



SALUD

SECRETARÍA DE SALUD

PANEL
Atención de la tuberculosis en poblaciones vulnerables
POBLACIONES INDÍGENAS

E.E.S.P. BRENDA CINTIA MEDEL ROMERO
PROGRAMA NACIONAL DE TUBERCULOSIS



Panorama mundial de la tuberculosis en poblaciones indígenas.

Diferentes estudios en todo el mundo concluyen que las condiciones sociales y económicas de este grupo los predisponen a desarrollar tuberculosis ⁽¹⁻⁵⁾ y después de iniciar el tratamiento, la adhesión puede ser un desafío.

Se han reportado tasas de notificación de casos de TB que son hasta 41 veces mayor que en la población general ⁽¹⁻⁶⁾. Resultados similares han reportado los estudios de América del Norte, Europa, África, Asia y el Pacífico Occidental ⁽¹⁾.

INT J TUBERC LUNG DIS 17(9):1139–1150
©2013 The Union
<http://dx.doi.org/10.5588/ijtld.12.0385>
E-published ahead of print 2 July 2013

REVIEW ARTICLE

Burden of tuberculosis in indigenous peoples globally: a systematic review

D. Tollefson,* E. Bloss,[†] A. Fanning,[‡] J. T. Redd,[§] K. Barker,[¶] E. McCray[†]

*Rollins School of Public Health, Emory University, Atlanta, Georgia, [†]US Centers for Disease Control and Prevention, Atlanta, Georgia, USA; [‡]University of Alberta, Edmonton, Alberta, Canada; [§]US Indian Health Service, Santa Fe, New Mexico, USA; [¶]University of Toronto, Toronto, Ontario, Canada

1. Bloss E, Holtz TH, Jereb J, Redd JT, Podewils LJ, Cheek JE, et al. Tuberculosis in indigenous peoples in the U.S., 2003-2008. Public Health Rep. 2011; 126(5): 677-89.
2. Hurtado AM, Hill KR, Rosenblatt W, Bender J, Scharmen T. Longitudinal study of tuberculosis outcomes among immunologically naïve Ache natives of Paraguay. Am J Phys Anthropol 2003; 121: 134-150
3. Machado Filho AC. Incidence of tuberculosis among indigenous people in the municipality of Sao Gabriel Cachoeira, AM. Rev Soc Bras Med Trop 2008; 41: 243-246 (Portuguese).
4. Basta C, Coimbra CE Jr, Escobar AL, Santos RV, Alves LC, Fonseca L de S. Survey for tuberculosis in an indigenous population of Amazonia: the Surui of Rondonia, Brazil. Trans R Soc Trop Med Hyg 2006; 100: 579-585.
5. Romero NC, Flores OF, Sanchez Perez HJ, Sanchez Perez I, Mateo MM. Pulmonary tuberculosis in an indigenous community in the mountains of Ecuador. Int J Tuberc Lung Dis 2007; 11:550-555.
6. Fernandez de Larrea C, Fandino C, Lopez D, et al. Tuberculosis in subject under 15 years of age in the population of Warao in Venezuela. Invest Clin 2002; 43: 35-48.

Table 3 Summary of the most recent data on TB burden in global indigenous populations by WHO region (see Appendix for complete list of publications)

