

# Enhanced surveillance, analysis of, and rapid response to simultaneous outbreaks of syphilis among heterosexuals and men who have sex with men (MSM)/bisexual males in Cuyahoga County, Ohio

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## Objectives

- To understand need for reliable surveillance, coordinated notification and outreach.
- To consider CDC screening recommendations responsive to surveillance.
- To consider new partners in prevention.

## Disclosures

- None.



## Outline

- Setting/Background
- Syphilis Morbidity
- Surveillance
- Rapid Response / Action Plans
- Next Steps/Questions



## Setting

- Cuyahoga County, Ohio (1.3M)
  - 12% African American
- Cleveland (440,000)
  - >50% African American
  - 8% Hispanic
  - 4% Asian
- Three public health agencies



# Syphilis

- Bacteria *Treponema pallidum*
- Transmission: Direct contact with syphilis sore; vertical transmission (*congenital*)
- US, 2006
  - >36,000 cases reported (CDC)
  - 64% MSM
  - 349 Congenital syphilis
    - Ohio: six cases (2004-2008)



# Syphilis Morbidity

- Symptoms mimic many illnesses or go unrecognized
- Infectivity for years
- **Stages**
  - 1. Primary**
    - **Chancre (3-6 weeks, self-limiting)**
  - 2. Secondary**
  - 3. Early Latent**
    - Late, Tertiary – not discussed here
    - Congenital - may lead to neurological deficits, blindness, seizures, stillbirths or infant death



## Screening and treatment

- Screen: Blood serum
- Rx: Antibiotics (penicillin)
  - Some morbidity may not be reversible.

## Keys to prevention

- Early diagnosis, treatment
- Partner notification & treatment
- Prompt reporting to public health
- Awareness in medical community



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## Passive Surveillance

- State mandated reporting of new diagnoses
  - Syphilis, HIV and AIDS (CD4 cell count, %)
- Report by phone, fax, secure website

## Active Surveillance

- Locally investigated by Disease Intervention Specialists (DIS)



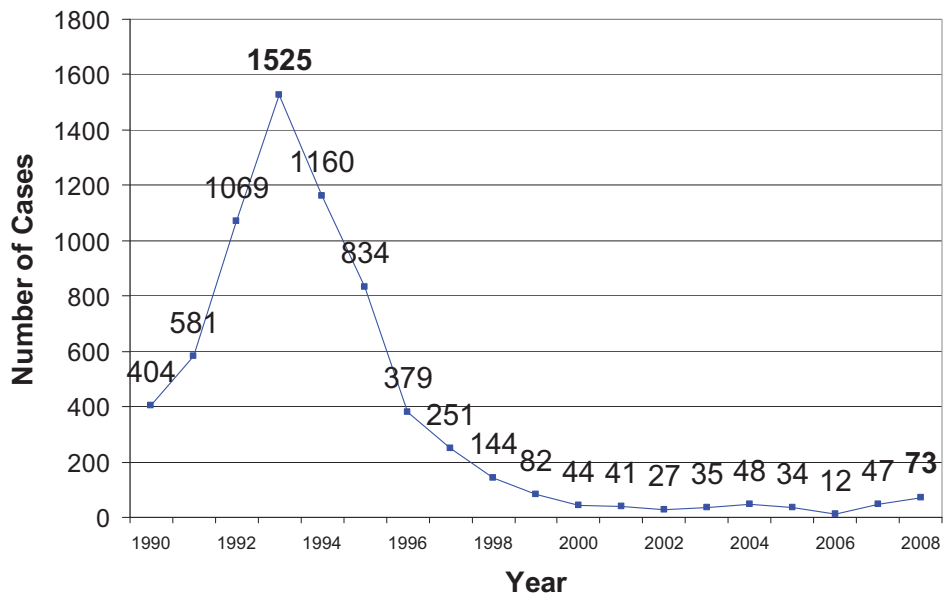
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## Disease Intervention Specialists (DIS)

