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STATE HEALTH ACCESS DATA ASSISTANCE CENTER

MEDICAID REPORTING IN THE ACS:FINDINGS FROM LINKED ADMINISTRATIVE AND SURVEY DATA

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ARM meeting

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Acknowledgments

- Funding for this work is supported by the U.S. Census Bureau

- Collaboration between Census Bureau and SHADAC to extend previous Medicaid undercount research to the American Community Survey (ACS)
- Collaborators:
  - Brett O'Hara (Census Bureau)
  - Michel Boudreaux, Joanna Turner, Brett Fried (SHADAC)

Background

- Administrative data on public assistance programs are not sufficient for policy making
  - Not timely
  - No population denominator
  - Incomplete or lower quality covariates
- Population surveys fill these gaps
  - Yet they universally undercount public program enrollment described in administrative data
    - Food stamps, public housing, TANF (Lewis, Elwood, and Czajka 1998; Meyer, 2003)
    - Medicaid (Call et al 2008, 2012)

Research focus

- Describe the concordance of Medicaid reporting in the ACS and enrollment data in administrative records
- Compare undercount across characteristics of:
  - Individuals: age, income, state
  - Medicaid enrollment: scope of benefit, tenure
- Bias to uninsurance estimates

Data source: American Community Survey (ACS)

- Large, continuous, multi-mode survey of the US population residing in housing units and group quarters
- Added health insurance question in 2008
- One simple multi-part question on health insurance type
- Unique data source due to its size
  - Subgroup analysis (small demographic groups and low levels of geography)

ACS health insurance question part “d”

“Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans?

d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability?”

Data source: Medicaid Statistical Information System (MSIS)

- Medicaid enrollment records
- Longitudinal database of enrollment
  - Records originate in the states and are reported to the federal government
  - Includes regular Medicaid and Expansion CHIP
  - Tracks all levels of enrollment (e.g., emergency & family planning)
- Not a perfect gold standard

Definition differences

- MSIS includes comprehensive and partial coverage
  - ACS comprehensive coverage is a subset

- ACS includes Medicaid, CHIP, and state-specific public programs (will refer to coverage as "Medicaid Plus")
  - MSIS Medicaid and Expansion CHIP coverage is a subset

Investigating survey response errors

- Discordance between MSIS and ACS can come from definitional differences and survey response error

- Our focus here is on survey response errors which we investigate by merging the ACS and the MSIS

Investigating survey response errors (2)

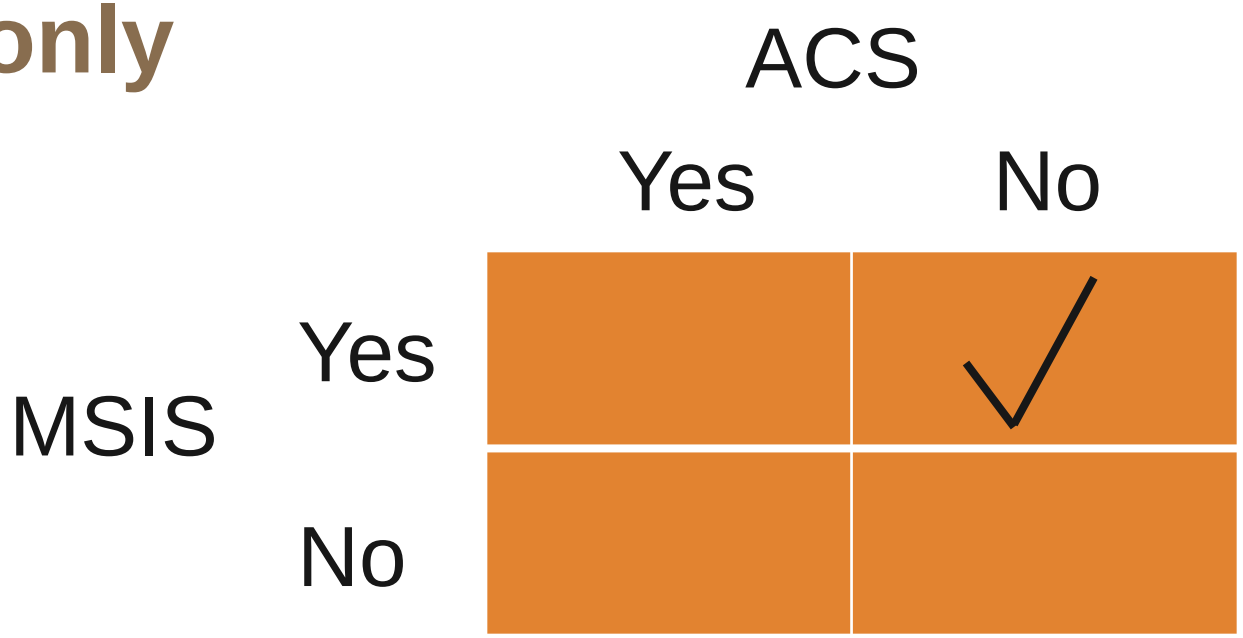
- Use linking methodology developed by the Census Bureau's Center for Administrative Records Research and Applications
  - Personal Identification Key (PIK)

