

TB Control in Yakima County

 **END
TB**



What is Tuberculosis? (TB)

- A disease that can infect any part of the body, but the lungs are most commonly infected
- Caused by a bacteria, usually *Mycobacterium tuberculosis*
- Primarily transmitted from person to person through the air
- Usually remains in a latent state for years before becoming active



Latent TB Infection vs. Active TB Disease

Latent TB Infection (LTBI)

- Do not feel sick, do not have symptoms, and cannot spread TB germs to others
- Can have latent TB infection for years
- Have a small amount of TB germs in their bodies that are alive but inactive
- Latent TB infection can develop into TB disease

Active TB Disease

- Symptoms which include:
 - Weight loss
 - Loss of appetite
 - Fever/Chills
 - Night sweats
 - Fatigue
 - Cough and Chest pain (pulmonary)
- Contagious if pulmonary TB

Why Worry About TB?

Global TB

- Nearly 2 Billion people are infected with TB
- 10 Million people became ill with TB every year
- 4,100 people die from TB everyday

U.S. TB

- 7,860 people became ill from TB in 2021
- 526 people died from TB in 2019
- Approximately 2% of TB cases are multi-drug resistant

Why Worry About TB?

TB Mortality - Without Proper Treatment Very High Mortality

- About 50% of patients will die
- About 17% will survive in a continuously infectious state
- About 33% will spontaneously cure, but are high risk to reactivate

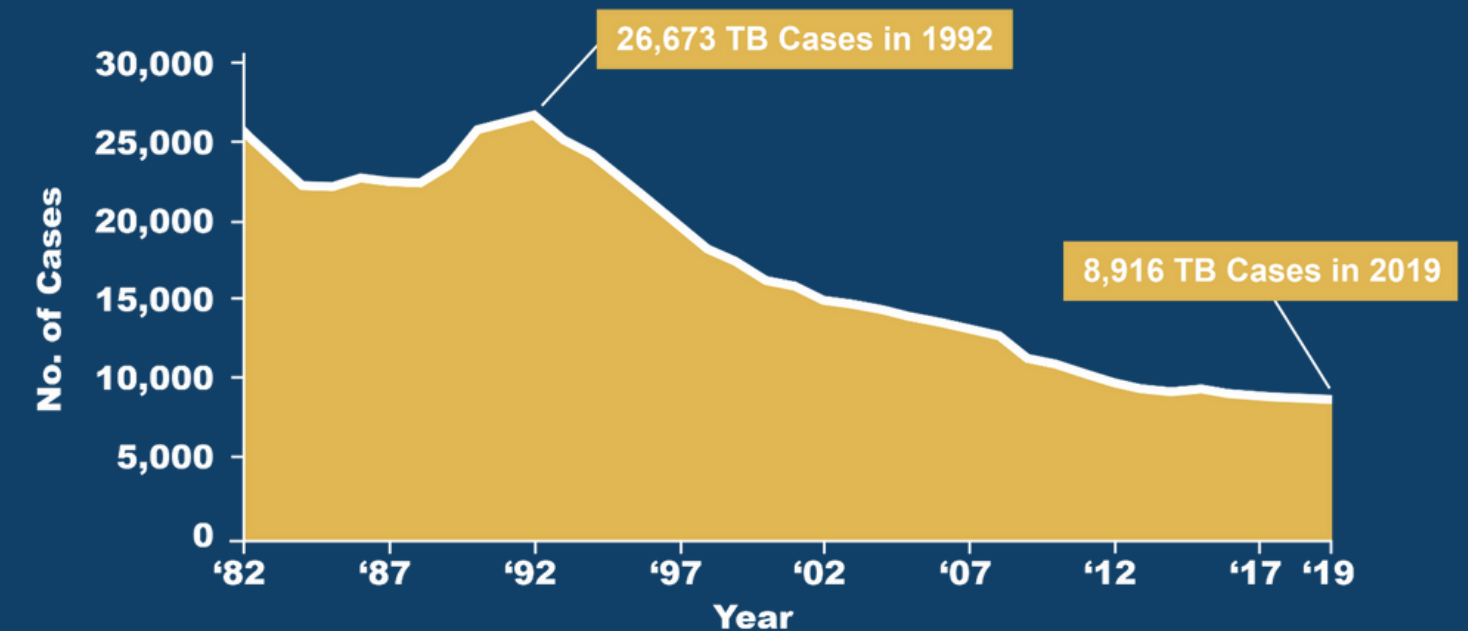
Treatment is Difficult

- 6-9 months of daily, multi-drug treatment
- Many side effects possible, some very serious
- Improper treatment leads to drug resistant TB
- Patient will usually remain contagious until proper treatment administered

Stats of Active TB Disease Cases

<u>Case rate/100k</u>	2016	2017	2018	2019	2020
Nationwide	2.9	2.8	2.8	2.7	2.2
Statewide	2.8	2.8	2.0	2.0	2.1
Yakima County	2.8	2.8	2.6	2.9	+

<u>Total Cases</u>	2016	2017	2018	2019	2020
Nationwide	9,242	9,071	9,006	8,916	7,174
Statewide	204	207	190	221	163
Yakima County	7	7	5	5	2



Yakima County had 9 active cases in 2021

Notifiable Conditions

- WAC 246-101-101
- Immediately notifiable for confirmed and suspected cases
 - Strategic Goal: *Deliver Mandated Services*



Washington State Department of
Health

Notifiable
Conditions

HEALTH CARE PROVIDERS

Notifiable to the local health jurisdiction (LHJ) of the patient's residence

Phone numbers by LHJ are listed on the other side of this poster. If unable to reach the LHJ of the patient's residence, please call: **1-877-539-4344**

How Do We Control TB?



