					1.18***
No, other/unknown					1.06					1.28**					1.13***
N	103349	103349	103349	103349	103349	57518	57518	57518	57518	57518	273972	273972	273972	273972	273972

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## Racial/Ethnic Disparities in Chronic Pain

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Supplement Table S4. Prevalence ratios from Poisson regression models of each pain measure as a function of race/ethnicity and different covariate sets															
	Persistent (3 mo)				Persistent (6 mo)					Any pain					
Race/ethnicity (white)															
Black	0.76***	0.83***	0.85***	0.82***	0.71***	0.77***	0.84***	0.87***	0.83***	0.71***	0.86***	0.90***	0.91***	0.90***	0.86***
Hispanic	0.57***	0.68***	0.84***	0.83***	0.72***	0.62***	0.74***	0.91	0.89*	0.76***	0.78***	0.84***	0.94***	0.94***	0.90***
Asian	0.38***	0.42***	0.57***	0.57***	0.60***	0.34***	0.37***	0.51***	0.51***	0.54***	0.65***	0.66***	0.76***	0.77***	0.78***
AIAN	1.29**	1.41***	1.41***	1.37***	1.10	1.06	1.12	1.13	1.07	0.86	1.00	1.01	1.01	1.01	0.94
Multiracial	1.00	1.23**	1.24**	1.20**	1.09	1.10	1.31***	1.33***	1.30***	1.15*	1.04*	1.12***	1.12***	1.12***	1.08***
Covariates															
Interview year	1.02***	1.01***	1.01***	1.01***	1.03***	0.98	0.97	0.97	0.97	0.99	1.00**	1.00	1.00	1.00	1.01***
Age		1.15***	1.14***	1.12***	1.09***		1.13***	1.12***	1.11***	1.08***		1.05***	1.04***	1.04***	1.03***
Age squared		0.95***	0.95***	0.95***	0.94***		0.94***	0.94***	0.94***	0.93***		0.98***	0.98***	0.98***	0.97***
Female		1.16***	1.17***	1.14***	1.12***		1.17***	1.17***	1.13***	1.12***		1.17***	1.17***	1.16***	1.16***
Region (Northeast)															
Midwest		1.18***	1.15***	1.15***	1.08*		1.13**	1.10*	1.10*	1.03		1.09***	1.08***	1.07***	1.05***
South		1.15***	1.14***	1.13***	1.07*		1.13**	1.10*	1.10*	1.05		1.05***	1.04***	1.04***	1.02*
West		1.19***	1.17***	1.17***	1.15***		1.15**	1.12**	1.12**	1.11**		1.11***	1.10***	1.10***	1.09***
Nativity (US-born)															
In US 15+ years			0.76***	0.77***	0.76***			0.71***	0.71***	0.71***			0.86***	0.86***	0.86***
In US <15 years			0.48***	0.49***	0.46***			0.50***	0.51***	0.48***			0.77***	0.77***	0.75***
Unknown			0.62	0.63	0.58			0.32***	0.32***	0.34***			0.73***	0.74***	0.77***
Interview not English			0.92	0.93	0.74***			1.02	1.02	0.83*			0.93***	0.93***	0.87***
Marital status (married)															
Previously married				1.28***	1.02				1.32***	1.05			1.09***	1.01	
Never married				1.08*	0.89***				1.10**	0.91**			1.00	0.95***	
Unknown				1.13	0.95				1.05	0.95			0.85*	0.83**	
Parent (no children)															
1 child at home				1.08**	1.11***				1.09**	1.12***			1.04***	1.05***	
2+ children at home				0.97	1.02				1.03	1.08*			1.02*	1.02**	
Education (MA +)															
Less than HS					1.74***					1.73***				1.16***	
High school (HS)					1.42***					1.41***				1.07***	
Some college					1.49***					1.47***				1.13***	
AA degree					1.54***					1.46***				1.12***	
BA degree					1.08					1.00				0.99	

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## Racial/Ethnic Disparities in Chronic Pain

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Family income (100k+)															
\$0-29,999					1.74***					1.65***					1.20***
\$30-74,999					1.38***					1.36***					1.11***
\$75-99,999					1.13**					1.14**					1.05***
Unknown					1.18***					1.13**					0.96***
Homeowner (yes)															
No, rents					1.15***					1.21***					1.06***
No, other/unknown					1.00					1.07					1.03*
N	103439	103439	103439	103439	103439	57541	57541	57541	57541	57541	273972	273972	273972	273972	273972

\*\*\*p<.001 \*\*p<.01 \*p<.05

The Table shows prevalence ratios from survey-adjusted nested Poisson regression models with robust standard errors of the six pain indicators.

