

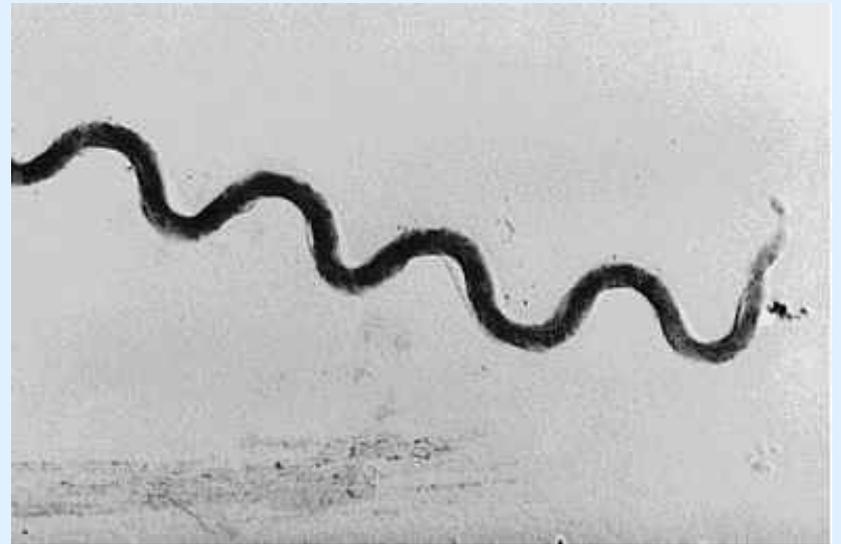
# New Ideas and Unique Challenges: A Local Health Department's Response to an Ongoing Infectious Syphilis Outbreak

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# Syphilis - A Quick Review

- Syphilis is a systemic disease caused by the spirochete, *Treponema pallidum*
- Disease manifests in stages
  - Primary
  - Secondary
  - Latent
  - Tertiary



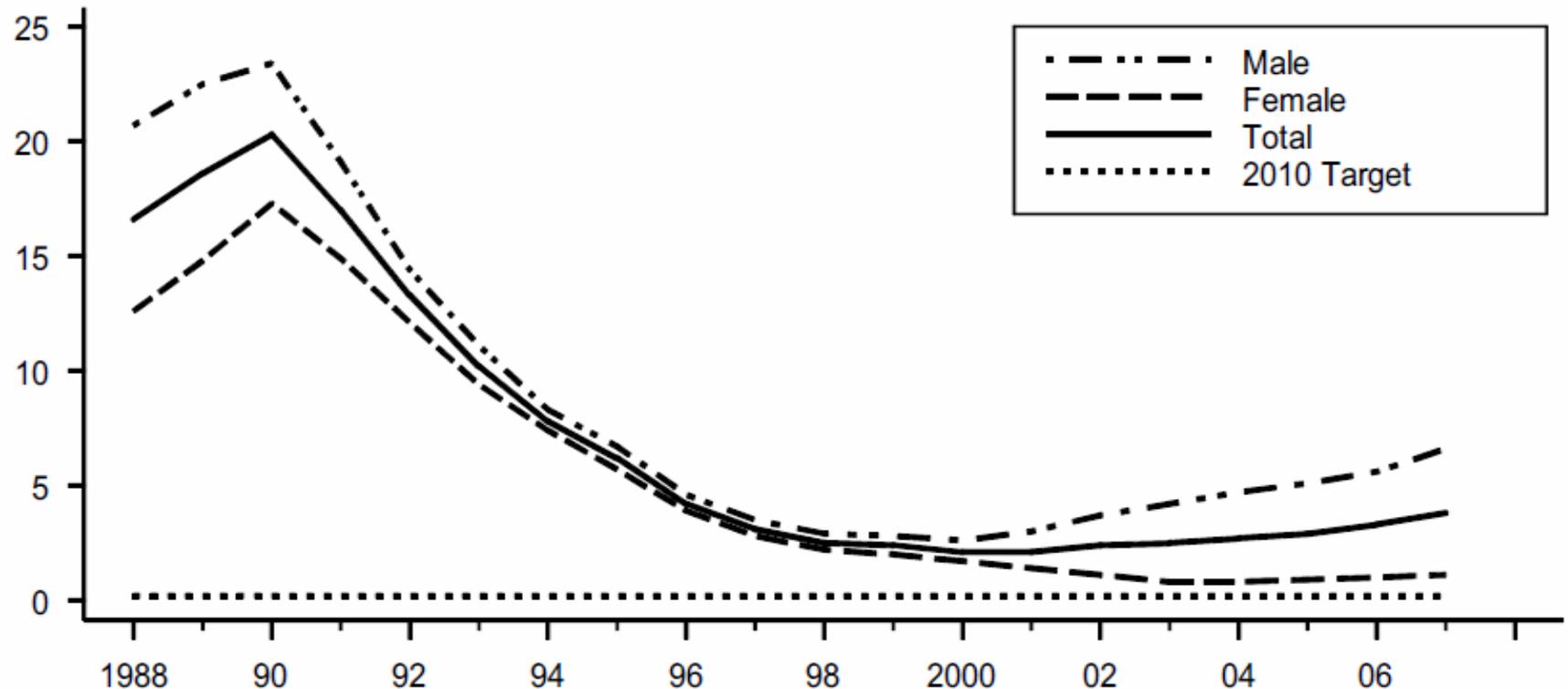
# Transmission

- Primary mode of transmission is by sexual contact
  - Greatest infectivity during primary stage
  - Infection may also be passed during secondary and early latent stages
  - Transmission probability per partner is approximately 30%
- Next most common is transfer across the placenta from mother to fetus
- Penicillin effective for treatment

