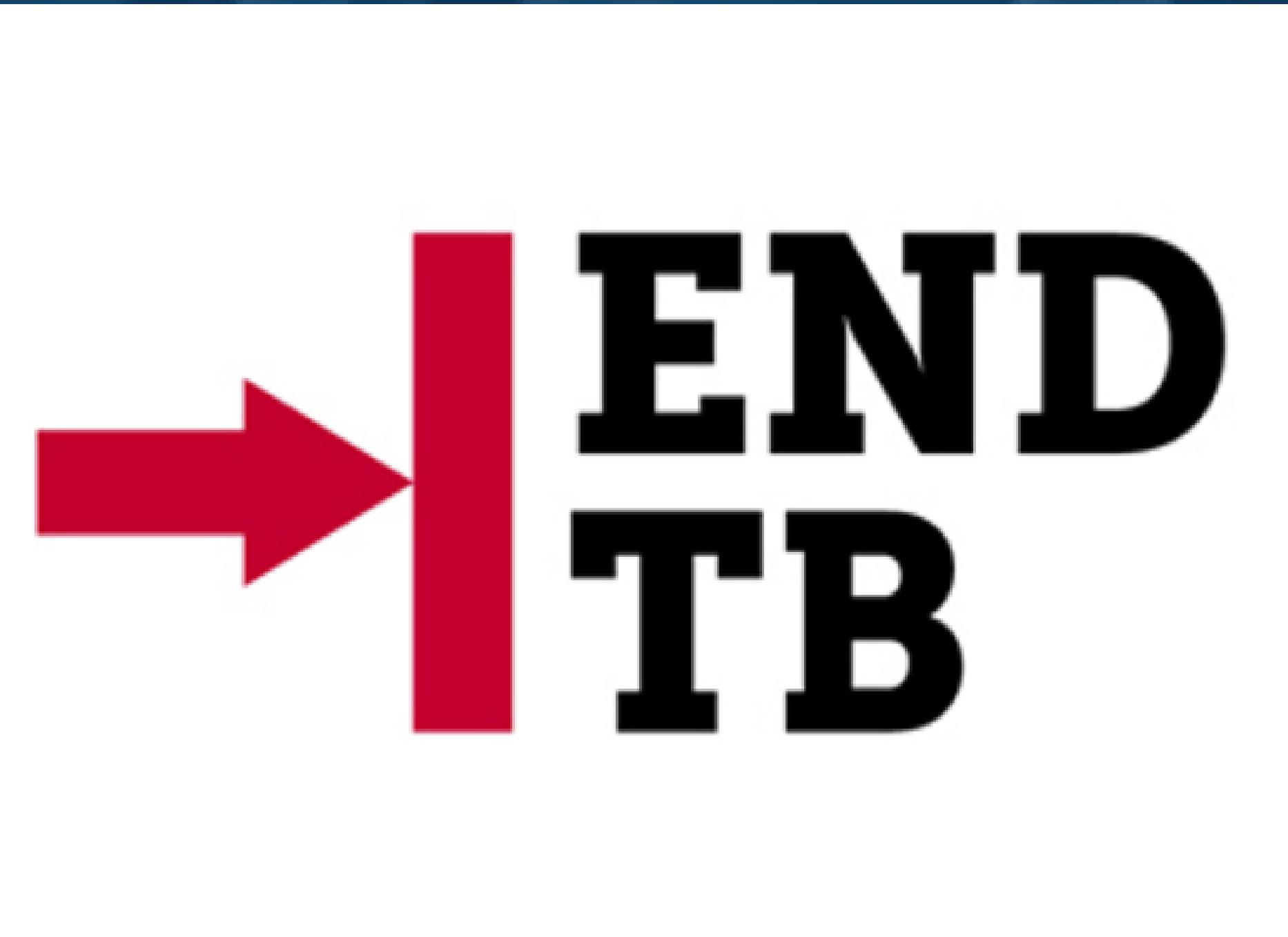


TB Control in Yakima County



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

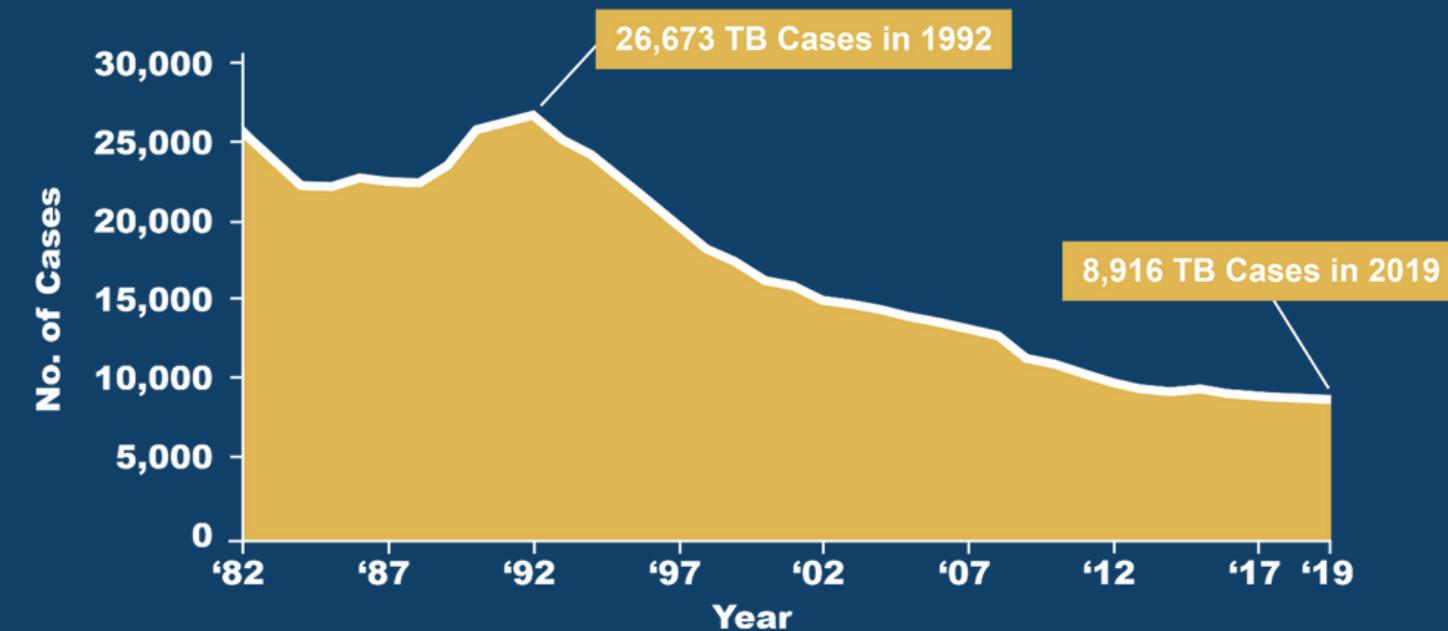
Treatment is Difficult