All race/ethnic categories, other than Hispanic, are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American.

Persistent pain (3 mo) was asked with respect to the past 3 months; persistent pain (6 mo) was asked with respect to the past 6 months. Age is in decades and centered about 60.



## Racial/Ethnic Disparities in Chronic Pain

Table S5. Odds ratios from logistic models of six pain indicators as a function of race and covariates

White=reference	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Severe pain</b>					
Black	1.13*	1.21**	1.25***	1.14*	0.84**
Hispanic	0.72***	0.88*	1.12	1.08	0.80*
Asian	0.34***	0.38***	0.54***	0.55***	0.60***
AIAN	1.71**	1.90***	1.90***	1.79**	1.15
Multiracial	1.31*	1.70***	1.70***	1.58***	1.31*
<b>High-impact pain</b>					
Black	0.95	1.08	1.12	1.01	0.74***
Hispanic	0.74***	0.95	1.18	1.13	0.85
Asian	0.40***	0.45***	0.67**	0.68**	0.71*
AIAN	1.93***	2.17***	2.20***	1.97***	1.30
Multiracial	1.51***	2.02***	2.05***	1.93***	1.56***
<b>Widespread pain</b>					
Black	0.82***	0.84***	0.86***	0.81***	0.66***
Hispanic	0.75***	0.79***	0.97	0.96	0.80***
Asian	0.38***	0.37***	0.51***	0.52***	0.56***
AIAN	1.42***	1.37***	1.37***	1.32**	1.00
Multiracial	1.54***	1.69***	1.70***	1.64***	1.45***
<b>Persistent pain (3 months)</b>					
Black	0.71***	0.79***	0.82***	0.77***	0.63***
Hispanic	0.51***	0.62***	0.81***	0.79***	0.65***
Asian	0.32***	0.35***	0.51***	0.51***	0.54***
AIAN	1.41**	1.61***	1.62***	1.57***	1.17
Multiracial	1.00	1.32**	1.33**	1.28**	1.14
<b>Persistent pain (6 months)</b>					
Black	0.72***	0.80***	0.83***	0.79***	0.63***
Hispanic	0.56***	0.69***	0.89	0.86*	0.70***
Asian	0.28***	0.31***	0.45***	0.46***	0.48***
AIAN	1.08	1.16	1.18	1.11	0.82
Multiracial	1.14	1.45***	1.48***	1.43***	1.24*
<b>Any pain</b>					
Black	0.74***	0.80***	0.82***	0.81***	0.72***
Hispanic	0.62***	0.70***	0.89***	0.88***	0.80***
Asian	0.45***	0.46***	0.61***	0.61***	0.64***
AIAN	1.00	1.02	1.03	1.01	0.88
Multiracial	1.10*	1.28***	1.30***	1.28***	1.20***

\*\*\*p<.001 \*\*p<.01 \*p<.05

The table shows partial results from survey-adjusted logistic regression model of each pain outcome as a function of race/ethnicity (White as reference), net of five sets of covariates. Only the odds ratios associated with race/ethnicity are shown for parsimony; the complete results are in Table S6 below.

All racial categories other than Hispanic are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American.

Model 1 only adjusts for the year of interview. Age is decades and centered about 60.

Model 2 additionally adjusts for age, gender, and region of residence.

Model 3 additionally adjusts for immigrant status and language of interview.

Model 4 additionally adjusts for marital status and presence of children.

Model 5 is fully adjusted; it additionally adjusts for education, family income, and home ownership.

