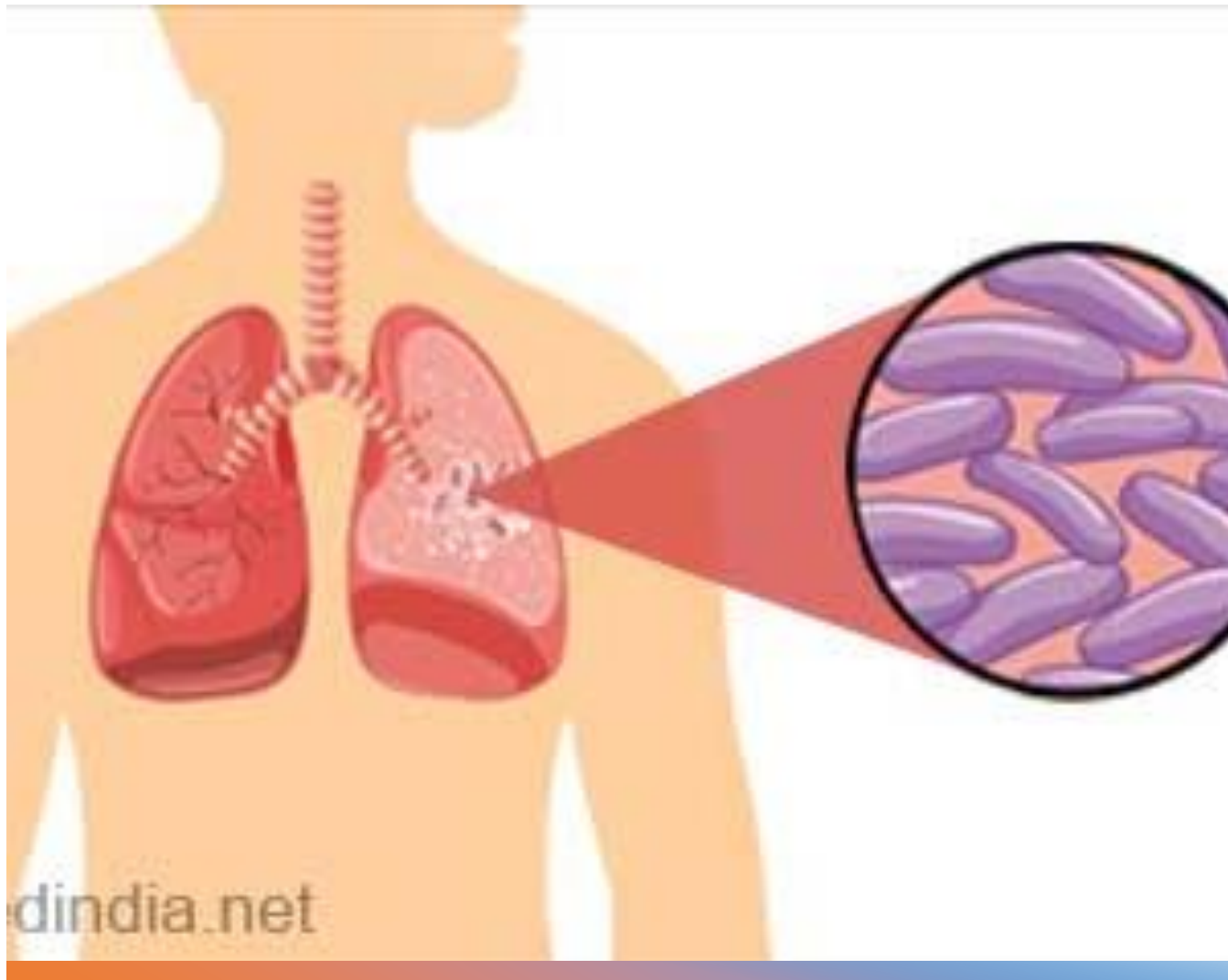


Tuberculosis Screening in Long- Term Care and Retirement Homes

Infectious Diseases Program

Grey Bruce Public Health





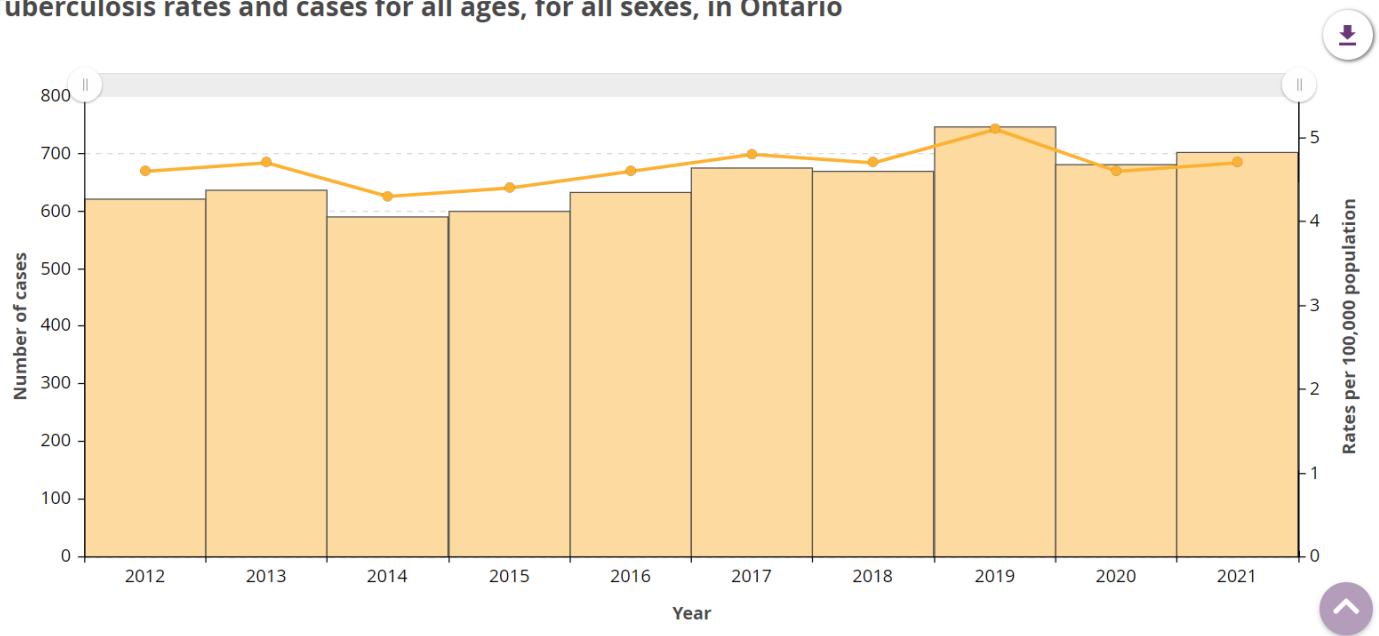
Tuberculosis

- Tuberculosis (TB) is a serious disease caused by breathing in a bacteria called *Mycobacterium tuberculosis*.
- TB usually infects the lungs. TB can also infect other parts of the body, including the kidneys, spine and brain.
- Anyone can get TB.
- TB is not a disease of the past.



