#### Appendix A

NCCID TB Program Performance Indicators Meeting Worksheet - A Compilation of Performance Indicators across Canadian and International Sources

This worksheet and resource was created to support TB program performance indicator prioritization by meeting participants. Working in population-specific groups, participants reviewed the attached list of 105 indicator priorities compared across eight Canadian and international sources of TB program performance measurement guidance. Participants were asked to indicate which indicators were priorities for the programs, sub-populations, and specific communities that they serve. They were also asked to discuss and record information on key considerations for each indicator including potential definitions (numerators and denominators), key stratifiers, challenges to implementation (feasibility and robustness), and possible solutions to those challenges. Participants were asked to fill in any gaps and add in indicators of interest if they did not exist in the compiled list.

	PHN Butler-Jones D, Corriveau A, Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; :1–69.	FINIHB  First Nations and Inuit Health Branch, Health Canada. Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan/Long Heffernan C, Long R. Would program performance indicators and a nationally coordinated response accelerate the elimination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning/Orr Fanning A, Orr P. TB Program Objectives and Performance Targets for FNIH Jurisdictions. 2010	WHO  World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.int/tb/strategy/End_TB_Strategy.p  f?ua=1.	USA-CDC  CDC. National TB Program Objectives & Performance Targets for 2020. 2015.  https://www.cdc.gov/tb/programs/evaluation/pdf/programobjectives.pdf.	England  Public Health England, NHS England. Collaborative Tuberculosis Strategy for England: 2015 to 2020. 2015. www.gov.uk/government/uploads/system/uploads/ attachment_data/file/3902625/CollaborativeTisStrate generation	Australia  National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:E286–E293.
Incidence and Inequalities		Italicized indicators represent potential TB program objectives and performance tagets from PHN						
Overall and Subpopulation	National Incidence Rate	Number of newly reported cases of active TB (new and re-treatment cases)	Incidence	TB Case Incidence	TB Incidence, Prevalence, and Mortality	TB Incidence Rate	TB incidence per 100,000 population. Three year <b>rolling average</b> for local levels	Incidence of TB
Pediatric			Proportion of <b>pediatric cases</b> (< 5 years)			Incidence of TB disease among children younger than 5 years of age.	TB incidence per 100,000 population in UK born children aged under fifteen years.	
Respiratory/Non- Respiratory		Number of newly reported cases of respiratory (primary, pulmonary, other) and non-respiratory TB						
Drug-Resistance	Acquired <b>drug resistance rate</b> (target 0%)	Number of newly reported cases of drug-resistant TB  Acquired drug resistance rate (target 0%)					Number and proportion of culture confirmed TB cases with any first line drug resistance.  Annual number and proportion of culture confirmed TB cases with MDR-TB.	Incidence and characteristics of drug resistant TB acquired within Australia.  Incidence and characteristics of drug resistant TB in migrants.
HIV Co-Infection		Number of newly reported new cases of active TB who were also co-infected with HIV						
Higher-Risk Groups - Enhanced								Incidence and Characteristics of TB in higher risk groups (overseas born persons; healthcare workers; irregular maritime arrivals).
Health care-acquired								Number of cases of TB acquired within Australian health care institutions/ laboratories
Inequalities							Slope index of inequalities (SII) in TB rates (use index of deprivation score)	
Lab Reporting								
Timely Lab Arrival	Turnaround time between specimen collection and arrival at the laboratory (target of 24 hours)	Turnaround time between specimen collection and arrival at laboratory (target of 24 hours)						
Timely Smear	Turnaround time between specimen receipt and AFB smear microscopy (target 24 hours)	Turnaround time between receipt of specimen and AFB smear microscopy (target of 24 hours)		Page 1				

The second control of the control of									1
Security of the control of the contr				Heffernan/Long	Fanning/Orr				
and with MAT with an internal patterns of the MAT with an internal patterns of the MAT with patt		Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012;	Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations	indicators and a nationally coordinated response accelerate the elimination of tuberculosis in	Fanning A, Orr P. TB Program Objectives and Performance Targets for FNIH Jurisdictions. 2010	Geneva, Switzerland: 2015. http://www.who.int/tb/strategy/End_TB_Strategy.pd	Performance Targets for 2020. 2015. https://www.cdc.gov/tb/programs/evaluation/pd	Tuberculosis Strategy for England: 2015 to 2020.  2015.  www.gov.uk/government/uploads/system/uploads/ attachment_data/file/396263/CollaborativeTBStrate	National Tuberculosis Advisory Committee. Th Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:E286–E293.
