

Surveillance of TB and TB/HIV in CAREC Member Countries

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*Serving
23 Member Countries
in the English and Dutch
Speaking Caribbean*

(CAREC)
PAHO/WHO



Contents

- Data source
- Reported cases
- Improving HIV / TB surveillance
 - HIV case-based surveillance
 - TB surveillance

Data source

- Data collected by WHO on a yearly base
- Online form to submit data at country level

<http://www.who.int/tb/country/en/index.html>

- (Caribbean) countries with low incidence and overseas territories have not consistently been included. Objective in 2011 to achieve complete coverage.

Individual country profile TB

Population 2009 (millions)

<1

Estimates of burden * 2009	Number (thousands)	Rate (per 100 000 pop)
Mortality (excluding HIV)	0.012 (<0.01-0.016)	2.4 (1.8-3.1)
Prevalence (incl HIV)	1.1 (0.5-1.8)	206 (96-343)
Incidence (incl HIV)	0.7 (0.57-0.84)	135 (110-162)
Incidence (HIV-positive)	0.22 (0.16-0.3)	43 (31-57)
Case detection, all forms (%)	25 (21-31)	

Case notifications 2009

New cases	(%)	Retreatment cases	(%)
Smear-positive	149 (87)	Relapse	5 (33)
Smear-negative	14 (8)	Treatment after failure	1 (7)
Smear unknown	0 (0)	Treatment after default	8 (53)
Extrapulmonary	9 (5)	Other	1 (7)
Other	0 (0)		
Total new	172	Total retreatment	15
Total < 15 years	4		

Total new and relapse	177	(94% of total)
Total cases notified	188	

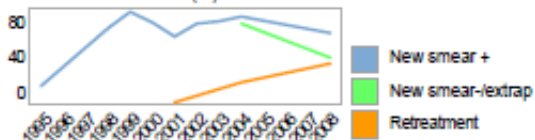
Drug regimens

Rifampicin used throughout treatment	Yes
% of patients treated with fixed-dose combinations (FDCs)	0
Paediatric formulations procured	Yes

Treatment success rate 2008 (%)

New smear-positive	59
New smear-negative/extrapulmonary	38
Retreatment	33

Treatment success rate (%)

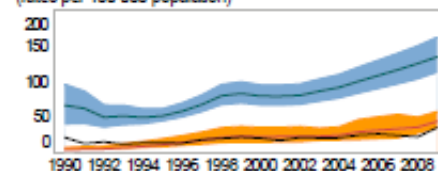


MDR-TB, Estimates among notified cases * 2008

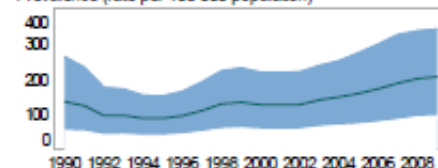
% of new TB cases with MDR-TB	2.0 (0.0-6.0)
% of retreatment TB cases with MDR-TB	12 (0.0-26)
Estimated MDR-TB cases among notified pulmonary TB cases 2009	5.1 (0-14)

MDR-TB reported cases 2009	New	Retreat-ment	Total
Cases tested for MDR-TB	1	0	1
% of notified tested for MDR-TB	<1	0	<1
Confirmed cases of MDR-TB	1	0	1
MDR-TB patients started treatment			1

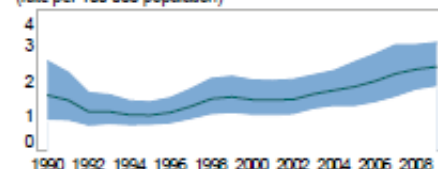
Incidence (HIV+TB in orange), notifications (black) (rates per 100 000 population)



Prevalence (rate per 100 000 population)



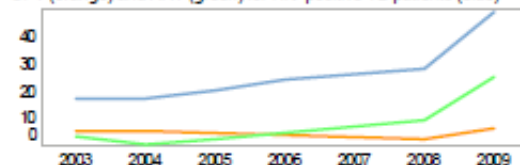
Mortality excluding HIV (rate per 100 000 population)



TB/HIV 2009

TB patients with known HIV status	154
% of TB patients with known HIV status	82
TB patients that are HIV-positive	49
% of tested TB patients that are HIV-positive	32
% HIV-positive TB patients started on CPT	12
% HIV-positive TB patients started on ART	51
HIV-positive people screened for TB	
HIV-positive people provided with IPT	

CPT (orange) and ART (green) for HIV-positive TB patients (blue)