## Racial/Ethnic Disparities in Chronic Pain

Supplement Table S6. Odds ratios from logistic regression models of each pain measure as a function of race/ethnicity and different covariate sets															
	Severe pain					High-impact					Widespread				
Race/ethnicity (white)															
Black	1.13*	1.21**	1.25***	1.14*	0.84**	0.95	1.08	1.12	1.01	0.74***	0.82***	0.84***	0.86***	0.81***	0.66***
Hispanic	0.72***	0.88*	1.12	1.08	0.80*	0.74***	0.95	1.18	1.13	0.85	0.75***	0.79***	0.97	0.96	0.80***
Asian	0.34***	0.38***	0.54***	0.55***	0.60***	0.40***	0.45***	0.67**	0.68**	0.71*	0.38***	0.37***	0.51***	0.52***	0.56***
AIAN	1.71**	1.90***	1.90***	1.79**	1.15	1.93***	2.17***	2.20***	1.97***	1.30	1.42***	1.37***	1.37***	1.32**	1.00
Multiracial	1.31*	1.70***	1.70***	1.58***	1.31*	1.51***	2.02***	2.05***	1.93***	1.56***	1.54***	1.69***	1.70***	1.64***	1.45***
Covariates															
Interview year	1.00	0.99	0.99	0.99	1.02*	0.88***	0.87***	0.87***	0.87***	0.90**	1.01*	1.01	1.01	1.01	1.02***
Age		1.11***	1.10***	1.06***	0.99		1.21***	1.21***	1.16***	1.10***		0.92***	0.92***	0.89***	0.85***
Age squared		0.92***	0.92***	0.90***	0.88***		0.91***	0.91***	0.89***	0.87***		0.92***	0.92***	0.91***	0.89***
Female		1.43***	1.43***	1.38***	1.35***		1.27***	1.27***	1.21***	1.18***		1.73***	1.73***	1.68***	1.67***
Region (Northeast)															
Midwest		1.31***	1.27***	1.28***	1.14*		1.02	0.99	0.99	0.89		1.16***	1.13***	1.13***	1.04
South		1.33***	1.30***	1.30***	1.18**		1.10	1.07	1.07	0.96		1.16***	1.14***	1.13***	1.05
West		1.24**	1.21**	1.21**	1.19**		1.12	1.09	1.09	1.09		1.29***	1.26***	1.26***	1.23***
Nativity (US-born)															
In US 15+ years			0.72***	0.75***	0.72***			0.66***	0.69***	0.66***			0.74***	0.76***	0.73***
In US <15 years			0.40***	0.43***	0.37***			0.37***	0.39***	0.33***			0.47***	0.48***	0.43***
Unknown			0.51	0.53	0.48			0.20**	0.20**	0.20**			0.50***	0.51***	0.52**
Interview not English			0.98	0.98	0.64***			1.20	1.18	0.79*			1.04	1.05	0.78***
Marital status (married)															
Previously married				1.68***	1.05					1.69***	1.06			1.48***	1.07**
Never married				1.33***	0.87*					1.41***	0.92			1.15***	0.89***
Unknown				1.50	1.11					1.74	1.29			1.16	0.97
Parent (no children)															
1 child at home				1.05	1.14*					1.07	1.17**			1.04	1.06**
2+ children at home				0.89	0.97					0.89	0.97			0.94*	0.96
Education (MA +)															
Less than HS					2.98***						2.23***				1.88***
High school (HS)					2.04***						1.51***				1.30***
Some college					2.17***						1.68***				1.56***
AA degree					2.23***						1.52***				1.57***
BA degree					1.15						0.92				1.02

Table continues on the following page

## Racial/Ethnic Disparities in Chronic Pain

Table continued from prior page

Family income (100k+)															
\$0-29,999					3.57***					3.70***					2.25***
\$30-74,999					2.01***					1.94***					1.49***
\$75-99,999					1.44***					1.34**					1.18***
Unknown					1.52***					1.94***					1.19***
Homeowner (yes)															
No, rents					1.32***					1.31***					1.21***
No, other/unknown					1.06					1.34**					1.16***
N	103349	103349	103349	103349	103349	57518	57518	57518	57518	57518	273972	273972	273972	273972	273972