# Syphilis Epidemiology

## P & S Syphilis by Gender - United States, 1988 - 2007

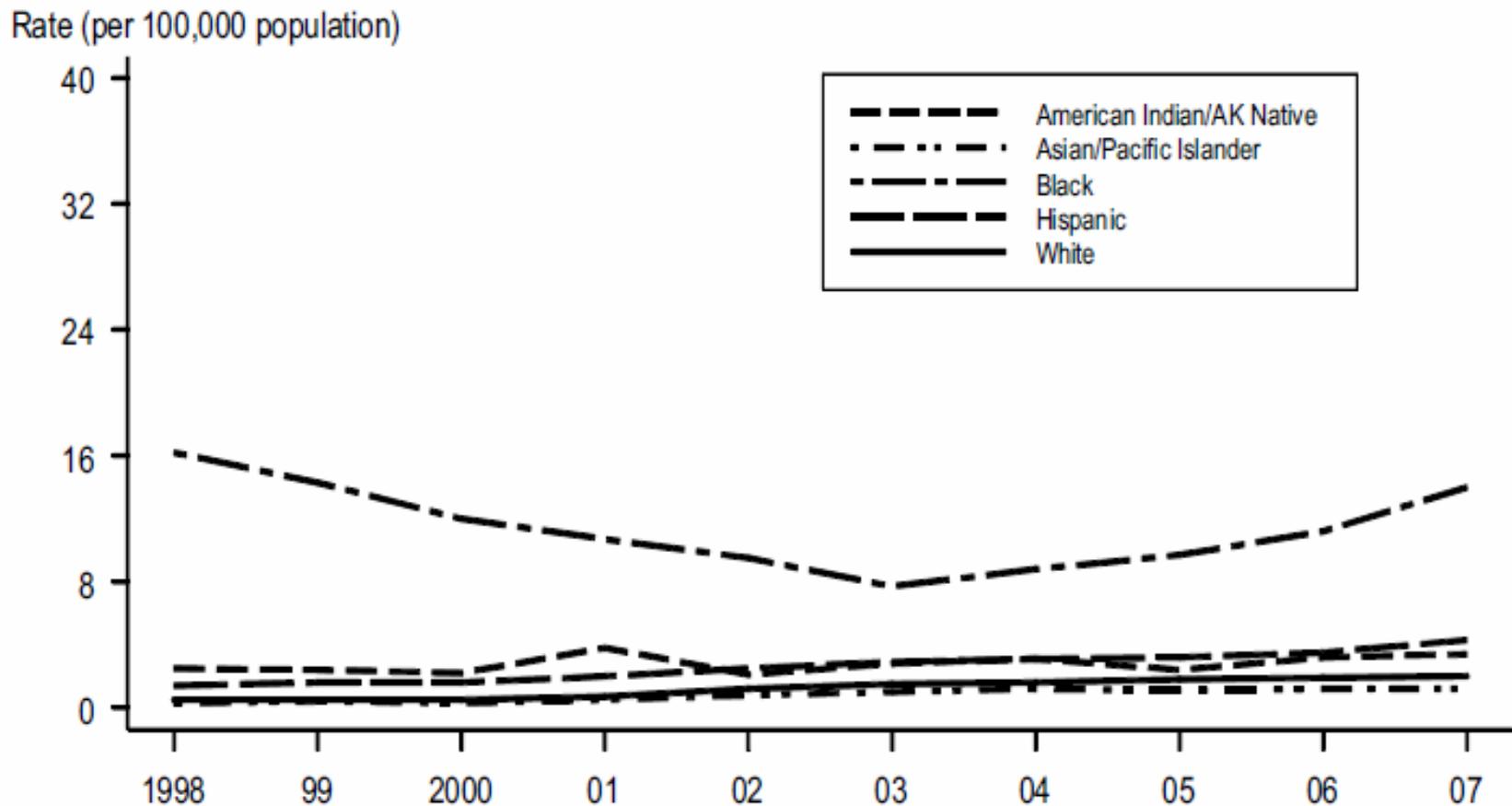
Rate (per 100,000 population)