Financing	2010	2011
Total budget (US\$ millions)	<1	<1

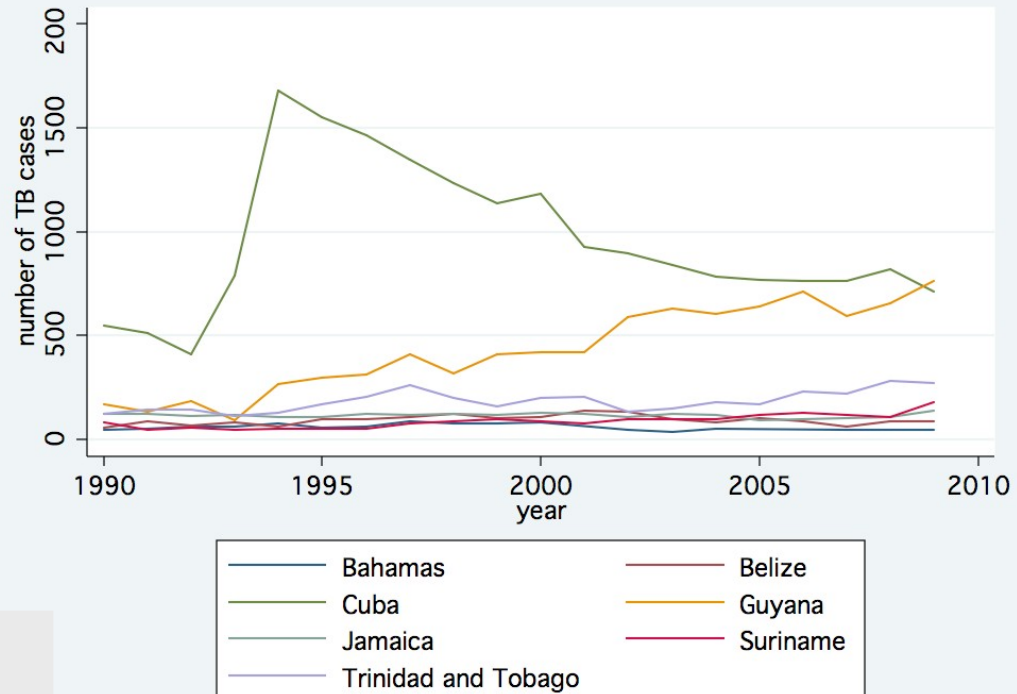
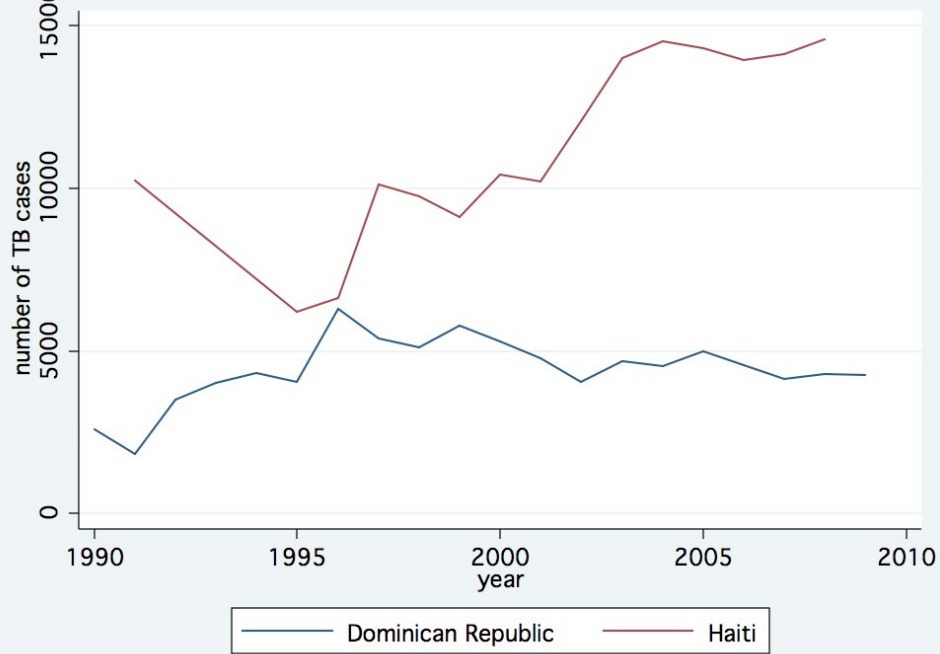
Notified cases (1)

