Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Albania

Population estimate 2017 by UN Statistical Database: 2 930 187

TB case notifications, 2017

Total number of cases	503	
Notification rate per 100 000	17.2	
New[a] and relapses	503	
New[a] and relapses notification rate per 100 000	17.2	
Pulmonary new and relapse:	346	(68.8%)
of which smear-positive	–	
of which laboratory-confirmed	210	(60.7%)
Laboratory-confirmed TB cases	210	(41.7%)
Mean age of new and relapse TB cases	44.1	years
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	479	(95.2%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	79	(37.6%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	9–1–17	
Pulmonary MDR-TB cases notified	1	(0.0%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	4	(5.1%)
of which XDR-TB cases	0	–
TB cases tested for HIV	235	(46.7%)
HIV-positive TB cases	6	(1.7%)
of these on ART	6	(100.0%)

[a] National coverage 100% or culturing 90%. C+/all TB cases 50%. DST done for C+ 75%. EQA 95%.
[b] More than 50% of TB cases tested for HIV.

Treatment outcome monitoring

	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	409		3	
Success	357	(87.3%)	3	(100.0%)
Died	10	(2.4%)	0	–
Failed	3	(0.7%)	0	–
Lost to follow-up	20	(4.9%)	0	–
Not evaluated	19	(4.6%)	0	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
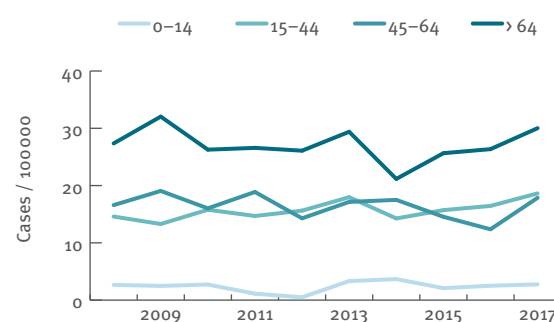[b] Treatment outcome as presented is treatment outcome after 24 months.

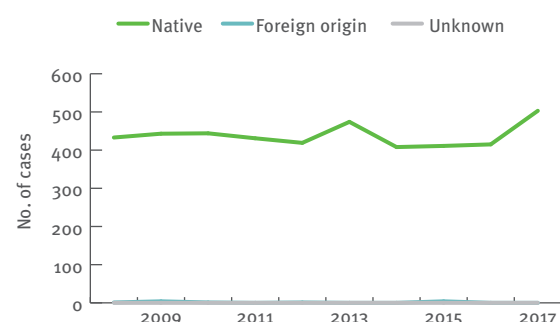## TB notification rates by treatment history, 2008–2017[a]
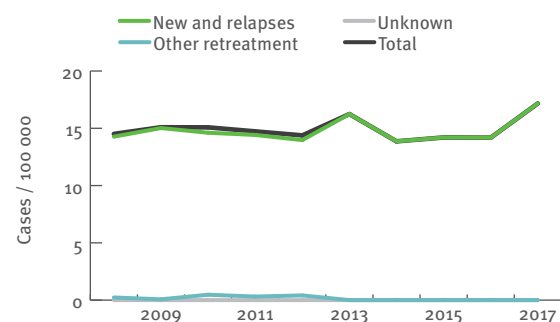
[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

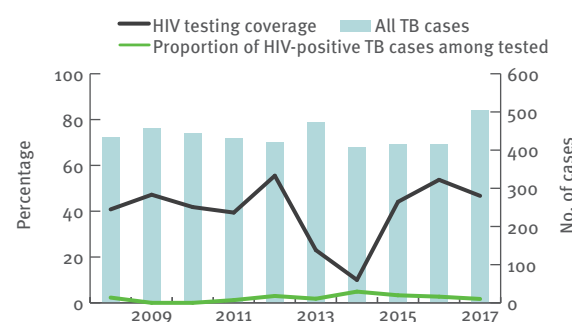## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 include new TB cases only.

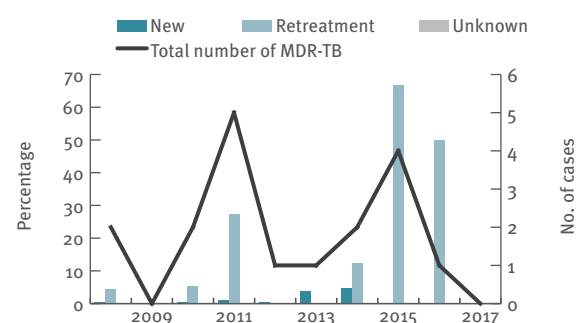## TB cases by geographical origin, 2008–2017
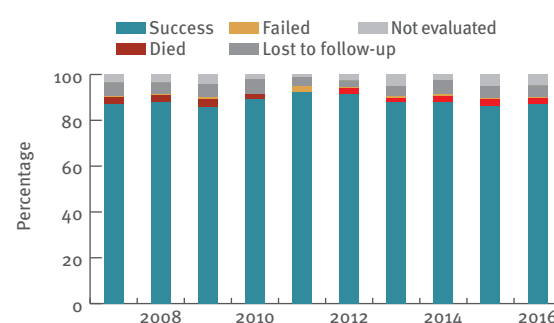

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2008–2017[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Andorra

Population estimate 2016 by UN Statistical Database: 76 963

TB case notifications, 2017

Total number of cases	1	
Notification rate per 100 000	1.3	
New[a] and relapses	1	
New[a] and relapses notification rate per 100 000	1.3	
Pulmonary	1	(100.0%)
of which smear-positive	–	–
of which laboratory-confirmed	1	(100.0%)
Laboratory-confirmed TB cases	1	–
Mean age of new and relapse TB cases	20.0 years	
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	4	(100.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	1	(50.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–1	
Pulmonary MDR-TB cases notified	0	(0.0%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	0	–
of which XDR-TB cases	0	–
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	0	–
of these on ART	0	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
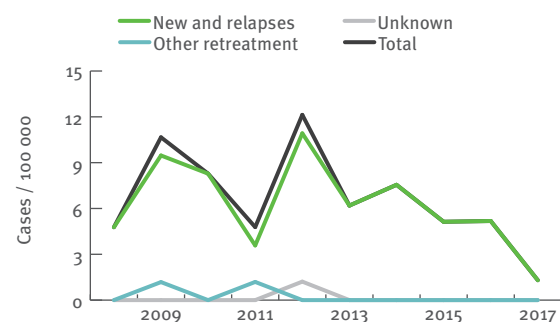[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	4		0	
Success	3	(75.0%)	–	–
Died	1	(25.0%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	0	(0.0%)	–	–
Not evaluated	0	(0.0%)	–	–

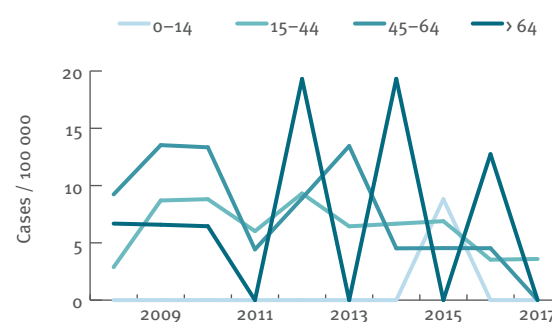[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

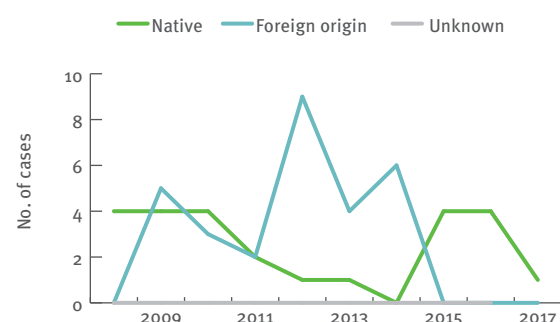## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

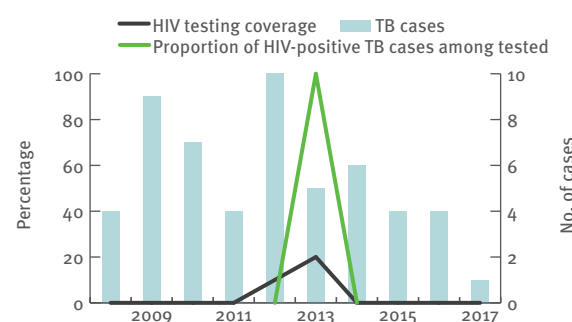## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017
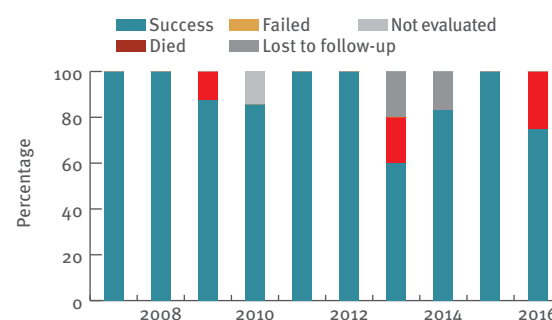

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

No MDR-TB cases reported

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Armenia

Population estimate 2016 by UN Statistical Database: 2 930 450

TB case notifications, 2017

Total number of cases	926	
Notification rate per 100 000	31.6	
New[a] and relapses	841	
New[a] and relapses notification rate per 100 000	28.7	
Pulmonary	652	(77.5%)
of which smear-positive	–	–
of which laboratory-confirmed	369	(56.6%)
Laboratory-confirmed TB cases	454	–
Mean age of new and relapse TB cases	43.1 years	
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	7	(0.8%)
New (not previously treated)	691	(74.6%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	428	(94.3%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	180–150–210	
Pulmonary MDR-TB cases notified	81	(18.9%)
of which XDR-TB cases	13	(16.0%)
Notified MDR-TB	99	(23.1%)
of which XDR-TB cases	13	(13.3%)
TB cases tested for HIV	838	(99.6%)
HIV-positive TB cases	66	(7.9%)
of these on ART	53	(80.3%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
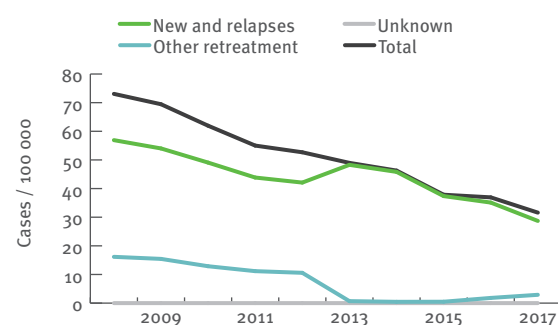[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	869		95	
Success	703	(80.9%)	40	(42.1%)
Died	48	(5.5%)	7	(7.4%)
Failed	18	(2.1%)	16	(16.8%)
Lost to follow-up	99	(11.4%)	31	(32.6%)
Not evaluated	1	(0.1%)	1	(1.1%)

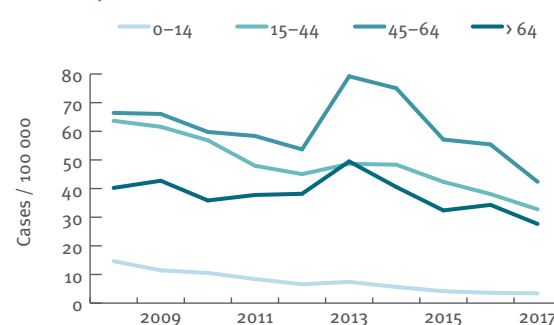[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

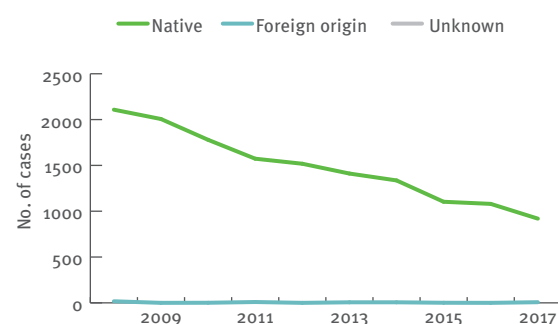## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

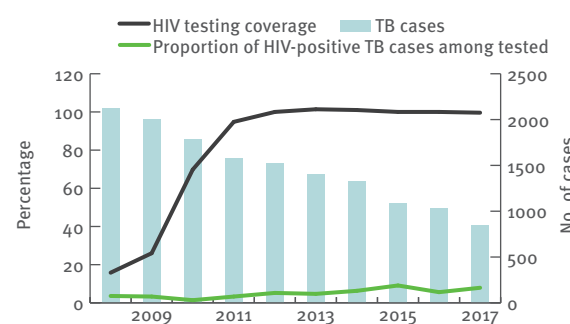## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.
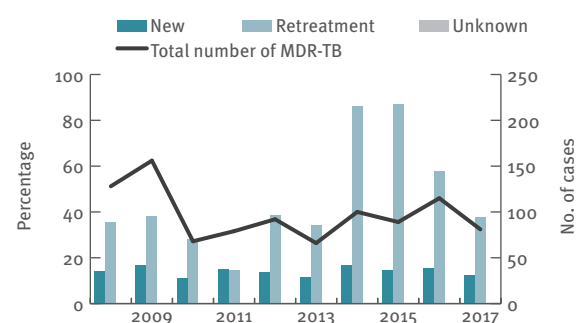
TB cases by geographical origin, 2008–2017
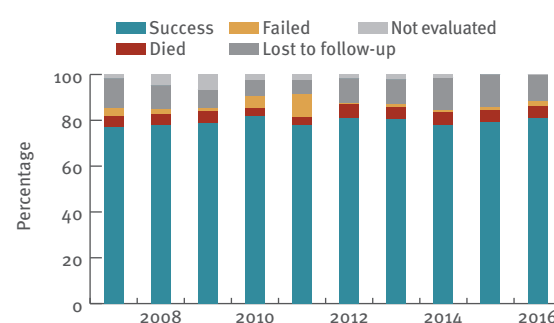

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Austria

Total population at 23 April 2018 by EUROSTAT: 8 772 865

TB case notifications, 2017

Total number of cases	570	
Notification rate per 100 000	6.5	
Newa and relapses	562	
Newa and relapses notification rate per 100 000	6.4	
Pulmonary	431	(75.6%)
of which microscopy-positive	153	(35.5%)
of which laboratory-confirmed	358	(83.1%)
Laboratory-confirmed TB cases	445	(78.1%)
Mean age of new native TB cases	55.6 years	
Mean age of new foreign TB cases	34.4 years	
Foreign origin of all TB cases	373	(65.4%)
New (not previously treated)	428	(75.1%)

a Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS dataa	Yes	
Completeness of HIV datab	–	
Case-linked data reporting	Yes	
Cases with DST results	425	(95.5%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	13–5–21	
Pulmonary MDR-TB cases notified	16	(4.6%)
of which XDR-TB cases	3	(18.8%)
Notified MDR-TB	18	(4.2%)
of which XDR-TB cases	3	(16.7%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

a National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
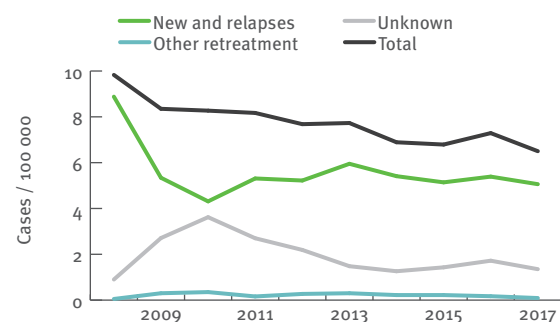b More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

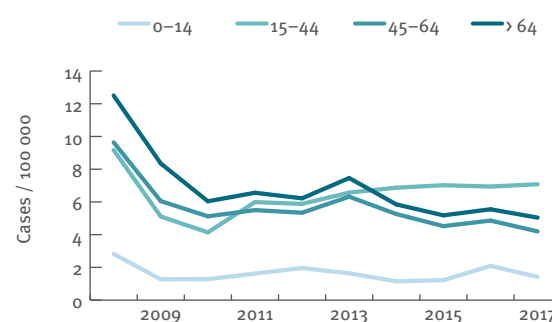|				
Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016a		All MDR-TB cases notified in 2015b	
Case-linked data reporting	Yes			
Cases notified	268		12	
Success	200	(74.6%)	11	(91.7%)
Died	16	(6.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	6	(2.2%)	0	(0.0%)
Still on treatment	28	(10.4%)	0	(0.0%)
Not evaluated	18	(6.7%)	1	(8.3%)

a Treatment outcome as presented is treatment outcome after 12 months.
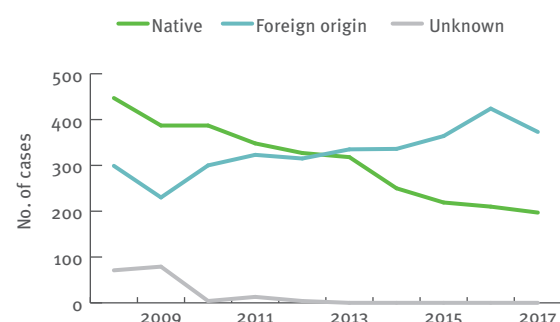b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017
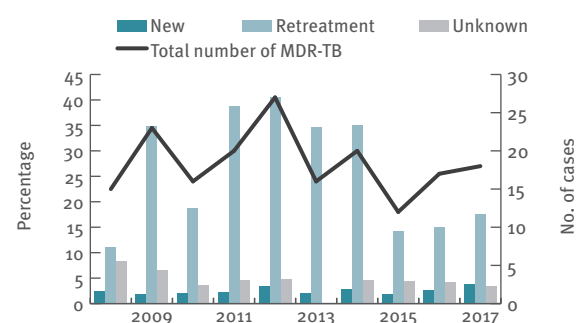

TB cases by geographical origin, 2008–2017
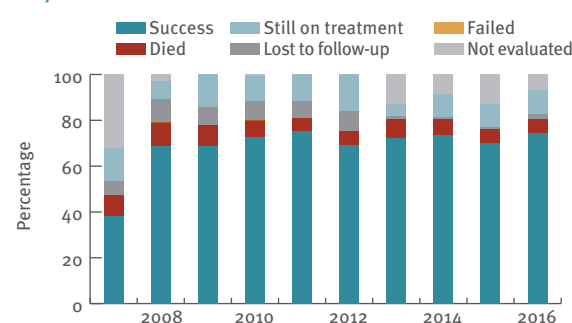

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Azerbaijan

Population estimate 2017 by UN Statistical Database: 9 827 589

TB case notifications, 2017

Total number of cases	7 129	
Notification rate per 100 000	72.5	
New[a] and relapses	5 231	
New[a] and relapses notification rate per 100 000	53.2	
Pulmonary	4 207	(80.4%)
of which smear-positive	–	–
of which laboratory-confirmed	3 125	(74.3%)
Laboratory-confirmed TB cases	4 923	(69.1%)
Mean age of new and relapse TB cases	37.1 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	3 871	(54.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	4 663	(94.7%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	1300–1200–1300	
Pulmonary MDR-TB cases notified	665	(21.9%)
of which XDR-TB cases		
Notified MDR-TB	1 007	(21.6%)
of which XDR-TB cases	118	(14.5%)
TB cases tested for HIV	5 889	(82.6%)
HIV-positive TB cases	95	(1.6%)
of these on ART	79	(83.2%)

[a] National coverage 100% or culturing 90%, C+/all TB cases >50%, DST done for C+ >75%, EQA ≥95%.
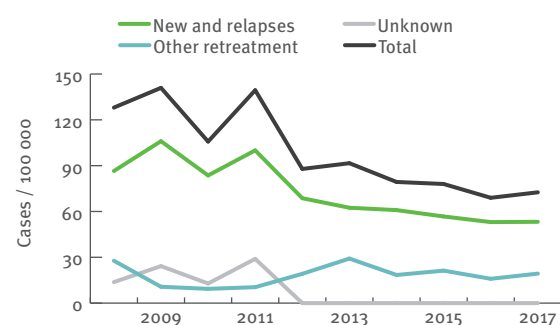[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	Bacteriologically confirmed new TB cases in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	1 464		800	
Success	1 225	(83.7%)	473	(59.1%)
Died	26	(1.8%)	123	(15.4%)
Failed	73	(5.0%)	143	(17.9%)
Lost to follow-up	118	(8.1%)	61	(7.6%)
Not evaluated	22	(1.5%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
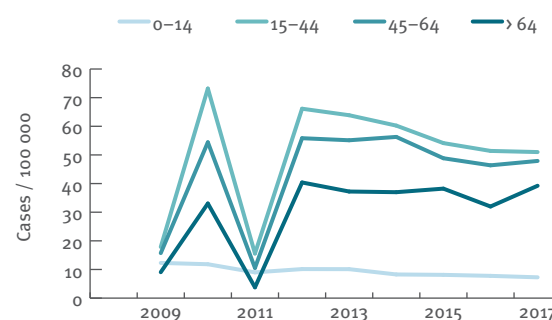[b] Treatment outcome as presented is treatment outcome after 24 months.