- 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	8916	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*



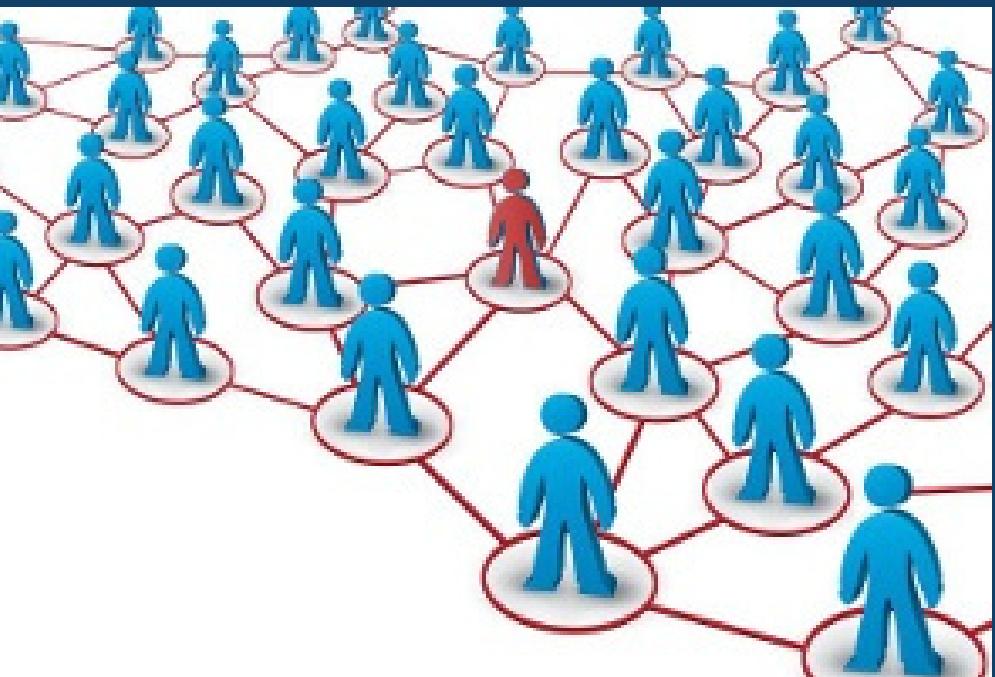
How Do We Control TB?