❖ Source : CDC

# Syphilis Epidemiology

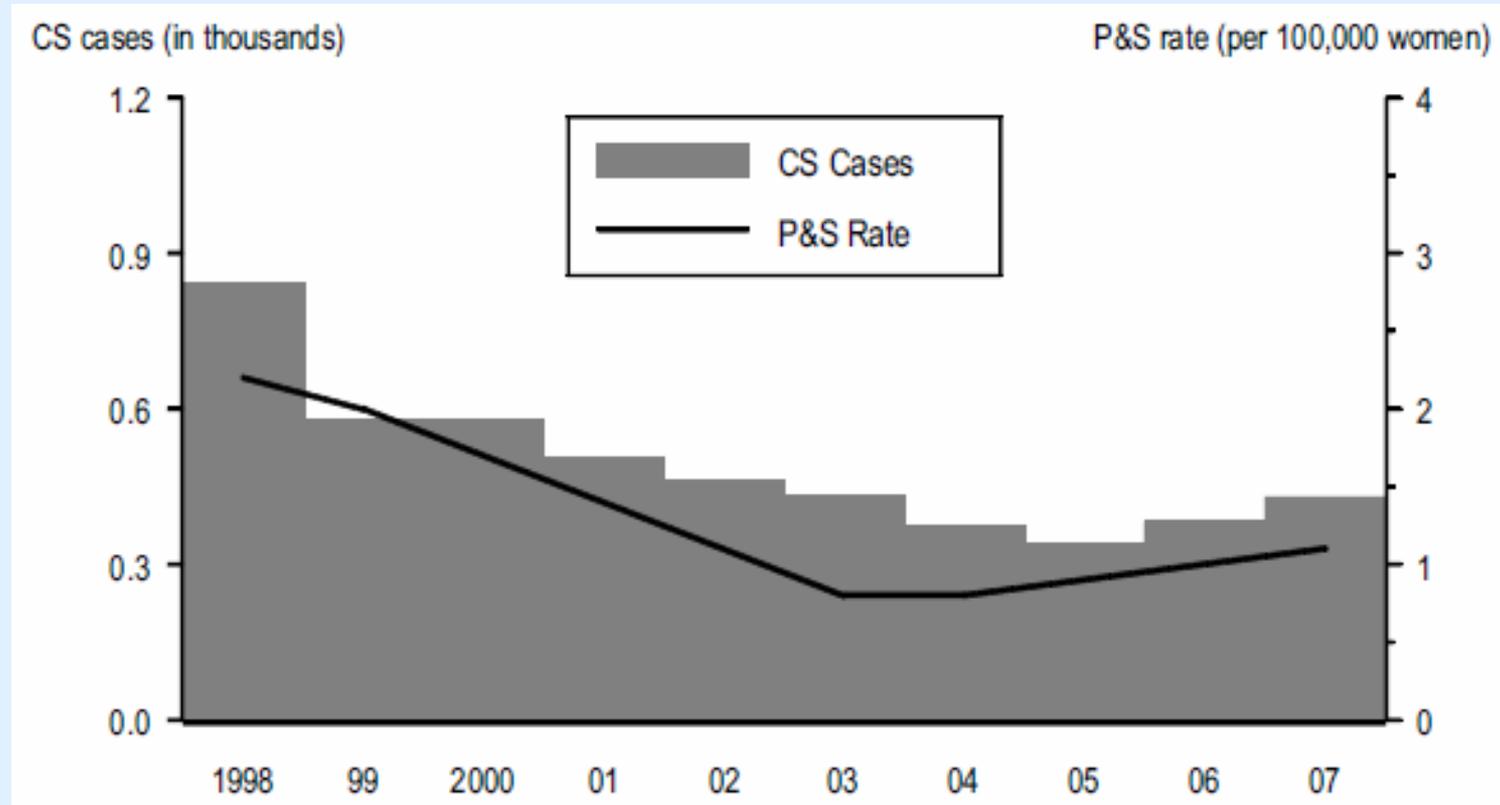
## P & S Syphilis by Race- United States, 1998 - 2007



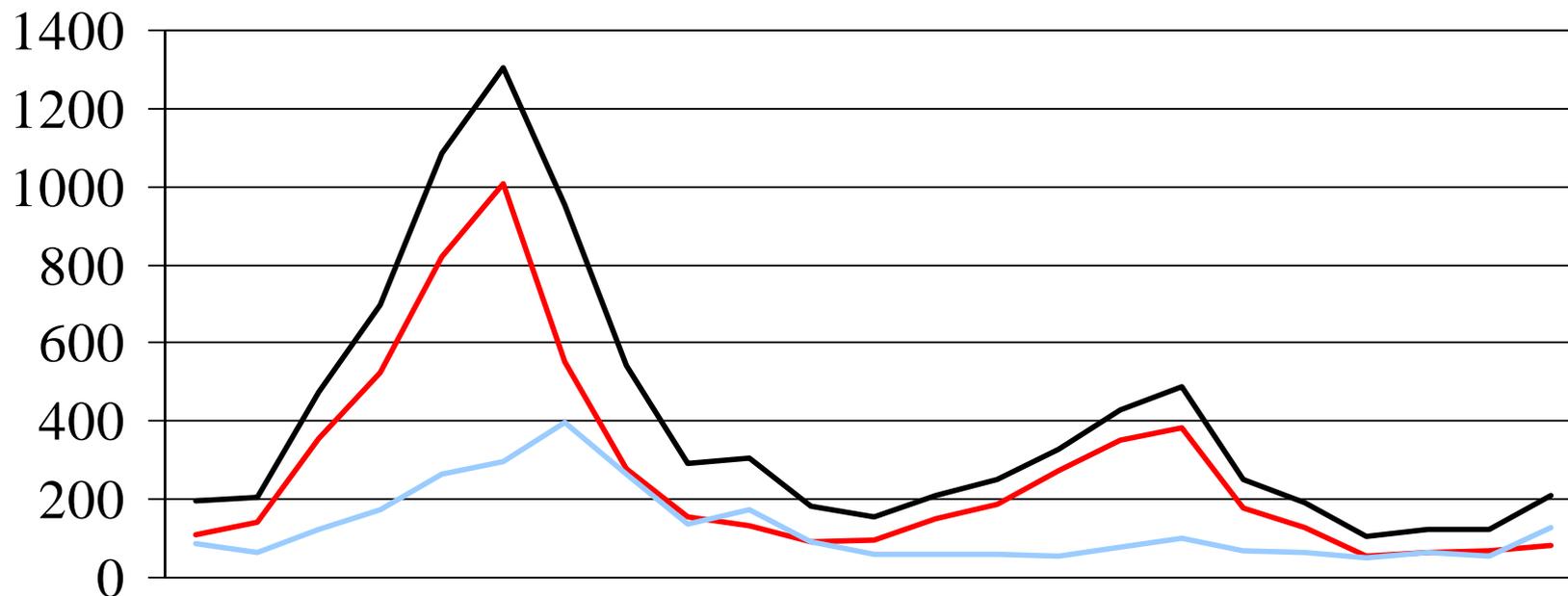
❖ Source : CDC

# Syphilis Epidemiology

Congenital syphilis (CS) and rates of P & S syphilis among women - United States, 1997-2007