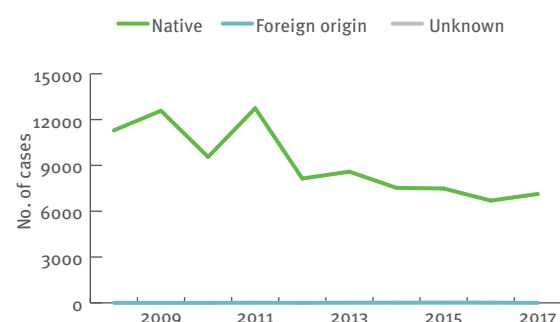### TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

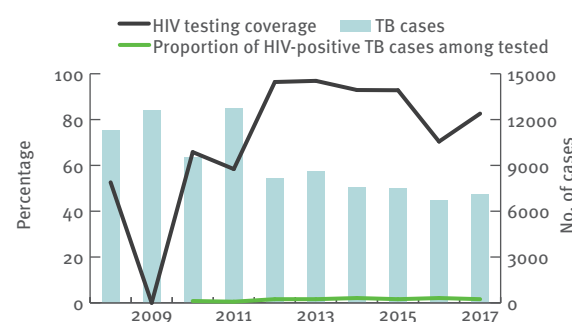### New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

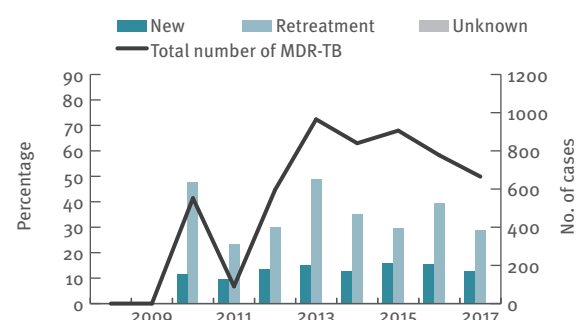### TB cases by geographical origin, 2008–2017

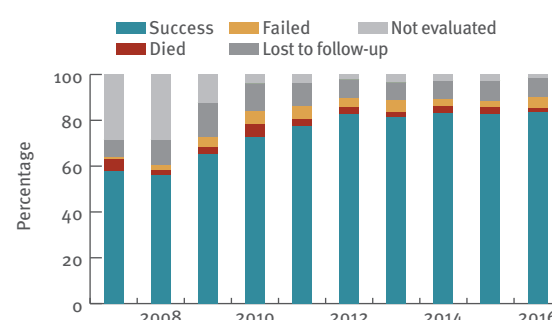### TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome of new TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Belarus

Population estimate 2017 by UN Statistical Database: 9 468 338

TB case notifications, 2017

Total number of cases		3 052
Notification rate per 100 000		32.2
New[a] and relapses		2 781
New[a] and relapses notification rate per 100 000		29.4
Pulmonary	2 567	(92.3%)
of which smear-positive	–	
of which laboratory-confirmed	2 171	(84.6%)
Laboratory-confirmed TB cases	2 390	(78.3%)
Mean age of new and relapse TB cases	47.3 years	
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	2 289	(75.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	2 390	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	1300–1300–1400	
Pulmonary MDR-TB cases notified	1 088	(45.5%)
of which XDR-TB cases	343	(31.5%)
Notified MDR-TB	1 117	(46.7%)
of which XDR-TB cases	343	(30.7%)
TB cases tested for HIV	2 781	(100.0%)
HIV-positive TB cases	202	(7.3%)
of these on ART	155	(76.7%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
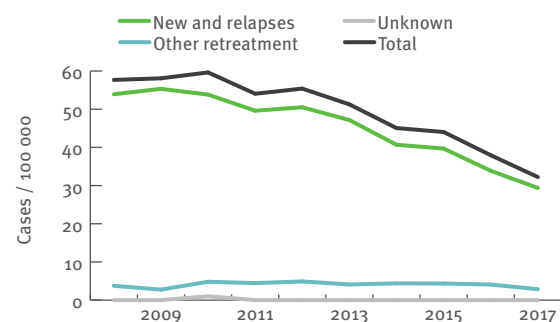[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New and relapsed TB cases notified in 2016[a]		All MDR-TB cases enrolled into MDR treatment in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	2 123		1 400	
Success	1 894	(89.2%)	899	(64.2%)
Died	112	(5.3%)	132	(9.4%)
Failed	45	(2.1%)	218	(15.6%)
Lost to follow-up	68	(3.2%)	138	(9.9%)
Not evaluated	4	(0.2%)	13	(0.9%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
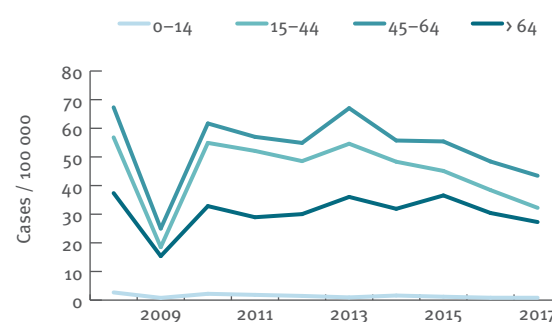[b] Treatment outcome as presented is treatment outcome after 24 months.

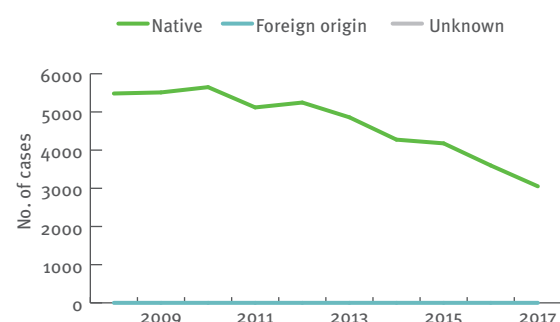## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

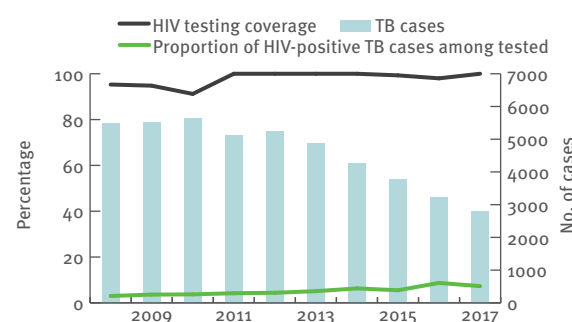## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

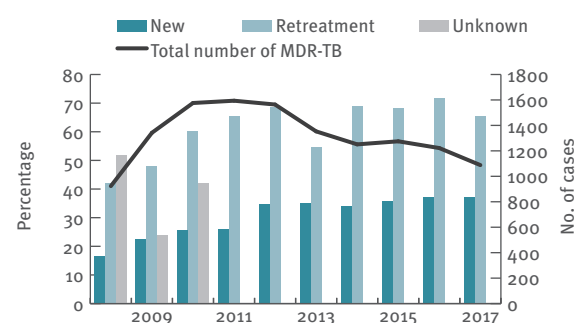## TB cases by geographical origin, 2008–2017
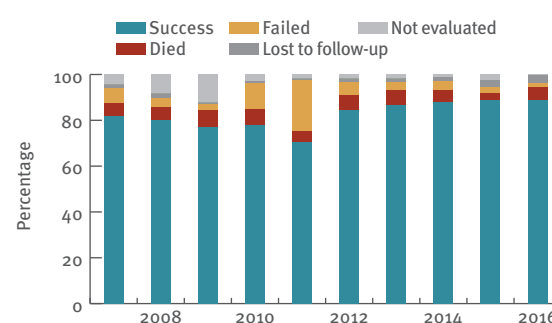

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Belgium

Total population at 23 April 2018 by EUROSTAT: 11 351 727

TB case notifications, 2017

Total number of cases	972	
Notification rate per 100 000	8.6	
New[a] and relapses	916	
New[a] and relapses notification rate per 100 000	8.1	
Pulmonary	697	(71.7%)
of which microscopy-positive	332	(47.6%)
of which laboratory-confirmed	574	(82.4%)
Laboratory-confirmed TB cases	758	(78.0%)
Mean age of new native TB cases	42.8 years	
Mean age of new foreign TB cases	34.0 years	
Foreign origin of all TB cases	506	(52.1%)
New (not previously treated)	715	(73.6%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	729	(96.2%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	16–6–25	
Pulmonary MDR-TB cases notified	3	(0.5%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	5	(0.7%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	517	(53.2%)
HIV-positive TB cases	43	(8.3%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

|				
Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	438		15	
Success	351	(80.1%)	15	(100.0%)
Died	30	(6.8%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	29	(6.6%)	0	(0.0%)
Still on treatment	14	(3.2%)	0	(0.0%)
Not evaluated	14	(3.2%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
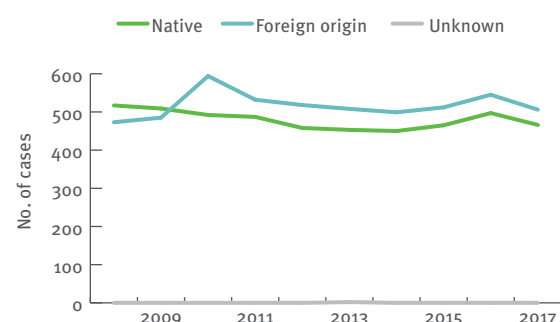[b] Treatment outcome as presented is treatment outcome after 24 months.

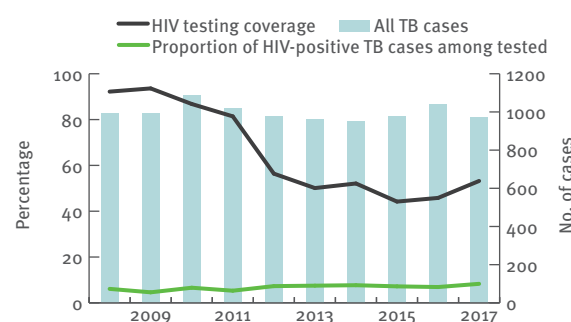## TB notification rates by treatment history, 2008–2017
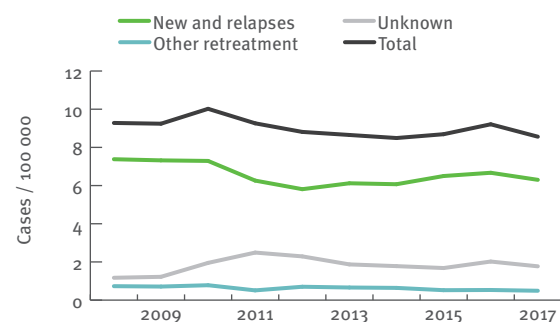
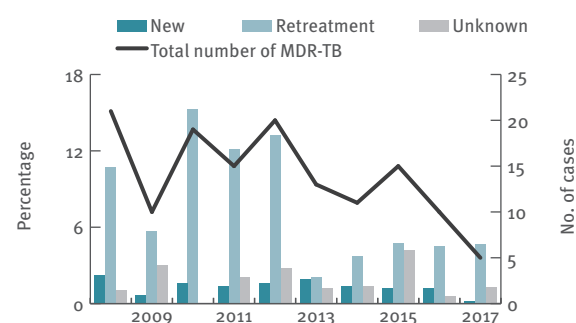## New and relapsed TB cases – notification rates by age group, 2008–2017
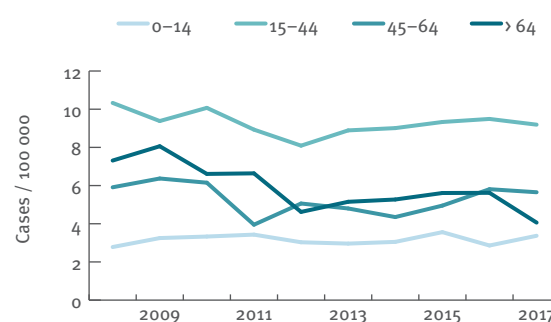
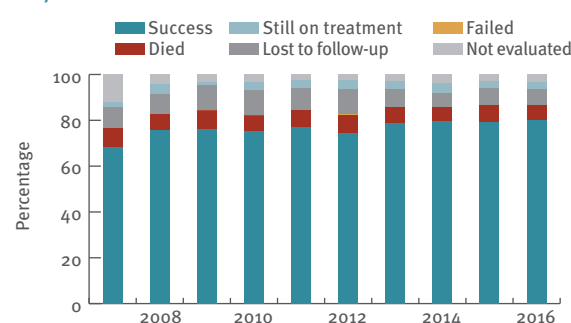## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Bosnia and Herzegovina

Population estimate 2017 by UN Statistical Database: 3 507 017

TB case notifications, 2017

Total number of cases	768	
Notification rate per 100 000	21.9	
New[a] and relapses	766	
New[a] and relapses notification rate per 100 000	21.8	
Pulmonary	681	(88.9%)
of which smear-positive	–	–
of which laboratory-confirmed	479	(70.3%)
Laboratory-confirmed TB cases	479	(62.4%)
Mean age of new and relapse TB cases	52.8 years	
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	698	(90.9%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	424	(88.5%)
Estimated RR-TB among notified pulmonary cases (best-low-high)	0–0–4	
Pulmonary MDR-TB cases notified	0	(0.0%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	0	(0.0%)
of which XDR-TB cases	0	–
TB cases tested for HIV	18	(2.3%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
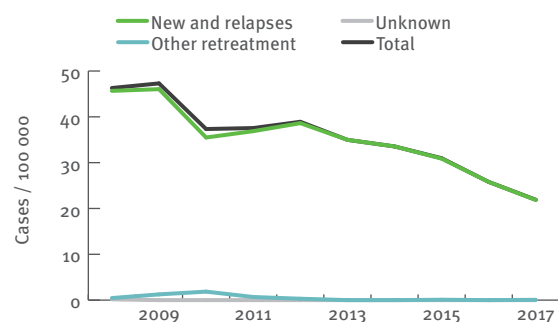[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	907		1	
Success	505	(55.7%)	1	(100.0%)
Died	64	(7.1%)	0	(0.0%)
Failed	13	(1.4%)	0	(0.0%)
Lost to follow-up	3	(0.3%)	0	(0.0%)
Not evaluated	322	(35.5%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
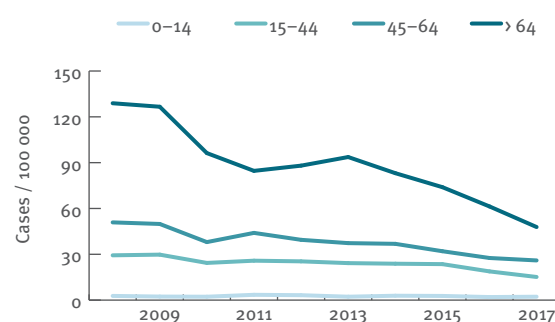[b] Treatment outcome as presented is treatment outcome after 24 months.