TB is not a disease of the past

Tuberculosis rates and cases for all ages, for all sexes, in Ontario





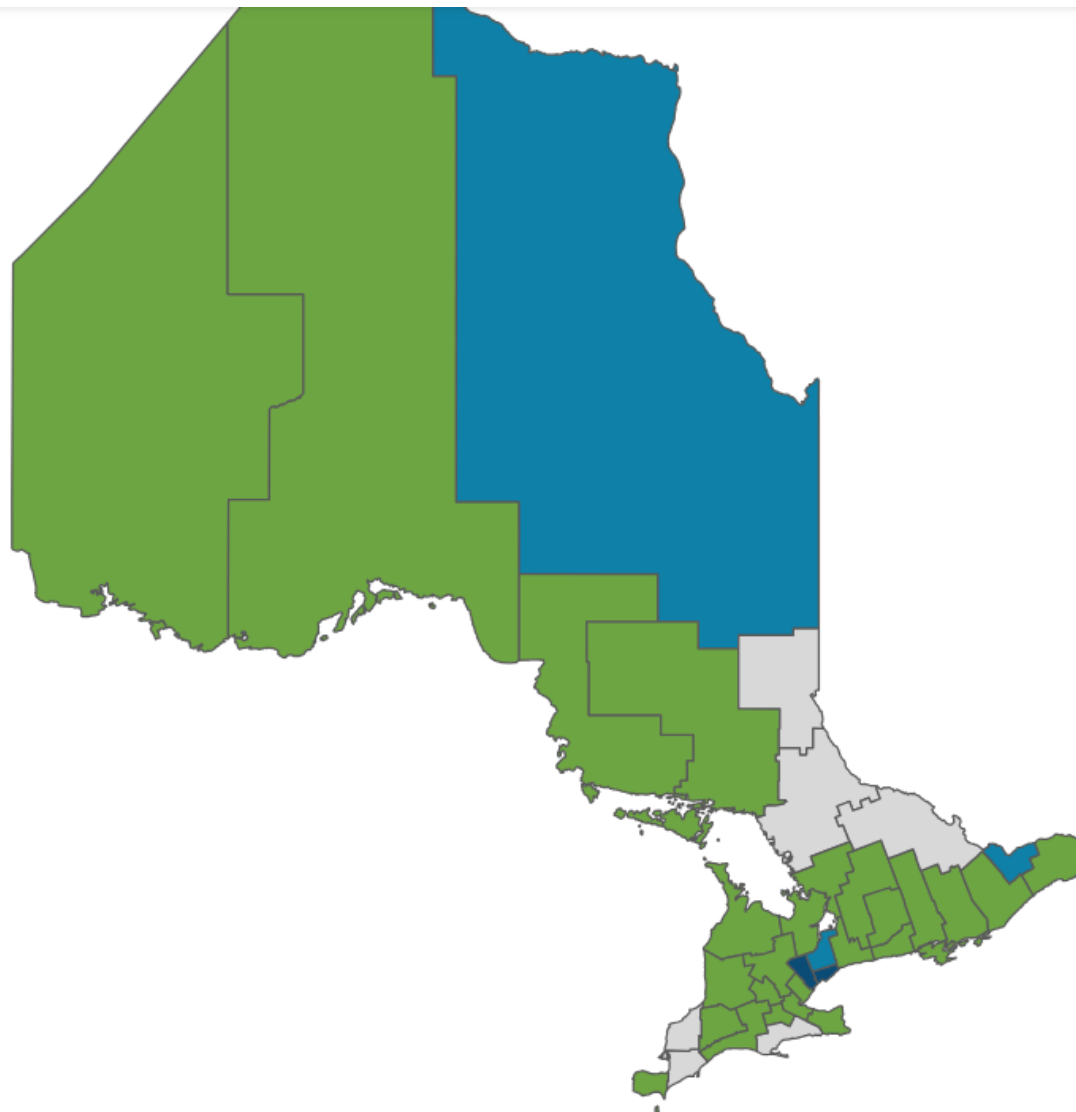
Rate: 4.7

Total Cases: 702

Cases did not specify as male or female: 1

Population: 14,826,276

Note: Cases that did not specify as male or female are included in total case counts. All ages include cases with unknown age.



Rate range (per 100,000 population)



0.0

13.0 - 17.2



TB Infection vs TB Disease

TB Infection (inactive/latent)

- Not infectious
- Not symptomatic
- Bacteria is dormant in your body, 5-10% chance of developing an active TB disease
- TB preventive treatment

TB Disease (active)

- Infectious
- Symptomatic
- Commonly respiratory TB, but can also cause non-respiratory TB
- Airborne precautions when respiratory TB
- Antibiotic treatment



Screening for TB in LTCH/RH

- Both Residents and Healthcare workers are required to be screened for TB.
- Screening recommendations are from the Canadian TB Standards 8th Ed (released March 2022).
- All healthcare settings should have a TB infection prevention and control program/policies.