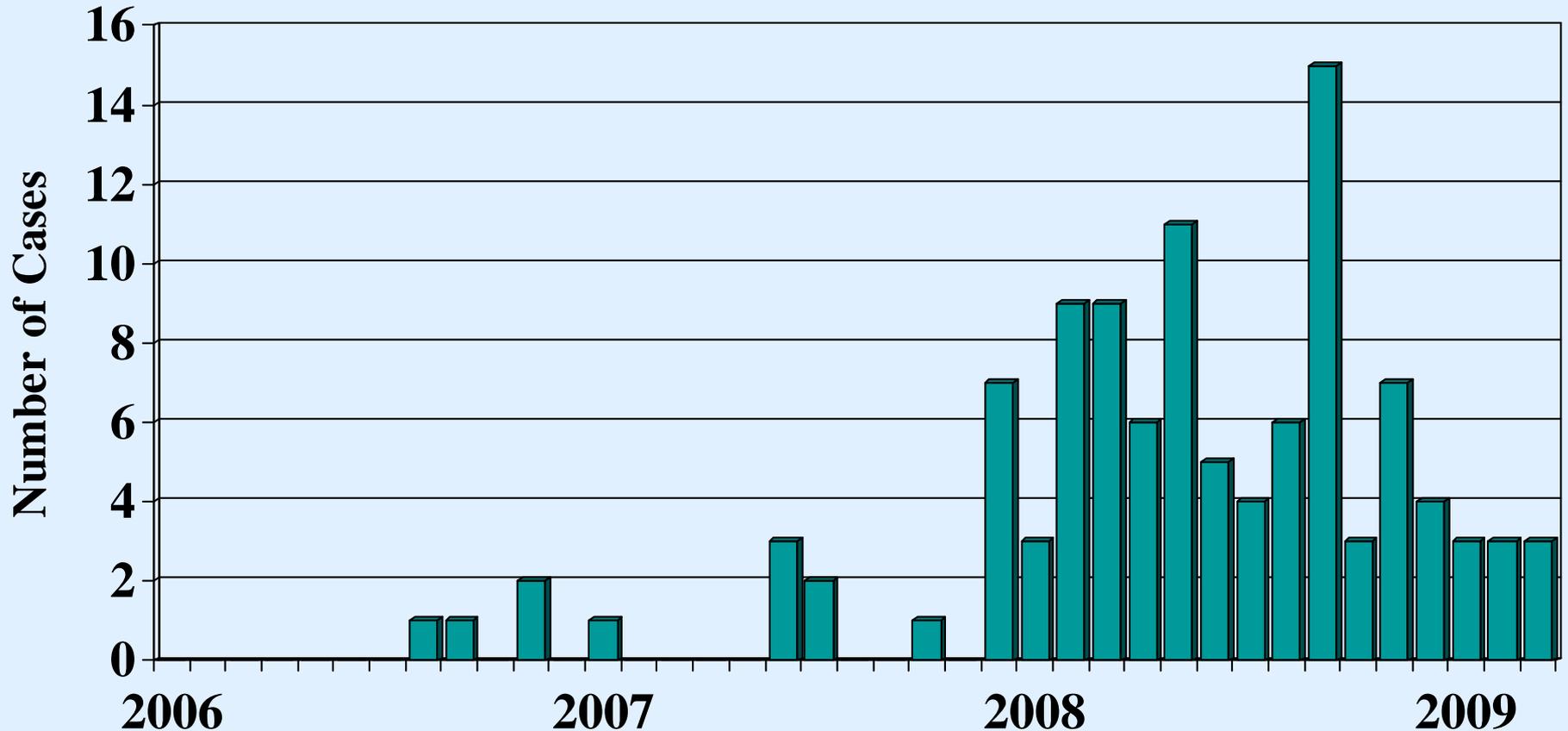


# P & S Syphilis by Region - Michigan, 1986-2008



	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
— Michigan	198	205	476	700	1086	1303	951	543	292	304	183	153	211	249	330	428	486	249	192	105	125	123	212
— Detroit	111	142	354	526	822	1008	552	277	153	130	92	94	152	189	274	351	384	179	126	54	63	68	83
— Outstate	87	63	122	174	264	295	399	266	139	174	91	59	59	60	56	77	102	70	66	51	62	55	129

# Genesee P&S Syphilis 2006-YTD 2009 By Month



# Genesee County, 2008

130 cases of primary, secondary or early latent syphilis in 2008

25 Primary  
50 Secondary  
45 Early Latent

7 Congenital Cases  
(not included in total)

~500% increase versus all 2007

No other counties in MI seeing similar increases

# Challenges

- First time Genesee County has experienced a syphilis outbreak
- Challenging disease
  - Complexity of disease
  - An estimated 20% of syphilis cases are never diagnosed or reported, i.e. no common source
  - Sensitive subject matter
- Hard to reach population
  - Syphilis outbreaks occur when a population has changes in behaviors
  - High risk behaviors
  - Access to care

# Syphilis Outbreak Response

- Enhanced surveillance and outbreak planning
  - MDCH
  - Cross-divisional teamwork
  - Use of data to drive decisions
- Rapid response
  - Increasing awareness among the health care community
  - Targeted testing of at risk populations
  - Public Information Campaign
- Increased community involvement
  - Working with community organizations and businesses to offer testing of at risk populations
  - Assisting with alerting those at risk of becoming infected with syphilis

# Relying on the Experts

- Syphilis Outbreaks in Michigan
  - State takes responsibility for all syphilis
  - State Disease Intervention Specialists (DIS) follow-up on syphilis
    - Case management
    - Partner services
- Experience with Previous Outbreaks
  - Detroit - 1991
  - Muskegon - 1992
  - Detroit - 2002
- Resources
  - Additional DIS support
  - Established relationships with other agencies
  - Funding