The second of the control of the con	Timely NAAT	result and <b>Nucleic acid amplification testing</b> for M. tuberculosis complex detection	and NAAT test for M. Tuberculosis	Turn-around time (NAAT)			specimens positive for MTBC by nucleic acid amplification (NAA), the proportion reported by the laboratory within 6 days from the		
State Confirmation and		(target of up to 6 weeks) and for solid media cultures (target of up to 8 weeks) and bacteriological diagnosis by culture from time	(target of up to 6 weeks) and for solid media cultures (target of up to 8 weeks) and bacteriological diagnosis by culture from time specimen	Turn-around time (Culture)			respiratory specimens identified with M. tuberculosis complex (MTBC), the proportion reported by the laboratory within 25 days from the date the specimen was		
enotyping leading lead	Culture-confirmation						older with a pleural or respiratory site of disease, the <b>proportion</b> who have a <b>sputum</b>	pulmonary TB cases that were	confirmed by microbiological
recognition and reporting and identification of my producted all gardetic state of zitory of softening spaces (larger of 21 all spaces).  Turnaround time between positive of trush and primary susceptibility vesting continue and primary suscep	Genotyping						culture result, increase the proportion who have a MTBC		
Frogerition of nuture-positive cases with GST  Turnaround time between positive culture and primary susceptibility cutture and primary susceptibility cutting (target of 7 to 14 day)  Turnaround time between putting and CR, et and of initial phase of reatment puting and CR, et and of initial phase of reatment phase and CR, et and of initial phase of reatment phase and CR, et and of initial phase of reatment phase and CR, et and of initial phase of reatment phase and CR, et and of initial phase of reatment phase and CR, et and of initial phase of reatment phase and creatment phase of reatment proportion of smear-positive puting sufficiently and phase and creatment phase of reatment pha	Species Identification- time	receipt and identification of mycobacterial species (target of	receipt to identification of mycobacterial species (target of 21						
ST-time culture and primary susceptibility testing (larget of 7 to 14 day)  ulture-during eatment  ulture-during eatment  Turnaround time between test completion and reporting of all test results both electronically and hard sopy (largets) 24 to 86 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard sopy (largets) 24 to 86 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard sopy (largets) 24 to 86 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard sopy (largets) 24 to 86 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard sopy (largets) 24 to 86 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard sexults	DST					whom results of drug susceptibility	results, the proportion who have initial drug-susceptibility results	confirmed TB cases with drug susceptibility testing reported for	
ulture-during eatment  Proportion of smear positive pulmonary cases with sputum culture and CXR, end of initial phase of treatment  Turnaround time between test completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Turnaround time between test completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours of collection  Turnaround time between test completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours of collection  Turnaround time between test completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours of collection  Turnaround time between test completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours of collection  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours of collection  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours of collection  Turnaround time for sputum smears to be reported back to ordering staff/facility Proportion of smears reported back within 48 hours	DST-time	culture and primary susceptibility	culture and primary susceptibility						
completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  again agreement and reporting and an eporting of all test results both electronically and hard copy (targets of 24 to 48 hours respectively)  Proportion of smears reported back within 48 hours of collection  Proportion of smears reported back within 48 hours of collection  Proportion of smears reported back within 48 hours of collection  Proportion of smears reported back within 48 hours of collection  Proportion of cases with a diagnostic delay of greater than 1 month.	Culture-during treatment			pulmonary cases with sputum culture and CXR, end of initial phase of treatment Proportion of smear-positive pulmonary cases with sputum culture and CXR, end of					
diagnostic Delay diagnostic delay of greater than 1 month.	Report Back-time	completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours	completion and reporting of all test results both electronically and hard copy (targets of 24 to 48 hours		be reported back to ordering staff/facility Proportion of smears reported back				meeting the recommended turn
reatment	Diagnostic Delay								diagnostic delay of greater than
	Case Management and Treatment								

			-					
	<u>PHN</u>	<u>FNIHB</u>	Heffernan/Long	Fanning/Orr	<u>WHO</u>	USA-CDC	England  Public Health England, NHS England. Collaborative	<u>Australia</u>
	Butler-Jones D, Corriveau A, Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; :1–69.	First Nations and Inuit Health Branch, Health Canada. Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan C, Long R. Would program performance indicators and a nationally coordinated response accelerate the elimination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning A, Orr P. TB Program Objectives and Performance Targets for FNIH Jurisdictions. 2010	World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.int/tb/strategy/End_TB_Strategy.pc f?ua=1.	CDC. National TB Program Objectives & Performance Targets for 2020. 2015. https://www.cdc.gov/tb/programs/evaluation/pdf, programobjectives.pdf.	Tuberculosis Strategy for England: 2015 to 2020. 2015. www.gov.uk/government/uploads/system/uploads/attachment_data/file/396263/CollaborativeTBStrategyEngland_FINAL.pdf.	National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:E286–E293.