- Research conducted at the MN Census Research Data Center located at the University of Minnesota
  - http://mnrdc.umn.edu/

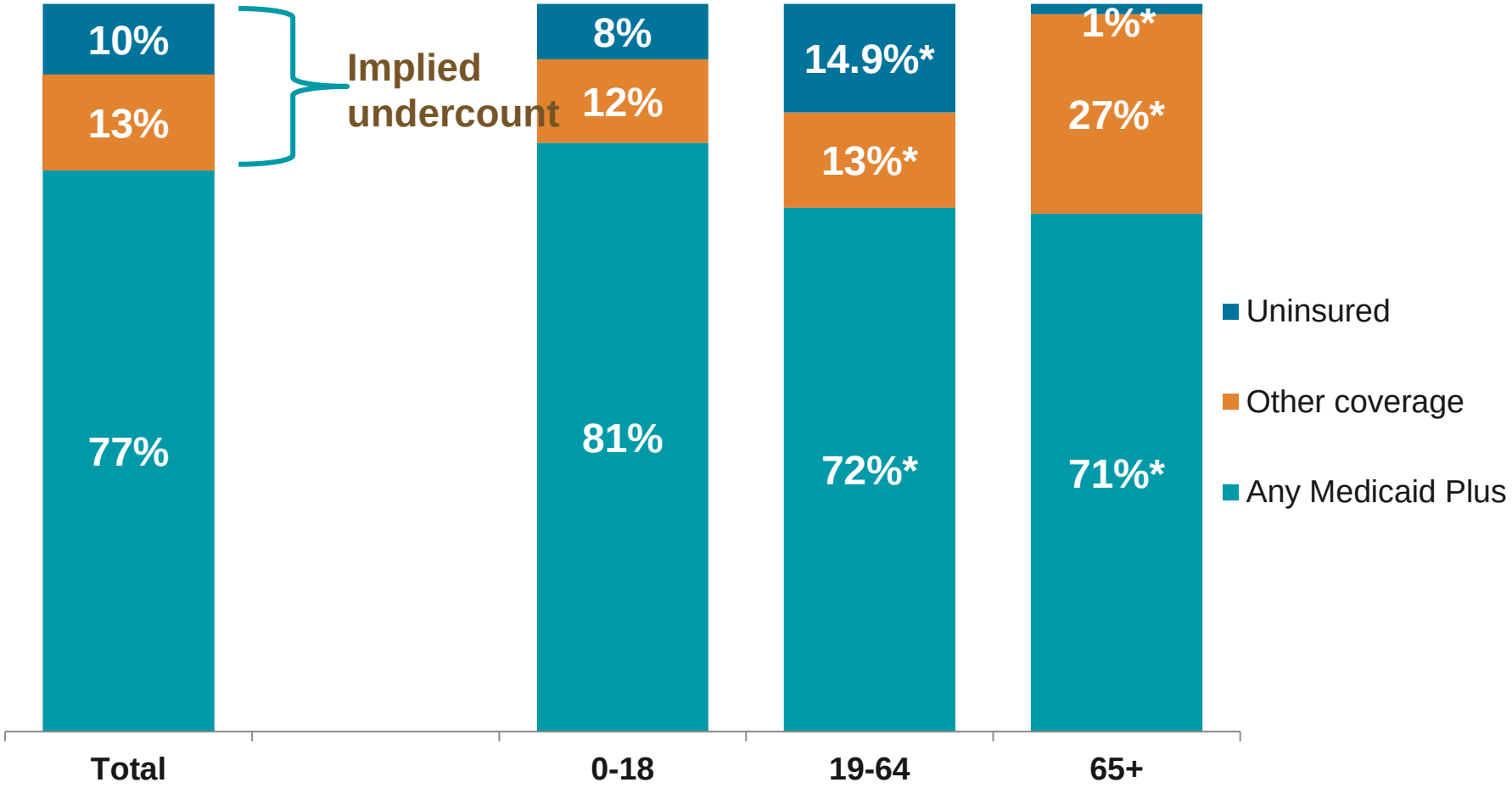
Investigating survey response errors (3)