Table continues on the following page

## Racial/Ethnic Disparities in Chronic Pain

Table continued from prior page

Continued Supplement Table S6. Odds ratios from logistic regression models of each pain measure as a function of race/ethnicity and different covariate sets															
	Persistent (3 mo)					Persistent (6 mo)					Any pain				
Race/ethnicity (white)															
Black	0.71***	0.79***	0.82***	0.77***	0.63***	0.72***	0.80***	0.83***	0.79***	0.63***	0.74***	0.80***	0.82***	0.81***	0.72***
Hispanic	0.51***	0.62***	0.81***	0.79***	0.65***	0.56***	0.69***	0.89	0.86*	0.70***	0.62***	0.70***	0.89***	0.88***	0.80***
Asian	0.32***	0.35***	0.51***	0.51***	0.54***	0.28***	0.31***	0.45***	0.46***	0.48***	0.45***	0.46***	0.61***	0.61***	0.64***
AIAN	1.41**	1.61***	1.62***	1.57***	1.17	1.08	1.16	1.18	1.11	0.82	1.00	1.02	1.03	1.01	0.88
Multiracial	1.00	1.32**	1.33**	1.28**	1.14	1.14	1.45***	1.48***	1.43***	1.24*	1.10*	1.28***	1.30***	1.28***	1.20***
Covariates															
Interview year	1.02***	1.02***	1.02***	1.02***	1.04***	0.97	0.96	0.96	0.96	0.99	1.01**	1.00	1.00	1.00	1.01***
Age		1.20***	1.19***	1.16***	1.12***		1.17***	1.16***	1.14***	1.10***		1.11***	1.10***	1.09***	1.07***
Age squared		0.95***	0.94***	0.94***	0.92***		0.93***	0.93***	0.92***	0.91***		0.96***	0.96***	0.96***	0.95***
Female		1.22***	1.22***	1.19***	1.17***		1.23***	1.23***	1.18***	1.17***		1.41***	1.41***	1.38***	1.38***
Region (Northeast)															
Midwest		1.24***	1.20***	1.20***	1.11*		1.17**	1.13*	1.13*	1.05		1.20***	1.17***	1.16***	1.11***
South		1.21***	1.18***	1.18***	1.10*		1.17**	1.14*	1.14*	1.07		1.11***	1.09***	1.09***	1.05*
West		1.25***	1.22***	1.22***	1.21***		1.19**	1.16**	1.17**	1.15**		1.24***	1.21***	1.21***	1.19***
Nativity (US-born)															
In US 15+ years			0.70***	0.71***	0.69***			0.64***	0.65***	0.63***			0.73***	0.73***	0.72***
In US <15 years			0.44***	0.45***	0.41***			0.45***	0.46***	0.42***			0.64***	0.64***	0.61***
Unknown			0.56	0.57	0.50			0.26***	0.26***	0.28***			0.56***	0.57***	0.62***
Interview not English			0.91	0.91	0.68***			1.02	1.02	0.76**			0.87***	0.87***	0.75***
Marital status (married)															
Previously married				1.41***	1.05				1.47***	1.09*			1.24***	1.05***	
Never married				1.11**	0.86***				1.14**	0.89**			1.02	0.90***	
Unknown				1.18	0.95				1.07	0.94			0.73**	0.70**	
Parent (no children)															
1 child at home				1.09*	1.14***				1.11**	1.15***			1.08***	1.08***	
2+ children at home				0.96	1.00				1.03	1.07			1.01	1.01	
Education (MA +)															
Less than HS					2.10***					2.12***					1.41***
High school (HS)					1.56***					1.57***					1.17***
Some college					1.67***					1.66***					1.32***
AA degree					1.74***					1.63***					1.28***
BA degree					1.10					1.00					0.99

Table continues on the following page

## Racial/Ethnic Disparities in Chronic Pain

Table continued from prior page

Family income (100k+)															
\$0-29,999					2.09***					1.96***					1.48***
\$30-74,999					1.50***					1.48***					1.23***
\$75-99,999					1.16**					1.17**					1.10***
Unknown					1.21**					1.16*					0.90***
Homeowner (yes)															
No, rents					1.20***					1.29***					1.12***
No, other/unknown					0.98					1.10					1.05
N	103439	103439	103439	103439	103439	57541	57541	57541	57541	57541	273972	273972	273972	273972	273972