Early Diagnosis-Smear positive				Percentage of pulmonary <b>TB cases</b> that are <b>smear positive</b>				
Early Diagnosis- symptoms-to-treatment				Proportion of cases where mean and median time from onset of symptoms to onset of therapy is less than 4 months			Number and proportion of pulmonary TB cases <b>starting</b> treatment within two months and four months of symptom onset.	
Treatment Initiation	Proportion of cases where treatment is started with 4 or more anti-TB drugs until drug sensitivity test results are available, unless there are current local drug sensitivity data showing that resistance is not a risk (target ≥ 90% of cases)	Proportion of cases where treatment is started with 4 or more anti-TB drugs until drug sensitivity test results are available, unless there are current local drug sensitivity data showing that resistance is not a risk (target ≥ 90% of cases)	i) Proportion of Canadian-born cases/w no past hx TB started on a minimum of 3 drugs ii) Proportion of foreign-born cases/w no past hx TB started on a minimum of 4 drugs			For patients whose diagnosis is likely to be TB disease, the proportion who are started on the recommended initial 4-drug regimen.		
Timely Treatment Initiation	Proportion of cases <b>started</b> on anti- TB drugs <b>within 48 hours of</b> <b>diagnosis</b> (target ≥ 95%)	Proportion of cases started on anti-TB drugs within 48 hours of diagnosis (target ≥ 95%)	Proportion of smear-positive pulmonary cases starting treatment within 72 h of NAAT	Proportion of patients who are diagnosed with TB (clinically or microbiologically) that start treatment within 48 hours of diagnosis		For TB patients with positive acid- fast bacillus (AFB) sputum smear results, the proportion who initiated treatment within 7 days of specimen collection.		
Sputum Culture Conversion	Proportion of culture-positive, drug- sensitive respiratory cases with sputum culture conversion (target 2 80% have three consecutive negative sputum cultures within 60 days of treatment initiation)	Proportion of culture-positive, drug- sensitive respiratory cases with sputum culture conversion (target ≥ 80% have three consecutive negative sputum cultures within 60 days of treatment initiation)		Sputum Culture Conversion - Proportion of patients with culture positive sputum that are sputum negative within 4 months of treatment initiation		For TB patients with <b>positive</b> sputum culture results, the proportion who have documented conversion to negative results within 60 days of treatment initiation.		
Treatment Completion	Proportion of cases with <b>treatment</b> success (cure or completion) within 12 months of treatment initiation for patients who did not die or transfer out during treatment (target ≥ 90% of cases)	Number of TB cases (active and re- treatment) diagnosed in (year) who completed treatment (including cured) within one year of treatment start date  Proportion of cases with treatment success (cure or completion) within 12 months of treatment initiation for patients who did not die or transfer out during treatment (target ≥ 90% of cases)	Proportion of smear-positive pulmonary cases that complete treatment within 12 months	Proportion of patients with newly diagnosed TB, for who 12 months or less of treatment is indicated, who <b>complete</b> treatment within 12 months	Tuberculosis <b>treatment success</b> rate	For patients with newly diagnosed TB disease for whom 12 months or less of treatment is indicated, the proportion who complete treatment within 12 months.	Number and proportion of drug sensitive TB cases who had completed a full course of treatment by 12 months.	Proportion of successful treatment of TB.
Lost-to-follow up							Number and proportion of <b>drug</b> sensitive TB cases that were <b>lost to follow up</b> at last reported outcome.	
