

## Chlamydia Screening Audio-Conference

Providing Cost-Effective Chlamydia Screening to Women Attending Family Planning Clinics in PHS Region VIII

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## Topics to be covered

- National guidelines
- IPP screening criteria
- Case study—Region VIII
  - FP—Title X chlamydia testing
- How well are we doing?
- Future issues

## Why so much focus on chlamydia?

- Most commonly reported bacterial STD
  - Over 1 million cases reported in 2006
  - Estimated >3 million cases annually
  - 50% of cases among young women 15 -24 years old
  - Majority (>75%) of *Chlamydia trachomatis* (CT) infections occur among women age 15-24 years. In 2006, median state-specific chlamydia test positivity in 15-24 year old women in FP clinics was 6.7% (range 2.8% to 16.9%).
- Most infections asymptomatic

Source: 2006 CDC Surveillance Report & Chlamydia Supplement

## Chlamydia screening vs. testing

- Screening: testing asymptomatic infection
- Testing: testing to identify cause of symptoms

## National guidelines

- CDC Screening Recommendations (2006)
  - Women 25 and under : Annual screening
  
  - Women over 25: Selective screening
    - Behavioral risk factor
      - new sex partner
      - multiple sex partners, or
      - recent CT infection (within previous 12 months)
  
    - Diagnostic testing

## National guidelines

- U.S. Preventive Services Task Force (2006)
  - Women 24 and under : Annual screening
  
  - Women over 24: Selective screening
    - history of chlamydial or other sexually transmitted infection
    - new or multiple sexual partners
    - inconsistent condom use
    - exchanging sex for money or drugs
    - African-American or Hispanic ethnicity
    - incarcerated populations
    - military recruits
    - patients at public sexually transmitted disease clinics

## National Infertility Prevention Project (IPP) and Region VIII

- Goal is reduction of STD-related infertility through targeted screening & treatment of women for *Chlamydia trachomatis*
- Funded through a Memorandum of Agreement (MOA) between two federal health agencies in US
  - Centers for Disease Control & Prevention (CDC)
  - Office of Population Affairs (OPA)
- Majority of chlamydia screening occurs in publicly funded Family Planning (FP) and STD clinics

## National IPP and Region VIII

- Administered through 10 HHS Regions & IHS



- Region VIII consists of six Project Areas:
  - Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming

## Region VIII IPP guidelines

- Screen all sexually active women under age 25
- Women age 25 and older with one or more of the following:
  - New sex partner in the last 60 days
  - Multiple sex partners in the last 60 days
  - Positive for chlamydia in the last 12 months
  - MPC
  - Cervical friability
  - PID

## Why focus on youth and young adults?

- Higher rates of STDs
  - 50% of new STD cases are in youth
  - 1 in 2 youth will contract an STD by age 25
- Inadequate assessment and screening
  - Less than 50% of youth report discussion of sex or STDs with health care providers
  - Only about 50% of adolescents are being screened for chlamydia
  - Compliance rates to CT guidelines are lower than rates for all other women's health services measured by HEDIS

American Social Health Association. State of the Nation 2005. Challenges Facing STD Prevention Among Youth – Research, Review, and Recommendations. Research Triangle Park, NC: ASHA, 2005.

## Key program questions

- Are providers appropriately targeting use of CT tests according to national screening guidelines?
- What is the screening coverage among the target population of females  $\leq 25$  yrs?
- How can screening coverage among the most at risk be maximized?
- Given the overall low positivity among females  $>25$  yrs, how can we better identify those at risk for infection?

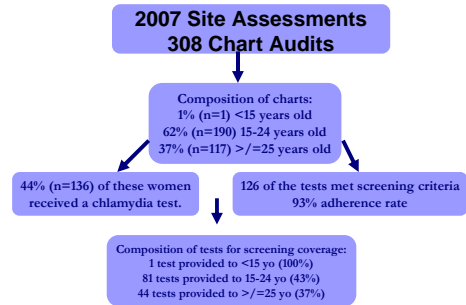
## Case study: RQIP 2007 screening assessment