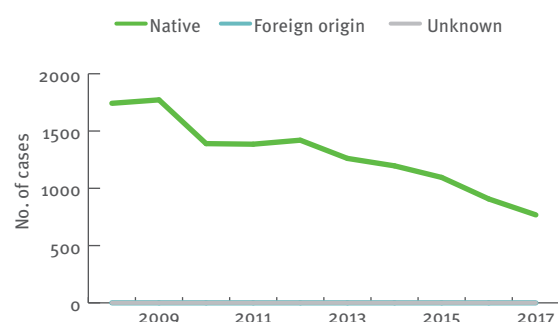## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

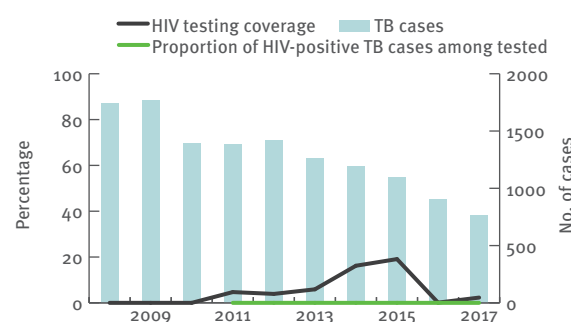## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.
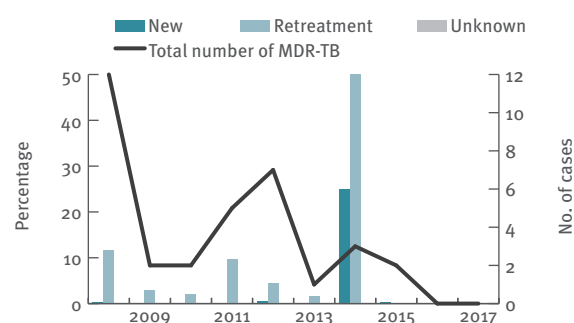
TB cases by geographical origin, 2008–2017

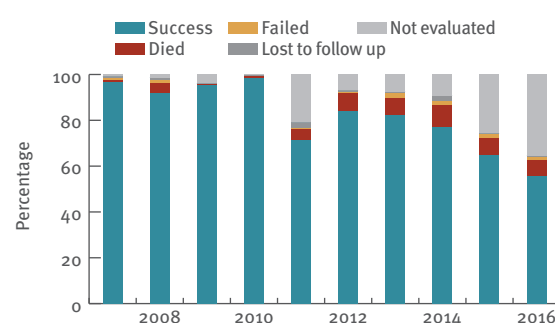## TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Bulgaria

Total population at 23 April 2018 by EUROSTAT: 7 101 859

TB case notifications, 2017

Total number of cases	1463	
Notification rate per 100 000	20.6	
New[a] and relapses	1 408	
New[a] and relapses notification rate per 100 000	19.8	
Pulmonary	1 101	(75.3%)
of which microscopy-positive	571	(51.9%)
of which laboratory-confirmed	675	(61.3%)
Laboratory-confirmed TB cases	696	(47.6%)
Mean age of new native TB cases	47.4 years	
Mean age of new foreign TB cases	44.8 years	
Foreign origin of all TB cases	6	(0.4%)
New (not previously treated)	1 272	(86.9%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	607	(87.2%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	44–27–61	
Pulmonary MDR-TB cases notified	24	(4.0%)
of which XDR-TB cases	1	(4.3%)
Notified MDR-TB	24	(4.0%)
of which XDR-TB cases	1	(4.3%)
TB cases tested for HIV	1 204	(82.3%)
HIV-positive TB cases	3	(0.2%)
of these on ART	3	(100.0%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	652		24	
Success	558	(85.6%)	14	(58.3%)
Died	52	(8.0%)	5	(20.8%)
Failed	15	(2.3%)	2	(8.3%)
Lost to follow-up	23	(3.5%)	3	(12.5%)
Still on treatment	4	(0.6%)	0	(0.0%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
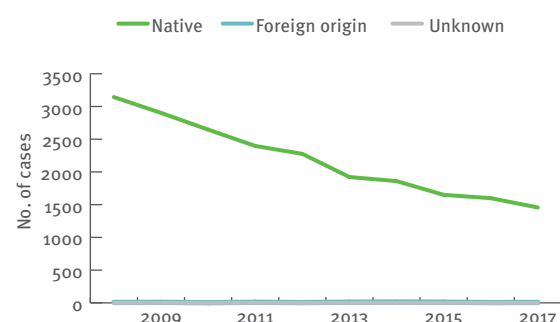[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017
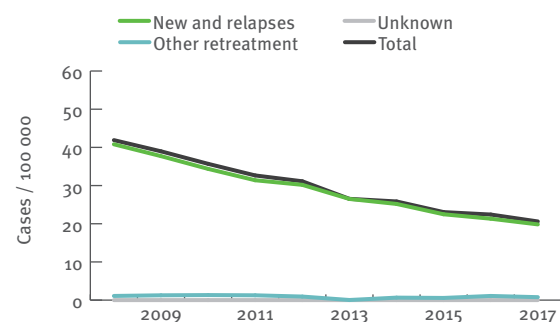
New and relapsed TB cases – notification rates by age group, 2008–2017
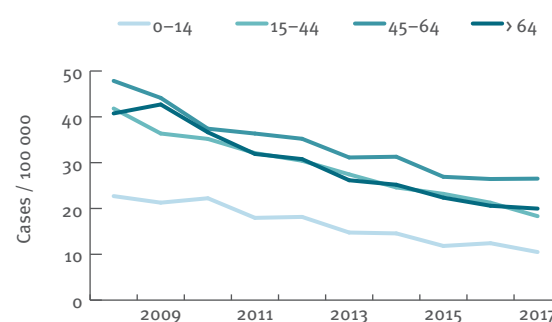
TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017
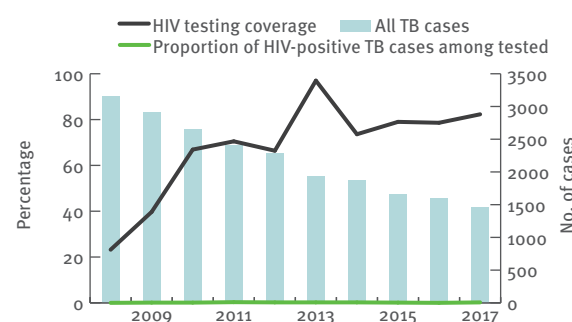
MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Croatia

Total population at 23 April 2018 by EUROSTAT: 4 154 213

TB case notifications, 2017

Total number of cases	371	
Notification rate per 100 000	8.9	
New[a] and relapses	364	
New[a] and relapses notification rate per 100 000	8.8	
Pulmonary	327	(88.1%)
of which microscopy-positive	181	(55.4%)
of which laboratory-confirmed	285	(87.2%)
Laboratory-confirmed TB cases	316	(85.2%)
Mean age of new native TB cases	56.9 years	
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	299	(80.6%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	215	(68.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–3	
Pulmonary MDR-TB cases notified	0	(0.0%)
of which XDR-TB cases	0	–
Notified MDR-TB	0	(0.0%)
of which XDR-TB cases	0	–
TB cases tested for HIV	4	(1.1%)
HIV-positive TB cases	1	(25.0%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	294		1	
Success	180	(61.2%)	1	(100.0%)
Died	46	(15.6%)	0	(0.0%)
Failed	1	(0.3%)	0	(0.0%)
Lost to follow-up	9	(3.1%)	0	(0.0%)
Still on treatment	14	(4.8%)	0	(0.0%)
Not evaluated	44	(15.0%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.
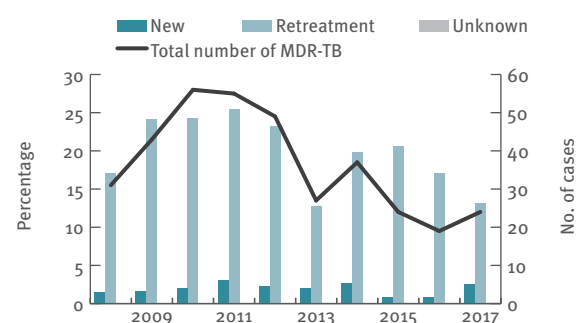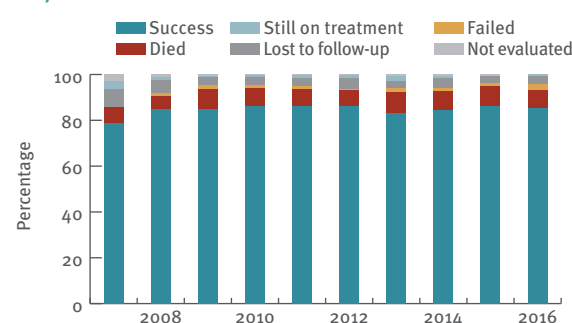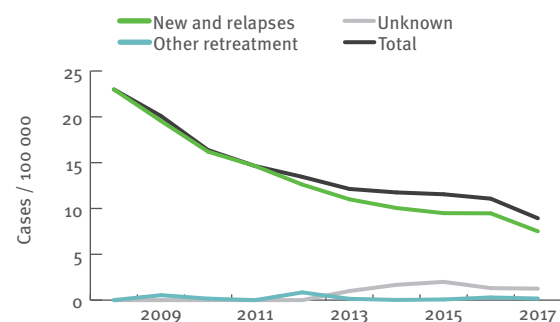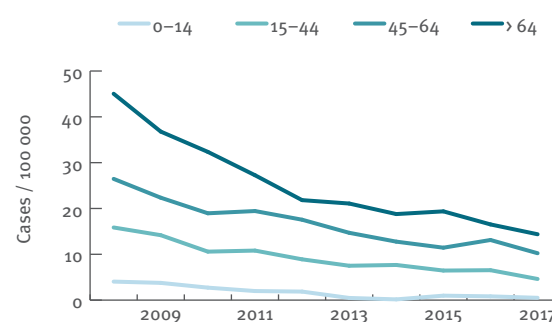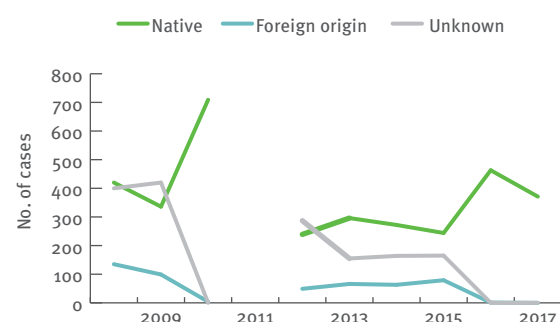
TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017
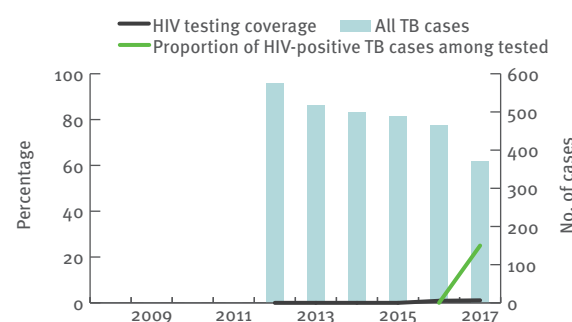
MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016
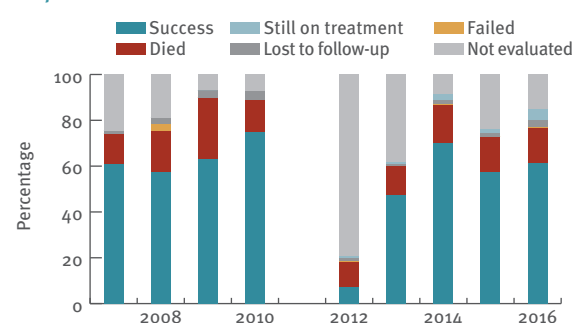
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Cyprus

Total population at 23 April 2018 by EUROSTAT: 854 802

TB case notifications, 2017

Total number of cases	53	
Notification rate per 100 000	6.2	
New[a] and relapses	52	
New[a] and relapses notification rate per 100 000	6.1	
Pulmonary	44	(83.0%)
of which microscopy-positive	21	(47.7%)
of which laboratory-confirmed	33	(75.0%)
Laboratory-confirmed TB cases	39	(73.6%)
Mean age of new native TB cases	36.2 years	
Mean age of new foreign TB cases	33.9 years	
Foreign origin of all TB cases	38	(71.7%)
New (not previously treated)	51	(96.2%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	39	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–2	
Pulmonary MDR-TB cases notified	1	(3.0%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	1	(2.6%)
of which XDR-TB cases	0	–
TB cases tested for HIV	49	(92.5%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	36		0	
Success	24	(66.7%)	0	–
Died	0	(0.0%)	0	–
Failed	0	(0.0%)	0	–
Lost to follow-up	0	(0.0%)	0	–
Still on treatment	0	(0.0%)	0	–
Not evaluated	12	(33.3%)	0	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

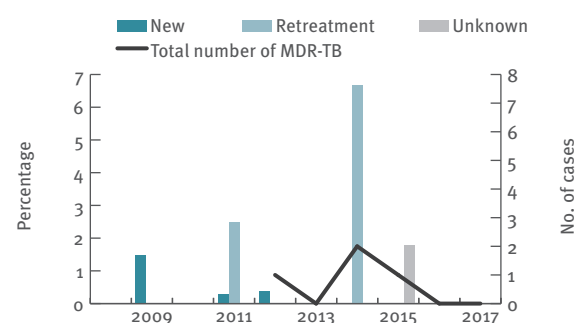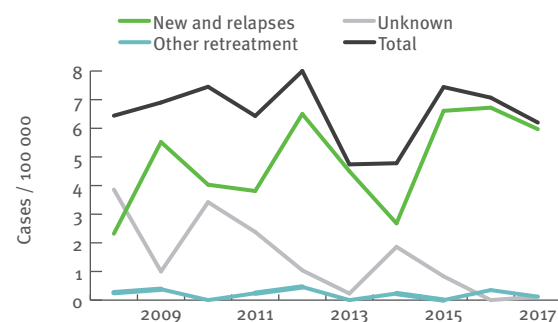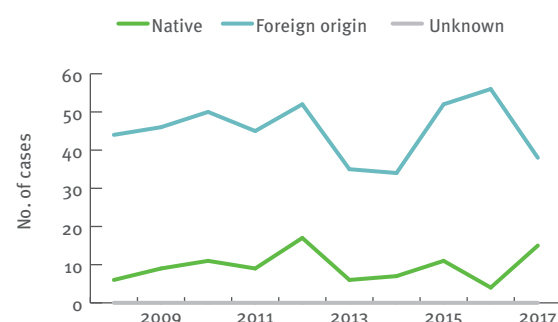## TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization
REGIONAL OFFICE FOR **Europe**

2017 data
Czech Republic

Total population at 23 April 2018 by EUROSTAT: 10 578 820

TB case notifications, 2017

Total number of cases	505	
Notification rate per 100 000	4.8	
New[a] and relapses	499	
New[a] and relapses notification rate per 100 000	4.7	
Pulmonary	439	(86.9%)
of which microscopy-positive	201	(45.8%)
of which laboratory-confirmed	338	(77.0%)
Laboratory-confirmed TB cases	379	(75.0%)
Mean age of new native TB cases	53.9 years	
Mean age of new foreign TB cases	40.9 years	
Foreign origin of all TB cases	159	(31.5%)
New (not previously treated)	472	(93.5%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	350	(92.3%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	13–5–21	
Pulmonary MDR-TB cases notified	6	(1.9%)
of which XDR-TB cases	2	(33.3%)
Notified MDR-TB	8	(2.3%)
of which XDR-TB cases	2	(25.0%)
TB cases tested for HIV	197	(39.0%)
HIV-positive TB cases	8	(4.1%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	331		9	
Success	221	(66.8%)	3	(33.3%)
Died	54	(16.3%)	1	(11.1%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	39	(11.8%)	1	(11.1%)
Still on treatment	8	(2.4%)	2	(22.2%)
Not evaluated	9	(2.7%)	2	(22.2%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

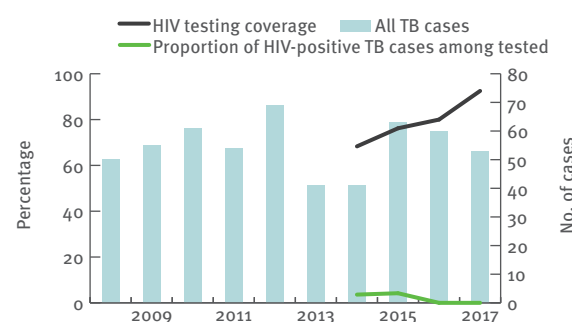### TB notification rates by treatment history, 2008–2017

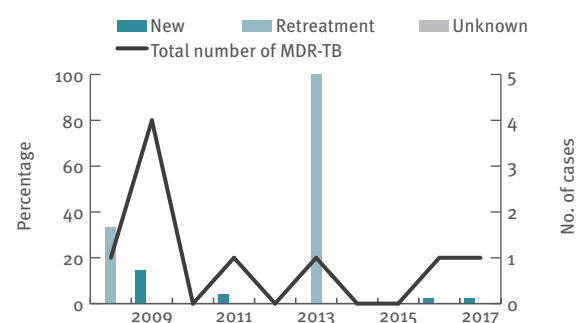### New and relapsed TB cases – notification rates by age group, 2008–2017

