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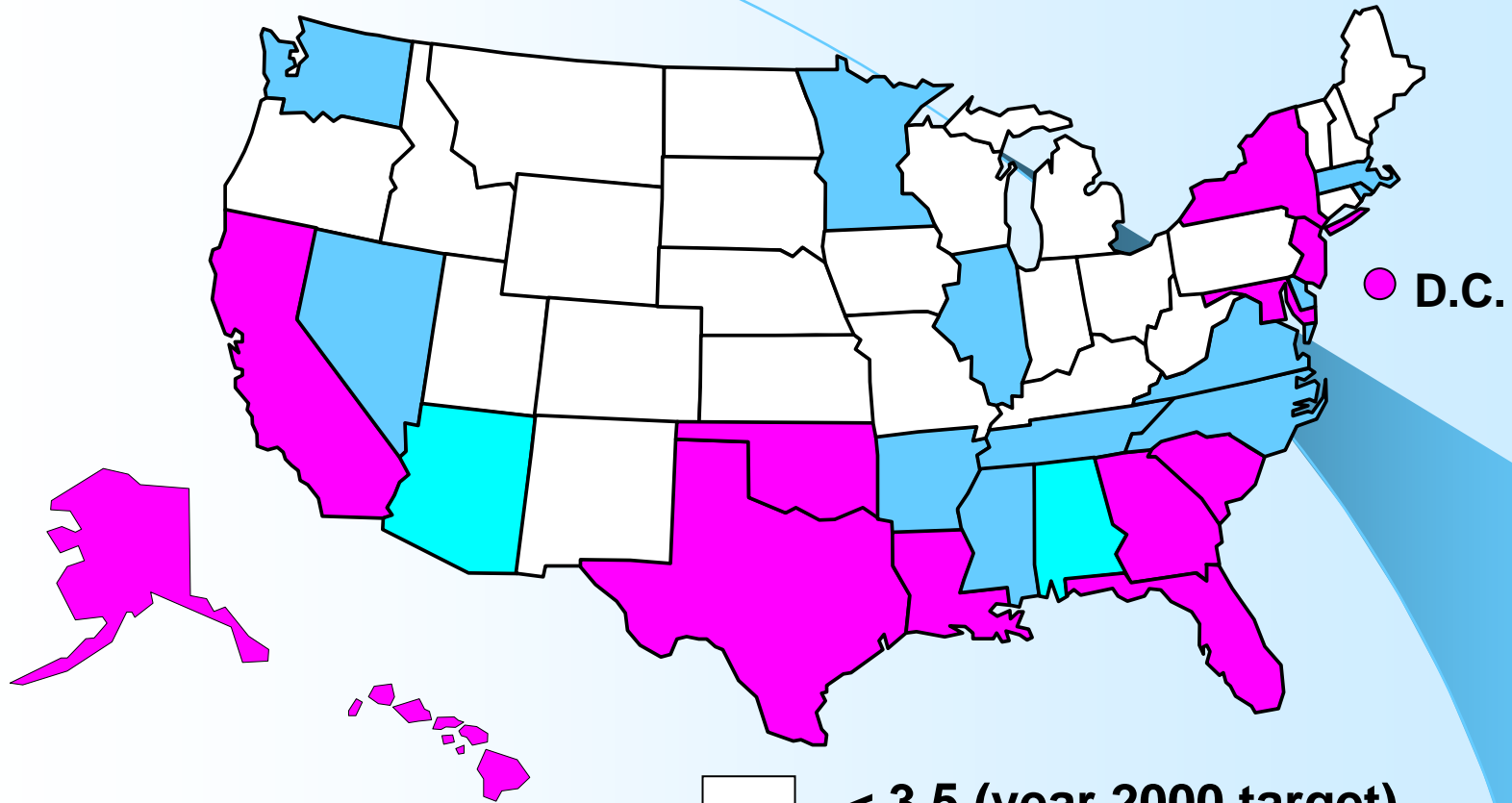
TB Control Program in Baltimore City: Presentation of a Domestic Program