- Region VIII 2007 Screening Assessment
    - Data are collected through yearly chart audits as part of the Regional Quality Improvement Project (RQIP)
- Purpose:
- To estimate adherence to the Region VIII IPP chlamydia screening criteria among *eligible* female patients according to Region VIII IPP *minimum screening criteria*
- Methodology:
- Analyze a statistically significant number of randomly selected eligible patient charts from CY2007
  - Compare observed vs. expected proportion screened
    - Performance goal is 75% screening coverage in FP

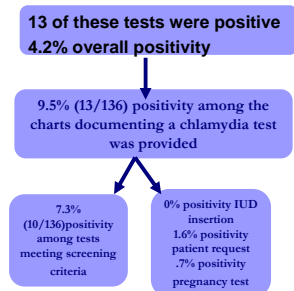
## Methods for RQIP chart audit

- Preliminary analysis of data from 27 Family Planning sites across Region VIII
- Overall Ct positivity for females tested at these sites in 2007, according to chart audit, was 4.2%
- Reviewed a random sample of 308 unduplicated client records for all females seen for an initial or annual visit in 2007

## RQIP chart audit results



## RQIP chart audit results



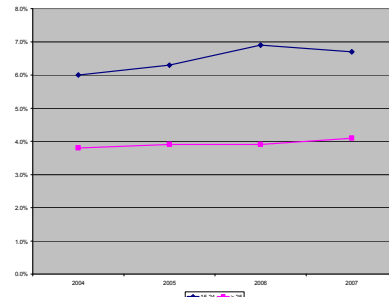
## Conclusions to chart audit results

- Adherence to the Region VIII IPP minimum screening criteria is high (93%), but screening coverage is low (41%)
- Client request for chlamydia test accounts for the next highest reason (10%) for providing test, after meeting screening criteria
- Further analysis should focus on understanding why a chlamydia test was requested and refused

## How well are we doing?

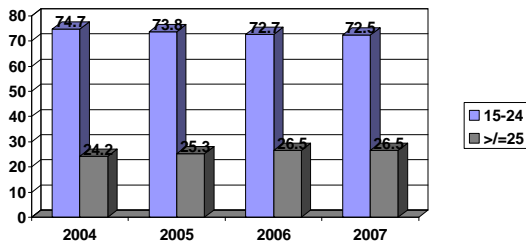
- Positivity among female FP users
- Percent of total tests in female FP users for 15-24, 25-29, >29 (test utilization)
- Proportion of women who meet and do not meet screening criteria
- Positivity in women who meet and do not meet screening criteria
- Screening coverage for female FP users

## Positivity among female FP users, Region VIII IPP CY 2004-2007



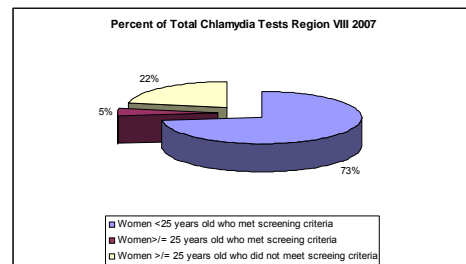
Source: Region VIII IPP Prevalence Monitoring Database

## CT tests in females ages 15-24 and >25, as a % of total tests in female FP clients, Region VIII, 2004-2007



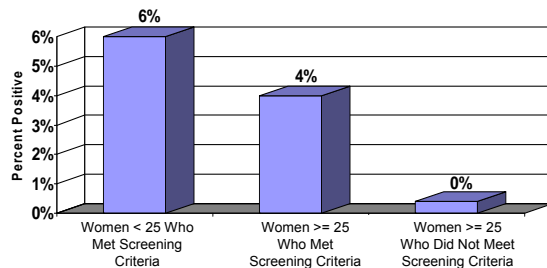
Source: Region VIII IPP Prevalence Monitoring Database