Left-treatment		Number of TB cases diagnosed in (year) who transferred out before treatment completion within one year of treatment start date						
TB Deaths		Number of TB cases diagnosed in (year) who died before or during treatment within one year of treatment start date Number of deaths - TB was a direct cause  Number of deaths - TB contributed, but was not the cause of death  Number of deaths - had TB, but did not contribute to death	Proportion with TB-related death of preceding years' cases				Number and proportion of <b>drug</b> sensitive TB cases that had <b>died</b> at last reported outcome.	

	PHN  Butler-Jones D, Corriveau A. Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; :1–69.	FNIHB  First Nations and Inuit Health Branch, Health Canada.  Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan/Long Heffernan C, Long R. Would program performance indicators and a nationally coordinated response accelerate the elimination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning/Orr Fanning A, Orr P. TB Program Objectives and Performance Targets for FNH Jurisdictions. 2010	WHO  World Health Organisation. The End 18 Strategy. Geneva, Switzerland: 2015. http://www.who.in/t/b/strategy/End_18_Strategy.pi ??ua=1.	USA-CDC  CDC. National TB Program Objectives & Performance Targets for 2020. 2015.  https://www.cdc.gov/tb/programs/evaluation/pdf/programobjectives.pdf.	England Public Health England, NHS England, Collaborative Tuberculosis Strategy for England: 2015 to 2020. 2015: www.gov.uk/governmen/fuploads/system/uploads attachment_data/file/396263/CollaborativeT8Strat sgrigand_FIRAL_pdf.	Australia  National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:£286-£293.
Re-treatment/ Relapse	Re-treatment rate within two years after the end of previous treatment in Canada (target ≤3%)	Re-treatment rate within two years after the end of previous treatment in Canada (target ≤ 3%)		Proportion of cases per year that are relapsed (re-treatment cases)				Proportion of cases initially treated in Australia who relapse within 5 years of treatment.
Drug-Resistant Treatment Initiation					Percentage of patients with drug- resistant TB enrolled on second-line treatment			
Drug-Resistant Treatment Outcome							Number and proportion of drug resistant TB cases who had completed treatment at 24 months.  Number and proportion of drug resistant TB cases who were lost to follow up at last reported outcome.  Number and proportion of drug resistant TB cases who had died at last reported outcome	
HIV - Treatment					Percentage of HIV-positive TB patients on anti-retroviral therapy			
DOT	Proportion of cases treated by standard or enhanced directly observed therapy (DOT) (target 290% of cases)	Proportion of cases treated by standard or enhanced directly observed therapy (DOT) (target ≥90% of cases)		Proportion of cases that are <b>treated by</b> DOT Proportion of TB-HIV co-infected cases that are treated by DOT				
Underserved Populations							Number and proportion of drug sensitive TB cases with at least one social risk factor who completed treatment within 12 months.  Proportion of TB patients with social risk factors recorded who received enhanced case management. (*In development)	
HIV Serologic Testing	Proportion of cases where HIV status known and reported on PHAC Active TB Case Report Form (target ≥90% of cases by 2015)	Proportion of cases where HIV status known and reported on PHAC Active TB Case Report Form (target ≥90% of cases by 2015)	Proportion <b>HIV tested</b>	Proportion of TB cases that have HIV testing and have the results reported provincially and federally	Proportion of TB patients screened for HIV	Proportion of TB patients who have a positive or negative HIV test result reported	Number and proportion of TB cases offered an HIV test.	Proportion of TB cases with a recorded HIV status.
Contacts								
Contact Identification	Proportion of infectious TB cases where initial list of contacts is completed within seven calendar days (target 100%)	Total number of reported contacts of active TB cases diagnosed in (year)  Proportion of infectious TB cases where initial list of contacts is completed within seven calendar days (target 100%)		Contact list for each infectious case is completed within 7 days of diagnosis of index case		Proportion of TB patients with positive AFB sputum-smear results, who have contacts elicited.	Proportion of pulmonary TB cases who had close contacts identified ("In development)	

	PHN  Butler-Jones D, Corriveau A. Guidance for  Tuberculosis Prevention and Control Programs in  Canada. Pan-Canadan Public Heal. Netw. 2012;  :1-69.	FINIHB  First Nations and Inuit Health Branch, Health Canada. Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan/Long Heffernan C, Long R. Would program performance indicators and a nationally coordinated response accelerate the elimination of tuberculosis Canada <sup>2</sup> (2a1) Public Heal 2018, 2056.	Fanning/Orr  Fanning A, Orr P. TB Program Objectives and Performance Targets for FNIH Jurisdictions. 2010	WHO  World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.in/th/strategy/find_TB_Strategy.pn f/hua=1.	USA-CDC  CDC. National TB Program Objectives & Performance Targets for 2020. 2015. https://www.cdc.gov/tb/programs/evaluation/pdf, programobjectives.pdf.	England  Public Health England, NHS England. Collaborative Tuberculosis Strategy for England: 2015 to 2020. 2015. www.gor.uk/government/uploads/system/uploads/attachment_data/file/395263/collaborativeTBStrate gegfland_FINAL_pdf.	Australia  National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:£286-£293.