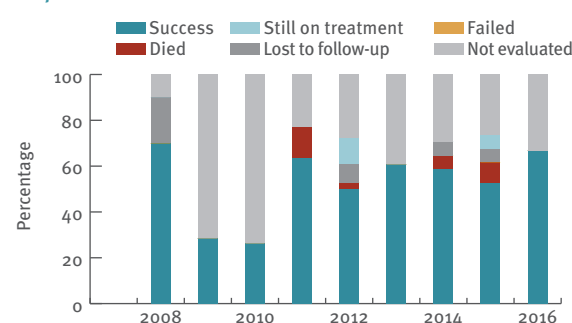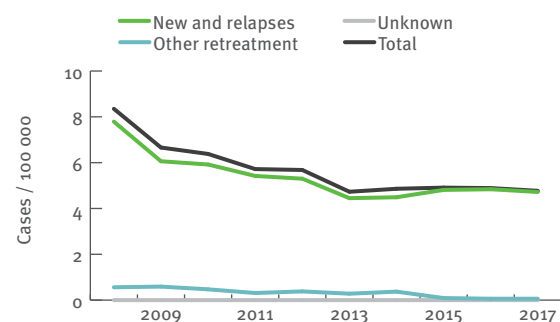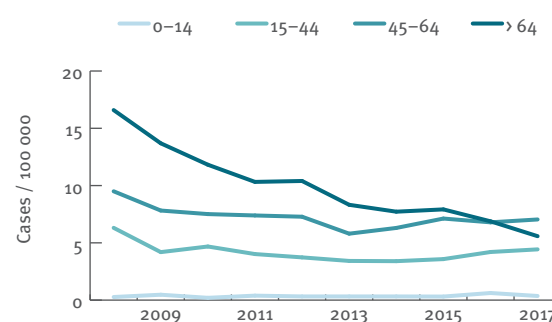### TB cases by geographical origin, 2008–2017
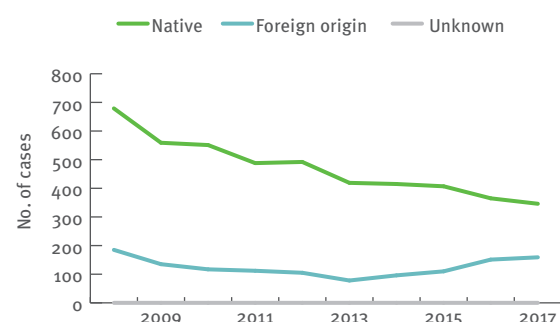
TB/HIV coinfection, 2008–2017
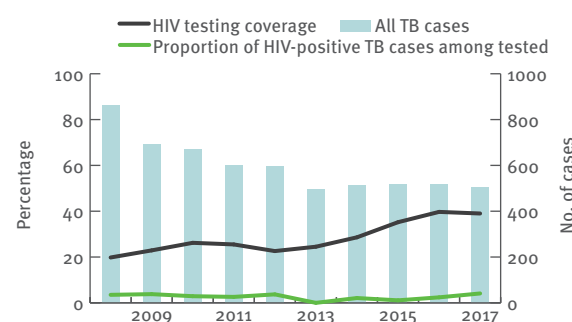
MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016
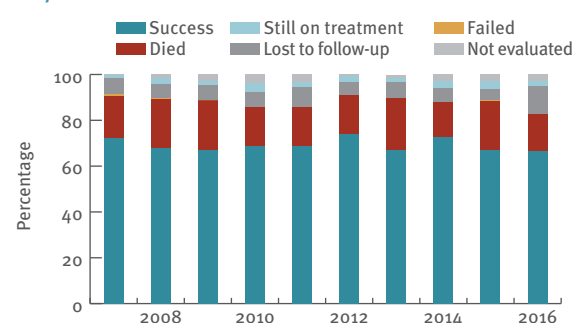
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Denmark

Total population at 23 April 2018 by EUROSTAT: 5 748 769

TB case notifications, 2017

Total number of cases	275	
Notification rate per 100 000	4.8	
New[a] and relapses	253	
New[a] and relapses notification rate per 100 000	4.4	
Pulmonary	218	(79.3%)
of which microscopy-positive	85	(39.0%)
of which laboratory-confirmed	173	(79.4%)
Laboratory-confirmed TB cases	218	(79.3%)
Mean age of new native TB cases	45.0 years	
Mean age of new foreign TB cases	41.2 years	
Foreign origin of all TB cases	184	(66.9%)
New (not previously treated)	253	(92.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	214	(98.2%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	1–0–5	
Pulmonary MDR-TB cases notified	1	(0.6%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	2	(0.9%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	211	(76.7%)
HIV-positive TB cases	3	(1.4%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	184		6	
Success	69	(37.5%)	0	(0.0%)
Died	5	(2.7%)	0	(0.0%)
Failed	5	(2.7%)	1	(16.7%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	5	(2.7%)	0	(0.0%)
Not evaluated	100	(54.3%)	5	(83.3%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

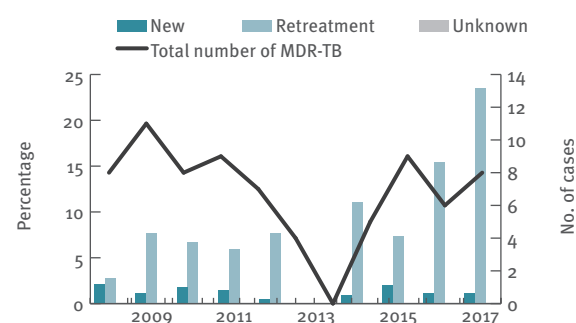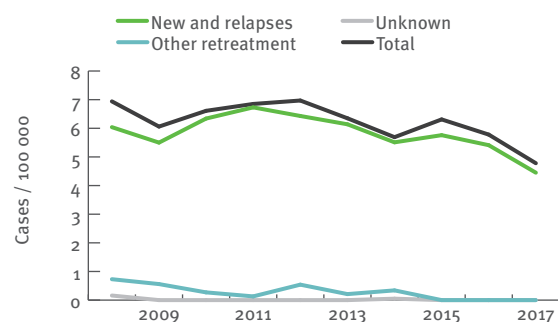## TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017
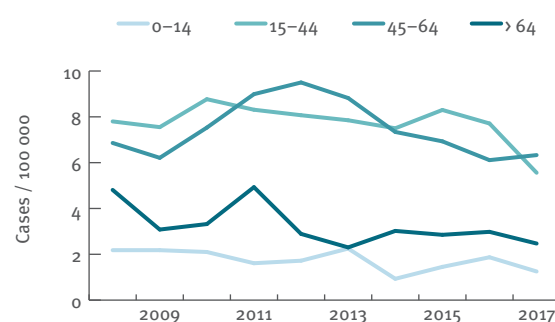
TB cases by geographical origin, 2008–2017
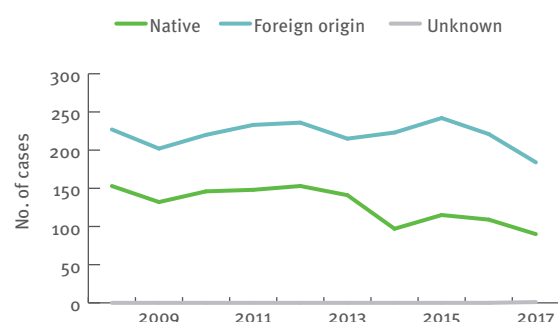
TB/HIV coinfection, 2008–2017
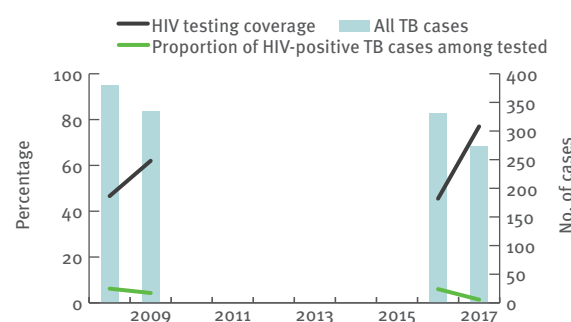
MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016
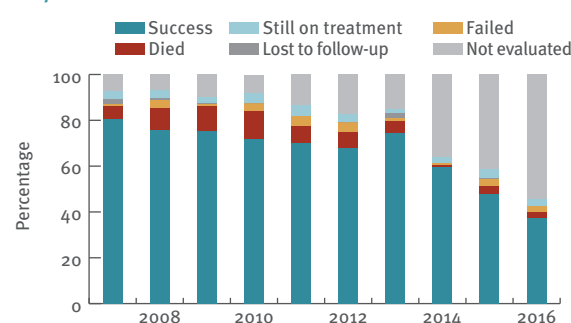
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Estonia

Total population at 23 April 2018 by EUROSTAT: 1 315 635

TB case notifications, 2017

Total number of cases	175	
Notification rate per 100 000	13.3	
New[a] and relapses	171	
New[a] and relapses notification rate per 100 000	13.0	
Pulmonary	168	(96.0%)
of which microscopy-positive	78	(46.4%)
of which laboratory-confirmed	142	(84.5%)
Laboratory-confirmed TB cases	145	(82.9%)
Mean age of new native TB cases	51.2 years	
Mean age of new foreign TB cases	66.1 years	
Foreign origin of all TB cases	23	(13.1%)
New (not previously treated)	146	(83.4%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	142	(97.9%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	45–33–56	
Pulmonary MDR-TB cases notified	36	(25.9%)
of which XDR-TB cases	9	(26.5%)
Notified MDR-TB	36	(25.4%)
of which XDR-TB cases	9	(26.5%)
TB cases tested for HIV	163	(93.1%)
HIV-positive TB cases	14	(8.6%)
of these on ART	12	(85.7%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	133		38	
Success	95	(71.4%)	20	(52.6%)
Died	23	(17.3%)	8	(21.1%)
Failed	1	(0.8%)	3	(7.9%)
Lost to follow-up	1	(0.8%)	4	(10.5%)
Still on treatment	13	(9.8%)	3	(7.9%)
Not evaluated	0	(0.0%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

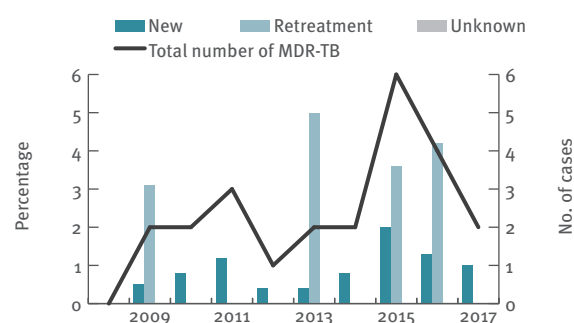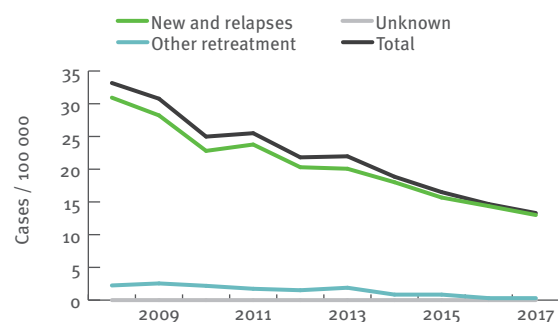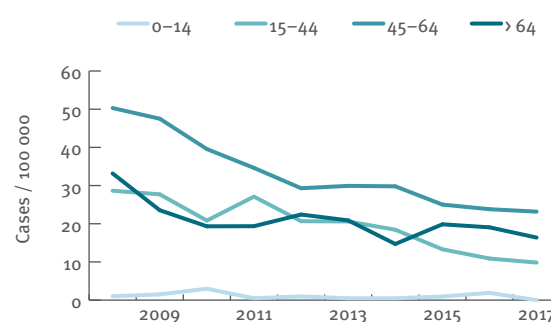## TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Finland

Total population at 23 April 2018 by EUROSTAT: 5 503 297

TB case notifications, 2017

Total number of cases	237	
Notification rate per 100 000	4.3	
New[a] and relapses	234	
New[a] and relapses notification rate per 100 000	4.3	
Pulmonary	169	(71.3%)
of which microscopy-positive	60	(35.5%)
of which laboratory-confirmed	143	(84.6%)
Laboratory-confirmed TB cases	195	(82.3%)
Mean age of new native TB cases	71.2 years	
Mean age of new foreign TB cases	32.2 years	
Foreign origin of all TB cases	95	(40.1%)
New (not previously treated)	225	(94.9%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	–	
Case-linked data reporting	Yes	
Cases with DST results	192	(98.5%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	9–3–14	
Pulmonary MDR-TB cases notified	5	(3.5%)
of which XDR-TB cases	1	(20.0%)
Notified MDR-TB	5	(2.6%)
of which XDR-TB cases	1	(20.0%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	128		8	
Success	57	(44.5%)	3	(37.5%)
Died	0	(0.0%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	3	(2.3%)	0	(0.0%)
Still on treatment	4	(3.1%)	1	(12.5%)
Not evaluated	64	(50.0%)	4	(50.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.
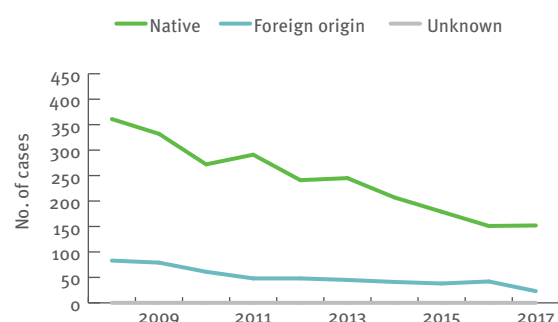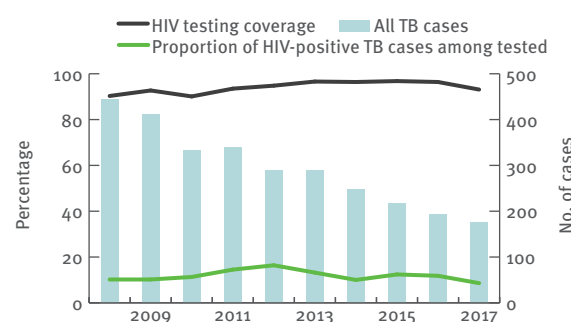
TB notification rates by treatment history, 2008–2017

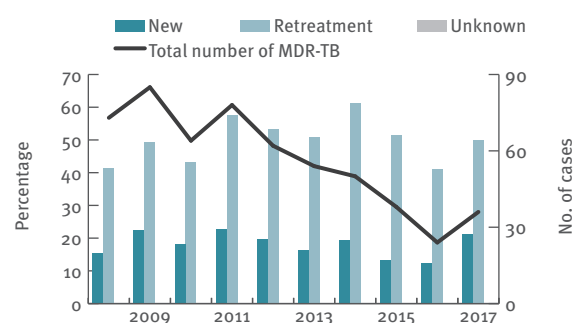## New and relapsed TB cases – notification rates by age group, 2008–2017

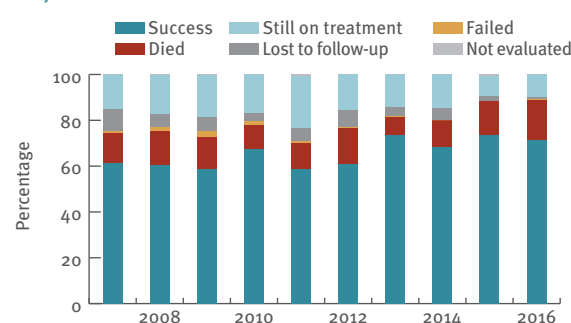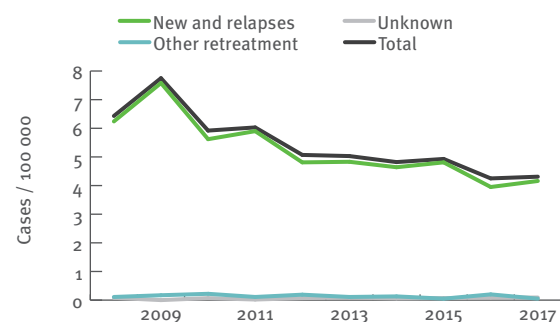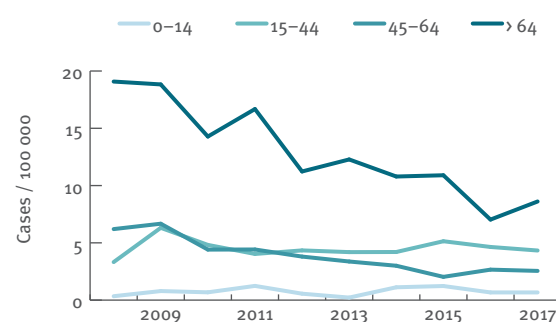## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

France

Total population at 23 April 2018 by EUROSTAT: 66 989 083

TB case notifications, 2017

Total number of cases	5 131	
Notification rate per 100 000	7.7	
New[a] and relapses	4 839	
New[a] and relapses notification rate per 100 000	7.2	
Pulmonary	3 554	(69.3%)
of which microscopy-positive	1 575	–
of which laboratory-confirmed	2 004	(56.4%)
Laboratory-confirmed TB cases	2 603	(50.7%)
Mean age of new native TB cases	44.9 years	
Mean age of new foreign TB cases	37.8 years	
Foreign origin of all TB cases	3 019	(58.8%)
New (not previously treated)	–	–

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	–	
Completeness of HIV data[b]	–	
Case-linked data reporting	No	
Cases with DST results	0	(0.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	65–48–82	
Pulmonary MDR-TB cases notified	–	–
of which XDR-TB cases	–	–
Notified MDR-TB	–	–
of which XDR-TB cases	–	–
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	1 125		–	
Success	685	(60.9%)	–	–
Died	55	(4.9%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	84	(7.5%)	–	–
Still on treatment	27	(2.4%)	–	–
Not evaluated	274	(24.4%)	–	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
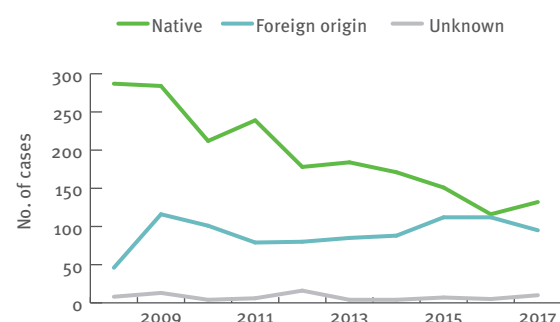[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017
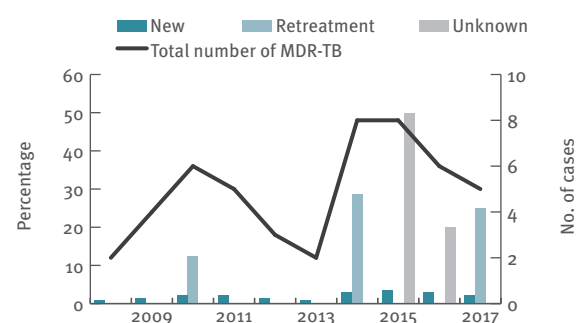

TB cases by geographical origin, 2008–2017
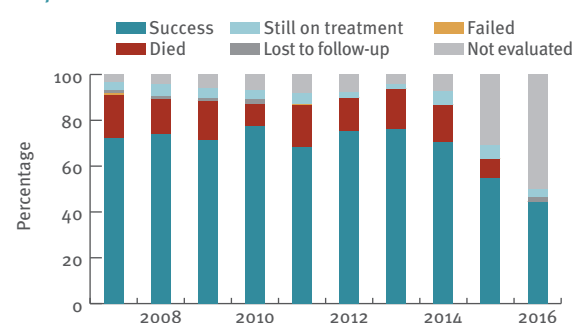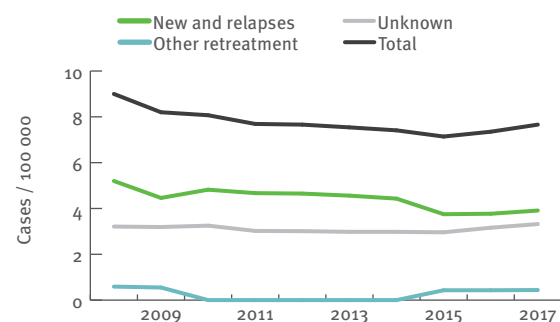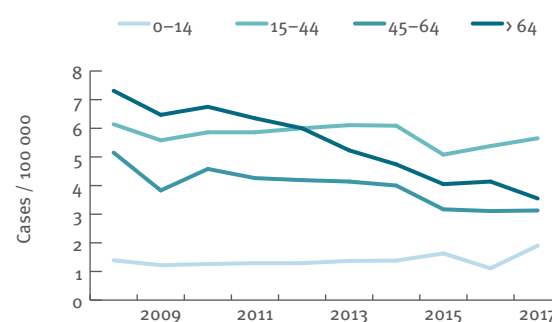

