# Determining Prevalence of Chlamydia Infection among Medicaid Managed Care Enrollees in New York State, Excluding New York City

**Lindsay W. Cogan, MS (1)**; Alison G. Muse, MPH (2), Raina E. Josberger, MS (1), Patrick J. Roohan, MS (3), F. Bruce Coles, DO (2)

(1) New York State Department of Health, Bureau of Quality Management & Improvement (2) New York State Department of Health, Bureau of STD Control (3) New York State Department of Health, Division of Quality and Evaluation

STATE OF NEW YORK DEPARTMENT OF HEALTH

## Background

- The National Committee for Quality Assurance introduced the Healthcare Effectiveness Data and Information Set (HEDIS®) measure for *Chlamydia* screening in 2000.
- The HEDIS® *Chlamydia* measure uses administrative data to identify at-risk young women through evidence of sexual activity.
- The measure requires that all at-risk women be tested at least once during the reporting year.[1]
- The *Chlamydia* screening rate for women enrolled in Medicaid managed care (MMC) has been publically reported in New York State (NYS) since 2002.
- The prevalence of chlamydial infection among the NYS MMC population is unknown.
- This lack of provider awareness of *Chlamydia* prevalence in adolescent females has been targeted by the CDC as a factor that may impact screening practices.[2]

## Methods

- A deterministic record linkage process was conducted on a retrospective cohort of MMC women eligible for *Chlamydia* (CT) screening using computer algorithms, each consisting of a different combination of the patient's first and last name, sex, date of birth and date of visit.
- Eligible women included those 16-25 years of age with an event reported in one of the three data sources in 2005 and 2006.
  1) MMC Testing Data
  2) Infertility Prevention Project (IPP) Data (Chlamydia prevalence monitoring data)
  3) STD Surveillance Data
- Additional variables examined were age, race/ethnicity, county of residence, Medicaid aid category and year of test.

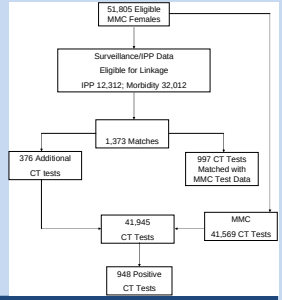


**Figure 1. Record Linkage Process**

## Results

- There were 51,805 MMC females eligible for *Chlamydia* screening in 2005 and 2006 in NYS, excluding NYC. (Table 1)
- 41,569 Chlamydia tests were reported by their MMC plan among these women.
- The computer algorithm produced 2,617 links with 1,373 verified as true matches.
  - 883 MMC – Surveillance
  - 490 MMC – IPP
- Of these 1,373 matches, 376 (27%) were tested outside the knowledge of their MMC health plan.
- Of the 1,373, 948 tested positive for *Chlamydia* for an estimated *Chlamydia* prevalence of 2.3% (948/41,945).
- Table 2 displays the results of the matched data stratified by selected demographics.

**Table 1. Female MMC Enrollees Classified as Sexually Active and Tested for Chlamydia, 2005-2006**

| Demographics | All Females Enrolled in MMC * | Sexually Active † Females N (%) | All Sexually Active Females Screened for CT ‡ N (%) |
|---|---|---|---|
| **Age** | | | |
| 16-20 | 32,120 | 21,382 (67) | 10,304 (48) |
| 21-25 | 40,522 | 30,423 (75) | 15,244 (50) |
| **Race/Ethnicity §** | | | |
| Black | 20,284 | 15,454 (76) | 9,443 (61) |
| White | 35,608 | 25,258 (71) | 10,493 (42) |
| Hispanic | 12,739 | 8,820 (69) | 4,532 (51) |
| Asian | 1,582 | 656 (41) | 259 (39) |
| Other | 2,429 | 1,617 (67) | 801 (50) |
| **Aid Category **** | | | |
| TANF | 58,642 | 38,766 (66) | 19,670 (51) |
| SSI | 2,979 | 2,339 (79) | 1139 (49) |
| FHP | 11,021 | 10,700 (97) | 4719 (44) |
| **Year** | | | |
| 2005 | 37,381 | 26,683 (71) | 12,778 (48) |
| 2006 | 35,261 | 25,122 (71) | 12,740 (51) |
| **Total** | 72,642 | 51,805 (71) | 25,528 (49) |

* Females enrolled in MMC for at least 11 months per measurement year.