## Proportion of women who meet and do not meet screening criteria



## Positivity in women who meet and do not meet screening criteria

Chlamydia Positivity  
Region VIII, 2007

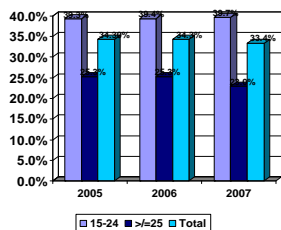


## Measure: CT test utilization

### Interpretation of data

- Women who are < 25 years old have the highest Chlamydia positivity of all three groups
- Women who do not meet screening criteria have the lowest Chlamydia positivity rate of all three groups
  - ~22% of chlamydia tests among females reported to the Region VIII IPP in CY2007 were for females ≥25 years of age not meeting the screening criteria. These tests accounted for less than 1% of positive tests
  - Low positivity of <1% suggests more aggressive targeting of high-risk clients >25 years is needed

## What proportion of women in our target population are we reaching?



- All women up to the age of 24, at least once annually

Data Source: Family Planning Annual Report Tables 1 & 11

Region VIII	Age Group (Years)	# of Females Tested	# of Female Users	Estimated Screening Coverage
CY 2007	15-24	33495	84329	39.7%
	>=25	11826	51382	23.0%
	Total	45321	135711	33.3%

## Measure: CT screening coverage

### Interpretation of data:

- Limited age-based targeting of chlamydia testing is taking place in Region VIII FP clinics
- More than 60% of females <25 were not tested

### Data limitations:

- Cannot reliably distinguish screening from diagnostic testing for clients outside age criteria

## The problem with screening 'older' women...

"Excessive" chlamydia (Ct) screening in populations with low morbidity has implications:

- Ineffective use of limited resources
- Lowers PPV\* leading to a higher percentage of *false* positive results

\* Positive predictive value

Source: Holly Howard, Joan Chow, Melanie Deal, Heidi Bauer, Gail Bolan  
STD Control Branch California Department of Public Health

## Bottom line: what the data are telling us

- There is both a deficiency in chlamydia screening coverage among the target population of young women AND apparent over-screening of women over age 25 years.

## Why are we interested in cost-effective screening?

- We are faced with level and declining federal & state funding, but we're encouraged to:
  - Expand testing in high yield populations and venues
  - Expand urine based testing to reach non-pelvic exam clients
  - Implement retesting for women who are Chlamydia positive
  - Increase screening coverage among clients 15-24 years old
- How do we implement cost-effective screening?
  - Reduce significant testing in low yield populations
  - Continue quality control and improvement by adhering to IPP screening criteria

## Screening adherence cost

Tests Outside of Screening Criteria	10,171
Tests at Patient Request	- 1,000
Total Tests Outside of Screening Criteria	= 9,171
Cost per Test	x \$15.00
<b>Total Cost of Testing Outside of the Screening Criteria</b>	<b>= \$137,565</b>

## Barriers

- What are the possible barriers to reducing screening outside of the screening criteria and reallocating funds?
- What impact will these barriers have on decreasing screening outside of the screening criteria?
- What are some possible strategies to address identified barriers?

## Reallocation of funding

- Where can I make the greatest impact?
- What populations have the highest chlamydia positivity rates?
- Are there populations that have not been tested?
- Are there some populations which are more receptive to testing and treatment?
- Who is the most at risk for long-term consequences due to not testing?

## Other screening opportunities to maximize screening coverage

Region VIII IPP *minimum screening criteria* include only those women who have an initial or annual (i.e. pelvic) exam, but is providing a chlamydia test during a pelvic exam enough?

- Could resources used to screen women >25 who are not at risk facilitate expanded screening of younger women or initiate screening of males?
  - "Off-table" exams
  - Rescreening
  - Screening for males

## Example of "off-table" exam which provided for an opportunity to expand screening

- Nebraska IPP Program implemented urine-based chlamydia screening among women seeking pregnancy testing only in FP clinics:
  - Screening from October 2002 – March 2005
  - 1200 females age 15-24 yrs seeking pregnancy testing-only services were screened for chlamydia with a 13% (average) positivity rate
  - Overall positivity rate in women age 15-24 yrs receiving speculum exam was 4.9%
- Pilot projects in Arizona, Pennsylvania, and New Mexico yielded similar results

SOURCE: Chlamydia Positivity among Women coming into Title X Family Planning Clinics for Pregnancy Testing Only: A summary of demonstration projects conducted in the Regional IPP, 1997-2005. L Dicker, D Middleton, A James, K Johnson, P. Blackburn et al. February 2006.

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## Discussion

Questions?