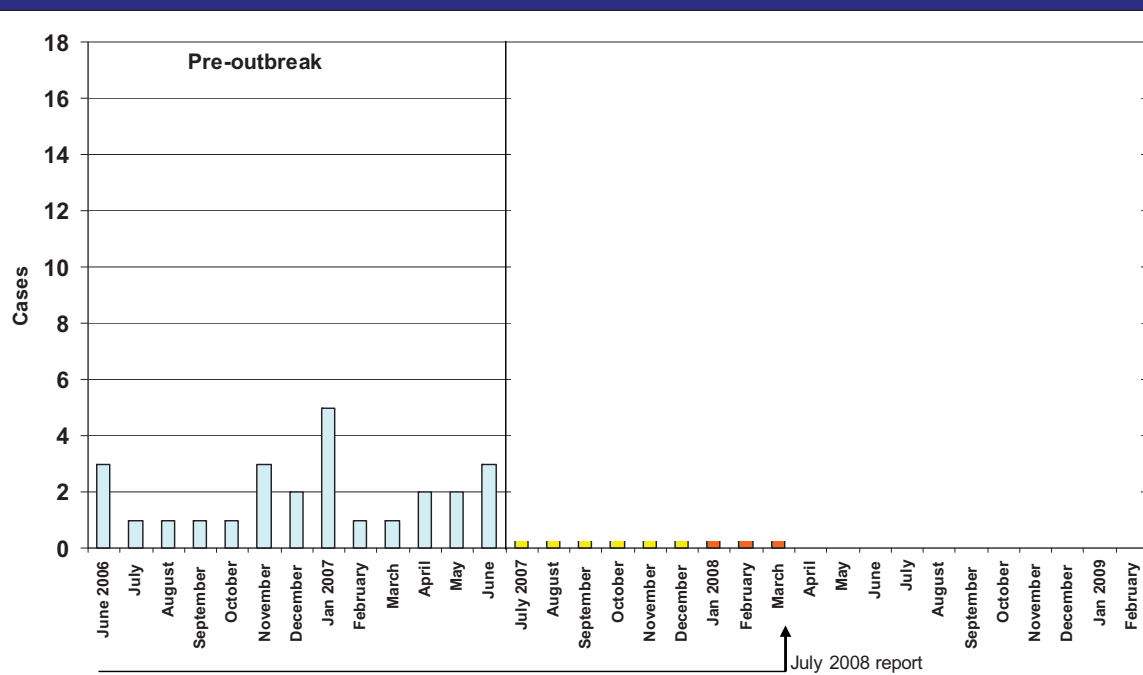
- Three State-trained agents
  - Jurisdiction: five county region
- Contact tracing and partner notification
  - New HIV/AIDS (priority) and syphilis cases
  - Screening & treatment, counseling; referral
  - Force of law
  - CDPH clinics: Free screening/treatment for syphilis.
- DIS often provide first warning of outbreaks