DIAGNOSIS AND PROPER TREATMENT

Strategic Goal:
Deliver Mandated Services

- Clinical Consultation
- Case Management
- Directly Observed Therapy



CONTACT INVESTIGATIONS

Strategic Goal:
Devliver Mandated Services

- Finding exposed people
- TB testing and treatment



EDUCATING MEDICAL PROVIDERS

Strategic Goal:
Increase Community Partnerships

- Screening for TB
- Diagnosing TB
- Treating TB
- TB ECHO

Directly Observed Therapy (DOT)

Strategic Goal: Deliver Mandated Services

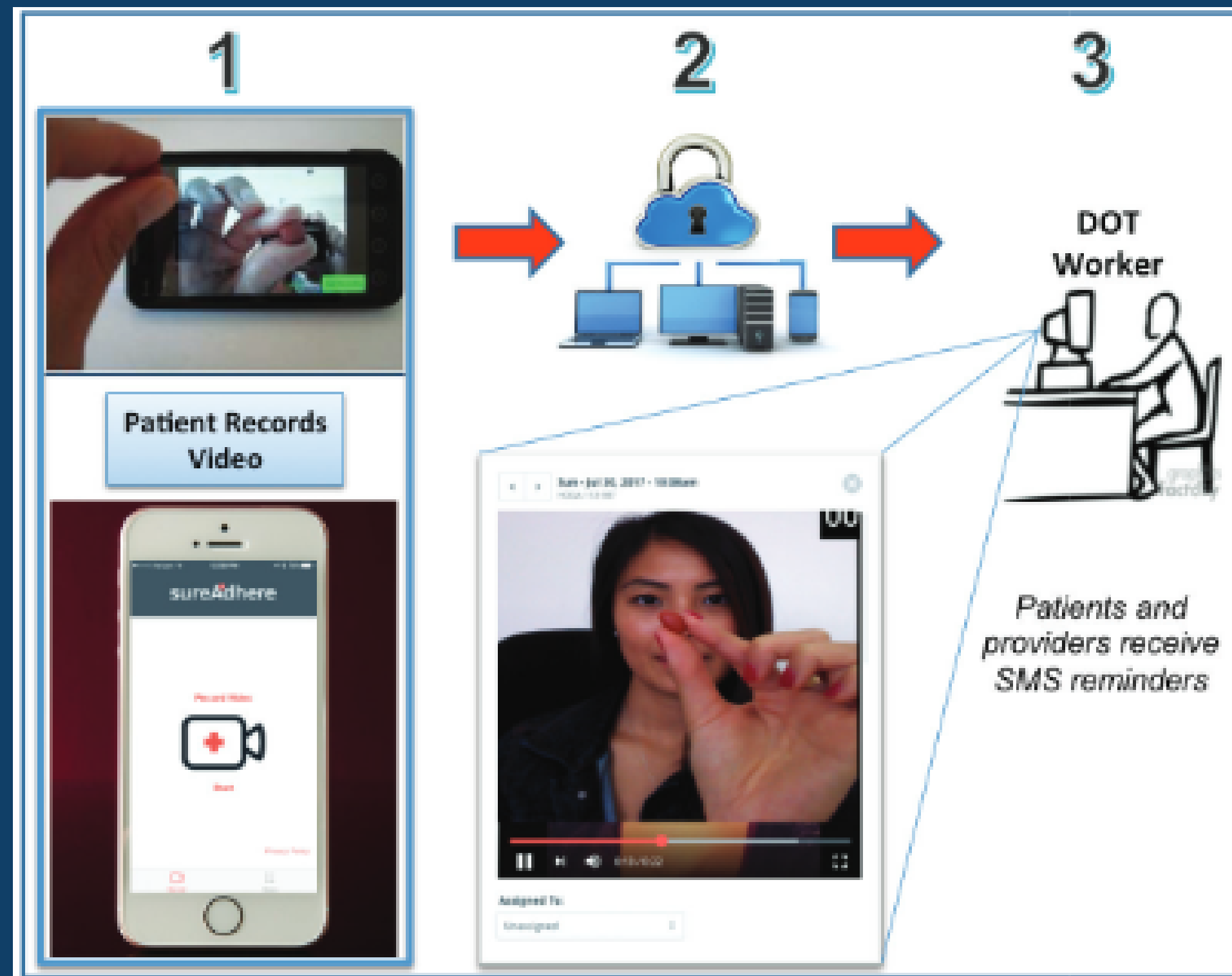
- DOT is a standard of care promoted by WHO and CDC since the 1990 to prevent increasing drug resistance
- Medications are taken under the observation of a public health worker
- Prevents treatment failure and drug resistance



What is Video DOT? (vDOT)

Strategic Goal: Increase Efficiency and Effectiveness

- Patients use a smartphone app to video record themselves taking the medications
- The video is encrypted, then uploads to a secure server
- Video is automatically deleted from the phone once uploaded (protects privacy)
- The video is viewed by Health District staff via a secure web portal



Cost Savings of vDOT

2018 Cost - Traditional DOT

- DOT for one TB case in Tieton for six months = ~\$19,000
- DOT for one TB case in Toppenish area for six months = ~ \$14,000

2018 Cost - vDOT

- vDOT for one TB case in Tieton for six months = ~\$3,600 (~\$15,600 saved)
- vDOT for one TB case in Toppenish area for six months = ~ \$3,300 (~\$10,900 saved)

TB Funding Sources

- Department of Health (DOH)
- Yakima County (RCW 70.30.055)
- Public Health Dollars



Questions?