DIAGNOSIS AND PROPER TREATMENT

Strategic Goal:
Deliver Mandated Services

- Clinical Consultation
- Case Management
- Directly Observed Therapy



CONTACT INVESTIGATIONS

Strategic Goal:
Deliver 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*

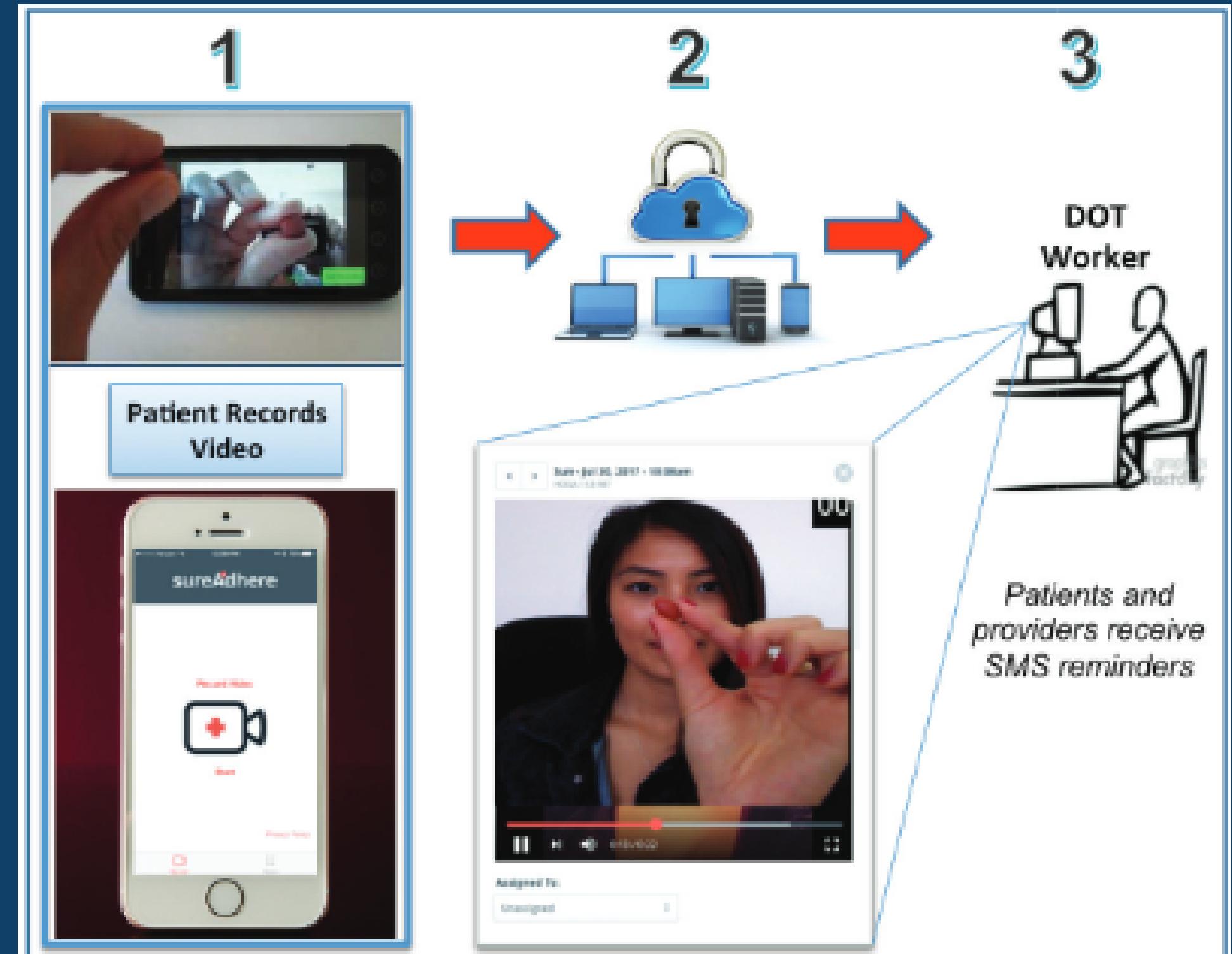
- DOT is a standard of care promoted by WHO and CDC since the 1990 to prevent increasing drug resistance
- Medications are taken under the observation of a public health worker
- Prevents treatment failure and drug resistance



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?