Region, indigenous group, country	Publications with the most recent data*	Type of study	Scope	Study period	Prevalence or incidence/100 000†		Ratio (indigenous/ comparative)
					Indigenous TB burden‡	Comparative TB burden§	
Africa							
Fulani, Chad	Schelling et al., 2005 ¹⁵	Cross-sectional	Village/town/reserve	1999–2000	Prevalence: 4600	Prevalence: 429	10.7
Peul and Dogon, Mali	Carta et al., 1997 ¹⁴	Cross-sectional	Village/town/reserve	1997 [¶]	Prevalence: 1800	Prevalence: 326	5.5
North America							
Alaskan Natives and American Indians, United States	CDC, 2011 ¹⁶	Cohort study	National	2010	Incidence: 6.1	Incidence: 0.9	6.8
Native Hawaiians and Pacific Islanders,* United States	CDC, 2011 ¹⁶	Cohort study	National	2010	Incidence: 20.6	Incidence: 0.9	22.9
First Nations, Canada	Ellis et al., 2010 ¹⁷	Cohort study	National	2009	Incidence: 27.4	Incidence: 1.0	27.4
Inuit, Canada	Ellis et al., 2010 ¹⁷	Cohort study	National	2009	Incidence: 155.8	Incidence: 1.0	155.8
Metis,** Canada	Ellis et al., 2010 ¹⁷	Cohort study	National	2009	Incidence: 7.3	Incidence: 1.0	7.3
Latin America							
Ache natives, Paraguay	Hurtado et al., 2003 ¹⁸	Cohort study	Facility	1987–2002	Incidence: 3700	Incidence: 49	75.5
Amazonian tribes, Rondonia or Amazonas State, Brazil	Machado Filho, 2008 ²⁰ Basta et al., 2006 ¹⁹	Cross-sectional, cohort study	Facility, city	2003	Incidence: 284 Prevalence: 815.2	Incidence: 55 Prevalence: 37.5	5.2 21.7
Amazonian tribes, Peru	Culqui et al., 2010 ²¹	Cohort study	National	2008	Incidence: 42.3–400.9	Incidence: 106	0.4–3.8
Aymara (Andes), Peru	Culqui et al., 2010 ²¹	Cohort study	National	2008	Incidence: 175.1	Incidence: 106	1.7
Brazilian Native Indians, Mato Grosso do Sul, Brazil	Basta et al., 2010 ²²	Cross-sectional, cohort study	Village/town/reserve	2006, 1999–2004	Prevalence: 210.8 Incidence: 1289.6	Prevalence: 55.0 Incidence: 48.5	3.8 26.6
Chine, Ecuador	Romero-Sandoval et al., 2007 ²⁴	Cross-sectional	Village/town/reserve	2001	Prevalence: 6700	Prevalence: 161	41.6
Quechua (Andes), Peru	Culqui et al., 2010 ²¹	Cohort study	National	2008	Incidence: 103.7	Incidence: 106	1.0
Zulu State indigenous, Venezuela	Romero-Amaro et al., 2008 ²⁵	Cohort study	Province/state/region	1996–2005	52% of TB cases occurred among the indigenous	Incidence: 23.2	>1
Warao people, Venezuela	Fernandez de Larrea et al., 2002 ²⁶	Cross-sectional	Village/town/reserve	1999	Prevalence: 320.0	Prevalence: 48.0	6.7
Eastern Mediterranean							
Bedouins	Greene et al., 1992 ²⁷	Cohort study	Facility	1987	Incidence: 18.1	Incidence: 8.7	2.1
Europe							
Russian indigenous, Russia	Kucherov and Makarov, 2002 ²⁸	Cohort study	District	1999	Incidence: 85.2 Prevalence: 608	Incidence: 37.6 Prevalence: 193.3	2.3 3.1
Inuit, Greenland	Thomsen et al., 2004 ⁷⁶	Cohort study	National	2001	Prevalence: 185	Prevalence: 13.0	14.2
Roma, Spain	Casals et al., 2011 ³⁰	Cohort study	Village/town/reserve	1985–2008	Incidence: 90.9	Incidence: 17.0	5.3

Investigación original / Original research



Tuberculosis among indigenous municipalities in Mexico: analysis of case notification and treatment outcomes between 2009 and 2013

Brenda C. Medel Romero,¹ Martin Castellanos Joya,¹ Martha Angelica Garcia Aviles,¹ Raul Martinez Navarro,² Tom Decroo,³ and Rony Zachariah³

Objetivos.