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019
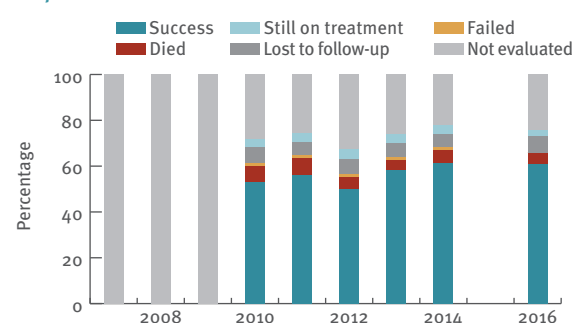
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Georgia

Population estimate 2017 by UN Statistical Database: 3 912 061

TB case notifications, 2017

Total number of cases	2 927
Notification rate per 100 000	74.8
New[a] and relapses	2 597
New[a] and relapses notification rate per 100 000	66.4
Pulmonary	2 068 (79.6%)
of which smear-positive	–
of which laboratory-confirmed	1 780 (86.1%)
Laboratory-confirmed TB cases	2 061 (70.4%)
Mean age of new and relapse TB cases	42.3 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	2 164 (73.9%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	1 979	(96,0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	400–360–440	
Pulmonary MDR-TB cases notified	262	(13.2%)
of which XDR-TB cases	44	(17.9%)
Notified MDR-TB	324	(16.4%)
of which XDR-TB cases	46	(17.3%)
TB cases tested for HIV	2 442	(94.0%)
HIV-positive TB cases	43	(1.8%)
of these on ART	43	(100.0%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	2 715		412	
Success	2 263	(83.4%)	231	(56.1%)
Died	113	(4.2%)	26	(6.3%)
Failed	53	(2.0%)	42	(10.2%)
Lost to follow-up	235	(8.7%)	101	(24.5%)
Not evaluated	51	(1.9%)	12	(2.9%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.
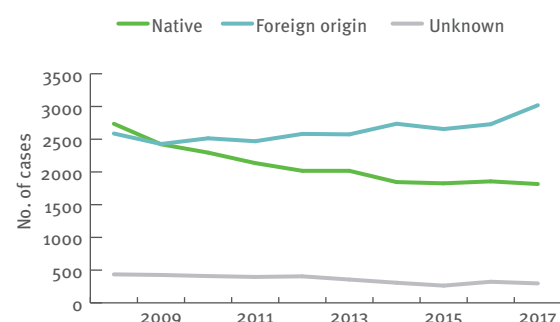
TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

New TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017[a]

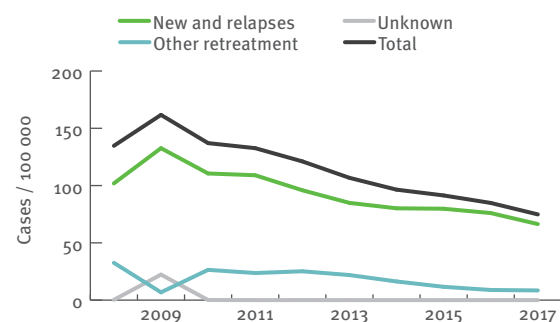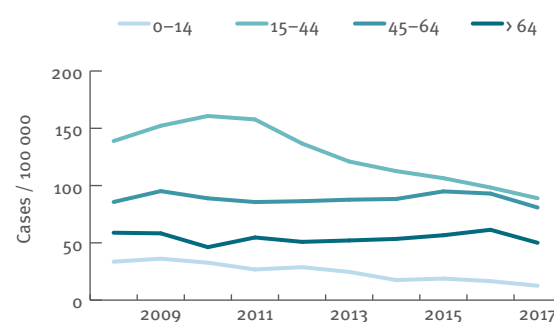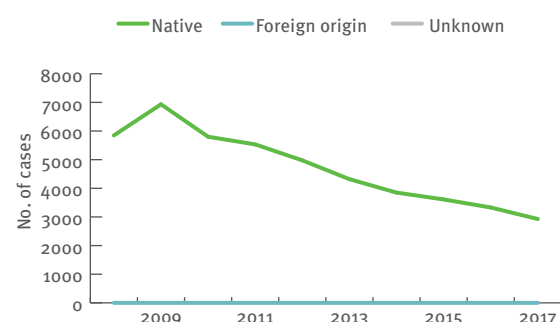[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019
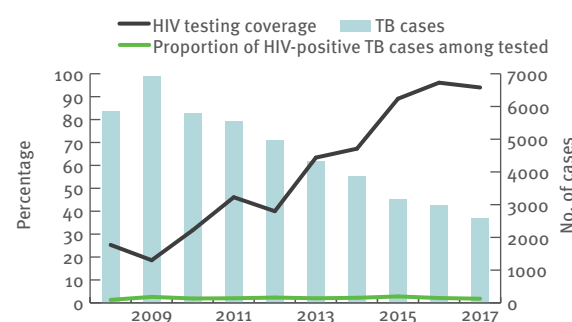
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Germany

Total population at 23 April 2018 by EUROSTAT: 82 521 653

TB case notifications, 2017

Total number of cases	5 486	
Notification rate per 100 000	6.6	
New[a] and relapses	5 353	
New[a] and relapses notification rate per 100 000	6.5	
Pulmonary	3 892	(70.9%)
of which microscopy-positive	1 804	(46.4%)
of which laboratory-confirmed	3 090	(79.4%)
Laboratory-confirmed TB cases	3 978	(72.5%)
Mean age of new native TB cases	65.4 years	
Mean age of new foreign TB cases	40.8 years	
Foreign origin of all TB cases	3 820	(69.6%)
New (not previously treated)	5 252	(95.7%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	–	
Case-linked data reporting	Yes	
Cases with DST results	3 555	(89.4%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	140–65–210	
Pulmonary MDR-TB cases notified	87	(3.1%)
of which XDR-TB cases	4	(5.7%)
Notified MDR-TB	105	(3.0%)
of which XDR-TB cases	4	(4.9%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	199		110	
Success	118	(59.3%)	44	(40.0%)
Died	17	(8.5%)	5	(4.5%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	2	(1.0%)	7	(6.4%)
Still on treatment	12	(6.0%)	11	(10.0%)
Not evaluated	50	(25.1%)	43	(39.1%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017
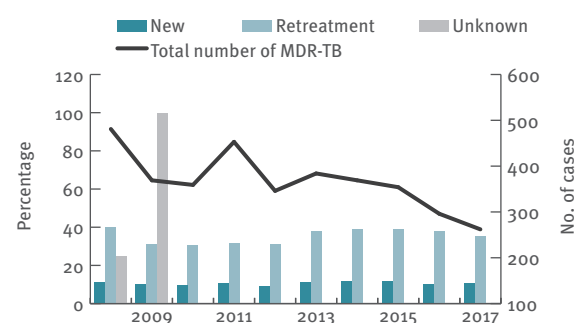

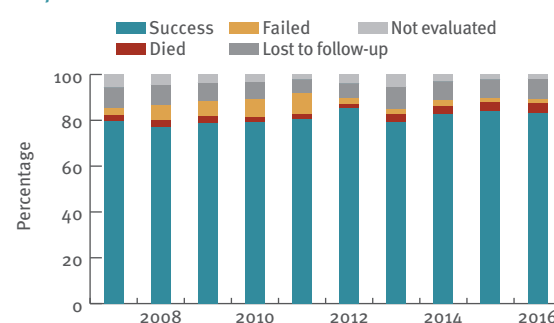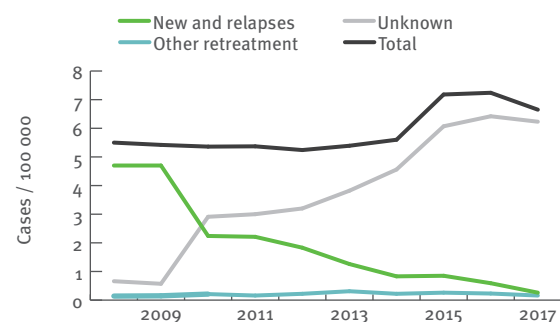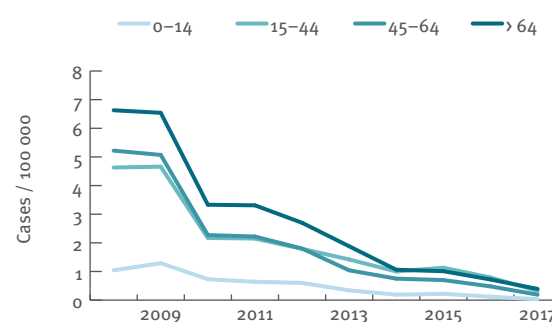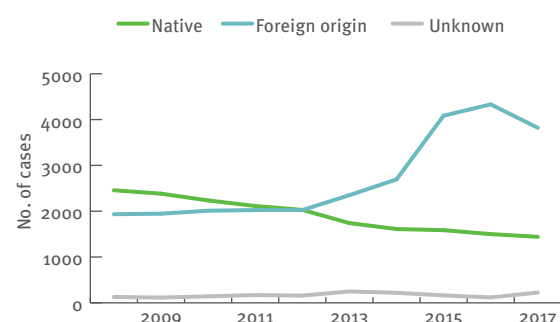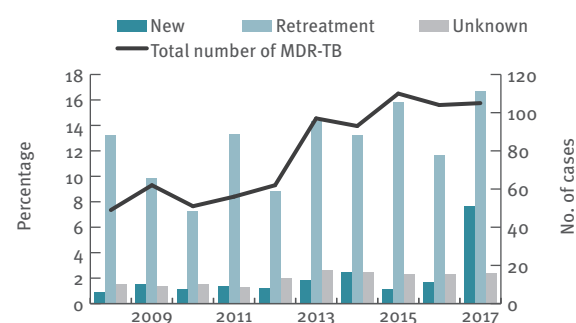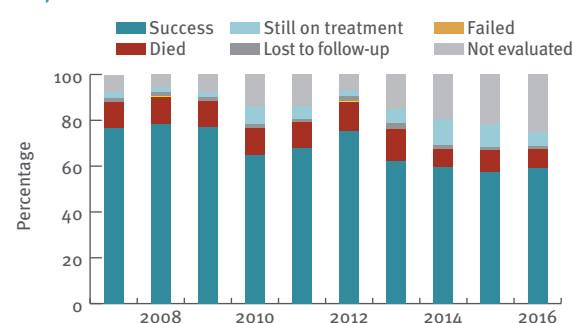## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR **Europe**

2017 data

Greece

Total population at 23 April 2018 by EUROSTAT: 10 768 193

TB case notifications, 2017

Total number of cases	467	
Notification rate per 100 000	4.3	
New[a] and relapses	434	
New[a] and relapses notification rate per 100 000	4.0	
Pulmonary	391	(83.7%)
of which microscopy-positive	227	(58.1%)
of which laboratory-confirmed	233	(59.6%)
Laboratory-confirmed TB cases	265	(56.7%)
Mean age of new native TB cases	62.8 years	
Mean age of new foreign TB cases	34.7 years	
Foreign origin of all TB cases	197	(42.2%)
New (not previously treated)	414	(88.7%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

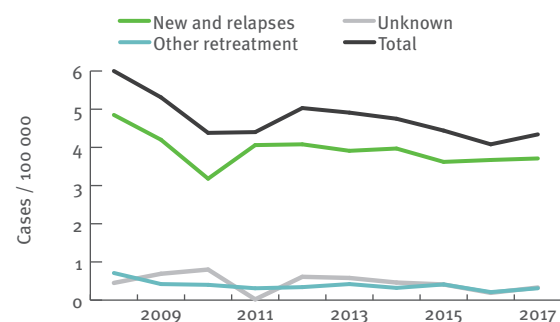|		
Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	191	(72.1%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	10–0–24	
Pulmonary MDR-TB cases notified	6	(3.6%)
of which XDR-TB cases	1	(16.7%)
Notified MDR-TB	7	(3.7%)
of which XDR-TB cases	2	(28.6%)
TB cases tested for HIV	389	(83.3%)
HIV-positive TB cases	13	(3.3%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
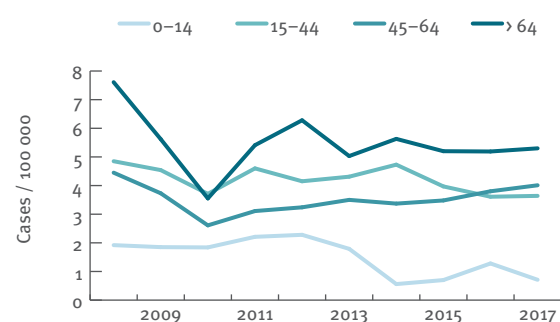[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Data not available

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Data not available

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Hungary

Total population at 23 April 2018 by EUROSTAT: 9 797 561

TB case notifications, 2017

Total number of cases	685	
Notification rate per 100 000	7.0	
New[a] and relapses	650	
New[a] and relapses notification rate per 100 000	6.6	
Pulmonary	658	(96.1%)
of which microscopy-positive	210	(31.9%)
of which laboratory-confirmed	344	(52.3%)
Laboratory-confirmed TB cases	352	(51.4%)
Mean age of new native TB cases	54.3 years	
Mean age of new foreign TB cases	27.8 years	
Foreign origin of all TB cases	25	(3.6%)
New (not previously treated)	616	(89.9%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	318	(90.3%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	23–13–32	
Pulmonary MDR-TB cases notified	11	(3.5%)
of which XDR-TB cases	4	(40.0%)
Notified MDR-TB	11	(3.5%)
of which XDR-TB cases	4	(40.0%)
TB cases tested for HIV	18	(2.6%)
HIV-positive TB cases	1	(5.6%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	346		8	
Success	230	(66.5%)	2	(25.0%)
Died	49	(14.2%)	4	(50.0%)
Failed	6	(1.7%)	0	(0.0%)
Lost to follow-up	24	(6.9%)	1	(12.5%)
Still on treatment	28	(8.1%)	1	(12.5%)
Not evaluated	9	(2.6%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.
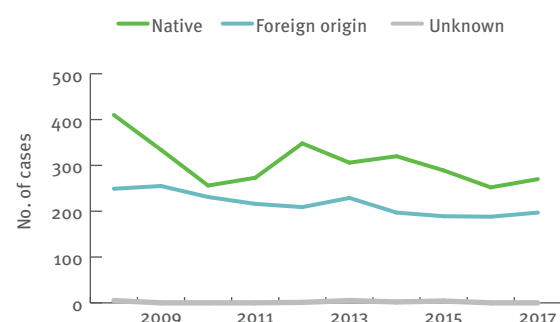
TB notification rates by treatment history, 2008–2017
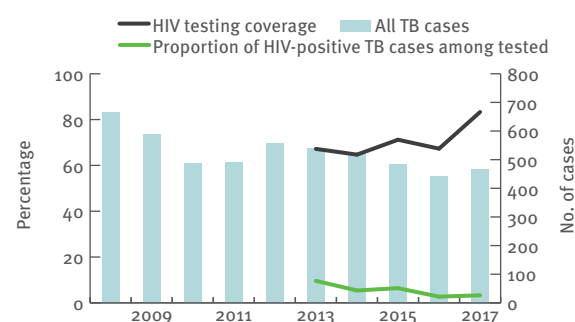

New and relapsed TB cases – notification rates by age group, 2008–2017
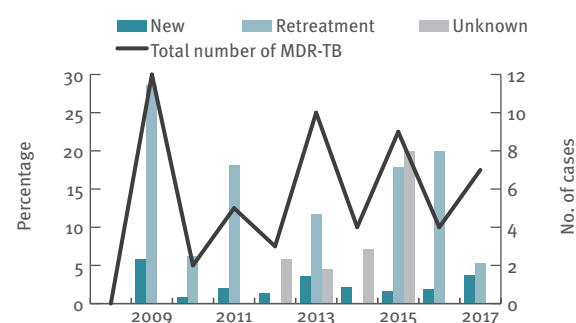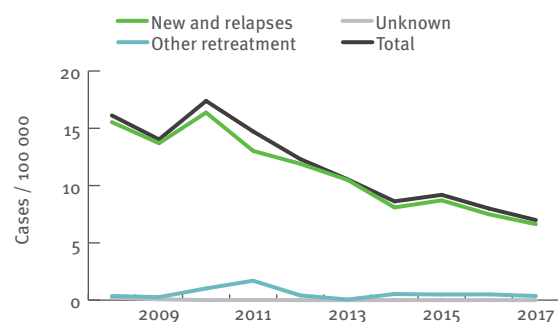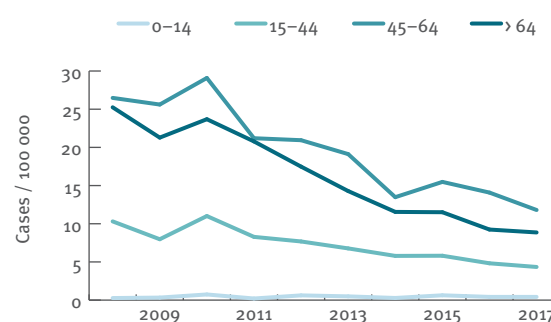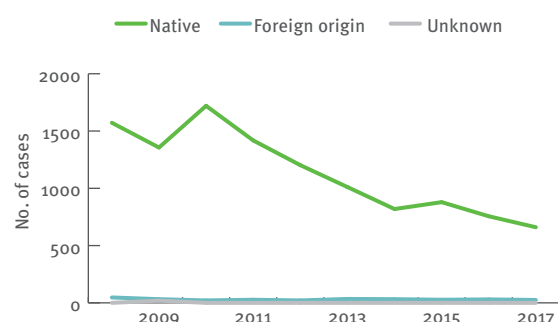