Contacts - Close		Number of <b>close contacts</b> of active TB cases diagnosed in (year)  Number of <b>Other Contacts (not close)</b> of active TB cases diagnosed in (year)					gyangan u_non-pos	
Contact Examination		in [year], the number	Proportion of close <b>contacts</b> of smear-positive pulmonary cases <b>completely assessed</b> (< 5 years of age and ≥ 5 years of age)		Percentage of eligible index cases of TB for which contact investigations were undertaken.	Proportion of <b>contacts</b> to sputum AFB smear-positive TB cases, who are <b>examined</b> for infection and disease.	Proportion of identified close contacts of pulmonary TB cases that were evaluated. (*In development)	
Contacts - LTBI Identification		Of the number of contacts screened for LTBI above, the number with a new positive TST/IGRA or TST/IGRA conversion (i.e., number of newly identified LTBI)						
Contacts - LTBI Treatment Recommended		Of the number of contacts with a new positive TST/IGRA or TST/IGRA conversion above, the number recommended for treatment of LTBI	Proportion of close <b>contacts</b> with new <b>positive</b> TST/TST <b>conversion</b> <b>recommended TX LTBI</b> (< 5 years of age and ≥ 5 years of age)					
Contacts - LTBI Treatment Acceptance		Of the number of <b>contacts recommended</b> for treatment of LTBI  above, <b>the number who accepted treatment for LTBI</b>		Percentage of client acceptance of offered prophylaxis				
Contacts - LTBI Treatment Initiation	Proportion of contacts with a diagnosis of LTBI who begin treatment (target ≥ 80%)	Of the number of contacts accepting treatment of LTBI above, the number who started treatment  Of the number of contacts accepting treatment of LTBI above, the number (without contraindications to INH or RMP) who started treatment  Proportion of contacts diagnosed with LTBI who begin treatment (target ≥ 80%)	Proportion of close <b>contacts</b> recommended TX LTBI, who <b>start</b> treatment (< 5 years of age and ≥ 5  years of age)		Percentage of eligible <b>people living</b> with HIV and children aged under- five who are contacts of TB patients being treated for LTBI	Proportion of <b>contacts</b> to sputum AFB smear-positive TB cases diagnosed <b>with latent TB infection</b> , who <b>start treatment</b> .		
Contacts - Timely LTBI Treatment Initiation	Proportion of close contacts where assessment is completed and LTBI treatment started, if indicated and not contraindicated or refused, within 28 calendar days (target 100%)	Proportion of close contacts where assessment is completed and LTBI treatment started, if indicated and not contraindicated or refused, within 28 calendar days (target 100%)		Contacts are assessed and, for those for whom prophylaxis is appropriate, the prophylaxis is started within 28 days of completion of contact list				
DOPT				Proportion of all <b>preventative therapy</b> that is given <b>by DOPT</b>				
Contacts - LTBI Treatment Completion	Proportion of contacts beginning treatment for LTBI who <b>complete treatment</b> (target ≥ 80%)	Of the number of contacts starting treatment of LTBI above (and without contraindications to INH or RMP), the number completing treatment at the time of reporting (irrespective of length of treatment)  Proportion of contacts beginning treatment for LTBI who complete treatment (target ≥ 80%)	Proportion of close <b>contacts accepting TX LTBI who complete treatment</b> (< 5 years of age and ≥ 5 years of age)	Percent completion of prophylaxis among those who accept		Proportion of <b>contacts</b> to sputum AFB smear-positive TB cases who have <b>started</b> <b>treatment</b> for latent TB infection, <b>who complete treatment</b> .		