## S.T.D Morbidity in Cleveland Syphilis, 1990-2008



## Case counts: 2006-2008

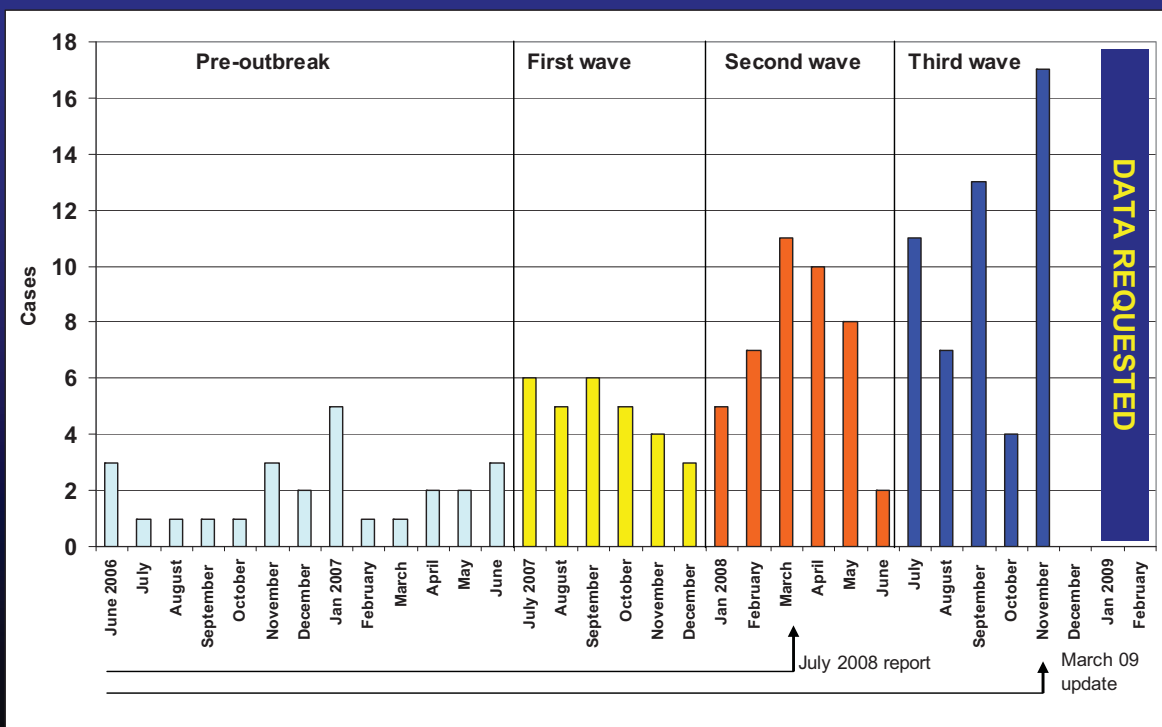


# Action Plan

- Consistent message across health depts.
- Media coordination for joint release
  - Cleveland Plain Dealer
  - Gay Peoples' Chronicle (LGBT)
  - Call & Post (African American comm.)
  - (TV, radio, news wire reports followed)
- Notify medical community (email, phone)
  - Detailed epidemiological report (on line)
- Temporarily prioritize DIS to syphilis cases



## March 2009 report





PUBLIC HEALTH ALERT-SYPHILIS

March 4, 2009

Dear Health Care Colleague,

Cuyahoga County is in the midst of a syphilis (*Treponema pallidum*) outbreak. The Cleveland Department of Public Health (CDPH), the Cuyahoga County Board of Health (CCBH), and the Shaker Heights Health Department (SHHD) urge Greater Cleveland medical providers to screen all sexually active patients, particularly youth, for syphilis.

This outbreak began in June of 2007 and persists to the present. From January to November 2008, there have been 94 early (primary, secondary, and early latent) syphilis cases in the County, which is a 135% increase from this time last year. On average, 10% were diagnosed with primary syphilis, 50% as secondary and 40% as early latent syphilis. The prevalence of syphilis has been low enough over the last several years that many providers have never seen symptomatic syphilis. These findings require that all Cuyahoga County clinicians raise our index of clinical suspicion and our tendency to conduct primary screening. In those reporting symptoms, genital lesions were identified in 27%, a rash on palms or soles of feet in 30%, generalized rash in 21%, and condyloma lata (raised skin scaling) or mucous patches in 18%. Only 3% reported swollen nodes. Lesions were present in nearly all primary and early latent cases.

Recent cases are occurring in two populations: 1) African-American heterosexual males and females, and 2) men who have sex with men and bisexual men regardless of race or ethnicity. Youth, ages 14 to 24, are of particular concern, reflecting one in four new cases. There have been 16 new cases of syphilis among teens 14 to 19 from January through November 2008, a 300% increase since the same period for 2007. In addition, Chlamydia and gonorrhea rates are highest among this age group.

CDPH, CCBH, and SHHD urge medical providers to screen all sexually active patients for syphilis and to adhere to the Centers for Disease Control and Prevention STD Treatment Guidelines:

- Any patient presenting with a sexually transmitted disease (STD) should be screened for syphilis by obtaining a serum RPR.
- All HIV positive patients should have an annual screening RPR. More frequent screening (every 3 to 6 months) is also recommended for those with high-risk behaviors such as having multiple sex partners, engaging in any unprotected intercourse and/or illicit drug use.
- All pregnant women should have a screening RPR obtained at first prenatal visit and again at 28 weeks gestation, and during the third trimester if the patient has any high-risk behaviors. Any woman who delivers without prenatal care needs to have an RPR drawn at delivery.

We require your support in order to help make Cuyahoga County a healthier community. Please contact CDPH's Partner Notification and Referral Services at (216)864-7080 for further information on syphilis or to make a communicable disease referral.

