



Racial and Ethnic Disparities in Disability among Medicare Beneficiaries in Rural Communities: ACS PUMS 2012-2015



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“Working to Achieve Health Equity”

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Acknowledgements

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Disclaimer

- The views expressed in this presentation are solely those of the presenter and not those of CMS, CMS OMH, or the federal government.

Overview

- CMS Office of Minority Health
 - Rural Health Activities
- Data Sources & Methods
 - 2012-2015 ACS PUMS
 - 2010 PUMA USDA ERS files
- Results
- Conclusions & Next Steps

Offices of Minority Health Within HHS



“Working to Achieve Health Equity”

CMS OMH Mission and Vision

Mission

To ensure that the voices and the needs of the populations we represent (racial and ethnic minorities, sexual and gender minorities, rural populations, and people with disabilities) are present as the Agency is developing, implementing, and evaluating its programs and policies.

Vision

All CMS beneficiaries have achieved their highest level of health, and disparities in health care quality and access have been eliminated.

CMS Rural Health Activities

Agency-wide

- **Innovation**
 - PA Rural Health Model
 - FCHIP
 - CPC+
 - JCPI
- **Quality and Access**
 - QPP SURS
 - Expanded telehealth codes
- **Stakeholder engagement**
 - Solutions Summit
 - Regional listening sessions

CMS OMH

- **CMS Rural Health Council**
 - Co-lead by Dr. Cara James, Director of the CMS OMH
- **Rural Health Coordinators**
 - Health insurance exchange coordination
- **Chronic Care Management Campaign**
 - Public education and outreach
- **Rural health research**
 - Analysis of Medicare and other national data sources

Why Examine Racial and Ethnic Disparities in Disability among Rural Dwelling Medicare Beneficiaries?

- Health differences have been documented between rural and urban dwelling adults
 - Limited studies have examined the intersectionality of rurality, race and ethnicity, and disability
- Nearly a quarter (23.7%) of Medicare beneficiaries live in rural communities¹
- U.S. population is becoming more diverse
 - Using a nationally representative sample permits examination of vulnerable federally insured beneficiaries living in rural communities in the United States





Data Sources & Methods

ACS PUMS & USDA Economic Research Services (ERS) 2010 PUMA Codes¹

- **U.S. Census Bureau ACS PUMS files**
 - Census defines PUMAs as geographical areas with population of $\geq 100,000$
 - May pose challenges for conducting analysis for smaller geographical areas
- **USDA Economic Research Services (ERS) 2010 PUMA Codes**
 - Classification based on 2013 guidance from the Office of Management & Budget (OMB)²
 - Metropolitan (metro) contains urban core area of $\geq 50,000$ population
 - Micropolitan (micro) area contains urban core of at least 10,000 & $< 50,000$ population
 - Micro counties are considered non-Metro

1) Available from: <https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/data-for-rural-analysis/>

2) <https://obamawhitehouse.archives.gov/sites/default/files/omb/bulletins/2013/b13-01.pdf>

Methods

- Concatenated 4 years (2012-2015) of ACS PUMS Person-level files
- Linked USDA ERS 2010 PUMA Codes with 2012-2015 ACS PUMS data by PUMA and State FIPs code
 - Excluded Puerto Rico
 - Averaged 4 years of replicate pweights
 - Created '**eligible**' subpop variable for domain analysis
 - Performed Chi-square analysis
 - Statistical significance difference (p-value <0.05)

Analytic Dataset

- Rural
 - non-metro PUMAs (*metropuma13=0*)
- Adults, age 18y and over
- Health insurance status
 - Medicare insurance coverage (1 of 7)
 - Does not distinguish between Medicare FFS or MA
- Race and ethnicity
 - White
 - Black
 - Hispanic
 - Asian/Native Hawaiian or Other Pacific Islander (ANHOPI)
 - American Indian/Alaska Native (AIAN)