	PHN  Butler-Jones D, Corriveau A. Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; :1–69.	FINIHB  First Nations and Inuit Health Branch, Health Canada.  Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan/Long Heffernan / Long R. Would program performance indicators and a nationally coordinated response accelerate the elimination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning/Orr Fanning A, Orr P, TB Program Objectives and Performance Targets for FNH Jurisdictions. 2010	WHO  World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.int/bf/strategy/End_TB_Strategy.pd 7?ua=1.	USA-CDC  CDC. National TB Program Objectives & Performance Targets for 2020. 2015. https://www.cdc.gov/tb/programs/evaluation/pdf/programobjectives.pdf.	England  Public Health England, NHS England, Collaborative Tuberculosis Strategy for Fegland; 2015 to 2020. 2015. www.gov.uk/government/uploads/system/uploads/ attachment_data/file/396253/CollaborativeT8Strate gf=gnand_rNAL_pdr.	Australia  National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011–2015. Commun Dis Intell 2012; 36:£286–£293.
Contacts - Timely LTBI Treatment Completion		Of the number of contacts starting treatment of LTBI above (and without contraindications to INH or RMP), the number completing treatment within 12 months of treatment initiation						
Contacts - LTBI - Reactivation	Proportion of contacts completing treatment who show active TB disease within two years after completion (target < 0.5%)	Proportion of contacts completing treatment who show active TB disease within two years after completion (target <0.5%)						
Contacts - LTBI - Decline Treatment F/up	Proportion of contacts with LTBI at high risk of progression to active TB disease, but unable or unwilling to be treated for LTBI who have chest radiography and sputum smear plus culture at 6, 12, and 24 months (target ≥ 90%)	Proportion of contacts with LTBI at high risk of progression to active TB disease, but unable or unwilling to be treated for LTBI who have chest radiography and sputum smear plus culture at 6, 12, and 24 months (target ≥ 90%)						
Screening and Follow- up								
People with Suspected TB					Percentage of <b>people</b> with <b>suspected</b> tuberculosis <b>tested</b> using WHO recommended rapid diagnostics.			
People Living with HIV	Proportion of HIV-positive individuals screened for active TB diseases and LTBI (target 100%)	Proportion of HIV-positive individuals screened for active TB diseases and LTBI (target 100%)		Proportion of HIV positive persons that are tested for TB infection/disease				
People with Impaired Immunity	100%) Proportion of individuals with tumor necrosis factor alpha inhibitor use screened for active TB diseases and LTBI (target 100%) Proportion of individuals with long-term (> 1 month) corticosteroid use (prednisone > 15 mg/day or	Proportion of individuals with end- stage renal disease screened for active TB diseases and LTBI (target 100%) Proportion of individuals with transplant-related immunasuppression screened for active TB diseases and LTBI (target 100%) Proportion of individuals with tumor necrosis factor alpha inhibitor use screened for active TB diseases and LTBI (target 100%) Proportion of individuals with long- term (> 1 month) corticosteroid use (prednisone > 15 mg/day or equivalent) screened for active TB diseases and LTBI (target ≥ 75%)		Proportion of those at increased risk for TB reactivation due to impaired immunity (other immunosuppressed conditions, diabetes, renal failure as defined by creatinine clearance less than 20 ml/min, immunosuppressant medication, pulmonary silicosis) are tested for LTBI and assessed for possible preventative therapy				
IRCC Referrals - Examination Initiation			Proportion of <b>IRCC referrals</b> who <b>initiate examination</b> within 30 days of notification			For immigrants and refugees with abnormal chest radiographs (X-rays) read overseas as consistent with 1B, the proportion who initiate a medical examination within 30 days of notification.	Proportion of eligible <b>new entrants</b> covered by screening programs <b>who accept LTBI screening</b> (*In development)	

	PHN Butler-Jones D, Corriveau A. Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; :1–69.	FNIHB  First Nations and Inuit Health Branch, Health Canada. Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan/Long  Heffernan C, Long R. Would program performance indicators and a nationally coordinated response accelerate the elimination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning/Orr Fanning A, Orr P. TB Program Objectives and Performance Targets for FNIH Jurisdictions. 2010	WHO  World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.in/tb/strategy/End_TB_Strategy.pi Trua=1.	USA-CDC  CDC. National T8 Program Objectives & Performance Targets for 2020. 2015. https://www.cdc.gov/tb/programs/evaluation/pdf/programobjectives.pdf.	England  Public Health England, NHS England. Collaborative Tuberculosis Strategy for England: 2015 to 2020. 2015. www.gov.uk/government/uploads/system/uploads/ attachment_data/file/396252/CollaborativeTSStrate gyfenjand_FINAL_pdf.	Australia  National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:E286–E293.