# Working Across Divisions

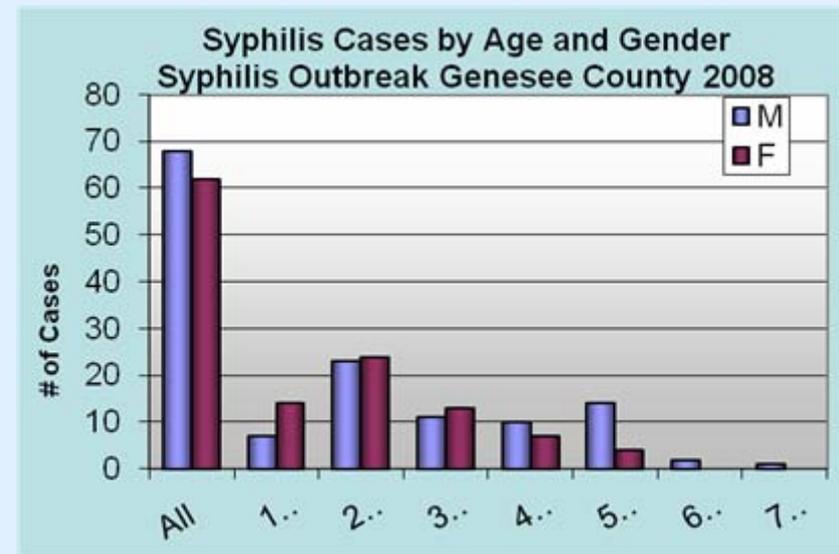
- The Genesee County Health Department's Communicable Disease Investigation Response Team (CDIRT)
- Cross divisional team
- Bi-weekly meetings
  - Case/Epidemiology updates
  - Targeted testing
  - Education/Outreach

# Use of Surveillance Data to Guide Interventions & Assess Progress

- Individual case information
- Aggregate epidemiological data
- Geographical analysis

# Epidemiological Data of 130 Cases

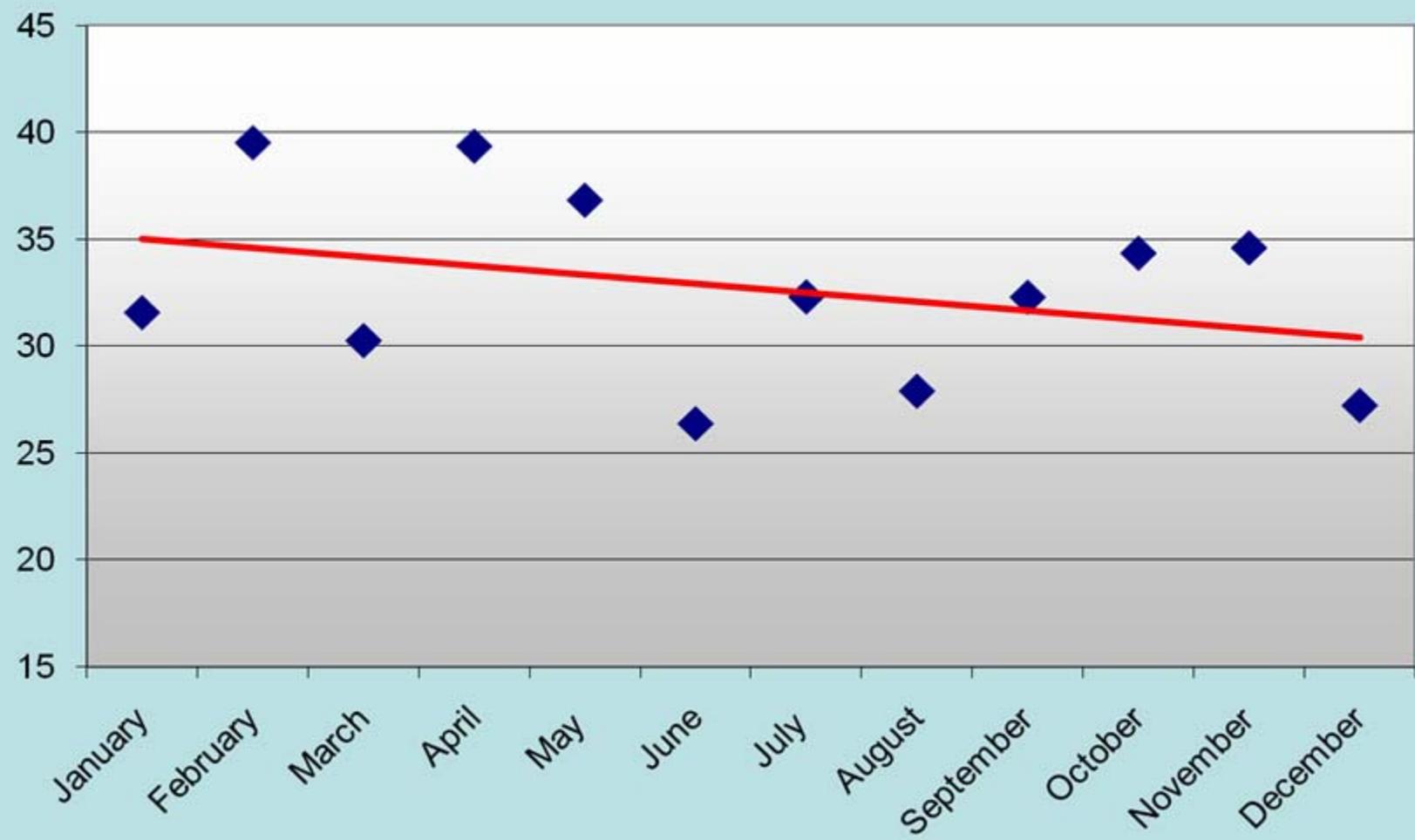
- Race: 110 (85%) African American, 20 (15%) White
- Gender: 67 (52%) Male, 63 (48%) Female
- Age
  - Average: 33 years
  - Range: 15-72 years
  - Males
    - Range: 17-72 years
    - Average: 36 years
  - Females
    - Range: 15-59 years
    - Average: 29 years
- Location: 110 (85%) Flint
- Provider: 54 (42%) Public, 79 (58%) Private