**Eligible
subpop**

Analytic Dataset

**Respondents who report ≥ 1 disability type
are considered disabled**

Disability type (Difficulty)	Definition
Hearing	Deaf or having serious difficulty hearing
Vision	Blind or having serious difficulty seeing, even when wearing glasses
Cognitive	Because of a physical, mental, or emotional problem, having difficulty remembering, concentrating, or making decisions
Ambulatory	Having serious difficulty walking or climbing stairs
Self-care	Having difficulty bathing or dressing
Independent living	Because of a physical, mental, or emotional problem, having difficulty doing errands alone such as visiting a doctor's office or shopping



Results

Table 1. Demographic Characteristics of Rural Dwelling Medicare Beneficiaries

	White % (95% CI)	Black % (95% CI)	Hispanic % (95% CI)	AIAN % (95% CI)	Asian/NHOPI % (95% CI)
Age*, y					
18-44	3.2	7.1	9.3	5.4	3.0
45-64	12.2	24.3	20.4	20.8	9.6
65 and over	84.6	68.6	70.3	73.7	87.4
Male*	46.3	42.7	49.1	44.9	36.1
Educational Attainment*					
Less than HS	19.6	39.9	51.0	34.1	23.3
HS diploma/ GED	40.1	34.0	24.8	32.3	29.6
Some college	19.3	14.5	15.3	18.5	14.8
College graduate	20.9	11.6	8.8	15.1	32.3
Married*	56.5	33.6	47.6	42.6	55.5

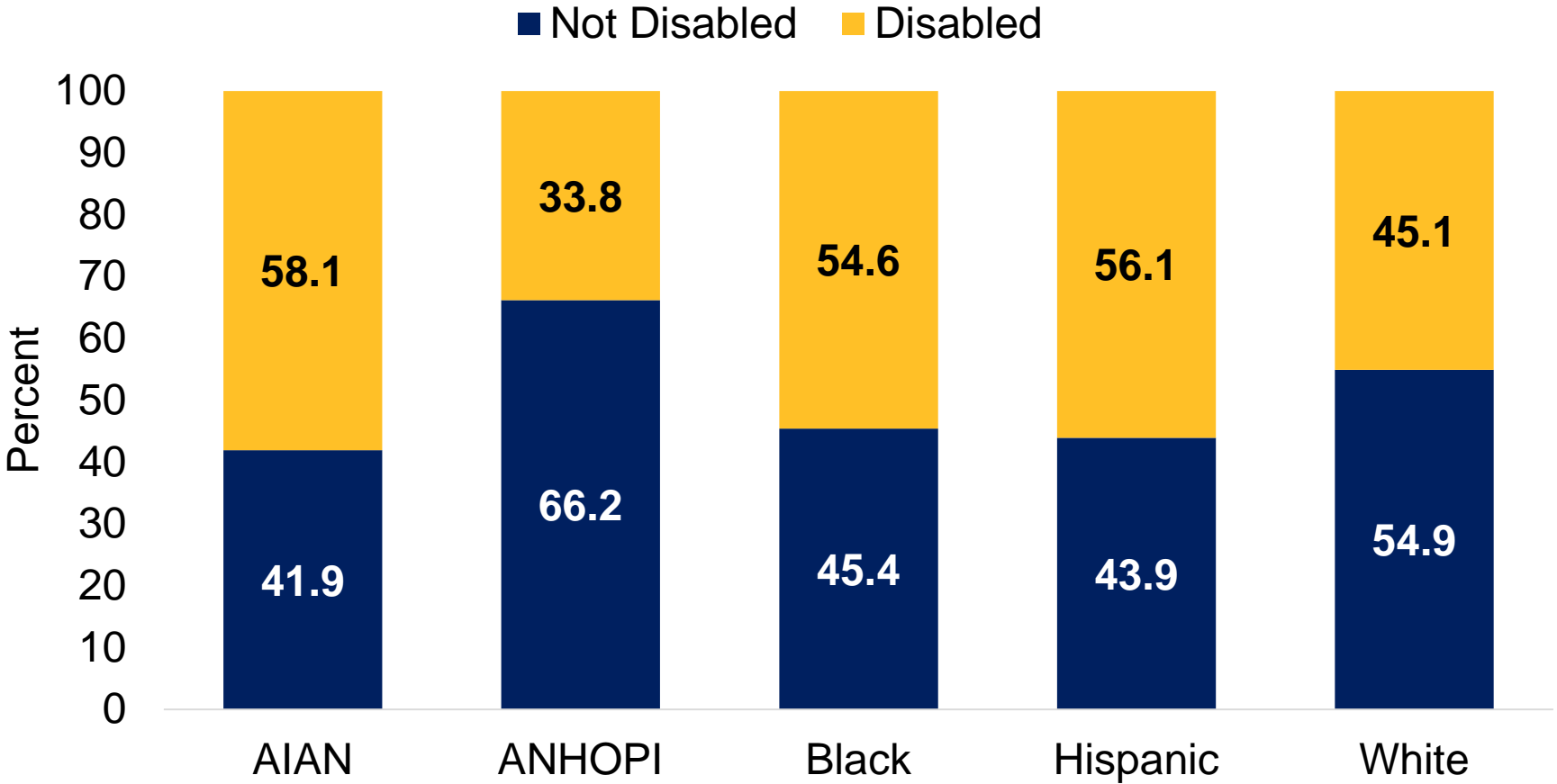
*Statistically significant difference across race and ethnicity (p<0.05)