- Consider a case to have Medicaid enrollment if they are covered on the day of ACS interview by full benefit coverage from Medicaid or Expansion CHIP
- Adjust ACS person weights to account for unlinkable records
- Although all persons were linked estimates reported here are for the civilian non-institutionalized population
- Explicit reports of coverage (not edited)

Linked file: enrolled in Medicaid on ACS interview date: Explicit reports only



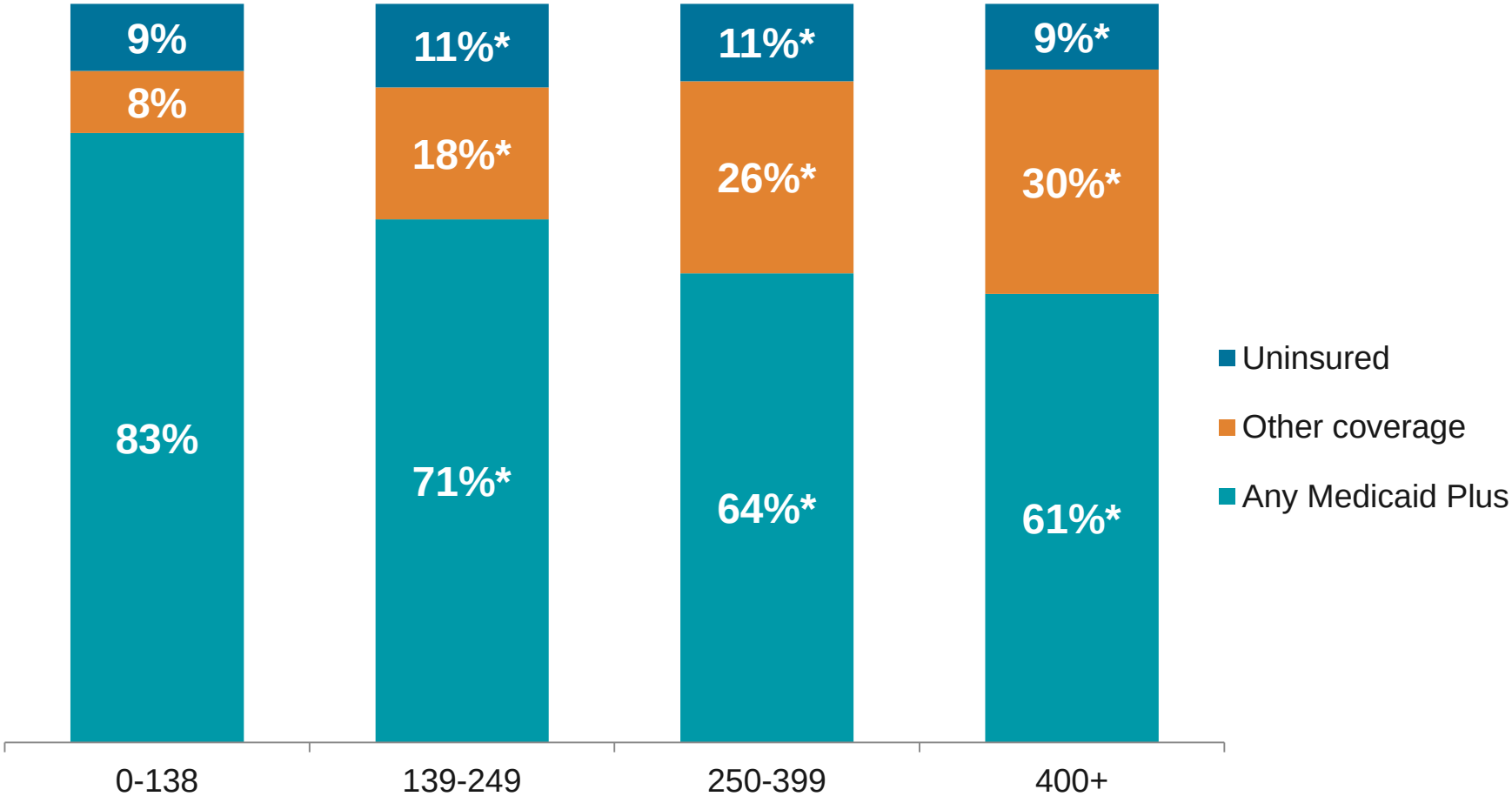
Coverage by age



Source: 2009 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC. Explicit reports (not edited)

* Indicates that estimate is statistically significantly different (at p<.01) from the estimate for the 0-18 age group.