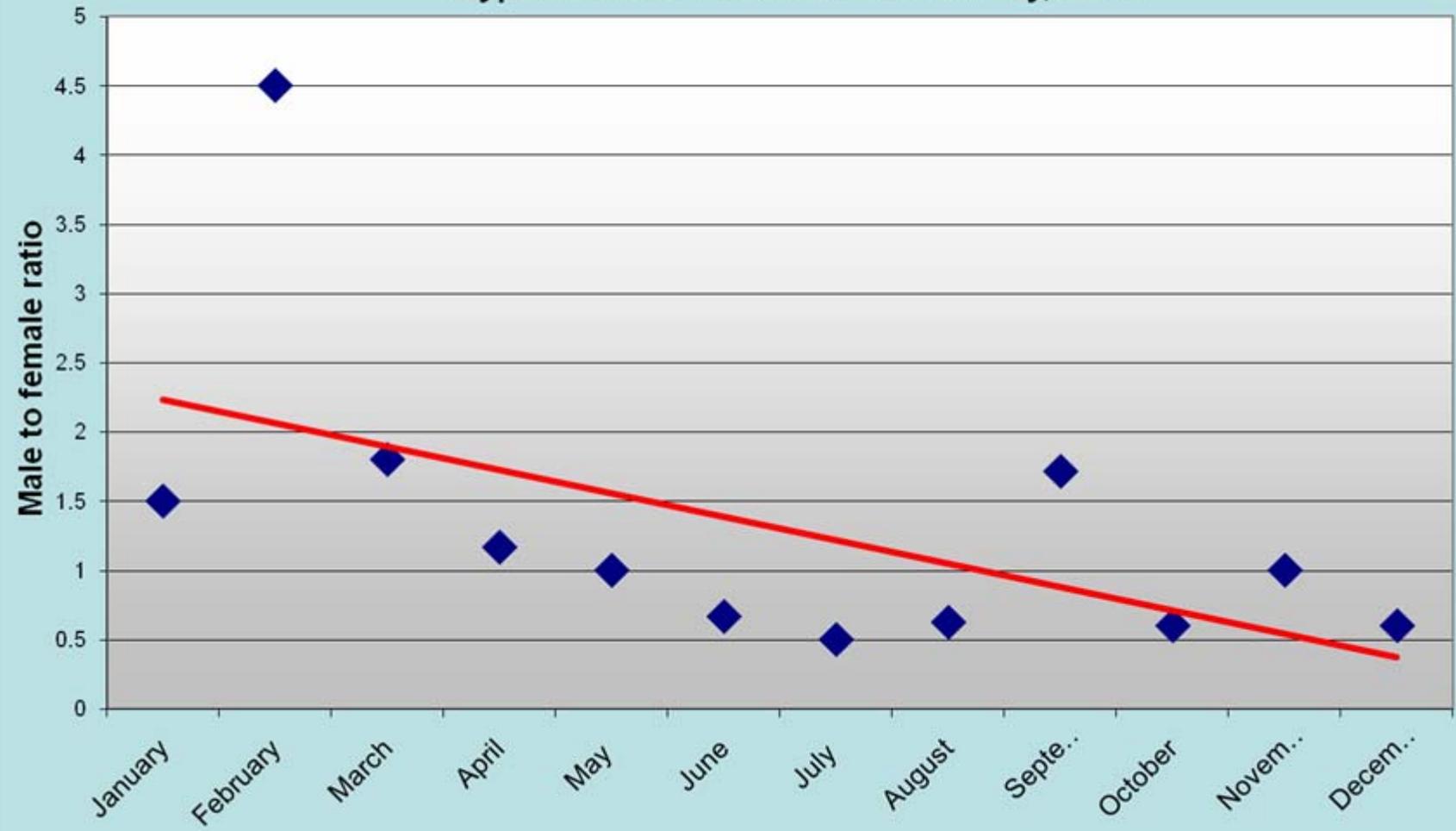
# Risk Factors

- 46% admit to substance use
- 25% admit to anonymous partners
- Commercial sex workers
- Multiple partners
- 10 (9%) MSM
- 5 HIV positive