Table 1. Demographic Characteristics of Rural Dwelling Medicare Beneficiaries

	White %(95% CI)	Black % (95% CI)	Hispanic % (95% CI)	AIAN % (95% CI)	Asian/ NHOPI % (95% CI)
Income*					
<25000	66.1	83.5	80.7	79.2	67.9
25K-49999	22.3	12.0	14.3	14.2	19.7
50K-74999	6.6	2.9	3.0	4.1	5.7
>=75K	5.0	1.6	2.0	2.5	6.7
Limited English Proficient*	34.5	32.1	46.9	38.0	56.3
Non-English Spoken in Household*	3.7	1.2	71.2	32.6	54.4
Employed*	13.6	10.1	14.7	10.8	16.4

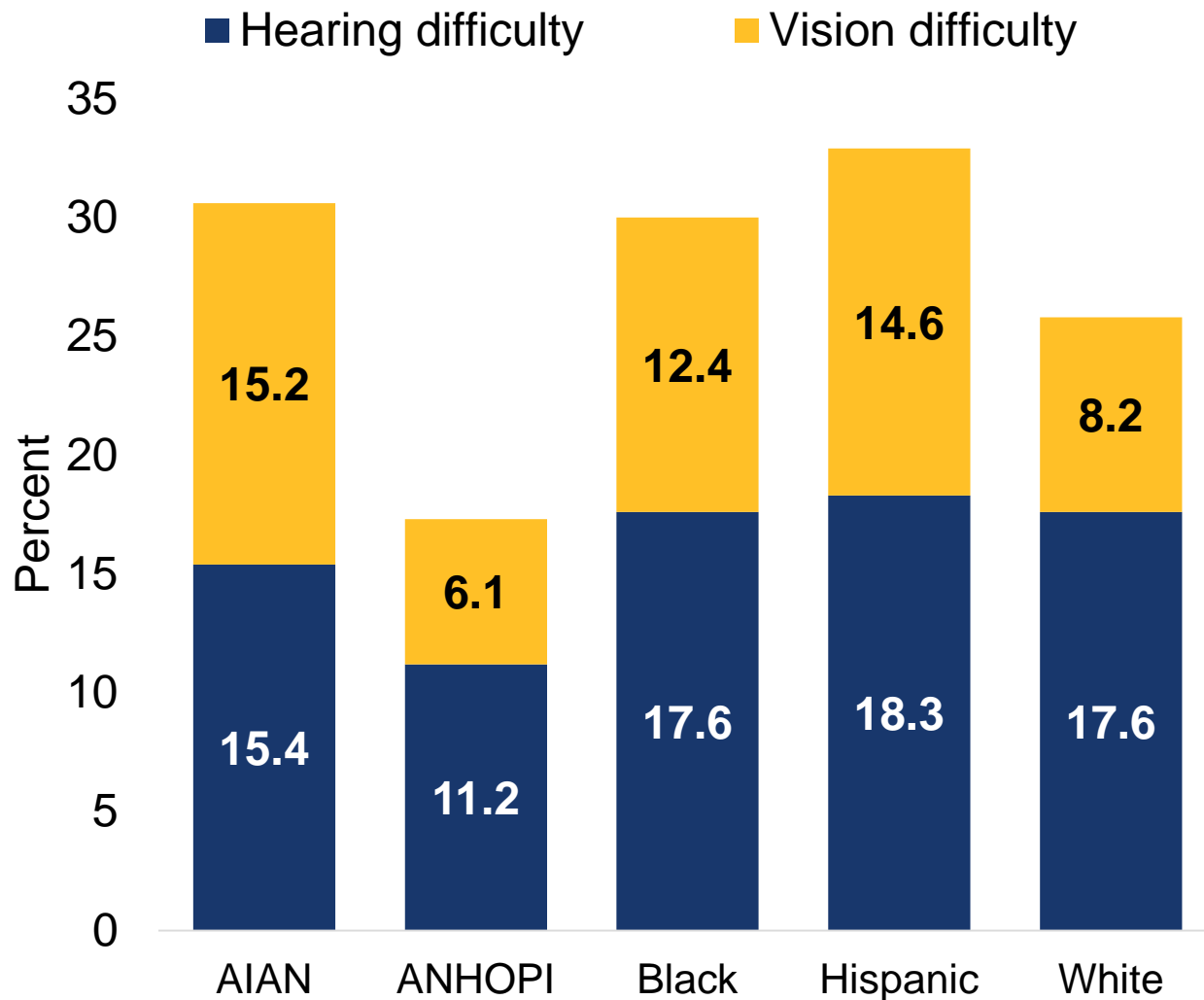
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Figure 1. Prevalence of Disability among Rural Dwelling Medicare Beneficiaries, by Race and Ethnicity: 2012-2015 ACS PUMS



• More than half of AIAN, Hispanic and Black rural dwelling Medicare beneficiaries reporting have at least 1 disability