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Iceland

Total population at 23 April 2018 by EUROSTAT: 338 349

TB case notifications, 2017

Total number of cases	14	
Notification rate per 100 000	4.1	
New[a] and relapses	13	
New[a] and relapses notification rate per 100 000	3.8	
Pulmonary	11	(78.6%)
of which microscopy-positive	5	(45.5%)
of which laboratory-confirmed	8	(72.7%)
Laboratory-confirmed TB cases	10	(71.4%)
Mean age of new native TB cases	49.3 years	
Mean age of new foreign TB cases	38.3 years	
Foreign origin of all TB cases	8	(57.1%)
New (not previously treated)	12	(85.7%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	10	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–2	
Pulmonary MDR-TB cases notified	0	(0.0%)
of which XDR-TB cases	0	–
Notified MDR-TB	0	(0.0%)
of which XDR-TB cases	0	–
TB cases tested for HIV	13	(92.9%)
HIV-positive TB cases	0	(0.0%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]
Geographical coverage	National		
Outcome cohort			
Case-linked data reporting	Yes		
Cases notified	5		0
Success	4	(80.0%)	0	–
Died	0	(0.0%)	0	–
Failed	0	(0.0%)	0	–
Lost to follow-up	0	(0.0%)	0	–
Still on treatment	0	(0.0%)	0	–
Not evaluated	1	(20.0%)	0	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.
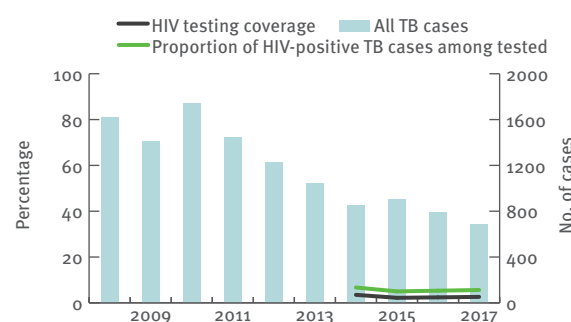
TB notification rates by treatment history, 2008–2017

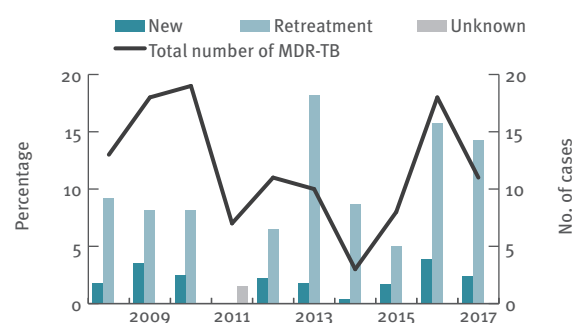## New and relapsed TB cases – notification rates by age group, 2008–2017

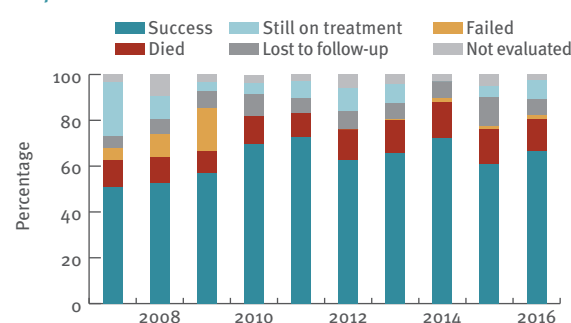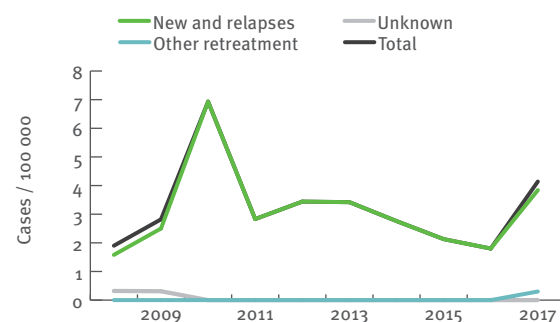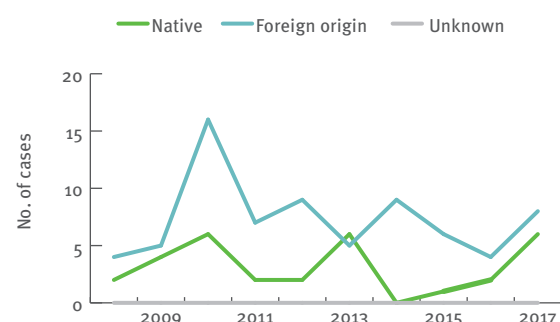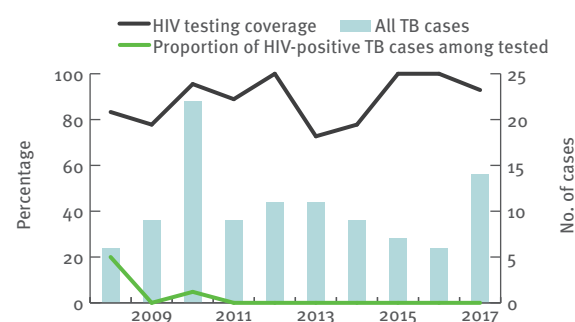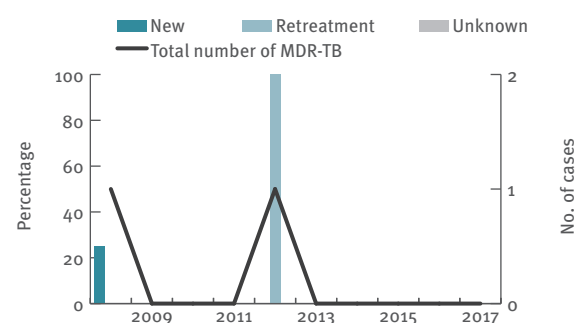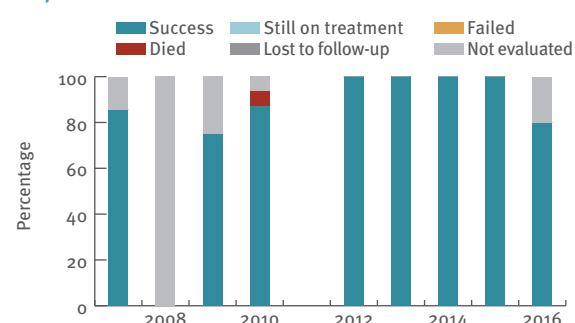## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC — EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization — REGIONAL OFFICE FOR Europe

2017 data

Ireland

Total population at 23 April 2018 by EUROSTAT: 4 784 383

TB case notifications, 2017

Total number of cases	318	
Notification rate per 100 000	6.6	
New[a] and relapses	301	
New[a] and relapses notification rate per 100 000	6.3	
Pulmonary	210	(66.0%)
of which microscopy-positive	78	(37.1%)
of which laboratory-confirmed	158	(75.2%)
Laboratory-confirmed TB cases	214	(67.3%)
Mean age of new native TB cases	51.5 years	
Mean age of new foreign TB cases	35.2 years	
Foreign origin of all TB cases	144	(45.3%)
New (not previously treated)	301	(94.7%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	196	(91.6%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	2–0–7	
Pulmonary MDR-TB cases notified	5	(3.4%)
of which XDR-TB cases	1	(20.0%)
Notified MDR-TB	5	(2.6%)
of which XDR-TB cases	1	(20.0%)
TB cases tested for HIV	102	(32.1%)
HIV-positive TB cases	14	(13.7%)
of these on ART	7	(50.0%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
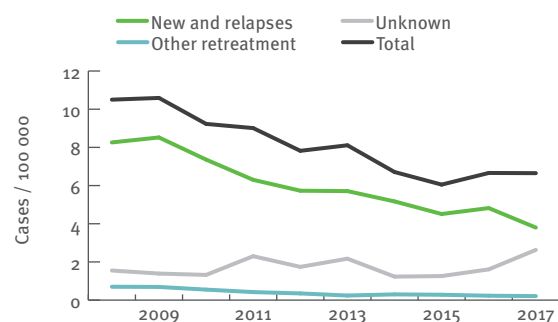[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

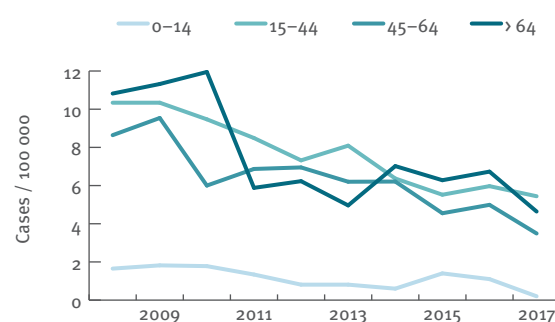|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	131		1	
Success	60	(45.8%)	0	(0.0%)
Died	6	(4.6%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	1	(0.8%)	0	(0.0%)
Still on treatment	3	(2.3%)	1	(100.0%)
Not evaluated	61	(46.6%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
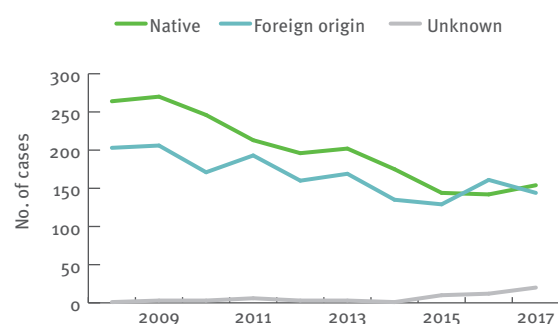[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC — EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization — REGIONAL OFFICE FOR Europe
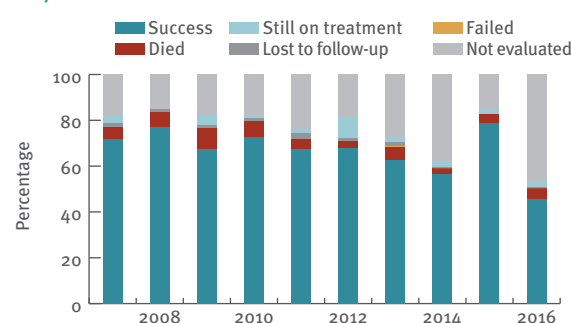
2017 data

Israel

Population estimate 2017 by UN Statistical Database: 8 321 570

TB case notifications, 2017

Total number of cases	234	
Notification rate per 100 000	2.8	
New[a] and relapses	234	
New[a] and relapses notification rate per 100 000	2.8	
Pulmonary	171	(73.1%)
of which smear-positive	–	
of which laboratory-confirmed	131	(76.6%)
Laboratory-confirmed TB cases	131	(56.0%)
Mean age of new and relapse TB cases	40.2 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	190	(81.2%)
New (not previously treated)	227	(97.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	131	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	12–4–20	
Pulmonary MDR-TB cases notified	8	(6.1%)
of which XDR-TB cases	1	(12.5%)
Notified MDR-TB	8	(6.1%)
of which XDR-TB cases	1	(12.5%)
TB cases tested for HIV	234	(100.0%)
HIV-positive TB cases	12	(5.1%)
of these on ART	10	(83.3%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	250		10	
Success	198	(79.2%)	8	(80.0%)
Died	16	(6.4%)	0	(0.0%)
Failed	1	(0.4%)	0	(0.0%)
Lost to follow-up	12	(4.8%)	0	(0.0%)
Not evaluated	23	(9.2%)	2	(20.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

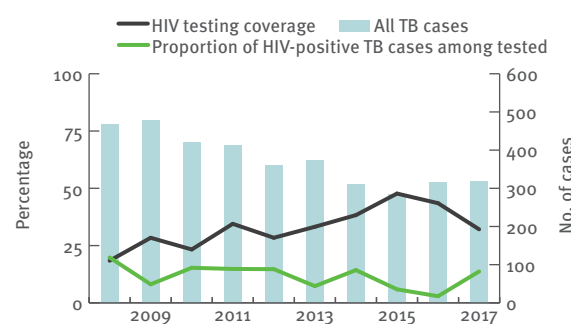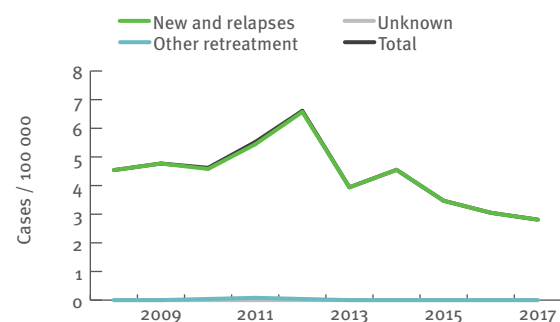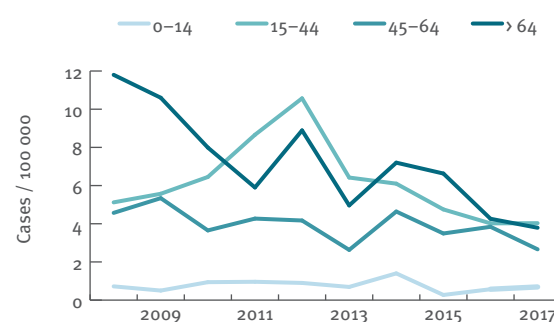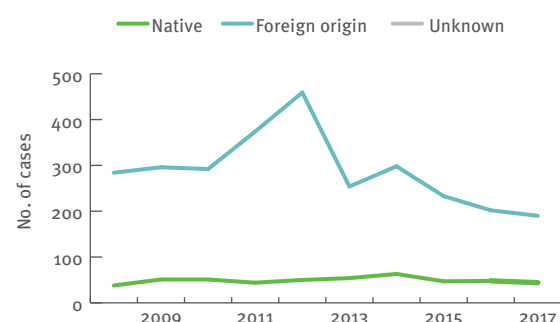## TB notification rates by treatment history, 2008–2017[a]

[a] Cases with unknown previous treatment included to new cases.

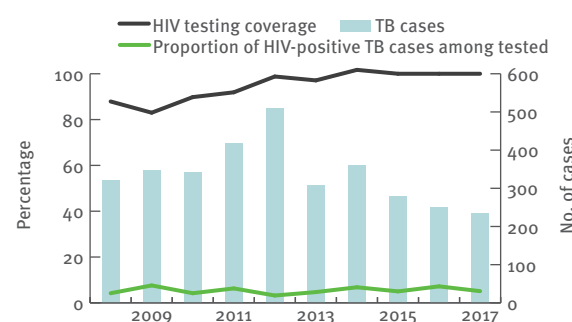## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 includes all TB cases.

MDR-TB cases by previous treatment history, 2008–2017
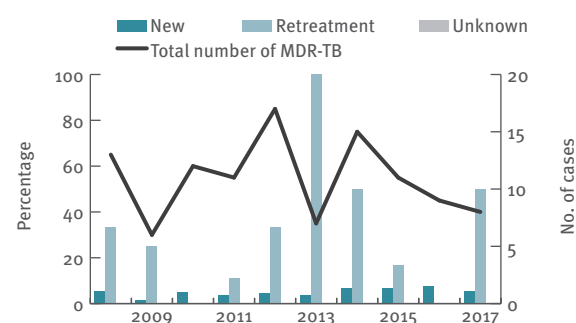
Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019
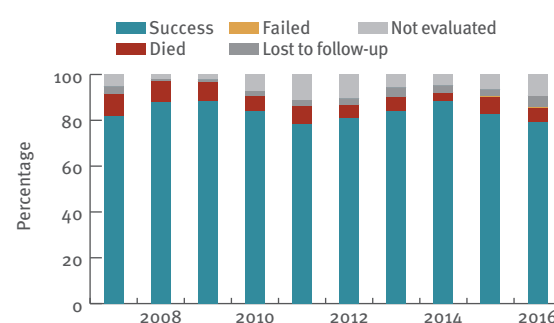
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Italy

Total population at 23 April 2018 by EUROSTAT: 60 589 445

TB case notifications, 2017

Total number of cases	3 944	
Notification rate per 100 000	6.5	
New[a] and relapses	3 828	
New[a] and relapses notification rate per 100 000	6.3	
Pulmonary	2 772	(70.3%)
of which microscopy-positive	1 224	(44.2%)
of which laboratory-confirmed	2 231	(80.5%)
Laboratory-confirmed TB cases	2 666	(67.6%)
Mean age of new native TB cases	50.9 years	
Mean age of new foreign TB cases	34.3 years	
Foreign origin of all TB cases	2 611	(66.2%)
New (not previously treated)	3 828	(97.1%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	–	
Case-linked data reporting	No	
Cases with DST results	2 666	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	91–59–120	
Pulmonary MDR-TB cases notified	56	(2.5%)
of which XDR-TB cases	5	(11.1%)
Notified MDR-TB	66	(2.5%)
of which XDR-TB cases	5	(9.3%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Data not available

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

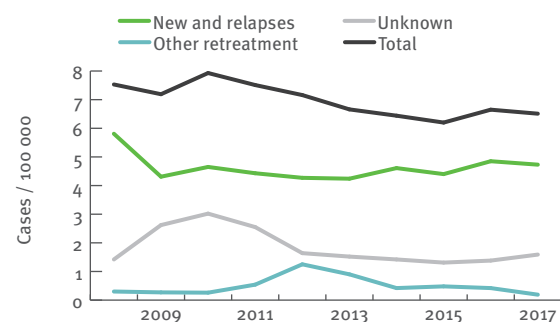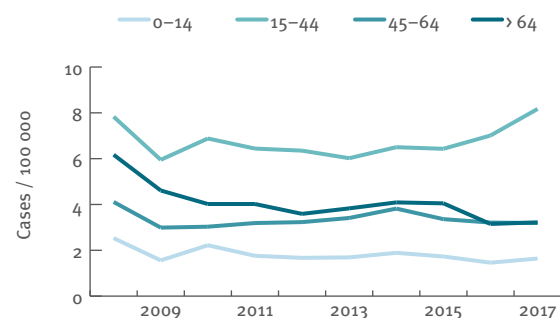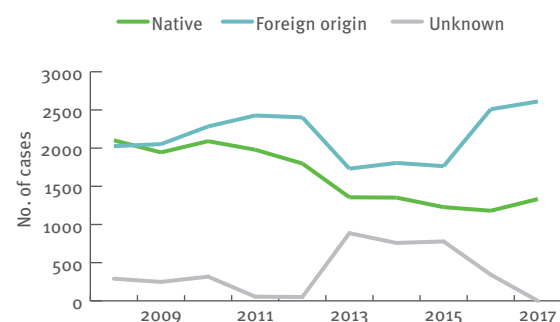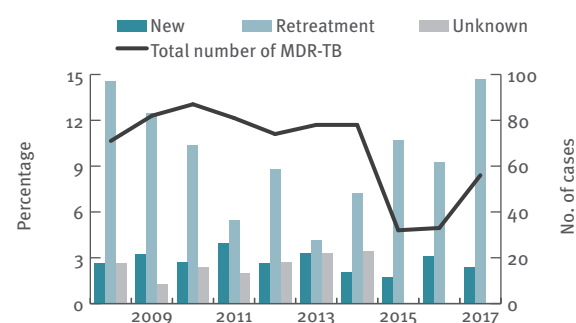## TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Data not available

