

Trends in STI Screening among the Medicare Population: Regional Disparities and Implications for Older Adults

Authors: Suma Gangidi BS¹, Kamryn Abraskin BS¹, Priya Behera², Glen Yang MD², and Aiman Soliman PhD²

¹ Carle Illinois College of Medicine, University of Illinois Urbana-Champaign, Urbana IL, 61801

² University of Pittsburgh, School of Computing and Information, Pittsburgh, PA, 15260

³ Department of Urology, Carle Foundation Hospital, Urbana IL, 61801

⁴ National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign, Urbana, IL 61801

Background: The rates of sexually transmitted infections (STIs) have increased by 23.5% between 2020 and 2023 among adults aged 65 and older, with an anticipated rise. Factors such as enhanced life expectancy, low condom use, and shifts in practices related to sexual health have contributed to this trend. This study evaluates regional and temporal trends in Medicare-funded STI screenings to identify potential disparities in access and reimbursement as there continues to be upward trends in STIs of adults aged 65 and older.

Methods: Data from the Medicare Physician & Other Practitioners dataset (2013–2022) was filtered according to CPT codes related to chlamydia, gonorrhea, syphilis, herpes simplex virus (HSV-2), and HIV screening. To prevent over-representation of non-STI tests, **exclusions** included Hepatitis B and C screenings, general microbiology and culture tests, Pap smears, and confirmatory tests. Descriptive statistics were evaluated to examine average Medicare reimbursement rates, total beneficiaries, and regional distribution of STI testing. Trend analyses and heat maps were utilized to evaluate changes in reimbursement and testing volumes over time.

Results:

Syphilis had the highest screening rates among STIs and received the lowest Medicare reimbursement, likely driven by the low cost of testing, heightened physician and public awareness, later presentation of symptoms, and large numbers of clinical mimickers. Screening rates for all STIs among beneficiaries sharply increased in 2018 but declined dramatically post-2020, likely reflecting disruptions in routine healthcare services due to the COVID-19 pandemic

Regional disparities also emerged, with the Southern United States reporting the highest number of Medicare beneficiaries undergoing STI testing, while the Midwest exhibited the lowest rates. These disparities align with historical data showing higher STI prevalence in the South due to socioeconomic and healthcare access factors. Despite these regional differences, Medicare reimbursement rates for STI testing have remained stable across all regions.

Conclusion: With the rapid growth of the aging population and rising STI rates among adults aged 65 and older, it is imperative to increase STI screenings in this demographic. Many older adults remain asymptomatic or are reluctant to seek medical care due to discomfort discussing sexual health, reinforcing the necessity for improved sexual literacy. Enhancing Medicare coverage for STI testing, combined with targeted educational initiatives, may lead to a more consistent and effective screening approach, ultimately reducing STI transmission in this vulnerable population.