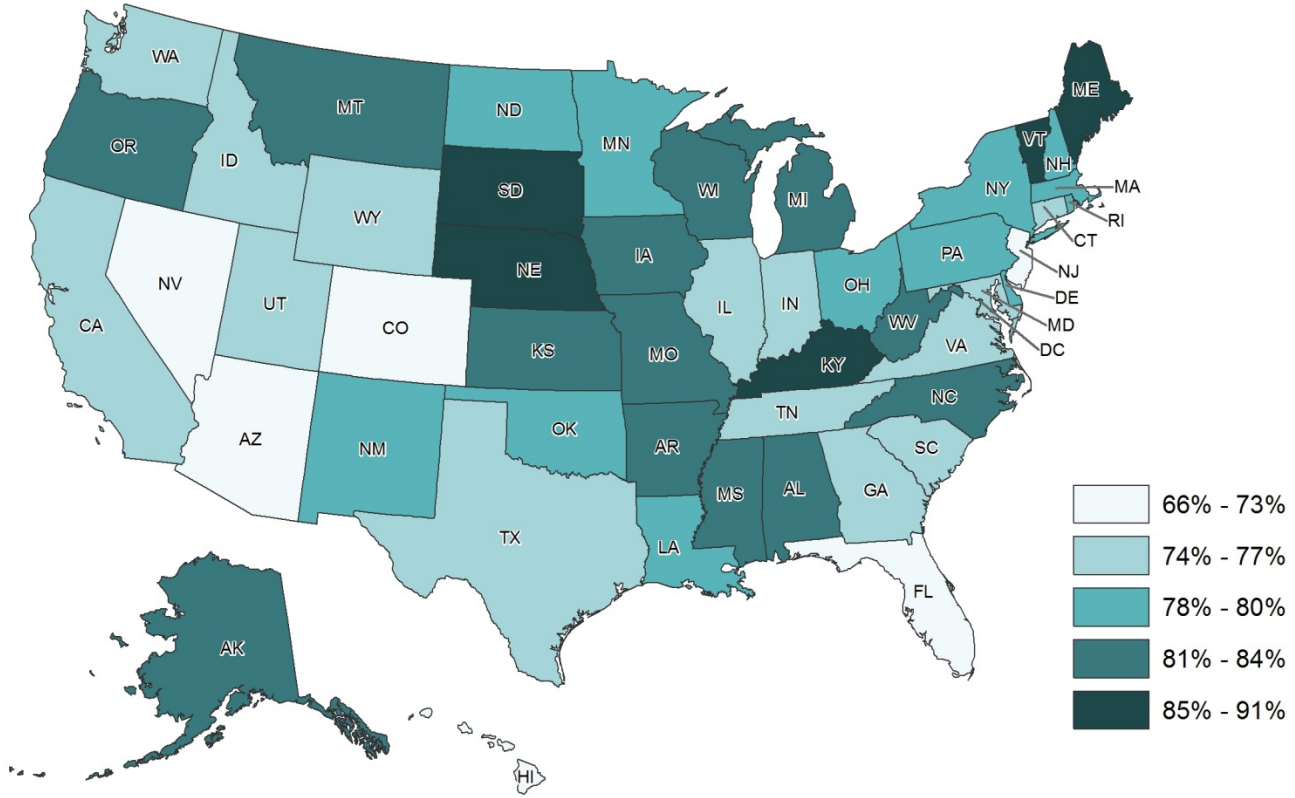
Coverage by FPL



Source: 2009 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC. Explicit reports (not edited)

