

Tuberculosis Testing in Correctional Settings

Qiagen

Lab Partnerships

Corrections Team

National reference labs

- Lab Corp
- Quest Diagnostics
- Bio Reference Lab
- ARUP

Other reference labs

- Public Health
- Hospitals – community, VA, military
- Regional
- Local
- Universities



Public health

Lab management

Project development

Project management

Grant management

Protocol development



Centers for Disease Control and Prevention

World Health Organization

Tuberculosis Testing in Corrections

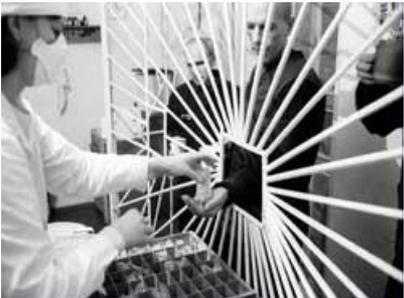
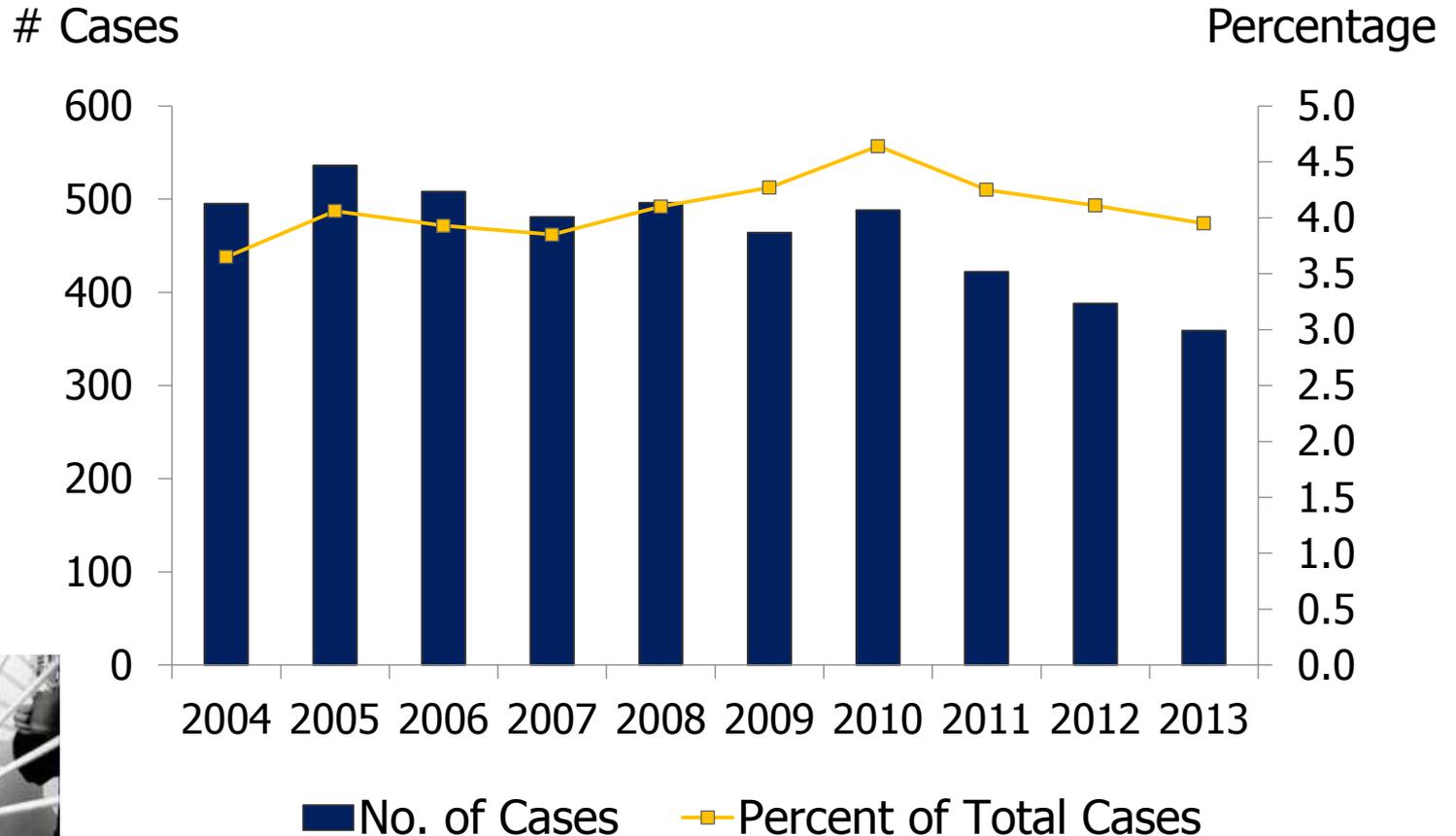


CDC, MMWR: July 7, 2006

States several advantages of QFT over TST including:

- Results can be obtained after a single visit which likely renders QFT competitive in cost-benefit comparisons
- Reduces variability due to “reading” performed in a qualified laboratory
- QFT is as sensitive as TST for detection of TB disease and more specific than TST for detection of LTBI
- QFT is not affected by previous BCG vaccination and eliminates unnecessary treatment of persons with false-positive results
- QFT does not affect the results of future QFT results (no “boosting” occurs)

CDC, TB in the U.S., Corrections, 2013



According to WHO:

- In 2013, around 1.5 million people died of TB worldwide
- About one in three people carry the bacterium – around 2 billion people worldwide – as a latent infection without any symptoms
 - Up to 10% of latent TB cases can turn active at some point
- Goal of eliminating the global epidemic by 2035 TB

Prisons:

- Effective TB control in prison protects prisoners, staff, visitors and the community at large
- Estimated that the world's prisons hold 8-10 million prisoners. 4-6 times this number pass through prisons due to high turnover
- The level of TB in prisons has been reported to be up to 100 times higher than that of the civilian population
- Late diagnosis, inadequate treatment, overcrowding, poor ventilation and repeated prison transfers encourage transmission

Intake

Annual

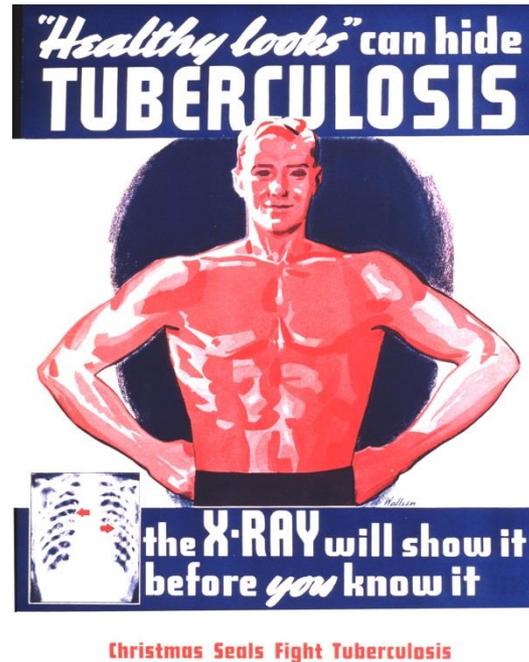
Inmates with chronic diseases

TB skin test positives

Employees



Individual program highlights



- State prison system
- Demographics
 - 959 – Intakes (7/1/2013 – 6/30/2014)
 - 6,376 - Population (6/30/2014)
- QFT TB testing performed on intake and, as needed, during annual assessment
- ~80 QFT tests performed monthly
- By utilizing QFT for TB testing, the program has reduced staff time and the number of inmates who need followed for TB



- State prison system
- Demographics
 - 20,120 – 2014 Intakes (2,818 females)
 - 50,607 - 2014 Population (2,499 females)
- QFT TB testing performed on intake and during annual assessment for chronic care
- ~2,300 QFT tests performed monthly
- By utilizing QFT for TB testing, the program has ensured they are not missing TB-infected individuals

- County prison system
- Demographics
 - ~ 9,000 - 2014 Average Daily Population
- QFT TB testing performed during annual assessment
- ~350 QFT tests performed monthly
- By utilizing QFT for annual screening, staff time devoted to TB testing is dramatically decreased



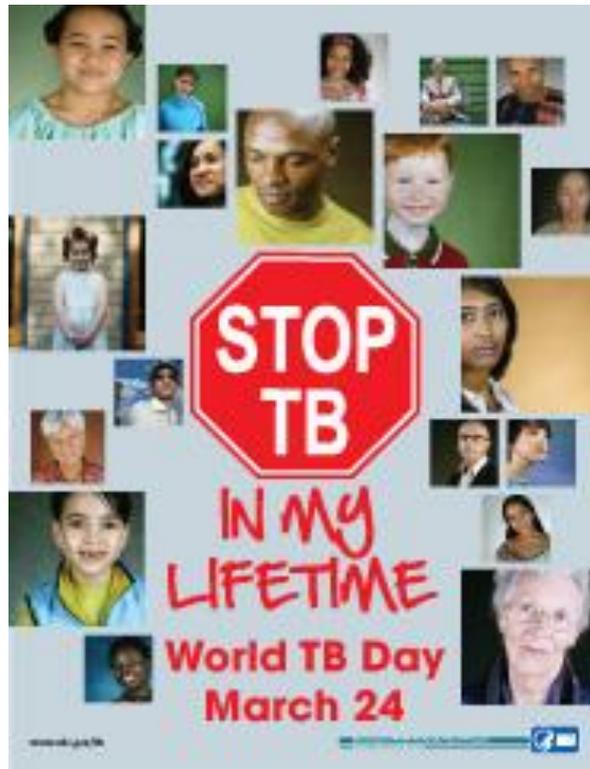


- State prison system
- Demographics
 - 9,582 - 2014 Population (837 females)
- QFT TB testing performed on all TST positives and during annual assessment for chronic care individuals
- By utilizing QFT for TB testing, the program has decreased the number of individuals being followed for positive TST and reduced staff time



- State prison system
- QFT TB testing performed on employees during the hiring process and annual follow up
- Over 1,000 QFT tests performed annually
- By utilizing QFT, the program has:
 - Significantly decreased wait time for new hires
 - False positives and need for off-site follow up
 - On-site staff time

Discoveries and Best Practices



- Collaboration of Public Health and Corrections creates strong programs
- Cost savings
 - Fewer x-rays and medical evaluations
 - Decreased time between TB testing and on boarding
 - Reduction in staff time – medical and security staff
 - Ensures TB test results are received and recorded
 - Reduces the number of individuals on the annual “chronic care” follow up list

TUBERCULOSIS



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AFFECTION
THE GERM OF
INFECTION**

TOUR OF HEMPSTEAD, N.Y. BUNISE HD-HEALTH OFFICER
LIFE FEDERAL AIR PROJECT DISTRICT 4

Questions?

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