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Kazakhstan

Population estimate 2017 by UN Statistical Database: 18 204 499

TB case notifications, 2017

Total number of cases	12 942	
Notification rate per 100 000	71.1	
New[a] and relapses	12 449	
New[a] and relapses notification rate per 100 000	68.4	
Pulmonary	10 992	(88.3%)
of which smear-positive	–	
of which laboratory-confirmed	9 489	(86.3%)
Laboratory-confirmed TB cases	9 982	(77.1%)
Mean age of new and relapse TB cases	40.7 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	9 417	(72.8%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2016

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	6 411	(64.2%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	3600–3500–3700	
Pulmonary MDR-TB cases notified	1 663	(39.6%)
of which XDR-TB cases		
TB cases tested for HIV	2 963	(46.2%)
Notified MDR-TB	299	(13.7%)
of which XDR-TB cases	11 056	(88.8%)
HIV-positive TB cases	443	(4.0%)
of these on ART	417	(94.1%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
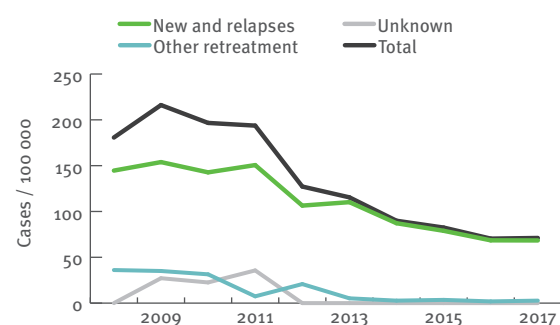[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

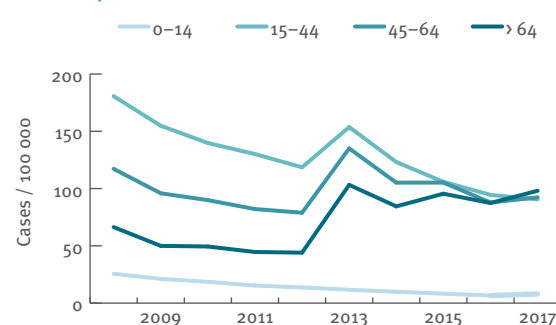|	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	6 775		6482	
Success	5 962	(88.0%)	5063	(78.1%)
Died	442	(6.5%)	609	(9.4%)
Failed	261	(3.9%)	395	(6.1%)
Lost to follow-up	88	(1.3%)	285	(4.4%)
Not evaluated	22	(0.3%)	130	(2.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017[a]

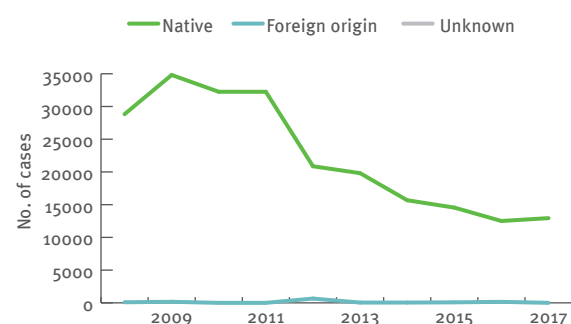Legend: New and relapses; Unknown; Other retreatment; Total

[a] Starting from 2013 onward cases with unknown history are included in new and relapses.

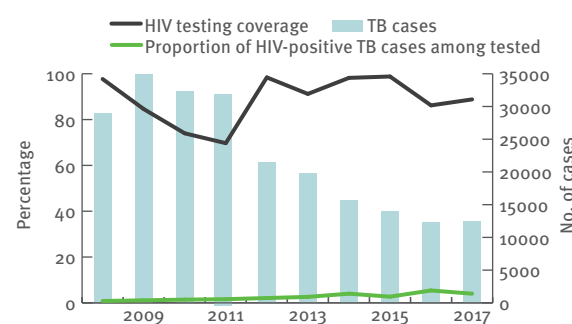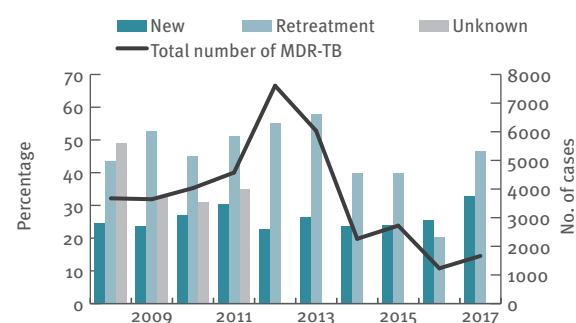### New and relapsed TB cases – notification rates by age group, 2008–2017[a]

Legend: 0–14; 15–44; 45–64; › 64

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017

Legend: Native; Foreign origin; Unknown

TB/HIV coinfection, 2008–2017[a]

Legend: HIV testing coverage; TB cases; Proportion of HIV-positive TB cases among tested

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Legend: New; Retreatment; Unknown; Total number of MDR-TB

Treatment outcome, new and relapsed TB cases 2007–2016[a]

Legend: Success; Failed; Not evaluated; Died; Lost to follow-up

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC • World Health Organization • Europe

2017 data

Kyrgyzstan

Population estimate 2017 by UN Statistical Database: 6 045 117

TB case notifications, 2017

Total number of cases	7 695
Notification rate per 100 000	127.3
New[a] and relapses	6 687
New[a] and relapses notification rate per 100 000	110.6
Pulmonary	5 106 (76.4%)
of which smear-positive	– –
of which laboratory-confirmed	3 171 (62.1%)
Laboratory-confirmed TB cases	3 849 (50.0%)
Mean age of new and relapse TB cases	37.8 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	5 630 (73.2%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]		Yes
Completeness of HIV data[b]		Yes
Case-linked data reporting		Yes
Cases with DST results	3 376	(87.7%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)		2300–2200–2400
Pulmonary MDR-TB cases notified	827	(31.6%)
of which XDR-TB cases	127	(36.0%)
Notified MDR-TB	1 250	(37.0%)
of which XDR-TB cases	127	(19.3%)
TB cases tested for HIV	5 966	(89.2%)
HIV-positive TB cases	216	(3.6%)
of these on ART	160	(74.1%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
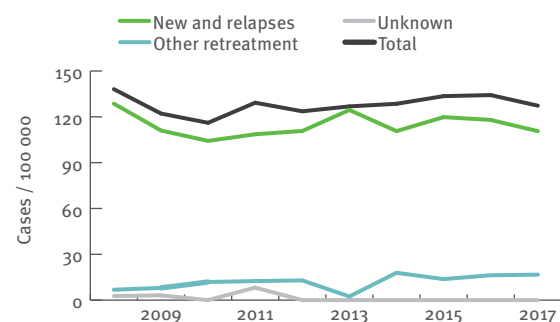[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	6 072		1162	
Success	4 968	(81.8%)	624	(53.7%)
Died	360	(5.9%)	145	(12.5%)
Failed	112	(1.8%)	124	(10.7%)
Lost to follow-up	609	(10.0%)	269	(23.1%)
Not evaluated	23	(0.4%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
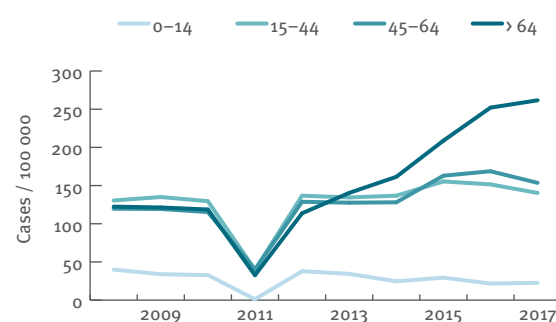[b] Treatment outcome as presented is treatment outcome after 24 months.

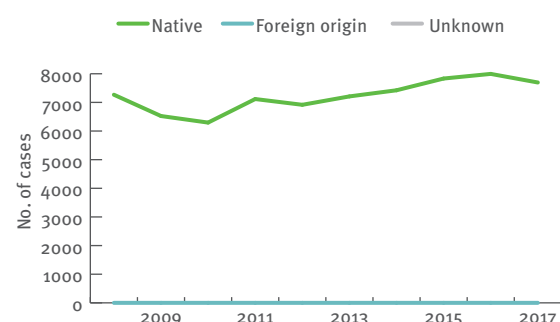## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

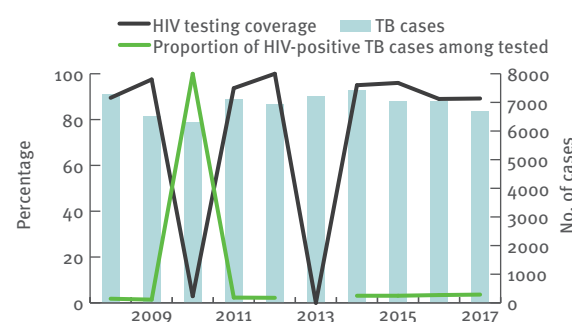## New and relapsed TB cases - notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017
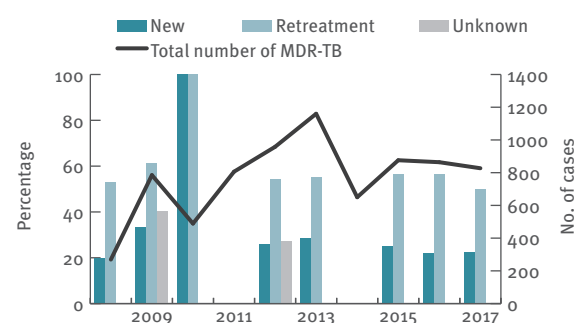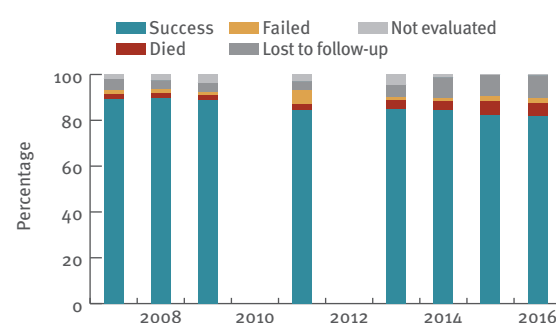

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome of new TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR **Europe**

2017 data

Latvia

Total population at 23 April 2018 by EUROSTAT: 1 950 116

TB case notifications, 2017

Total number of cases	552	
Notification rate per 100 000	28.3	
New[a] and relapses	543	
New[a] and relapses notification rate per 100 000	27.8	
Pulmonary	522	(94.6%)
of which microscopy-positive	213	(40.8%)
of which laboratory-confirmed	441	(84.5%)
Laboratory-confirmed TB cases	453	(82.1%)
Mean age of new native TB cases	45.0 years	
Mean age of new foreign TB cases	51.1 years	
Foreign origin of all TB cases	41	(7.4%)
New (not previously treated)	483	(87.5%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	434	(95.8%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	57–42–72	
Pulmonary MDR-TB cases notified	45	(10.6%)
of which XDR-TB cases	17	(37.8%)
Notified MDR-TB	46	(10.6%)
of which XDR-TB cases	18	(39.1%)
TB cases tested for HIV	471	(85.3%)
HIV-positive TB cases	52	(11.0%)
of these on ART	35	(67.3%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
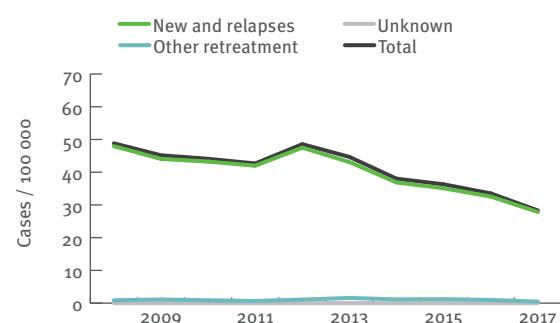[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

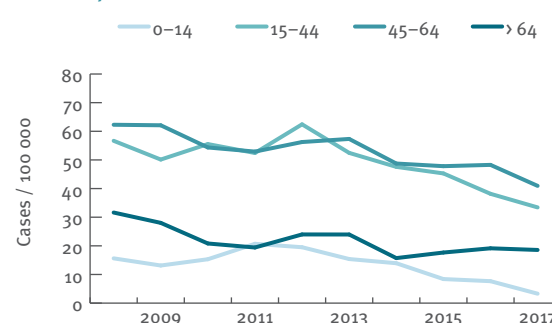|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	442		63	
Success	358	(81.0%)	39	(61.9%)
Died	36	(8.1%)	8	(12.7%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	20	(4.5%)	15	(23.8%)
Still on treatment	25	(5.7%)	1	(1.6%)
Not evaluated	3	(0.7%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
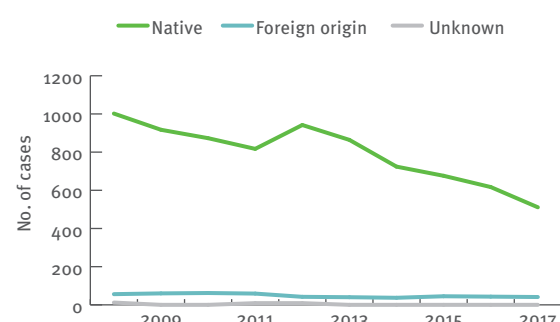[b] Treatment outcome as presented is treatment outcome after 24 months.

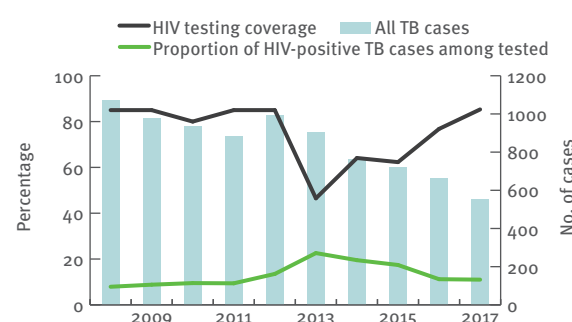### TB notification rates by treatment history, 2008–2017

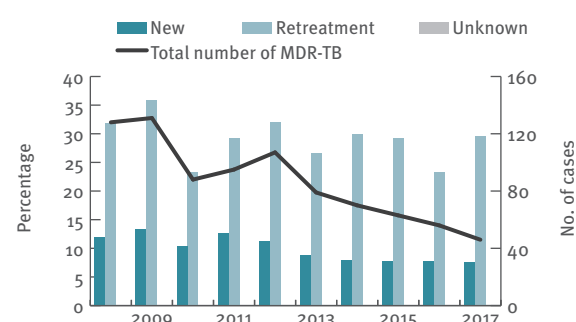### New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Liechtenstein

Total population at 23 April 2018 by EUROSTAT: 37 810

TB case notifications, 2017

Total number of cases	1	
Notification rate per 100 000	2.6	
New[a] and relapses	1	
New[a] and relapses notification rate per 100 000	2.6	
Pulmonary	1	(100.0%)
of which microscopy-positive	1	(100.0%)
of which laboratory-confirmed	1	(100.0%)
Laboratory-confirmed TB cases	1	(100.0%)
Mean age of new native TB cases	44.0	years
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1	(100.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	–	
Case-linked data reporting	Yes	
Cases with DST results	1	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	–	
Pulmonary MDR-TB cases notified	0	(0.0%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	0	(0.0%)
of which XDR-TB cases	0	–
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]
Geographical coverage	National		
Outcome cohort			
Case-linked data reporting	Yes		
Cases notified	1		0
Success	1	(100.0%)	0	–
Died	0	(0.0%)	0	–
Failed	0	(0.0%)	0	–
Lost to follow-up	0	(0.0%)	0	–
Still on treatment	0	(0.0%)	0	–
Not evaluated	0	(0.0%)	0	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases - notification rates by age group, 2008–2017
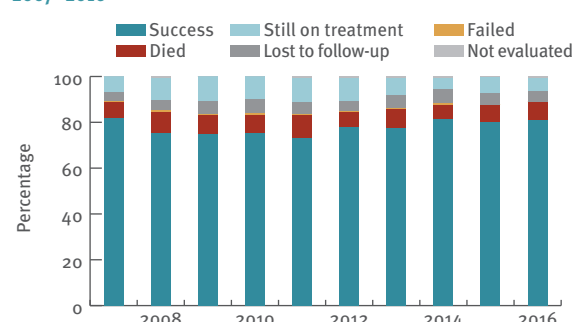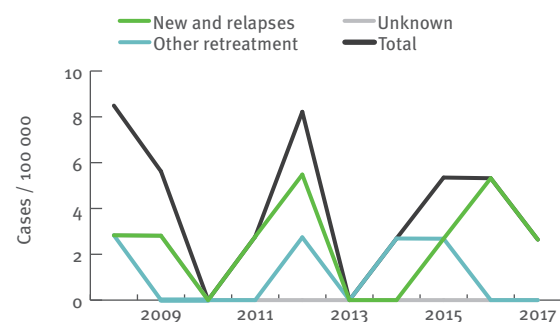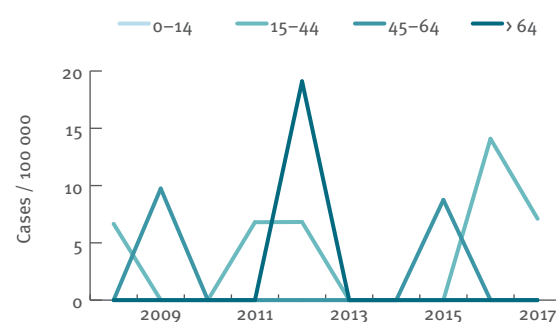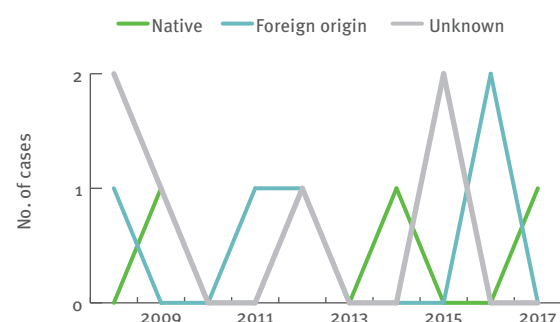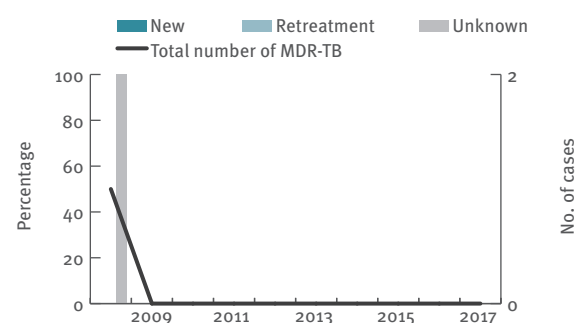

