



Health Benefits of Screening USAF Males for *Chlamydia trachomatis*: A Retrospective Cohort Study

Progress Report, September 2006



Background

- Effective 1 October 2001, ACC SG sent a memo to its bases recommending universal *Chlamydia trachomatis* (CT) screening of all ADAF <26 years of age during annual PHA
- Based on base-level analysis of # specimens submitted to AFIOH before/after memo:
 - 8 ACC bases screen males
 - All began screening as of Apr 2002
 - 8 ACC bases do not screen males



Study Objectives

- **To examine whether exposure to universal male screening is associated with decreased incidence of CT-related adverse health outcomes**
 - **Males: CT infection(s) (screening bases only), infertility, orchitis/epididymitis, urethral stricture, prostatitis**
 - **Females: CT infection(s), PID, infertility, ectopic pregnancy**



Methods

- Retrospective cohort study conducted 1 April 2002 to 31 March 2006
- 2 groups compared:
 - (1) continuous exposure to annual male screening (stationed at screening ACC bases)
 - (2) no exposure to annual male screening (stationed at non-screening ACC bases)



Methods

- **Subjects were enrolled at time of assignment to ACC base**
- **Only included persons w/ at least 1 year of exposure**
- **Followed to calculate person-time of exposure until:**
 - 1) **Health outcome of interest occurred**
 - 2) **Transferred to a non-ACC base**
 - 3) **Separated from AF**
 - 4) **End of study (31 March 2006)**



Preliminary Results

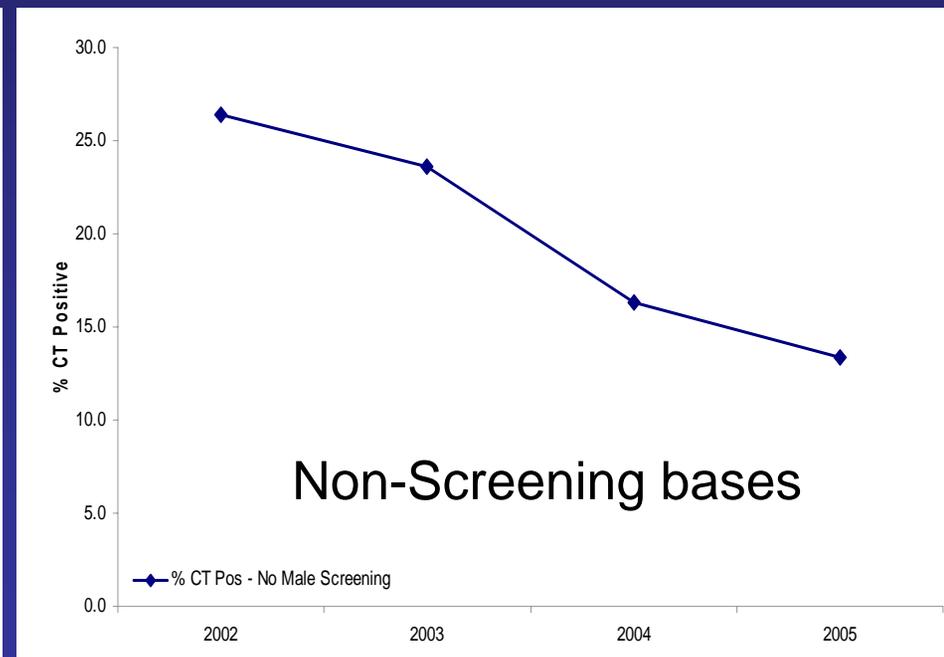
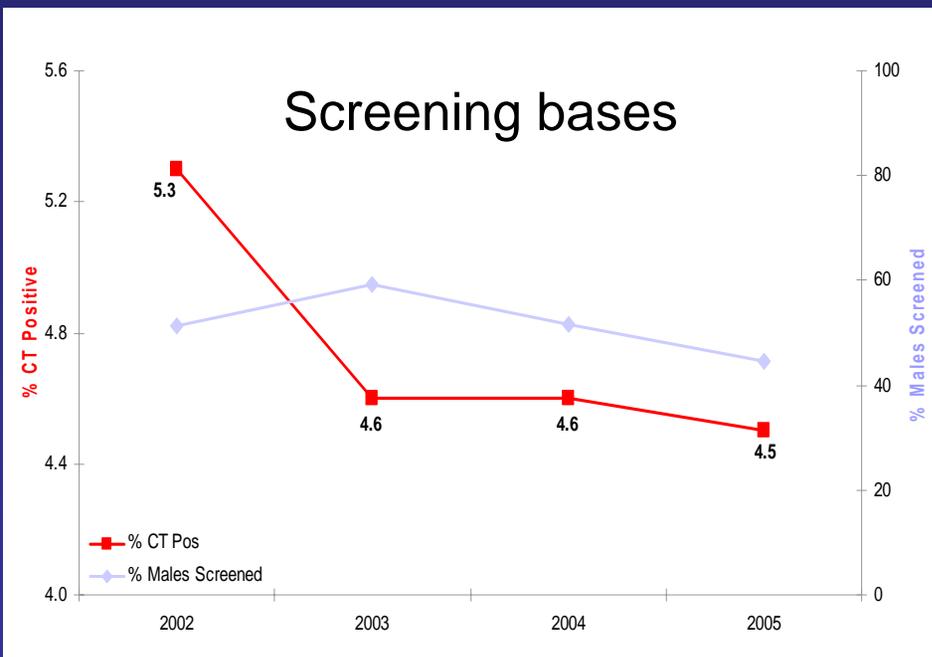
- **Males**
 - 44,435 enrolled
 - Health outcomes (multivariate Cox PH ratios, Screening/Non-Screening):
 - Infertility: 0.8 (0.7-1.0)
 - Orchitis/Epididymitis: 1.0 (0.9-1.2)
 - Urethral Stricture: 0.6 (0.3-1.3)
 - Prostatitis: 1.3 (1.0-1.8)