- <https://www.tandfonline.com/ucts20>



Resident screening

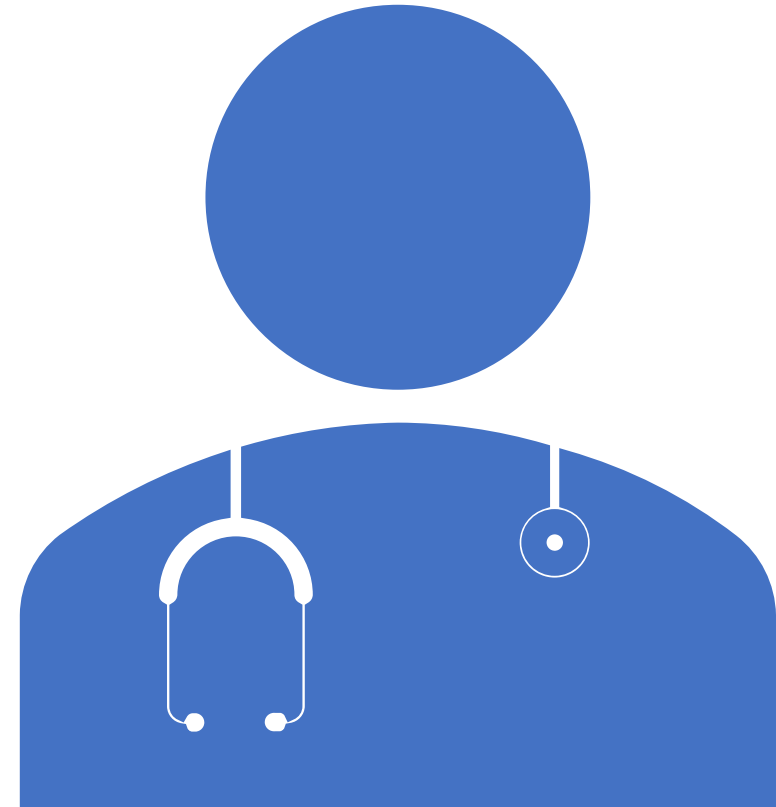
- Screen completed within 14 days of an admission to your home or within the 90 days prior to admission
- As per the *Canadian TB Standards 8th edition*:
 - Routine TST or IGRA testing for residents is NOT recommended (**NEW**).
 - Assessment of TB disease is required to be completed on or before admission to a home by a health care provider. Residents should be screened for symptoms of TB disease.
 - Residents who present with signs or symptoms of TB disease should complete a posteroanterior and lateral chest x-ray (CXR). Residents should be referred to a health care provider for further assessment.
 - In addition, Grey Bruce Public Health recommends that residents be screened for risk factors of tuberculosis. If risk factors are identified, a CXR is recommended to be completed.
 - Residents suspected to have TB disease should be placed in isolation on airborne precautions.



Screening New Hire Employees

As per the Canadian TB Standards 8th edition:

- Baseline two-step TST is recommended for all health care workers in all health care settings. Two-step TST provides an accurate baseline for individuals who will have repeat testing.
- If an employee has a previous documented negative two-step TST result, any subsequent TST should only be one step.
- In addition, Grey Bruce Public Health recommends no TST if an employee has a document negative TST completed within the past 12 months, unless there is an indication for testing.
- **NOTE:** TSTs should not be completed on persons who have had a previous positive TST documented, previous TB disease or previous TB infection.
- Repeated/periodic testing (e.g., annual) is not routinely recommended.





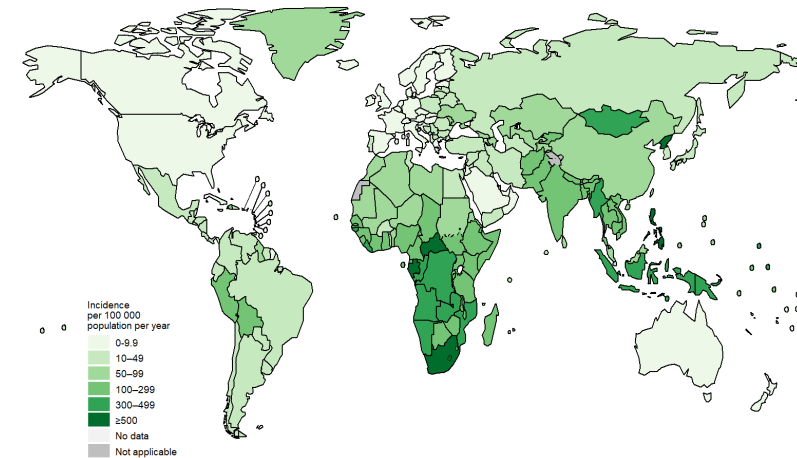
Screening New Hire Employees continued...