Ann Wery, M.D., Medical Director  
Cleveland Department of Public Health

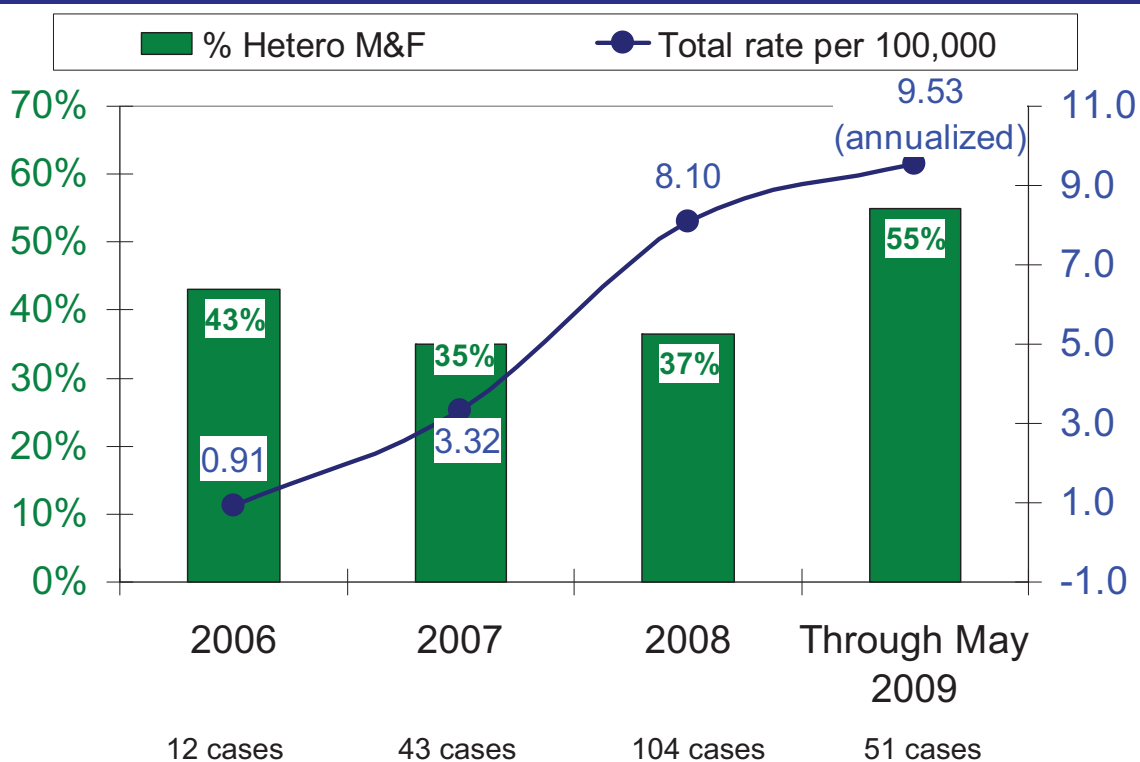
Anna Mandalakas, M.D., M.S., Medical Director  
Cuyahoga County Board of Health