\*\*\*p<.001 \*\*p<.01 \*p<.05

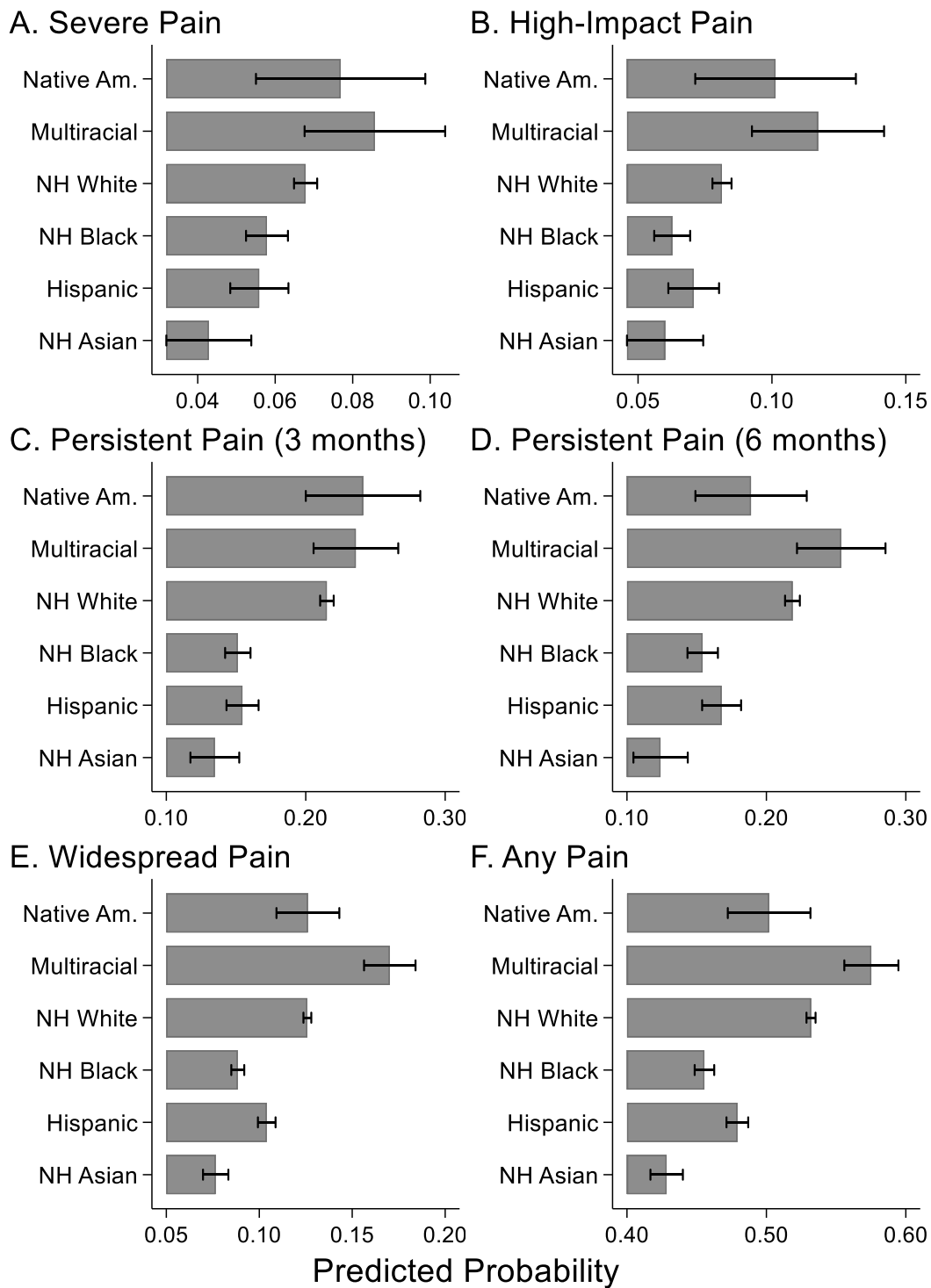
The Table shows odds ratios from survey-adjusted nested logistic regression models of the six pain indicators.

All race/ethnic categories, other than Hispanic, are Non-Hispanic. AIAN=American Indian/Alaska Native, or Native American.

Persistent pain (3 mo) was asked with respect to the past 3 months; persistent pain (6 mo) was asked with respect to the past 6 months. Age is in decades and centered about 60.

# Racial/Ethnic Disparities in Chronic Pain

Supplement Figure S1. Average predicted probabilities from fully adjusted models.



Average predicted probabilities calculated from complex-survey-adjusted logistic models of each pain measure as a function of race/ethnicity and all covariates (Model 5 Table 4)