Analizar las tendencias en 1) la notificación de casos de tuberculosis por año y 2) los resultados acumulados del tratamiento (estratificado por tipo de paciente) con relación a la proporción de población indígena por municipio, en un estudio de alcance nacional para el periodo 2009-2013.

TABLE 1. Trend in tuberculosis (TB) case notification rate (CNR) per 100 000 population for new and previously treated cases, stratified by municipality proportion of indigenous people, Mexico, 2009–2013

Variable	Year				
	2009	2010	2011	2012	2013
New TB cases					
Population in municipalities with low proportion of indigenous people (< 25%)	96 722 027	102 712 957	104 018 063	105 271 297	106 492 544
CNR	16.6	16.4	16.8	16.9	16.6
Population in municipalities with medium proportion of indigenous people (≥ 25% to < 50%)	3 651 721	3 950 143	4 001 350	4 049 440	4 096 763
CNR	17.0	16.7	15.4	15.1	17.3
Population in municipalities with high proportion of indigenous people (≥ 50%)	7 176 949	7 592 457	7 663 454	7 733 014	7 805 746
CNR	20.8	19.2	18.6	17.7	16.7
Previously treated TB cases					
Population in municipalities with low proportion of indigenous people (< 25%)	96 722 027	102 712 957	104 018 063	105 271 297	106 492 544
CNR	1.7	1.6	1.6	1.5	1.4
Population in municipalities with medium proportion of indigenous people (≥ 25% to < 50%)	3 651 721	3 950 143	4 001 350	4 049 440	4 096 763
CNR	1.0	1.2	1.4	1.3	1.1
Population in municipalities with high proportion of indigenous people (≥ 50%)	7 176 949	7 592 457	7 663 454	7 733 014	7 805 746
CNR	1.5	1.3	1.6	1.2	1.1

Source: prepared by the authors based on the study results.

TABLE 2. Cumulative treatment outcomes for new and previously treated tuberculosis (TB) cases, stratified by municipality proportion of indigenous people, Mexico, 2009–2013

Variable	Low proportion < 25%		Medium proportion ≥ 25% to < 50%		High proportion ≥ 50%	
	No.	%	No.	%	No.	%
New TB cases						
Total starting treatment	85 925		3 221		7 049	
Treatment outcomes						
Treatment success	69 757	81	2 651	82	5 919	84
Cured	53 022	62	2 191	68	5 050	72
Treatment completed	16 735	19	460	14	869	12
Failed	959	1	21	1	66	1
Died	6 713	8	294	9	633	9
Lost to follow-up	4 429	5	115	4	220	3
Not evaluated	4 067	5	140	4	211	3
Previously treated TB cases						
Total starting treatment	8 014		235		514	
Treatment outcomes						
Treatment success	5 105	64	144	61	355	69
Cured	3 798	47	109	46	281	55
Treatment completed	1 307	16	35	15	74	14
Failed	399	5	14	6	17	3
Died	811	10	27	11	47	9
Lost to follow-up	917	11	15	6	32	6
Not evaluated	782	10	35	15	63	12

Source: prepared by the authors based on the study results.