- In addition to a TST, all health care workers should have TB screening completed:
 - A TB risk assessment that examines risk factors for tuberculosis
 - Assessment for signs and symptoms of TB. If an employee has signs and symptoms compatible with TB disease they should be referred to a health care provider for further follow-up and investigation.
 - It is recommended that employees with a positive TST who have been diagnosed with a TB infection speak with their health care provider regarding TB preventative therapy (TPT). TPT is offered at no cost through Grey Bruce Public Health.
 - Employees with a documented previous positive TST, TB disease or TB infection should be assessed for signs and symptoms of TB, as well as risk factors or potential exposures to someone with TB. If the employee is symptomatic, further assessment by a health care provider including a chest x-ray should be completed.



Risk Factors of TB

- Born in a high incidence TB country,
- Time spent in a high incidence TB country,
- Contact of someone with TB disease,
- Persons being treated for HIV infection
- Organ transplant
- Persons with end stage renal disease
- Persons with prior TB infection or TB disease.



World Health Organization



- [TB profile \(shinyapps.io\)](https://shinyapps.io) TB profile and rates of countries
- High incidence of TB 40 per 100,000 or greater.

Country
 Group

 English
 Español
 Français
 Русский

Tuberculosis profile: Canada

Population 2021: 38 million

Estimates of TB burden*, 2021

	Number	(Rate per 100 000 population)
Total TB incidence	2 000 (1 700-2 400)	5.3 (4.6-6.2)
HIV-positive TB incidence	58 (41-77)	0.15 (0.11-0.2)
MDR/RR-TB incidence**	41 (15-67)	0.11 (0.04-0.17)
HIV-negative TB mortality	79 (78-80)	0.21 (0.2-0.21)
HIV-positive TB mortality	12 (7-17)	0.03 (0.02-0.04)

Estimated proportion of TB cases with MDR/RR-TB*, 2021

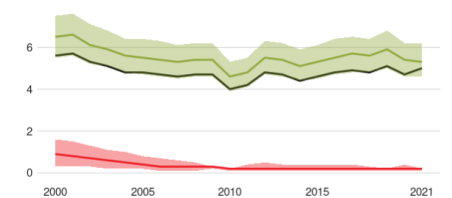
New cases	1.3% (0.62-2.5)
Previously treated cases	8.5% (2.1-21)

Universal health coverage and social protection*

TB treatment coverage (notified/estimated incidence), 2021	94% (81-110)
TB patients facing catastrophic total costs	
TB case fatality ratio (estimated mortality/estimated incidence), 2021	4% (4-5)

Incidence, New and relapse TB cases notified, HIV-positive TB incidence

(Rate per 100 000 population per year)



HIV-negative TB mortality

(Rate per 100 000 population per year)





GBPH Screening Tools

Name of Resident:	
DOB:	
Health Care Provider:	

