Public Health and the Role of the Public Health Nurse

Patricia Arnold, RN, MSN
Regional State Nurse Supervisor
TB training, August 2015
Disclosures

- No relevant financial relationships
- No off-label investigational uses
Objectives

- Explain the role of public health in the management of tuberculosis
- Describe activities of public health nurses in the prevention and control of tuberculosis
Core Public Health Functions

Assessment-
- Collect, assemble, analyze information
- Identify health threats and service needs

Policy Development-
- Based on scientific knowledge
Core Functions cont.

Assurance

• Assure services necessary to achieve agreed upon goals by

  Providing services directly
  Encouraging actions by other entities

* Great resource is the ANA Scope of Standards of practice for Public Health Nursing
Essential Services of Public Health

- Monitor health status
- Dx and investigate health issues
- Inform, educate and empower people
- Mobilize community health partnerships
- Develop policies and plans
- Enforce laws and regulations
- Link people with needed services
- Assure competent workforce
- Evaluate effectiveness, accessibility and quality
- Research for innovative solutions
Public Health Goals related to TB

• STOP and prevent transmission

• Appropriate and timely treatment
  ◦ To prevent drug resistance

• Completion of Effective treatment
  ◦ Cure of illness
Legal aspects to consider

- What communicable diseases to report?
- Who is responsible to report?
- What information is needed?
- How and when to report?
- Confidentiality
- HIPAA allowances

*see reportable disease list on WDH website*
TB Reporting

- In Wyoming, a case of active TB disease must be reported within 24 hours of diagnosis.

- Reporting is to be done by the Healthcare Provider and laboratories.

- Report needs to be made via phone or fax to the TB program manager:
  - Phone: 777-8939
  - Fax: 777-5279
Benefit of Surveillance

- Estimate magnitude of problem
- Determine Geographic distribution
- Detect epidemics
- Evaluate control measures
- Detect changes in health practices
- Facilitate planning
- Stimulate research
- Portray natural history of disease
Magnitude of TB in the World

- According to the CDC, 1/3 of the world’s population is infected
- 8.6 million new TB cases in 2012
- 1.1 million deaths from TB in 2012
- One person is newly infected every second
- One person dies every 10 seconds
- TB is the leading cause of death for people living with HIV
- There is an alarming increase in drug resistant disease
Surveillance – Geographic Distribution

Estimated TB incidence rates, 2012

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Tuberculosis Report 2013, WHO, 2013

©WHO 2013. All rights reserved.
Surveillance – Geographic Distribution
TB Case Rates,* United States, 2012

- Dark areas indicate states with ≤ 3.2 (2012 national average)
- Light areas indicate states with > 3.2

*Cases per 100,000.

Mayo Clinic Center for Tuberculosis
TB in Wyoming

- Data according to the 2014 Wyoming Tuberculosis report:
  - 2 cases of active disease reported in 2014
  - Since 2010 there have been a decline in active cases (in 2010 there were 7)
  - The highest number of cases were in Non-Hispanics Whites (44%) followed by Hispanics (31%)
  - Over past 5 years, Big Horn has had highest rate of active TB, followed by Carbon and Albany county.
The Role of the Public Health Nurse

- Follow the Guidelines and Orders as established
- Utilize the Wyoming Tuberculosis Program Manual
- Screen individuals and when appropriate place TST
- Perform IGRA testing (if capability exists)
- Serve as a local expert on Tuberculosis testing and treatment within the community
- Case manage individuals with TB (latent and active)
- Participate in contact investigation as needed
Active Disease Case Management

- Refer to Guidelines and Orders as well as the TB Program manual:
  
  It is a priority to assure that the client receives and takes medication:
  
  Direct observe therapy (DOT)
  Other methods of contact and follow up as needed
  Phone
  Weekly follow up
  Special arrangements and circumstances as needed
Active case management cont.

- Test for HIV
- Obtain sputum specimen per protocol
- CXR and Liver enzymes per protocol
- Education as needed
- Contact investigation and screening
- Documentation
- Follow up as needed
Case management of LTBI

Assist the client in obtaining TB meds
Evaluate for side effects, refer as needed
Education of client and caregiver
Documentation and communication with the state TB program
Any follow up as necessary

Between 2011 and 2014, over 621 patients were started on TB medications
#1 risk factor was Immigration from high risk country
# 2 risk factor was history of incarceration
Documentation

- Document on TB risk assessment form
- Document on clinical assessment form
- Document start and end dates of medication
- Document on education form
- Document any other case management efforts on appropriate forms
- Document referrals made

*Forms can be found on WDH website*
Support and Collaboration

Here’s your support team:

State Lab
  IGRA
  Cultures

State TB Program
  Supplies
  Fiscal support
  Program standards
  Relationship with CDC
More Support team

- PHN consultant for TB – Terry Wilson
- Regional State Supervisor
- County Health Officer
- State Pharmacist/ Local pharmacist
Finally……

The Vision of PHN in Wyoming is for a **HEALTHIER, SAFER WYOMING**

- The Mission of Wyoming PHN is to:
  - Prevent disease and injury
  - Promote healthy lifestyles
  - Protect community health
  - Prepare for emergencies and health threats
References

- Center for Disease Control
- The 2014 Wyoming Tuberculosis Report
- The Mayo Clinic
- The State of Wyoming TB Program Manual
- American Nurse Association
- Wyoming Department of Health
- PHN Guidelines and Orders