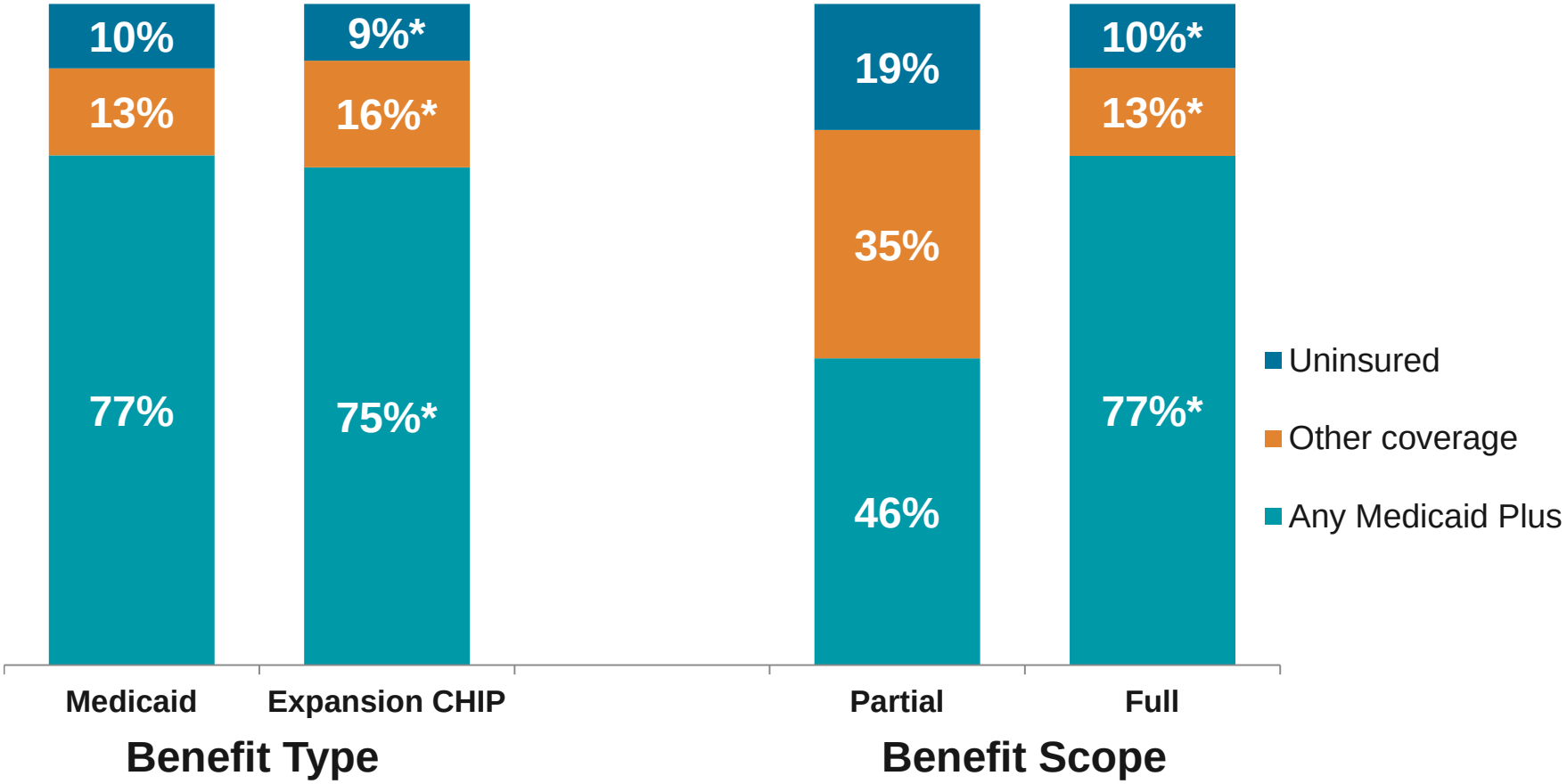
* Indicates that estimate is statistically significantly different (at p<.01) from the estimate for the 0-138 FPL group.