380.611 JHSPH Program Evaluation

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TB Case Rates,* United States, 2004

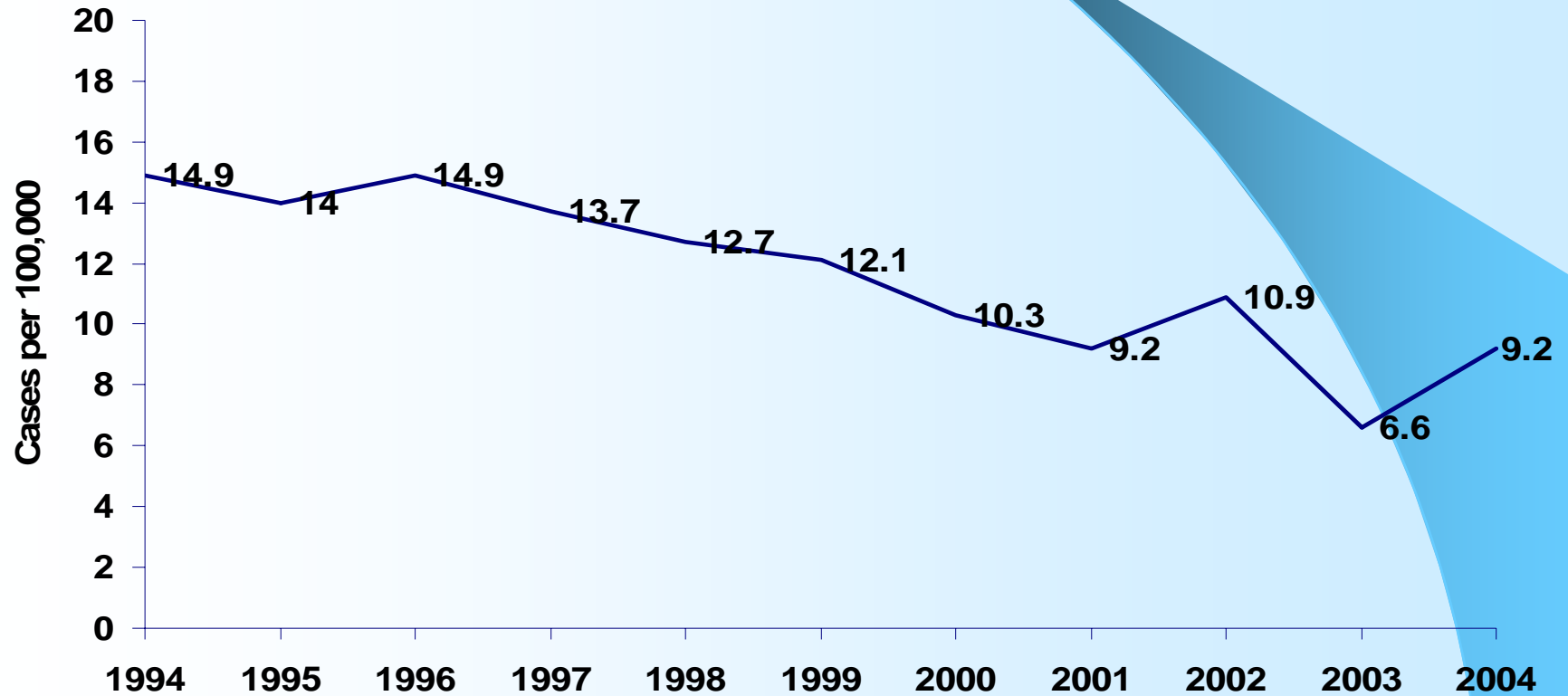


*Cases per 100,000.