IRCC Referrals - Examination Completion	Proportion of individuals referred for immigration medical surveillance who (1) keep the first appointment with the clinic/physician or who have been evaluated by public health and (2) the relevant provincial/territorial authorities have reported such information to IRCC (target ≥ 90%)	Proportion of individuals referred for immigration medical surveillance who (1) keep the first appointment with the clinic/physician or who have been evaluated by public health and (2) the relevant provincial/territorial authorities have reported such information to IRCC (target ≥ 90%)	Proportion of IRCC referrals who complete examination within 90 days of notification			For immigrants and refugees with abnormal chest X-rays read overseas as consistent with TB, the proportion who complete a medical examination within 90 days of notification.		
IRCC Referrals - Treatment Acceptance			Proportion of IRCC referrals recommended TX LTBI who accept					
IRCC Referrals - Treatment Initiation						For immigrants and refugees with abnormal chest X-rays read overseas as consistent with TB who are diagnosed with latent TB infection or have radiographic findings consistent with prior pulmonary TB (ATS/CDC Class 4) on the basis of examination in the U.S., for whom treatment was recommended, the proportion who start treatment.		
IRCC Referrals - Treatment Completion			Proportion of IRCC referrals accepting TX LTBI who complete			For immigrants and refugees with abnormal chest X-rays read overseas as consistent with TB who are diagnosed with latent TB infection or have radiographic findings consistent with prior pulmonary TB (ATS/CDC Class 4) on the basis of examination in the U.S., and who have started on treatment, the proportion who complete treatment.	Proportion of (new entrant) individuals who complete LTBI treatment amongst those who start treatment (*In development)	
New Entrant LTBI Screening Initiative							The number of local authorities that have a systematic new entrant LTBI screening initiative in place (*In development)	
Other Programmatic								
BCG - Community		Number of communities using BCG vaccination						
BCG - Administered		Number of <b>BCG vaccinations</b> administered					Proportion of <b>babies</b> in areas with a universal BCG programme <b>who</b> received BCG vaccine (*In development)	

	PHN  Butler-Jones D, Corriveau A. Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; 11–69.	FNIHB  First Nations and Inuit Health Branch, Health Canada. Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan/Long Heffernan C, Long R. Would program performance indicators and a nationally coordinated response accelerate the limination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning/Orr Fanning A, Orr P. TB Program Objectives and Performance Targets for fNH Jurisdictions. 2010	WHO  World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.ini/th/strategy/End_TB_Strategy.pd f?ua=1.	USA-CDC  CDC. National TB Program Objectives & Performance Targets for 2020. 2015. https://www.cdc.gov/tb/programs/evaluation/pdf/programobjectives.pdf.	England Public Health England, NHS England. Collaborative Tuberculosis Strategy for England: 2015 to 2020. 2015. www.gov.uk/government/uploads/system/uploads/ attachment_data/file/396255/CollaborativeT8Strate gfergiand_FINAL_pot	Australia  National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011–2015. Commun Dis Intell 2012; 36:£286-£293.
BCG - Eligible		Number of births eligible to receive BCG vaccination during reporting period						
BCG - Adverse Reactions		Number of reported adverse reactions from BCG  Adverse reactions from BCG: line list of type of reaction(s) for each adverse event						
Outbreaks - New		Number of <b>new outbreaks</b> (new in the reporting period)						
Outbreaks - Ongoing		Number of <b>outbreaks</b> in [year] that were <b>ongoing from previous year</b>						
New Outbreak - Active Cases		Number of active TB cases per new outbreak						
Ongoing Outbreak - Active Cases		Number of active TB cases per outbreak ongoing from previous year(s)						
CTBRS Reporting - Completeness			Proportion of completed CTBRS active TB case report forms (last full year) Proportion of completed CTBRS treatment outcome forms (next to last full year)			Percent completeness of each core Report of Verified Case of Tuberculosis (RVCT) data item reported to CDC, as described in the TB cooperative agreement announcement.  Percent completeness of each core Aggregate Reports for Tuberculosis Program Evaluation (ARPE) data items reported to CDC, as described in the TB cooperative agreement announcement.		Completeness of quarterly reporting.