Percent of linked cases reporting Medicaid Plus enrollment on the ACS interview date



Source: 2008 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC; Explicit reports only

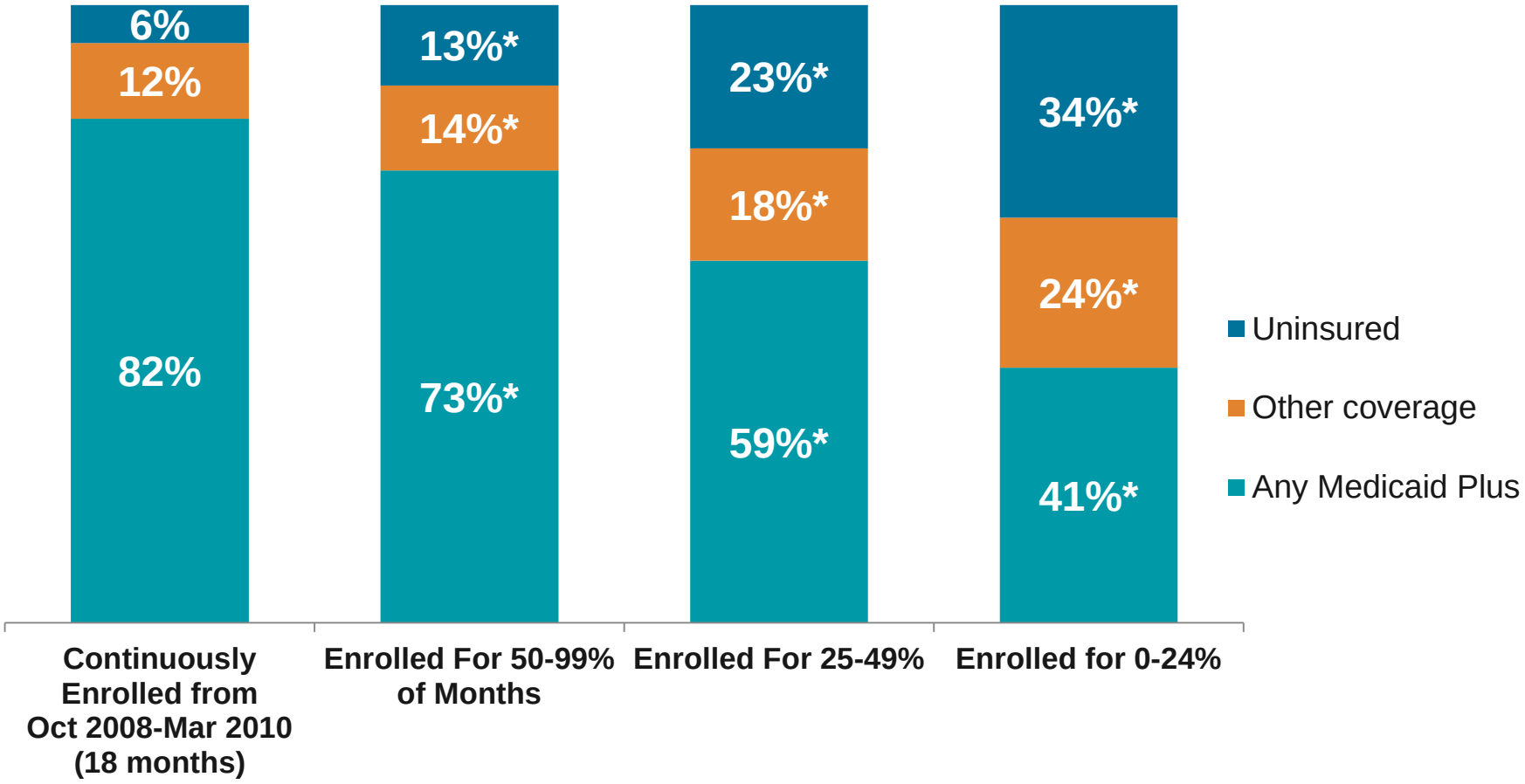
Coverage by benefit type and scope



Source: 2009 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC. Explicit reports (not edited)

* Indicates that estimate is statistically significantly different (at p<.01) from the estimate for those with Medicaid, and for those with partial benefits, respectively.

Coverage by enrollment tenure



Source: 2009 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC. Explicit reports (not edited)

* Indicates that estimate is statistically significantly different (at p<.01) from the estimate for those who were continuously enrolled.

Bias to estimates of uninsurance

- A key policy metric is the share of the population that lacks any type of coverage
- Uninsurance is a residual category, so undercounting Medicaid *partially* contributes to bias in uninsurance
  - We cannot estimate bias from other sources of coverage
  - We cannot estimate bias from those that report Medicaid, but are in fact uninsured

Upper bound of bias to uninsurance attributable to Medicaid misreporting: Explicit reports only

	Count in millions	Percent (SE)
Original uninsured estimate	40.9	15.4 (0.05)
Share of the uninsured that are linked	3.2	7.9 (0.07)
Partially adjusted uninsured estimate	37.7	14.2 (0.04)

Source: 2008 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC.

Summary of results