Country	Year	TB		%
		Total new and relapse cases	patients recorded as HIV positive	
Haiti	2008	14602	2068	14.2
Dominican Republic	2009	4256	403	9.5
Guyana	2009	763	156	20.4
Cuba	2009	712	46	6.5
Trinidad and Tobago	2009	272	95	34.9
Suriname	2009	177	49	27.7
Jamaica	2009	139	29	20.9
Belize	2009	88	17	19.3
Bahamas	2009	45	15	33.3

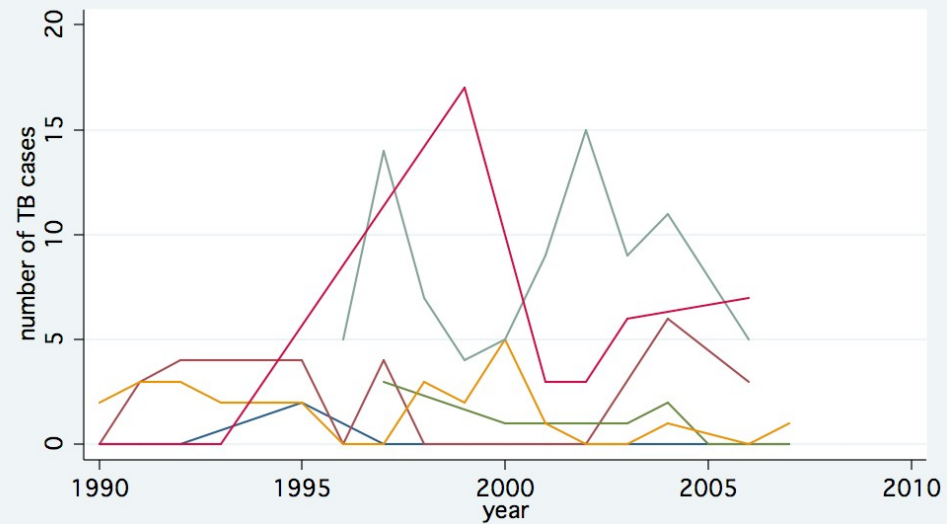
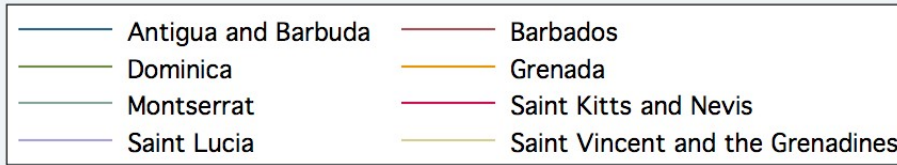
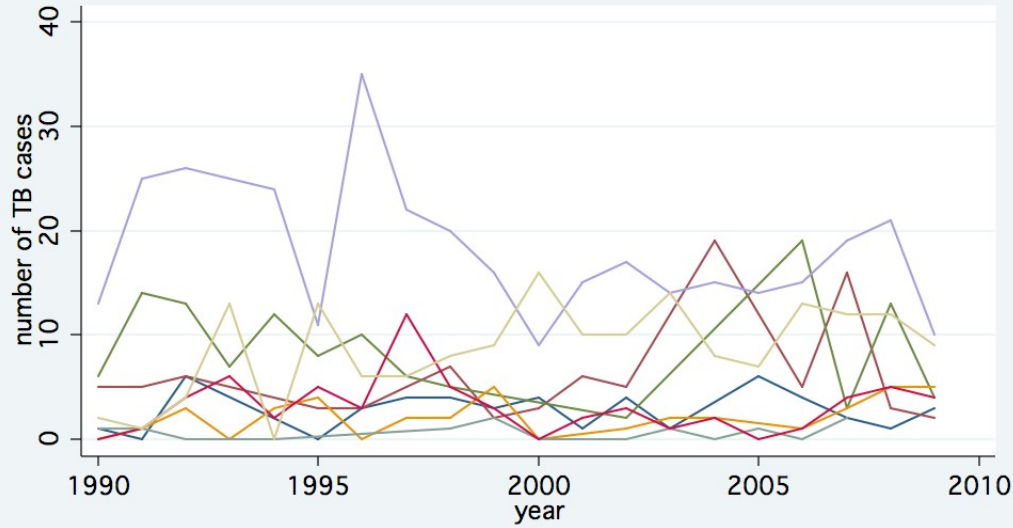
Notified cases (2)

Country	Year	Total new and relapse cases	TB	
			patients recorded as HIV positive	%
Saint Lucia	2009	10	4	40.0
Saint Vincent and the Grenadines	2009	9	7	77.8
Turks & Caicos Islands	2006	7	0	0.0
Netherlands Antilles	2006	5	1	20.0
Grenada	2009	5	1	20.0
Dominica	2009	4	1	25.0
Saint Kitts and Nevis	2009	4	0	0.0
Bermuda	2006	3	0	0.0
Antigua and Barbuda	2009	3	0	0.0
Montserrat	2007	2		
Barbados	2009	2	0	0.0
Cayman Islands	2007	1	0	0.0
British Virgin Islands	2007	0	0	
Anguilla	2007	0	0	