Scott H. Frank, M.D., M.S., Health Director  
City of Shaker Heights

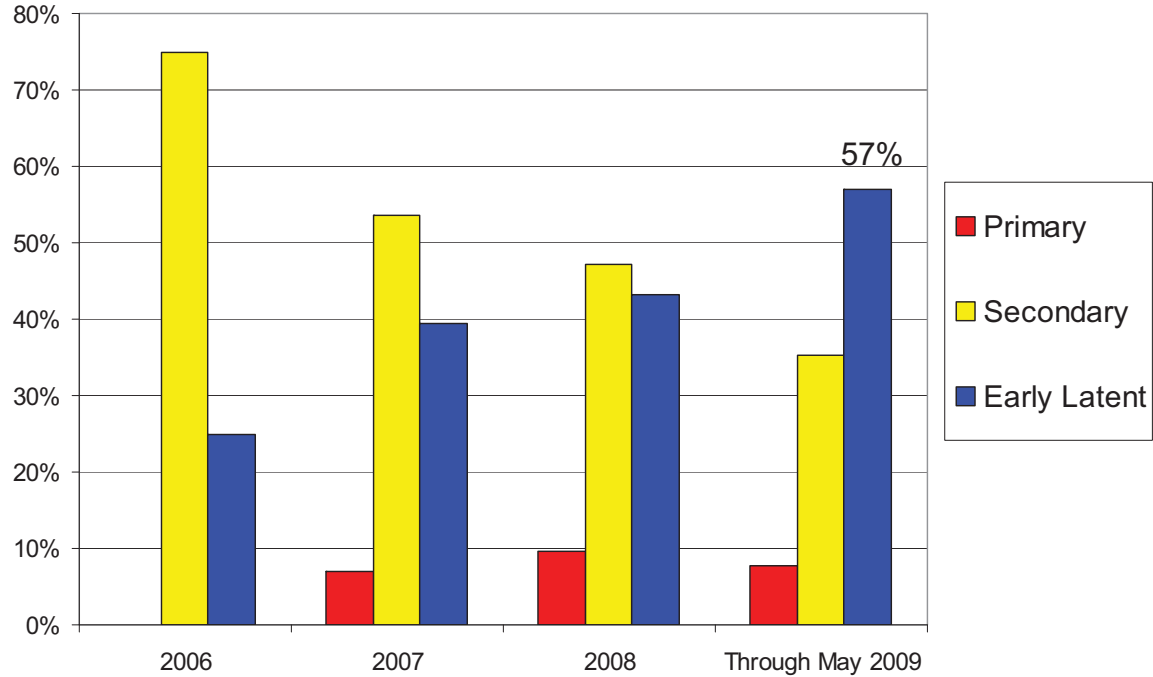
# Alert Letter to Medical Community

- At-risk groups
- Symptoms
- Screen
  1. all sexually active
  2. STD+ → RPR
  3. HIV+ → RPR @3-6 months
  4. Prenatal screen at 1<sup>st</sup> trimester & 28 wks, and 3<sup>rd</sup> trimester (d/t risk)

## Overall rate and % Hetero M&F



## Later stages appearing



## Surveillance summary

### Cleveland cases

– 65% in 2007; 80% in 2009

Males 80% (unchanged)

70% Black, 25% White, 5% Hispanic (unch.)

### Age at presentation

- 36% age 14 to 24 (steady)
- 32% age 25 to 34 (steady)
- 24% age 35 to 54
- 8% age 55+

## DIS Interview summary

>90% Anonymous partners

>80% Unprotected oral sex

Condoms (males)

- 80% Sometimes/never
  - Same for Het & MSM/Bi

Condoms (females)

- 87% Sometimes/never

- NO congenital cases
  - 6 pregnancies (2008-09)
    - 4 in 2<sup>nd</sup> trimester, 1 in 3<sup>rd</sup>

• Drug use (3 mos.)

- Alcohol in 23%
- Marijuana
  - >50% Het M/F, 21% MSM
- Meth/IDU in 1%

• 0% sex for \$/drugs (3m)

## MSM/Bi males

07-08

Met partners through internet (15%), or bathhouse (9%)

08-09

Half were HIV positive

- Condom use (3 mos.)
  - 40% always
  - 50% sometimes
  - 10% never

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## Outline

Setting/Background

Syphilis Morbidity

Surveillance

Action Plans

**Next Steps/Questions**

## Next steps

Target groups at risk

Avoid “message fatigue”

Recruit new partners in prevention

## Target youth

### Community engagement

- Local clinics
- Perinatal case workers
- Clergy / Faith-based groups
- Barber shops, beauty salons, clubs, recreation centers

### Free screening at clinics

### School-based STD testing

- in development

## LGBT Community

(Office of HIV Prevention)

### Promotion of responsible sex & increased screening

- Bathhouses and clubs

### Integrate/expand STD & HIV prevention

### Social networking sites

- Facebook
- MSM/BI sites (Manhunt.com, Adam2Adam.com)

## Summary

Partner with your epidemiologists, nurses and investigative agents

Expand prenatal STD education

Engage the media & medical community as partners

## Thank you

Carol Gilbert and Laurin Kasenhagan

Matt Carroll, Karen Butler, David Merriman, Bruce Hagins, Ann Avery, MD

Terry Allan, Anna Mandalakas, MD

Scott Frank, MD, MPH

Lita Townsend

Marcia Egbert

Scott Koprowski, Elizabeth Cross,



## Links

### Local Surveillance Reports and Alert Letter

[://www.clevelandhealth.info](http://www.clevelandhealth.info) (Data portal)

[://www.clevelandhealth.org](http://www.clevelandhealth.org) (CDPH website)

### K-12 Responsible Sexual Behavior Initiative (Cleveland schools)

[://net.cmsdnet.net/students/HealthFactSheets/sexual\\_behavior.htm](http://net.cmsdnet.net/students/HealthFactSheets/sexual_behavior.htm)

### CDC

[://www.cdc.gov/std/syphilis/](http://www.cdc.gov/std/syphilis/) (Fact sheets, surveillance, etc.)

[://www2.cdc.gov/stdtraining/ready-to-use/syphilis.asp](http://www2.cdc.gov/stdtraining/ready-to-use/syphilis.asp)

(Technical training curriculum)

## Contact me at

[david.bruckman@case.edu](mailto:david.bruckman@case.edu)

(CWRU email)

(216) 664-4353

(CDPH office)

*Thank you*