- Although not perfectly comparable, the undercount in the ACS appears in line with other surveys
  - Large (23%), but slightly better than some other surveys (keep in mind ACS includes Medicaid and other means-tested public coverage)
- As with other surveys the undercount increases with age and family income and appears to vary by state
- The undercount translates into an overestimate of uninsurance of 1.2 percentage points or 3.2 million but it is likely that there are other offsetting influences
- ACS represents a valuable source of policy analysis

Contact Information

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Previous research

- SNACC Phases I-VI (2007-2010)
  - CPS (CY 2005) implied undercount of about 41%
  - NHIS (CY 2002) implied undercount of about 33%
  - MEPS (CY 2002) implied undercount of about 18%
    - Known enrollees coded as uninsured was 18%, 9%, and 8% respectively for CPS, NHIS and MEPS
- O'Hara (2009)
  - ACS Content Test (CY 2006) implied undercount of 34.4% for the non-elderly
- Turner & Boudreaux (2010)
  - 2008 ACS produces coverage estimates similar to other population surveys (e.g. 2008 NHIS)

Coverage by type for linked cases enrolled in Medicaid on ACS interview date: Explicit reports only

Any Medicaid Plus	77.1 (0.12)
NOT Any Medicaid Plus	22.9 (0.12)
Employer sponsored insurance	8.3 (0.08)
Direct purchase	2.2 (0.05)
Medicare	3.3 (0.04)
TRICARE	0.3 (0.01)
VA	0.1 (0.01)
Uninsured	9.9 (0.08)

Source: 2008 MSIS and ACS civilian non-institutionalized population as analyzed by SHADAC.
Percent (Standard error)