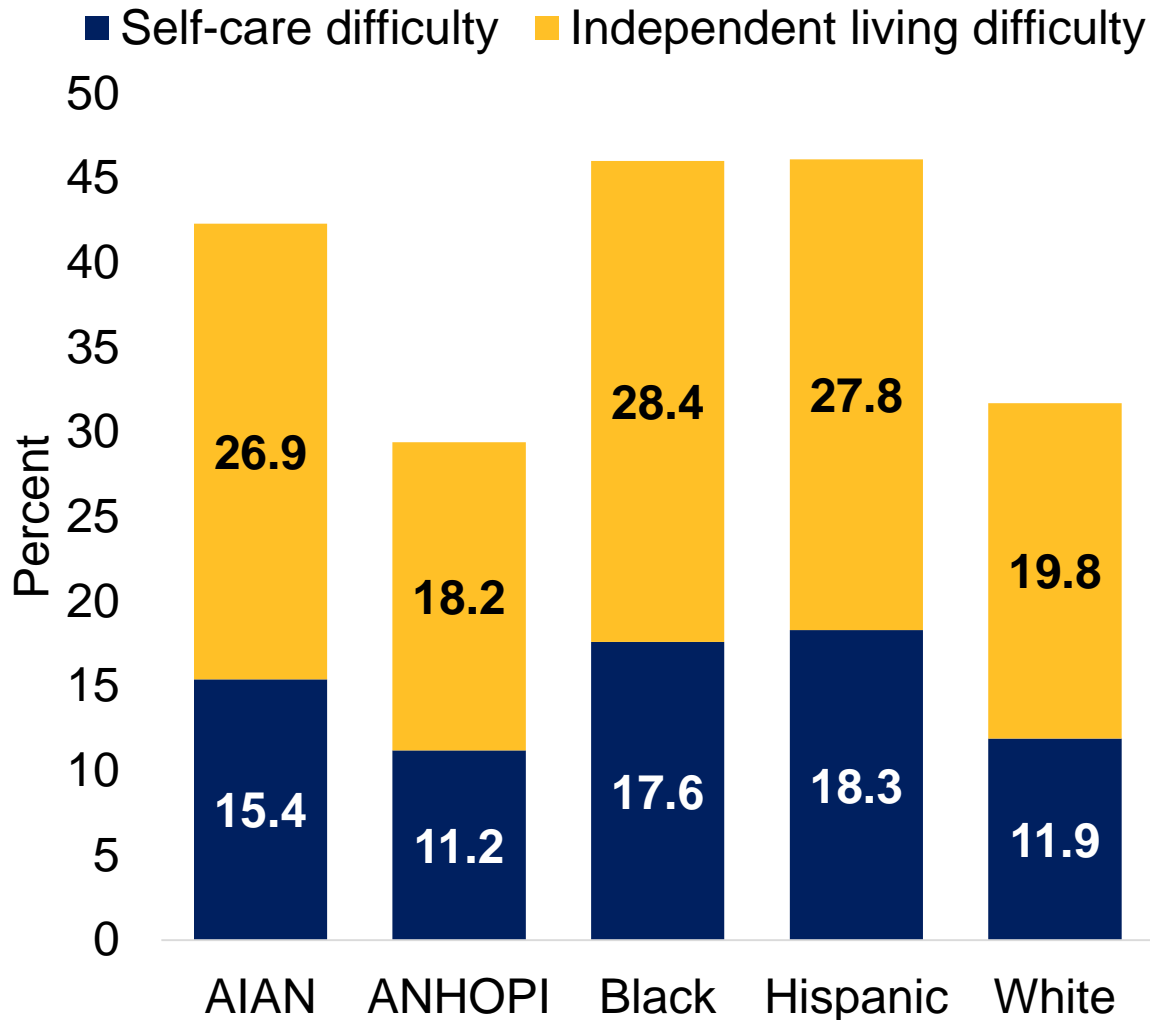
Figure 2. Prevalence of Hearing and Vision Difficulty among Rural Dwelling Medicare Beneficiaries, by Race and Ethnicity: 2012-2015 ACS PUMS



Among rural dwelling Medicare beneficiaries

- Nearly 20% of Hispanics, Blacks and Whites reported having a hearing difficulty.
- 15% of AIAN and Hispanics reported having a vision difficulty.