Evolution of notified TB cases



Evolution of notified TB cases



Notified cases: type (1)

Country	Total new and relapse cases	New cases: extra-pulmonary	New cases: sputum positive	New cases: sputum negative	Relapse cases	Treatment after default cases	Treatment after failure cases
Haiti	14602	1463	8171	4655	313	41	19
Dominican Republic	4256	615	2441	699	266	165	21
Guyana	763	78	328	164	56	57	10
Cuba	712	91	418	150	46	2	2
Trinidad and Tobago	272	19	154	70	8	18	12
Suriname	177	9	149	14	5	8	1
Jamaica	139	5	77	48	9	11	0
Belize	88		82		6	0	0
Bahamas	45	5	26	7	4	0	0

Notified cases: type (2)

Country	Total new and relapse cases	New cases: extra-pulmonary	New cases: sputum positive	New cases: sputum negative	Relapse cases	Treatment after default cases	Treatment after failure cases
Saint Lucia	10	1	7	0	2	0	0
Saint Vincent and the Grenadines	9	0	3	2	0	2	0
Turks & Caicos Islands	7	0	7	0	0	1	0
Netherlands Antilles	5	0	5	0	0	0	0
Grenada	5	0	4	0	0	0	0
Dominica	4	0	4	0	0	1	0
Saint Kitts and Nevis	4	0	4	0	0	0	0
Bermuda	3	1	2	0	0	0	0
Antigua and Barbuda	3	0	1	0	1	0	1
Montserrat	2	0	1		0	0	0
Barbados	2	0	2	0	0	0	0
Cayman Islands	1	0	1	0	0	0	0
British Virgin Islands	0	0	0	0	0	0	0
Anguilla	0	0	0	0	0	0	0

Notified cases: DST and MDR TB (1)

(Drug Sensitivity Test and Multi-drug Resistant TB)

Country	Total new and relapse cases	Cases received DST	%	Cases confirmed MDR
Haiti	14602	43	0.3	43
Dominican Republic	4256	0	0.0	0
Guyana	763	0	0.0	0
Cuba	712	218	30.6	3
Trinidad and Tobago	272	0	0.0	0
Suriname	177	1	0.6	1
Jamaica	139	67	48.2	0
Belize	88	1	1.1	1
Bahamas	45	42	93.3	0

Notified cases: DST and MDR TB (2)

(Drug Sensitivity Test and Multi-drug Resistant TB)

Country	Total new and relapse cases	Cases received DST	Cases confirmed MDR
Saint Lucia	10	0	0
Saint Vincent and the Grenadines	9		
Turks & Caicos Islands	7	0	0
Netherlands Antilles	5	5	1
Grenada	5		
Dominica	4		
Saint Kitts and Nevis	4		
Bermuda	3	3	0
Antigua and Barbuda	3	1	0
Montserrat	2	0	0
Barbados	2	0	0
Cayman Islands	1	3	0
British Virgin Islands	0	0	0
Anguilla	0	0	0

Treatment outcome

Country	Year	%Tx success, Pulmonary, smear +	% Tx success retreatment	% Tx success other cases
Antigua and Barbuda	2008	100		
Bahamas	2008	74	33	60
Barbados	2008	100		
Belize	2008	83		
British Virgin Islands	2004	100		
Cayman Islands	2005	0		
Cuba	2008	88	80	87
Dominica	2008	100		
Dominican Republic	2008	75	0	0
Grenada	2008	33		
Guyana	2008	69	26	55
Haiti	2007	82	69	72
Jamaica	2008	64	67	42
Montserrat	1999	50		
Netherlands Antilles	2000	0		
Saint Kitts and Nevis	2008	80		
Saint Lucia	2008	94	0	100
Saint Vincent and the Grenadines	2008	100	0	86
Suriname	2008	59	33	38
Trinidad and Tobago	2008	67	36	56
Turks & Caicos Islands	2005	67	67	

Role CAREC TB surveillance

- Support to yearly reporting to WHO
(electronic file for case-based TB monitoring available)
- Assistance to national TB program and TB outbreaks
- TB Xpert system, not to replace TB culture / smear
- Training / quality control TB smear

Thank you

A complex system that works is invariably found to have evolved from a simple system that works.
(John Gaule)