Preliminary Results

- Males

- CT infections declined at both Screening & Non-Screening bases





Preliminary Results

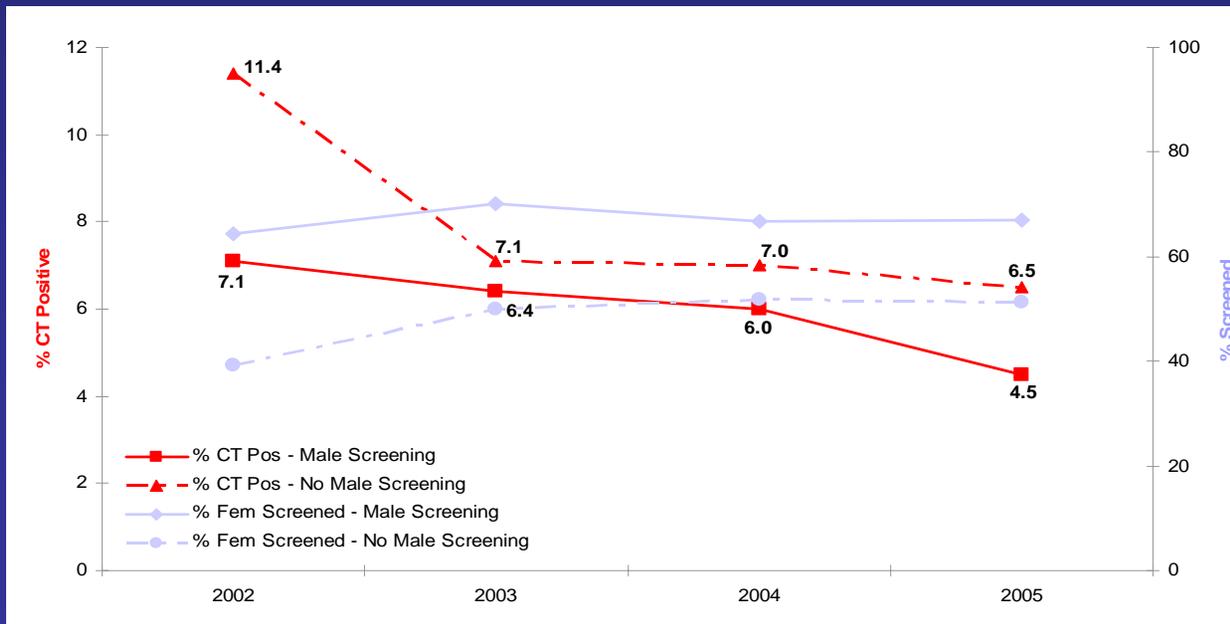
- **Females**
 - 11,732 enrolled
 - Health outcomes (multivariate Cox PH ratios, Screening/Non-Screening):
 - PID: 0.9 (0.7-1.2)
 - Infertility: 1.0 (0.8-1.2)
 - Ectopic Pregnancy: 1.0 (0.6-1.7)



Preliminary Results

- Females

- % CT pos (of all tests) lower at Screening bases
- However, % screened higher at Screening bases
- May reflect that more of general pop is tested





Preliminary Results

- **Females**
 - On a person level, % CT pos slightly higher* at Screening bases
 - + once: 11.5% at Screening bases; 10.7% at Non-Screening bases
 - + 2 or more times: 2.4% at Screening bases; 1.8% at Non-Screening bases
 - However, % screened also higher at Screening bases
 - Pos females may be more likely diagnosed

*p=0.07



Project Status

- Currently evaluating results, determining whether additional analyses are needed
- Deciding where to go next; options:
 - Write up/publish current findings
 - Continue study (some health conditions may take longer to develop/be realized)
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