† Sexually active females were identified as members who were dispensed prescription contraceptives during the measurement year, claims or health-care visits for pregnancy, contraception, STDs, or cervical cancer screening.

‡ Sexually active females who were tested for Chlamydia at least once during the measurement year.

§ An enrollee was defined as Hispanic regardless of any other races noted. Enrollees of multiple races, Native Americans and Unknown race/ethnicity were assigned to the category Other.

**Medicaid aid category was coded as Temporary Assistance for Needy Families (TANF), Family Health Plus (FHP), or Supplemental Security Income (SSI). Family Health Plus is a New York State public health insurance program for adults who are aged 19 to 64 who have income or resources too high to qualify for Medicaid.

**Table 2. Percent Positive and Treated Among Females Tested for Chlamydia, 2005-2006**

| Demographics | CT Tests N (%) * | Positive N (%) † | Treated N (%) † |
|---|---|---|---|
| **Age** | | | |
| 16-20 | 17,179 (41) | 569 (3.3) | 516 (91) |
| 21-25 | 24,766 (59) | 379 (1.5) | 347 (92) |
| **Race/Ethnicity** | | | |
| Black | 17,825 (42) | 584 (3.3) | 522 (89) |
| White | 15,397 (37) | 211 (1.4) | 195 (92) |
| Hispanic | 7,100 (17) | 126 (1.8) | 119 (94) |
| Asian | 358 (<1) | 4 (1.1) | 4 (100) |
| Other | 1,265 ( 3) | 23 (1.8) | 23 (100) |
| **Aid Category** | | | |
| TANF | 33,363 (80) | 823 (2.5) | 750 (91) |
| SSI | 2,017 ( 5) | 44 (2.2) | 37 (84) |
| FHP | 6,565 (16) | 81 (1.2) | 76 (94) |
| **Year** | | | |
| 2005 | 21,147 (50) | 462 (2.2) | 411 (89) |
| 2006 | 20,798 (50) | 486 (2.3) | 452 (93) |
| **Total** | 41,945 (100) | 948 (2.3) | 863 (91) |

* Percentages are calculated vertically.

† Percentages are calculated horizontally.

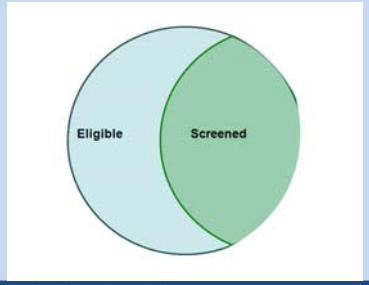


**Figure 2. Viewpoint of Chlamydia Testing from MMC**

**References**

1. National Committee for Quality Assurance (NCQA). HEDIS & Quality Measurement. 2007. Available at: http://www.ncqa.org.
2. CDC. Chlamydia screening among sexually active young female enrollees of health plans --- United States, 2000–2007. MMWR 2009; 58(14):362-365.

## Conclusions

- Only half of all sexually active women in this sample were screened for *Chlamydia*.
- The proportion of women ages 16-20 and 21-25 that were screened was similar.
- *Chlamydia* prevalence overall was low in this population but was not uniform across all subgroups of the population.
- The estimated prevalence of *Chlamydia* among sexually active 16-20 year olds was over 2 times higher than that for 21-25 year olds.
- Approximately, 9% of positive MMC females went untreated for chlamydial infection.

## Implications for Programs, Policy, and/or Research

- These results are intended to inform quality improvement initiatives among MMC providers and health plans about the importance of screening for chlamydial infection.
- Initiatives should be developed to increase screening among women ages 16-20 and to ensure treatment compliance with CDC guidelines for all positive females.
- Additional *Chlamydia* tests were detected through the linkage of Medicaid managed care and STD program data.
- This indicates that screening coverage in MMC plans may underestimate true testing levels and underscores the importance of collaborations between STD programs and MMC.

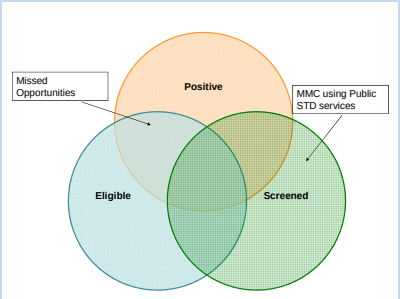


**Figure 3. Viewpoint from MMC and STD Program Control Collaboration**