**Average Case Age By Date of Diagnosis  
Syphilis Oubreak - Genesee County, 2008**

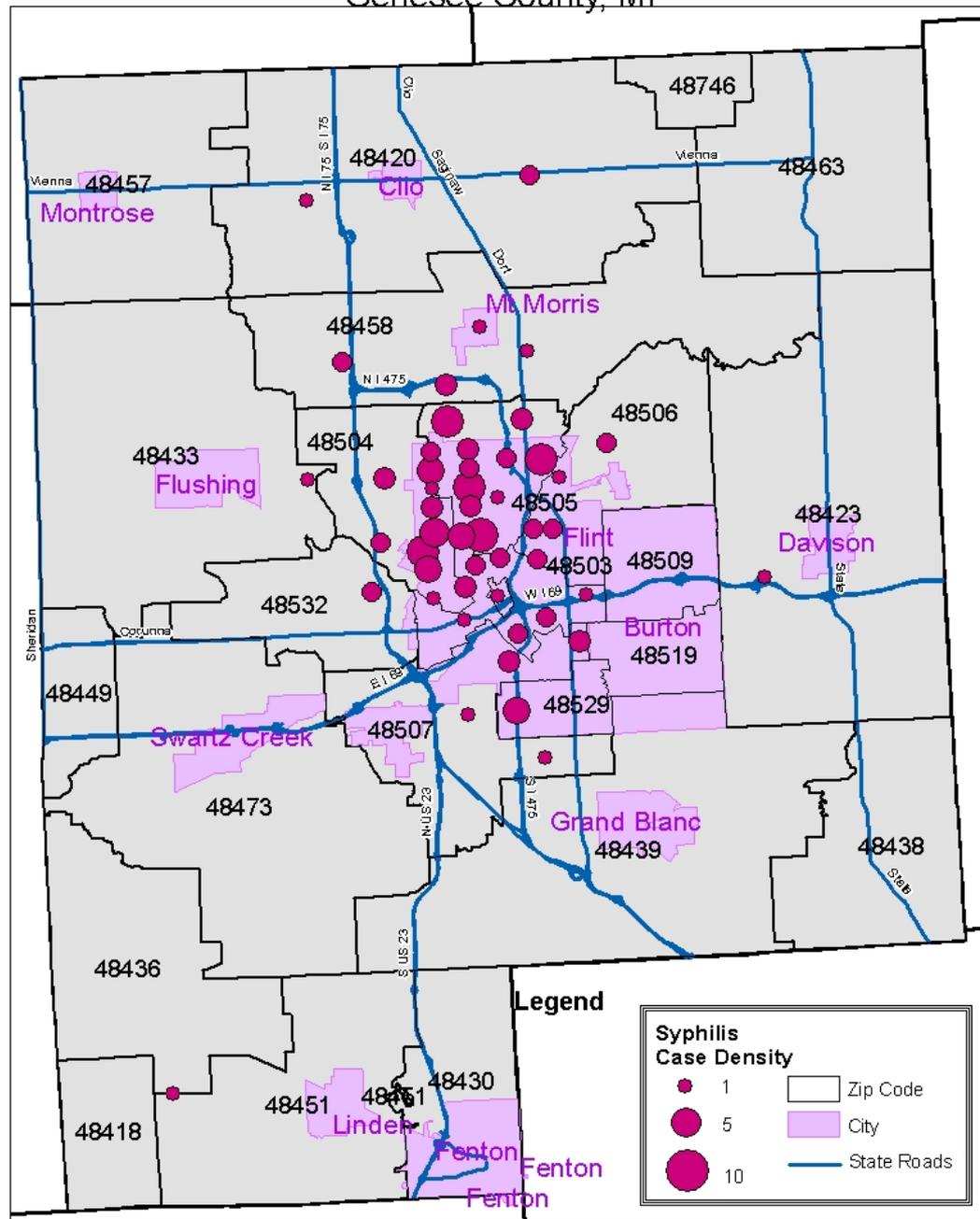


**Male to Female Ratio by Date of Diagnosis  
Syphilis Outbreak - Genesee County, 2008**



# Geographic Analysis of Syphilis Cases

Syphilis Outbreak Cases  
Genesee County, MI



# Health Care Community

- Hospitals
  - Genesee County Emergency Departments
  - Infection Control Practitioners
  - OB-GYN Departments
- Laboratories
- Community Health Clinics

# Methods

- Face-to-face meetings by Medical Director and MDCH
  - Distribution of Exam Room posters
  - Periodic follow-up
- Presentations to physicians
- Letters to Genesee County health care providers
  - Timely response to case and epidemiological data
  - Distribution of guidelines and resources

# Letters

April '08 - Notice of the outbreak and requested testing and identification of those at risk

July '08 - Update on demographics of cases and included a checklist of criteria for testing

September '08 - Response to congenital cases

- Requested increased screening of pregnant women
- Included CDC guidelines

January '09 - Outbreak update and information on the management of sexual partners

# Testing of At Risk Populations

- Jail
- Field testing
  - High risk populations such as commercial sex workers
  - Apartment complexes in high risk areas
  - Adult Entertainment
  - Bars/Nightclubs
- Community Organizations and Events
  - Churches
  - Health Fairs

# Testing in Genesee County Jail

- Meetings with the Medical Director of the Genesee County Jail
- Genesee County Judges
  - Addition of syphilis screening for those who are arrested on sexually related offences
  - Request treatment before release
- Genesee County Jail Administrator
  - Provide periodic lists of those arrested on prostitution charges

# Field Testing

- Incentives for testing worked well
- Presence in community helped keep community talking about the outbreak
- Support from many venues
- Challenges
  - Keeping momentum for onsite testing
  - Client anonymity
  - Non-clinical settings

# Public Information Campaign

- Press releases
- Newsletters
- Flyers
- Billboard campaign
- Radio Campaign

# Media Releases

- Goals
  - Recognize risk factors and urge testing
  - Educate public about the disease
- Challenges
  - Larger local media outlets were reluctant to report on the outbreak
  - Definition of risk factors associated with the outbreak
- Health Officer letter to media asking for coverage

# Flyers

- Individualized flyers, posters, and bulletins for community partners
  - Community Mental Health
  - Churches
  - Community Organizations
  - Bars and Nightclubs
  - Schools/Universities
- GCHD Adult/Teen Clinic Information handouts



Right now there is a syphilis outbreak in Genesee County!

**You may be at risk!**

- Unprotected sex with multiple partners?
- Exchanged sex for drugs or money?
- Men who have sex with men?
- Have painless sores or skin rashes?



loms.

# Syphilis ALERT

This is an urgent message from the Genesee County Health Department:

Currently, there is a **SYPHILIS OUTBREAK** in Genesee County!

#### Outbreak Information

- In April 2008, the Genesee County Health Department (GCHD) reported that Genesee County is experiencing a **syphilis** outbreak
- Flint and Genesee County are seeing the highest number of **syphilis** infections ever reported
- **Widespread outreach** is being conducted to contact and test those at risk of becoming infected with **syphilis**
- GCHD is working with community organizations and businesses to offer onsite and after hours **syphilis** testing

**Syphilis is a sexually transmitted disease**

**Syphilis is detected with a simple blood test**

**↓ TAKE ONE! ↓**

Genesee County Health Department  
**Adult & Teen Clinic**

McCree Courts & Human Service Center (2<sup>nd</sup> Floor)  
McCree South (Downtown Flint)  
630 S. Saginaw Street, Flint MI 48902  
Phone: (810) 257-3440

#### Clinic Hours

7:45-11:00 am & 12:45-4:00 pm (M, W, Thur & Fri)  
12:45-4:00 pm (Tuesdays Only)

Walk-in Clinic! Free Condoms!