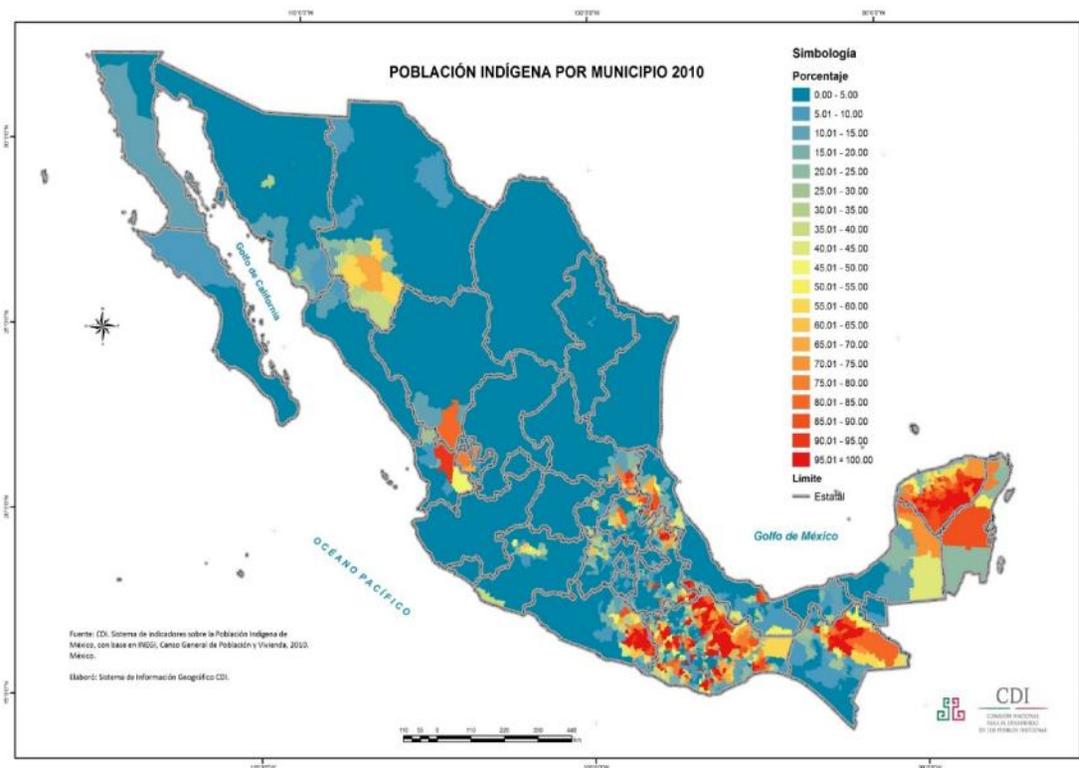
La pregunta que viene a la mente es si las notificaciones relativamente bajas de tuberculosis observados son un reflejo de los resultados del programa de TB o **¿hay que mejorar el abordaje y el reporte de casos?**

Año	2010	2011	2012	2013	2014	2015
No. de casos nuevos de TB todas las formas en población Indígena.	1,539	1,561	1,517	1,436	1,489	1,496

¿Quién es indígena?

Una persona es designada como indígena sobre la base de los orígenes lingüísticos y ancestrales.

- Todas las personas que forman parte de un hogar donde el jefe o cónyuge y/o los padres de éstos hablan lengua indígena.
- Todos los hablantes de lengua indígena que no forman parte de estos hogares.
- Autodeterminación.



Actualmente, se consideran 11.1 millones de indígenas distribuidos dentro del 98.7% de los 2457 municipios del país y de 68 grupos etnolingüísticos⁽⁷⁾.

ENFOQUE INTERCULTURAL



2. Incorporar en las políticas para la atención la pertinencia intercultural diferenciada y acorde a la situación de cada población.
3. Estrechar las actividades con otras instituciones, principalmente aquellas cuya área de influencia incluya municipios indígenas (IMSS PROSPERA, CDI, INALI, DGPLADES, CNEGSR, DGPS).



CDI
COMISIÓN NACIONAL
PARA EL DESARROLLO
DE LOS PUEBLOS INDÍGENAS



INALI
INSTITUTO NACIONAL DE LENGUAS INDÍGENAS

Modelo intercultural para la atención de la tuberculosis.



Gracias

Dr. Martín Castellanos Joya

Director del Programa Nacional Tuberculosis

Dra. Martha Angélica García Avilés

Subdirectora del Programa Nacional de Tuberculosis

Brenda Cintia Medel Romero

Supervisora Nacional del Programa de Tuberculosis y Red TAES

bren.cmedelro@gmail.com



SALUD

SECRETARÍA DE SALUD



México Libre de Tuberculosis®