Screening Assessment			
Date Completed (yyyy/mm/dd):			
Completed by (name/signature/designation):			
<p>All residents who have signs/symptoms of TB disease or significant risk factors for TB disease require a posteroanterior and lateral chest x-ray to rule out TB disease. Residents should be referred to a health care provider for further follow up. Please note that elderly persons may present with atypical signs and symptoms of tuberculosis. Health care providers should consider tuberculosis as a differential diagnosis in residents with failure to thrive who have risk factors for TB.</p>			
Signs and Symptoms	Symptom	Onset Date (YYYY/MM/DD)	Symptom
	<input type="checkbox"/> Asymptomatic		<input type="checkbox"/> Weight loss
	<input type="checkbox"/> Cough greater than 2 weeks duration		<input type="checkbox"/> Fatigue
	<input type="checkbox"/> Non-resolving pneumonia		<input type="checkbox"/> Night sweats
	<input type="checkbox"/> Hemoptysis		<input type="checkbox"/> Loss of appetite
	<input type="checkbox"/> Chest Pain		<input type="checkbox"/> Shortness of Breath
	<input type="checkbox"/> Fever		<input type="checkbox"/> Other
MEDICAL RISK FACTORS <input type="checkbox"/> Yes <input type="checkbox"/> No		OTHER RISK FACTORS <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> HIV/AIDS <input type="checkbox"/> End Stage Renal Disease / Chronic Renal Failure requiring hemodialysis <input type="checkbox"/> Organ Transplant Recipient <input type="checkbox"/> Sarcoidosis or fibronodular disease <input type="checkbox"/> Head and neck carcinoma <input type="checkbox"/> Diabetes <input type="checkbox"/> Persons taking tumor necrosis factor alpha inhibitors or glucocorticoid treatment (>15mg/day prednisone) <input type="checkbox"/> Persons who use injection drugs		<input type="checkbox"/> Contact of TB disease case <input type="checkbox"/> Foreign born or indigenous born Canadian <input type="checkbox"/> Born in a high incidence country (specify): <input type="checkbox"/> Travelled in a high incidence country (specify): <input type="checkbox"/> Previous TB disease (active TB) <input type="checkbox"/> Previous TB infection (latent TB)	
If resident has had previous TB disease or TB infection include treatment information below if applicable:			
Treatment Regime (medication, dose, frequency):			
Completed Treatment: <input type="checkbox"/> Yes <input type="checkbox"/> No (Specify year completed yyyy/mm/dd):			

Note: This is a tool for the home's internal use and can be saved to resident or employee file.

Name of Employee:	Phone #			
DOB (yyyy/mm/dd):	Address:			
Screening Assessment				
Date Completed (yyyy/mm/dd):				
Completed by (name/signature/designation):				
<p>All employees who have signs/symptoms of TB disease should be referred to a healthcare provider for further assessment. Employees with a positive TST should have a medical evaluation to assess for TB disease. This should include a chest x-ray.</p>				
TUBERCULOSIS SKIN TEST (TST):				
Previous Positive TST: <input type="checkbox"/> No <input type="checkbox"/> Yes If yes specify: Previous Chest Xray for TB screening: <input type="checkbox"/> No <input type="checkbox"/> Yes If yes specify: Negative TST completed in the last 12 months? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes specify: TST screening required upon hire? <input type="checkbox"/> No <input type="checkbox"/> Yes				
TST	Date Planted	Date Read	Read by:	Results (mm)
Step 1 TST:				
Step 2 TST:				
Note: If employee has a previous documented 2 step TST, only a 1 step is required.				
SIGNS AND SYMPTOMS				
Symptom	Onset Date (YYYY/MM/DD)	Symptom	Onset Date (YYYY/MM/DD)	
<input type="checkbox"/> Asymptomatic		<input type="checkbox"/> Weight loss (unintended)		
<input type="checkbox"/> Cough greater than 2 weeks duration		<input type="checkbox"/> Fatigue		
<input type="checkbox"/> Non-resolving pneumonia		<input type="checkbox"/> Night sweats		
<input type="checkbox"/> Hemoptysis		<input type="checkbox"/> Loss of appetite		
<input type="checkbox"/> Chest Pain		<input type="checkbox"/> Shortness of Breath		
<input type="checkbox"/> Fever		<input type="checkbox"/> Other (specify):		
MEDICAL RISK FACTORS <input type="checkbox"/> Yes <input type="checkbox"/> No		OTHER RISK FACTORS <input type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> Current or planned immune suppression <input type="checkbox"/> Other (specify):		<input type="checkbox"/> Contact of TB disease case <input type="checkbox"/> Born in a high incidence country (specify): <input type="checkbox"/> Travelled in a high incidence country (specify): <input type="checkbox"/> Previous TB disease (active TB) <input type="checkbox"/> Previous TB infection (latent TB)		
If employee has had previous TB disease or TB infection include treatment information below if applicable:				
Treatment Regime (medication, dose, frequency):				
Completed Treatment: <input type="checkbox"/> Yes <input type="checkbox"/> No (Specify year completed yyyy/mm/dd):				

Note: This is a tool for the home's internal use and can be saved to resident or employee file.

Questions?

THINK TB