**GET TESTED TODAY!**

**Confidential! STD Testing**  
**Free HIV testing**  
**Free Condoms**  
**Information about STDs**

Ages 13 and older  
(to, parental consent needed)

Testing and Treatment Available for  
**Syphilis\*, Gonorrhea\*, Chlamydia\*, and**  
**Trichomoniasis\***

\*These disease can have symptoms that are not easily  
noticed or no symptoms at all

Have regular exams if you are sexually active  
Always use condoms

# Billboard and Bus Campaign

- October '08 – February '09
- Various City of Flint locations



# Radio Campaign

- March '09 – May '09
- Club 93.7 “Today’s Hottest Jamz”
  - Playlist consists of a recent mix of Hip Hop and R&B
  - Reaches nearly 100,000 people in the Flint & Saginaw-Bay City-Midland radio markets
  - Core audience includes teens, adults 18-34 (primarily women) and African Americans

# Evaluation of Campaign

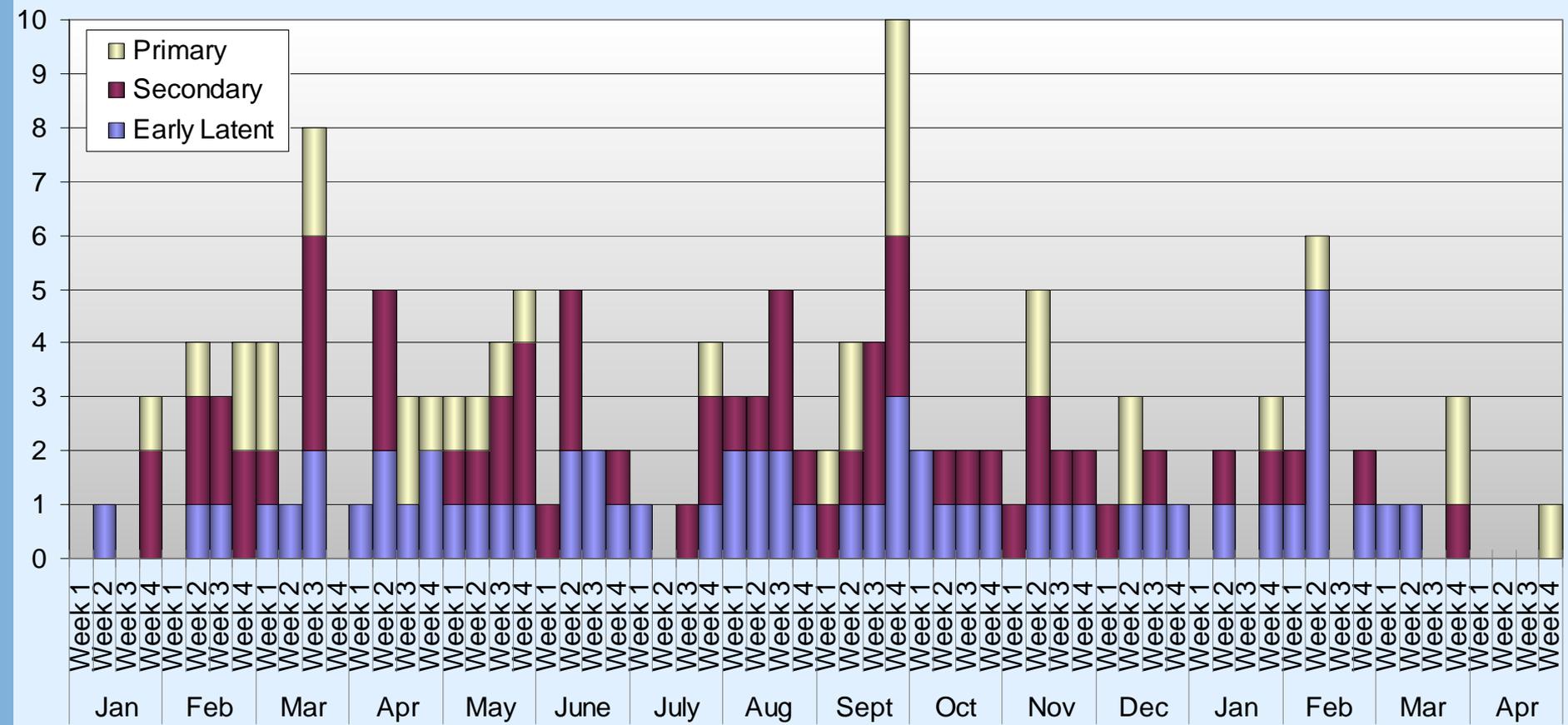
- Clients presenting to the GCHD Adult/Teen Clinic were polled before and after campaigns
- Before
  - 47% of clients did not know of the syphilis outbreak
- After
  - 1 month after the billboard/bus 32% reported not knowing about the syphilis outbreak
  - 2 weeks after the radio campaign the number decreased to 23% reporting not knowing about the syphilis outbreak
- Still a significant amount of people at risk do not know of the outbreak

# Community Involvement

- Neighborhood and Business Organizations
- Faith-based organizations
  - Previously established relationships within the community
  - Experience with related subjects
    - Women's health
    - Racial disparities
    - Social change issues

# Where Are We Now?

**Infectious Syphilis Cases by Date of Diagnosis  
 Genesee County Outbreak, 2008 - 2009**



# Challenges Ahead

- Maintaining awareness
- Providers
  - Continued assessment and screening of at risk populations
  - Giving feedback
- Public
  - Education
  - Social networking strategies
  - Targeted testing
- Continued case management, enhanced surveillance, and epidemiological analysis of cases

# Thank You!!

## Questions?