Rates of STIs among racial/ethnic minority populations, 

- Retrospective study using the South Carolina Medicaid
- STIs have also disproportionately increased among rural
- In 2018, Black individuals accounted for 13% of the US
- Sexually transmitted infections (STIs) reached an all-time high
- All Medicaid beneficiaries with at least one claim for STIs or
- Using a unique identifier, we identified all claims for unique
- Current Procedural Terminology (CPT) codes for services and
- Any patient with at least one claim for a relevant diagnosis
- Multivariable logistic regressions controlling for patient-level

### BACKGROUND AND PURPOSE

- Sexually transmitted infections (STIs) reached an all-time high in the United States (US) in 2019, totaling almost $16 billion in direct medical costs.
- Increasing rates of STIs are not distributed equally across racial and ethnic groups.
- Rates of STIs among racial/ethnic minority populations, particularly African Americans, are up to eight times higher compared to non-Hispanic white populations.
- In 2018, Black individuals accounted for 13% of the US population but made up 42% of new HIV cases, while Hispanic individuals accounted for 18% of the population but made up 26% of new HIV diagnoses.
- STIs have also disproportionately increased among rural residents compared to urban residents in the past two decades.
- South Carolina is among the top five states with the highest rates of STIs in the US, while an estimated 1 in 86 residents will acquire HIV in their lifetime.

### METHODS

- Retrospective study using the South Carolina Medicaid administrative claims data for the two most recent and complete state fiscal years of data available (fiscal year 1: July 2019 to June 2020; fiscal year 2: July 2020 to June 2021).
- All Medicaid beneficiaries with at least one claim for STIs or HIV services during the study period were included in our analysis.
- Using a unique identifier, we identified all claims for unique beneficiaries across each fiscal year.
- Main outcomes were ICD-10-CM confirmatory diagnoses for chlamydia, gonorrhea, syphilis, and HIV claims.
- Current Procedural Terminology (CPT) codes for services and procedures related to these diseases were used in conjunction with ICD-10-CM codes to increase accuracy when available.
- Any patient with at least one claim for a relevant diagnosis throughout the two-year study period was considered to have one of these diseases.
- Two main independent variables of interest were:
  - Race/ethnicity (non-Hispanic white, non-Hispanic Black, and other/unknown)
  - Rurality (Urban vs Rural according to the rural-urban commuting area codes)
- Multivariable logistic regressions controlling for patient-level demographic & clinical characteristics and county-level variables.

### RESULTS

- 158,731 Medicaid beneficiaries with at least one claim for STIs and/or HIV
  - Average age was 27.0 years (standard deviation =10.1), females (86.6%)
  - Non-Hispanic Black race/ethnicity (42.6%), urban areas residents (66.6%)
  - Common comorbidities:
    - Congestive heart failure (3.6%), Hypertension (2.9%), Obesity (2.2%)

- Medicaid beneficiaries with at least one encounter for:
  - Chlamydia: 9,985 (6.3%), Gonorrhea: 5,009 (3.2%)
  - Syphilis: 870 (0.5%), HIV 1,281 (0.8%)

- Non-Hispanic Black beneficiaries had higher proportions of each type of STIs and HIV, compared to their non-Hispanic White counterparts
  - Chlamydia and gonorrhea were more prevalent among rural residents
  - Syphilis and HIV were more prevalent among urban residents

### Key Findings

- Non-Hispanic Black and other racially and ethnically minoritized individuals were significantly more likely to have at least one claim for chlamydia, gonorrhea, and HIV compared to non-Hispanic whites.
- Rural residents were significantly more likely to have at least one claim for chlamydia and gonorrhea compared to urban residents.
- In contrast, rural residents had a lower likelihood of having a medical claim for syphilis and HIV compared to those residing in urban locations.

### DISCUSSION

- Our findings highlight the need for programming and interventions specific to both rural and racial/ethnic minority residents, particularly in the rural South.
- The findings from this study can be used to maximize efforts to address inequalities and to minimize the health impact of STIs and HIV particularly on minorities and rural residents.

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