- White box: ≤ 3.5 (year 2000 target)
- Light blue box: 3.6–4.9
- Magenta box: > 4.9 (national average)

TB Case Rates Baltimore City

TB Case Rates, Baltimore City 1994-2004



Transmission of *M. tuberculosis*

- Spread by droplet nuclei
- Expelled when person with infectious TB coughs, sneezes, speaks, or sings
- Close contacts at highest risk of becoming infected
- Transmission occurs from person with infectious TB disease (not latent TB infection)

What are the main factors that affect TB transmission?

- Infectiousness of the person or index case
- Duration of exposure to the index case
- Environment in which the exposure occurred (crowded, proximity to an infectious case)
- Virulence of the organism
- Characteristics of the exposed person (immune compromised)

Risks for latent TB infection

- Exposure to a person known or suspected to have TB
- Traveled to an endemic area
- Living or working in high-risk congregate settings (corrections, drug treatment, homeless shelters)
- Drug use
- Health care workers serving high-risk clients

Tuberculin Skin Test (PPD)

- Inject intradermally on the forearm
- Positive ppd > 10 mm
- Read 48-72 hours after placed
- Follow with CXR if positive

TB Control in Baltimore City

- The Tuberculosis Control Program provides services free of charge for clients with suspected or confirmed tuberculosis (TB) disease in Baltimore City.
- The clinic is open during the week from 8:30am - 4:30pm with clinic hours Monday, Tuesday and Thursday 9-11am and 1-3 pm.

TB Services

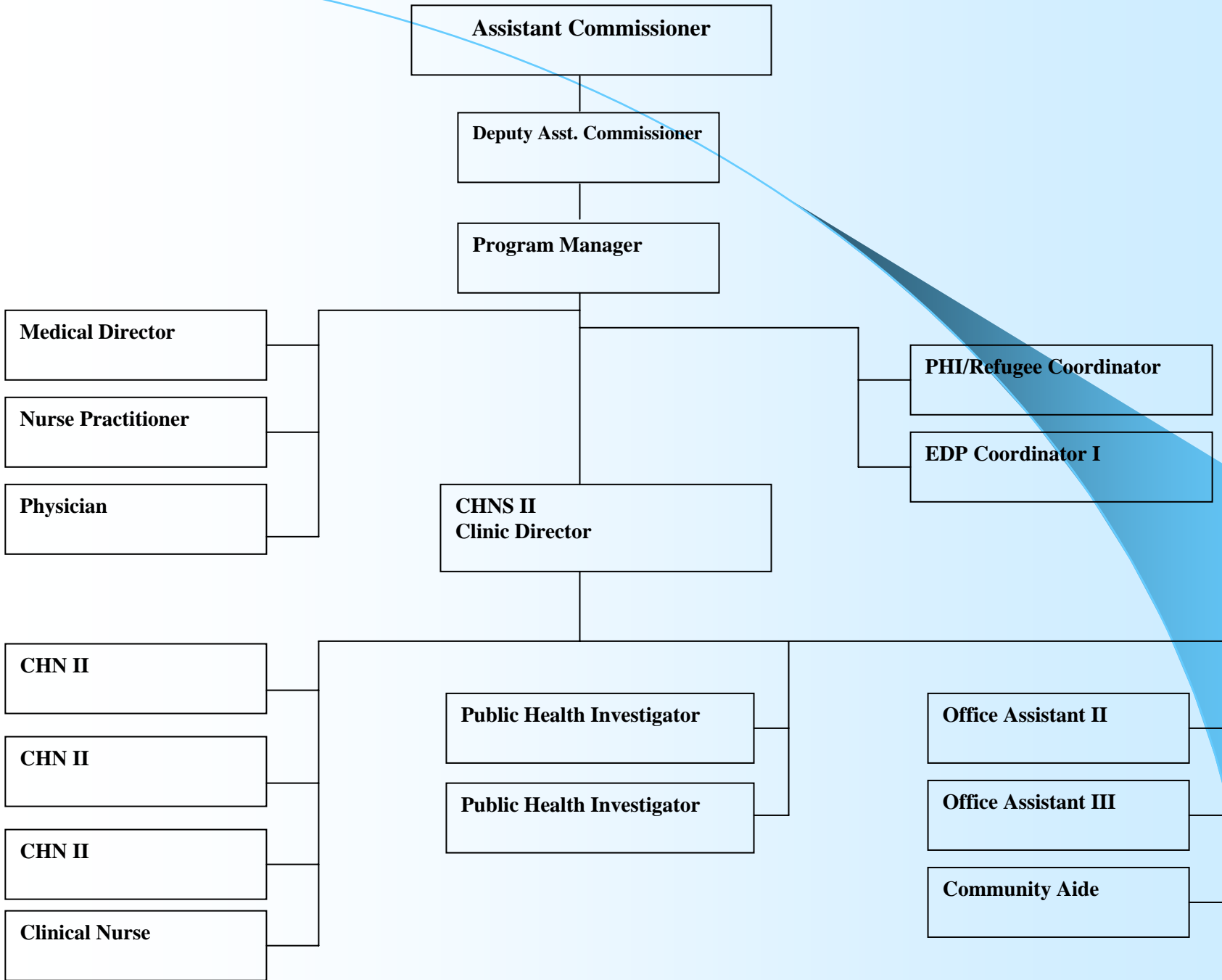
- ⑩ Tuberculin skin tests
- ⑩ Screening and physician evaluation for TB
- ⑩ Chest X-Rays, blood tests and other laboratory tests
- ⑩ Medication for the treatment and prevention of TB
- ⑩ Nurse case management
- ⑩ Contact investigations and disease control activities
- ⑩ Directly Observed Therapy (DOT)
- ⑩ Referral to care
- ⑩ TB health education and prevention
- ⑩ Surveillance, reporting, and monitoring activities
- ⑩ Refugee Program