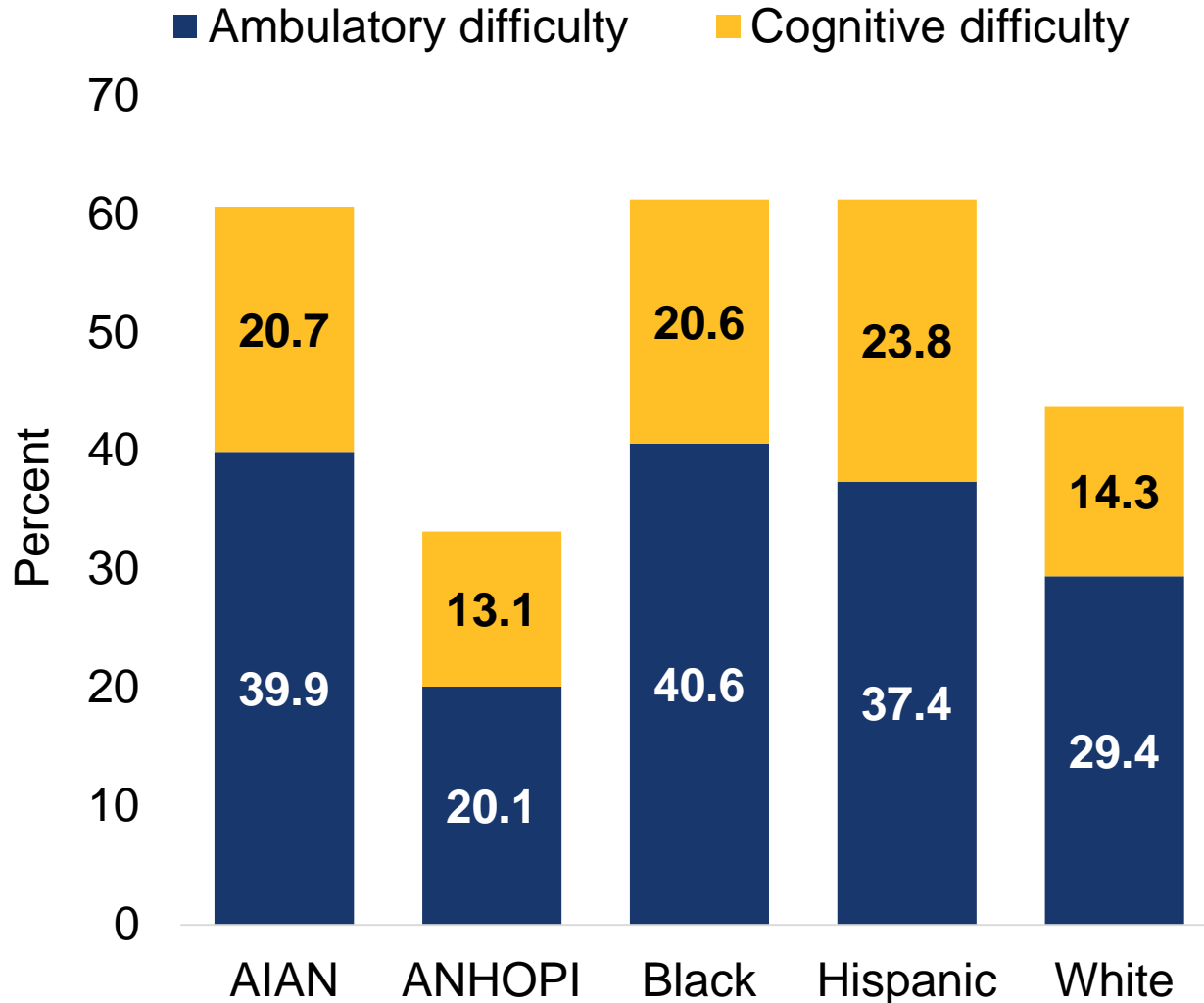
Figure 3. Prevalence of Self-care & Independent Living Difficulty among Rural Dwelling Medicare Beneficiaries, by Race and Ethnicity: 2012-2015 ACS PUMS



Among rural dwelling Medicare beneficiaries

- Nearly 20% of Hispanics and Blacks reported having a self-care difficulty.
- Nearly 30% of Hispanics and Blacks reported having a independent living difficulty.

Figure 4. Prevalence of Ambulatory & Cognitive Difficulty among Rural Dwelling Medicare Beneficiaries, by Race and Ethnicity: 2012-2015 ACS PUMS



Among rural dwelling Medicare beneficiaries

- More than 40% of Blacks and nearly 2 out of 5 AIAN and Hispanics had an ambulatory difficulty
- More than 1 out of 5 Hispanics, AIAN, and Blacks had a cognitive difficulty

Conclusions & Next Steps

- **Among rural dwelling Medicare beneficiaries:**
 - Across all racial and ethnic groups, differences were detected for various demographic characteristics
 - Racial and ethnic disparities in each of the six disability measures were observed
- **Next Steps:**
 - To analyze Medicare claims data and examine additional health information
 - Examine the association between geography and disability among rural Medicare beneficiaries by race and ethnicity

Contact Information

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