Report Publication								Publication of a combined notification and laboratory annual TB report by December of the following year.
WHO Reporting								Annual reporting to WHO.
Global TB Elimination Activities								Report Australia's participation in global control activities, annually.

	T	Worksheet for Discussion		T		1	<u> </u>	
	<u>PHN</u>	<u>FNIHB</u>	Heffernan/Long	Fanning/Orr	WHO  World Health Organisation. The End TB Strategy.	USA-CDC  CDC. National TB Program Objectives &	England  Public Health England, NHS England. Collaborative	<u>Australia</u>
	Butler-Jones D, Corriveau A. Guidance for Tuberculosis Prevention and Control Programs in Canada. Pan-Canadian Public Heal. Netw. 2012; :1–69.	First Nations and Inuit Health Branch, Health Canada. Health Canada's Monitoring and Performance Framework for Tuberculosis Programs for First Nations On-Reserve.	Heffernan C, Long R. Would program performanc indicators and a nationally coordinated response accelerate the elimination of tuberculosis in Canada? Can J Public Heal 2018; 2050.	Fanning A, Orr P. TB Program Objectives and Performance Targets for FNIH Jurisdictions. 2010	World Health Organisation. The End TB Strategy. Geneva, Switzerland: 2015. http://www.who.int/tb/strategy/End_TB_Strategy.pd ??ua=1.	Performance Targets for 2020. 2015.	Tuberculosis Strategy for England: 2015 to 2020. 2015. www.gov.uk/government/uploads/system/uploads/ attachment_data/file/396263/CollaborativeTBStrate gyEngland_FINAL.pdf.	National Tuberculosis Advisory Committee. The Strategic Plan for Control of Tuberculosis in Australia: 2011 – 2015. Commun Dis Intell 2012; 36:E286–E293.
Evaluation and Strategic Planning Activities		Number and brief description of TB related Inter-departmental Letter(s) of Agreement and Memoranda of Understanding in place with other federal and/or provincial government entities  Number and brief description of regional policies, procedures, publications, guidelines, strategies and/or frameworks developed or adapted as required relating to TB  Number and brief description of key TB working groups and committees being led or partcipated in  Description of TB screening programs/policies specifying the high risk group(s) screened, method(s) of screening, etc		Meetings held at least twice yearly between all program partnership members (federal, provincial, regional, community leadership/membership) to review evaluation data and to propose/discuss/ achieve improvements All cases of treatment failure, disease relapse, and of drug resistance are reviewed at least monthly by public health and clinical experts. General conclusions are shared with partnership members.  Federal, provincial, regional and community TB program partners will hold community consultations each year, in selected (to be agreed upon) endemic and epidemic communities in order to report to the people they serve and to receive feedback on the program.		Number of program evaluation activities, program progress and evaluation status of TB cooperative agreement recipients.  The percent of TB cooperative agreement recipients who submit a program-specific human resource development plan (HRD) and a yearly update of progress, as outlined in the TB cooperative agreement announcement.		
Education - Health Provider		Number of TB knowledge transfer materials produced and/or activities engaged in (eg., poster presentations, conference presentations, publications); include a brief description of the activity including when and where it took place; for improving staff retention and knowledge		Proportion of health care providers working in (TB-affected) communities who have completed an online course specifically developed (for their) context, regarding TB (infection and disease) diagnosis and therapy. (*note - adapted to apply across population groups )		The percent of TB cooperative agreement recipients that have a TB training focal point.		
Education - Community		Number of communities conducting TB- related social marketing/public education/awareness activities and a brief description of these activities		Radio, print and/or TV (e.g. DVD) educational material regarding TB are available to 60% of (TB-affected) communities. These resources are language and culture specific, and focus on creating a shared understanding of TB causation and elimination. (*note- adapted to apply across population groups)				
Ethics				Agreement will be sought in each jurisdiction to ensure the confidentiality of individual health data regarding TB, while respecting communal needs and rights within the context of their culture, traditions and legal powers. (*note - adapted to apply across population groups)				
Determinants								
Nutrition					Percentage of population without undernutrition			