Active vs Passive

- **Active surveillance - BCHD or other agency initiates the data testing (TST) among certain populations, such as persons living with HIV/AIDS, for TB infection.**
- **Passive surveillance - when the health care provider is asked or required to report information to BCHD.**

Mission Statement

- To prevent the transmission of Tuberculosis (TB) and eliminate TB in Baltimore City.
 1. Prompt identification of TB cases and suspects
 2. Prompt and effective treatment for active TB
 3. Prompt quarantine of infectious cases
 4. Prompt contact investigations of infectious diseases
 5. Treatment of latent tuberculosis infection among persons at high risk for progressing to active TB disease



Preventing and Controlling TB

Three priority strategies:

- Identify and treat all persons with TB disease
- Identify contacts to persons with infectious TB; evaluate and offer therapy
- Test high-risk groups for LTBI; offer therapy as appropriate

Effective TB Control

- At least 90 percent of the patients with newly diagnosed TB, for whom therapy for one year or less is indicated, will complete therapy within 12 months
- Contacts will be identified for at least 90 percent of newly reported sputum acid-fast bacilli (AFB) smear positive TB cases
- At least 95 percent of contacts to sputum* smear positive pulmonary TB cases will be evaluated for infection and disease

Effective TB Control

- At least 85 percent of infected contacts that are started on treatment for latent TB infection will complete therapy
- All newly diagnosed cases of TB will be reported to CDC using the electronic reporting system developed by CDC
- Drug Susceptibility results will be reported for at least 90 percent of all newly reported, culture positive TB cases

Effective TB Control

- HIV status will be reported for at least 75 percent of all newly reported TB cases age 25-44
- At least 90 percent of TB patients with initially positive sputum cultures will convert to negative

Barriers to Effective TB Control

- Population (homelessness, noncompliance, language barrier, substance abuse...)
- Comorbidity
- Staffing shortage and fiscal cuts

Successes

- DOT Therapy completion of treatment
- Nurse case management (social services)
- Refugee referrals (Baltimore Medical Systems)
- Contact investigations?