TB cases by geographical origin, 2008–2017
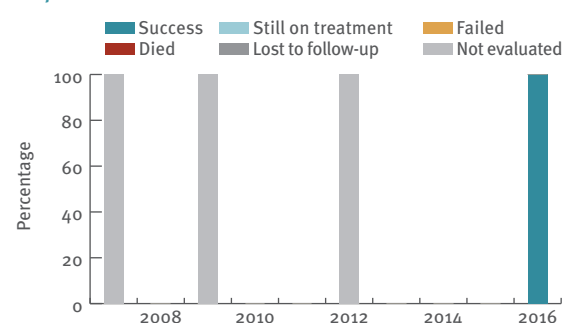

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC · **World Health Organization** Europe

2017 data

Lithuania

Total population at 23 April 2018 by EUROSTAT: 2 847 904

TB case notifications, 2017

Total number of cases	1 387	
Notification rate per 100 000	48.7	
New[a] and relapses	1 268	
New[a] and relapses notification rate per 100 000	44.5	
Pulmonary	1 285	(92.6%)
of which microscopy-positive	810	(63.0%)
of which laboratory-confirmed	1 123	(87.4%)
Laboratory-confirmed TB cases	1 148	(82.8%)
Mean age of new native TB cases	46.9 years	
Mean age of new foreign TB cases	47.7 years	
Foreign origin of all TB cases	15	(1.1%)
New (not previously treated)	1 116	(80.5%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	1 148	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	290–260–310	
Pulmonary MDR-TB cases notified	248	(22.1%)
of which XDR-TB cases	87	(35.1%)
Notified MDR-TB	249	(21.7%)
of which XDR-TB cases	87	(34.9%)
TB cases tested for HIV	1 125	(81.1%)
HIV-positive TB cases	42	(3.7%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
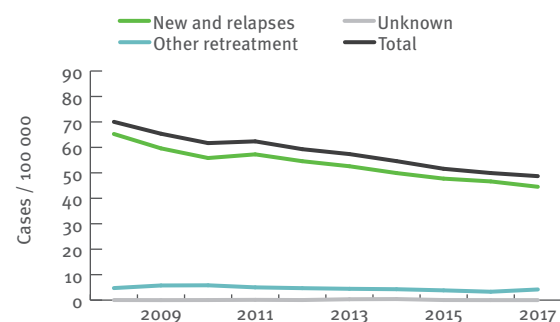[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

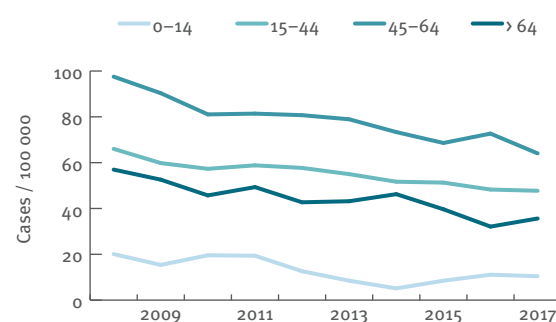|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	880		241	
Success	639	(72.6%)	95	(39.4%)
Died	93	(10.6%)	55	(22.8%)
Failed	8	(0.9%)	25	(10.4%)
Lost to follow-up	43	(4.9%)	51	(21.2%)
Still on treatment	92	(10.5%)	15	(6.2%)
Not evaluated	5	(0.6%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
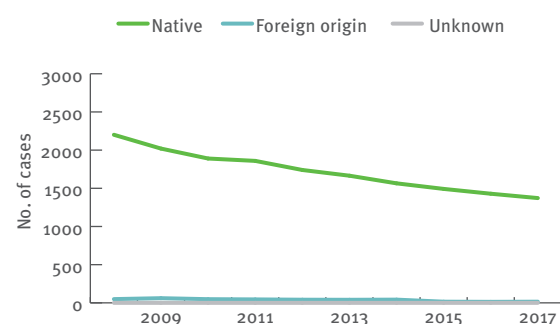[b] Treatment outcome as presented is treatment outcome after 24 months.

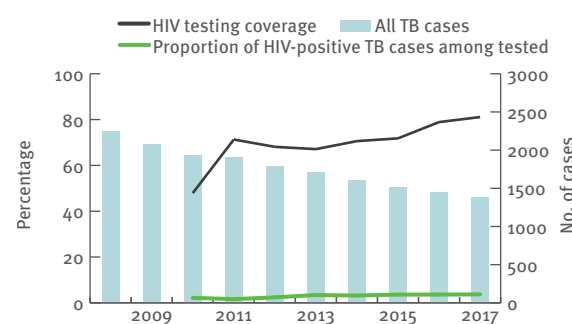### TB notification rates by treatment history, 2008–2017

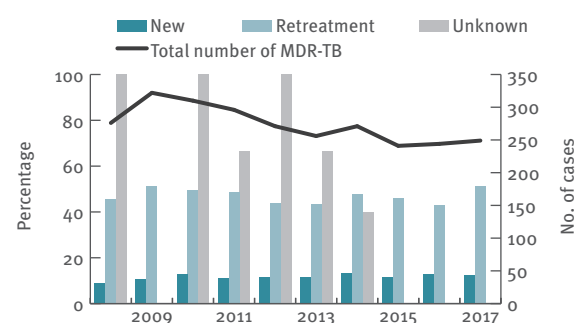### New and relapsed TB cases – notification rates by age group, 2008–2017

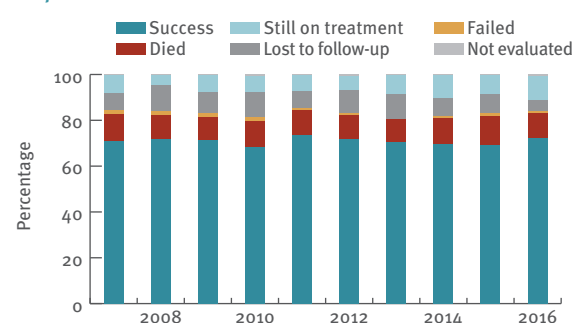### TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Luxembourg

Total population at 23 April 2018 by EUROSTAT: 590 667

TB case notifications, 2017

Total number of cases	32	
Notification rate per 100 000	5.4	
New[a] and relapses	32	
New[a] and relapses notification rate per 100 000	5.4	
Pulmonary	24	(75.0%)
of which microscopy-positive	8	(33.3%)
of which laboratory-confirmed	21	(87.5%)
Laboratory-confirmed TB cases	23	(71.9%)
Mean age of new native TB cases	–	years
Mean age of new foreign TB cases	–	years
Foreign origin of all TB cases	25	(78.1%)
New (not previously treated)	32	(100.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

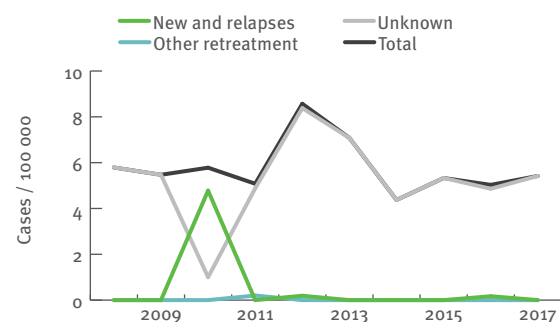|		
Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	23	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	1–0–1	
Pulmonary MDR-TB cases notified	1	(4.8%)
of which XDR-TB cases	0	–
Notified MDR-TB	1	(4.3%)
of which XDR-TB cases	0	–
TB cases tested for HIV	3	(9.4%)
HIV-positive TB cases	1	(18.5%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
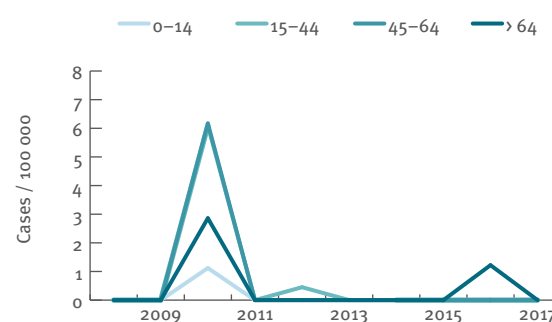[b] More than 50% of TB cases with reported HIV status.

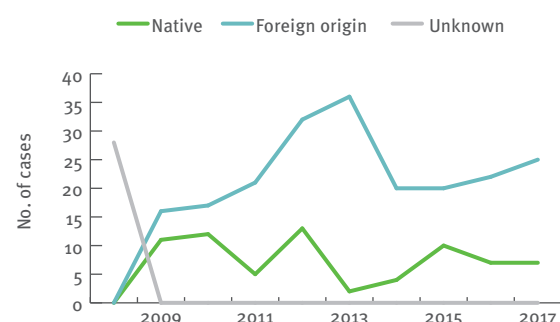## Treatment outcome monitoring

Data not available

TB notification rates by treatment history, 2008–2017
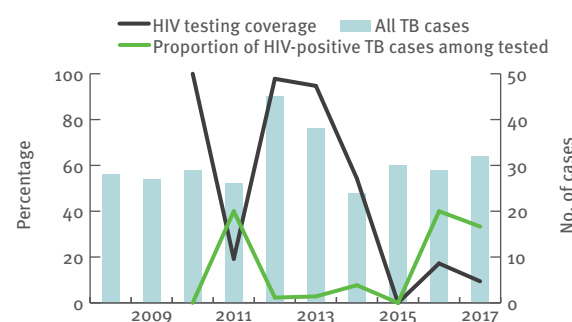

New and relapsed TB cases – notification rates by age group, 2008–2017
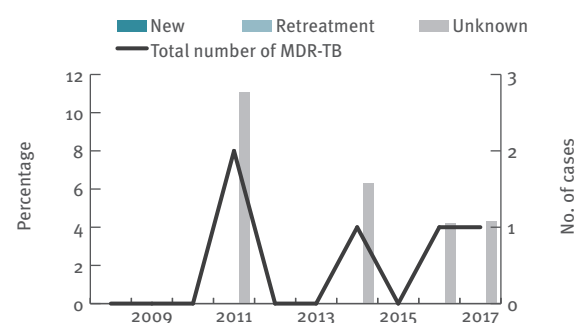

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Data not available

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Malta

Total population at 23 April 2018 by EUROSTAT: 460 297

TB case notifications, 2017

Total number of cases	42	
Notification rate per 100 000	9.1	
New[a] and relapses	42	
New[a] and relapses notification rate per 100 000	9.1	
Pulmonary	30	(71.4%)
of which microscopy-positive	12	(40.0%)
of which laboratory-confirmed	24	(80.0%)
Laboratory-confirmed TB cases	33	(78.6%)
Mean age of new native TB cases	62.0 years	
Mean age of new foreign TB cases	31.1 years	
Foreign origin of all TB cases	39	(92.9%)
New (not previously treated)	42	(100.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

|		
Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	31	(93.9%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–4	
Pulmonary MDR-TB cases notified	0	(0.0%)
of which XDR-TB cases	0	–
Notified MDR-TB	0	(0.0%)
of which XDR-TB cases	0	–
TB cases tested for HIV	37	(88.1%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
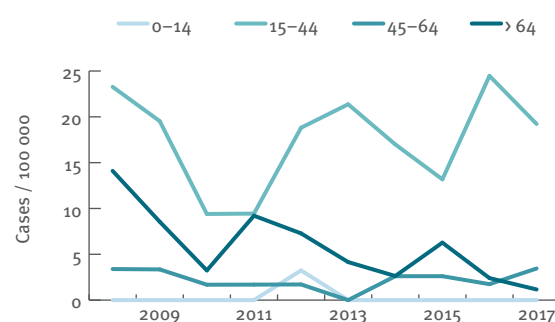[b] More than 50% of TB cases with reported HIV status.

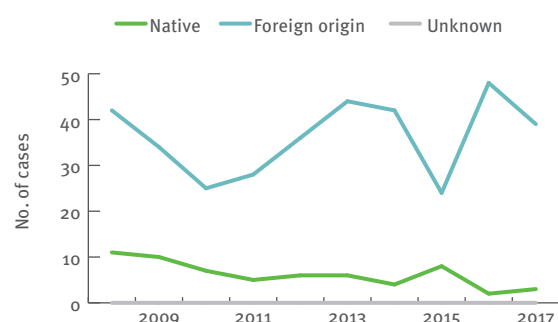## Treatment outcome monitoring

Data not available

TB notification rates by treatment history, 2008–2017
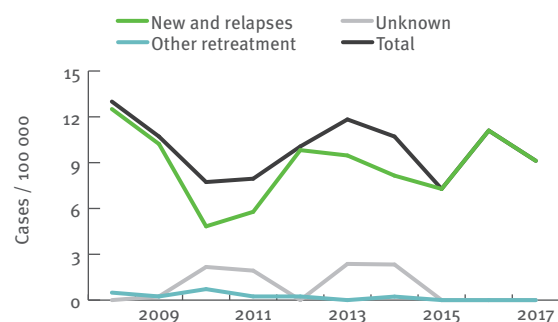
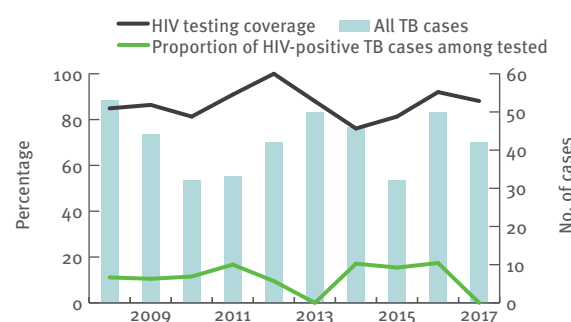## New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

[a] By nationality for 2000–2006

TB/HIV coinfection, 2008–2017
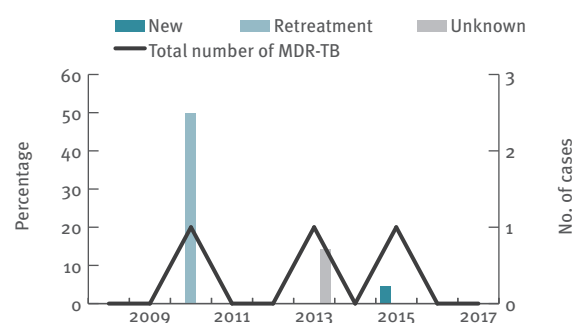
MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019
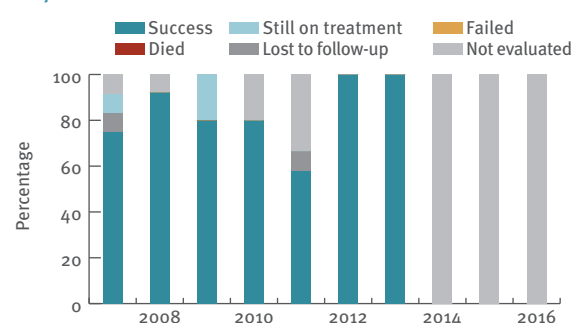
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Montenegro

Population estimate 2017 by UN Statistical Database: 628 960

TB case notifications, 2017

Total number of cases	77	
Notification rate per 100 000	12.2	
New[a] and relapses	75	
New[a] and relapses notification rate per 100 000	11.9	
Pulmonary	70	(93.3%)
of which smear-positive	–	–
of which laboratory-confirmed	58	(82.9%)
Laboratory–confirmed TB cases	58	–
Mean age of new and relapse TB cases	49.1 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	3	(3.9%)
New (not previously treated)	63	(81.8%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	58	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	2–0–5	
Pulmonary MDR-TB cases notified	1	(1.7%)
of which XDR-TB cases	1	(100.0%)
Notified MDR-TB	1	(1.7%)
of which XDR-TB cases	1	(100.0%)
TB cases tested for HIV	63	(84.0%)
HIV-positive TB cases	0	(0.0%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
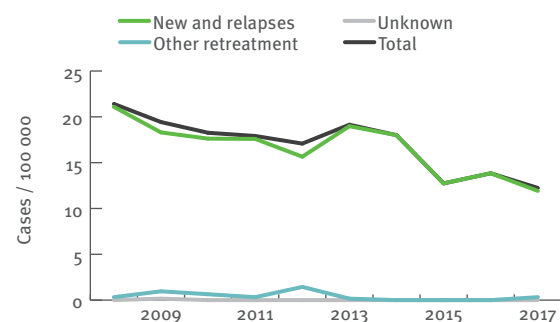[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	87		1	
Success	70	(80.5%)	1	(100.0%)
Died	11	(12.6%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	5	(5.7%)	0	(0.0%)
Not evaluated	1	(1.1%)	0	(0.0%)

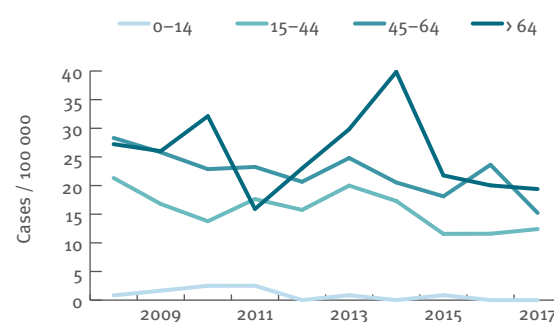[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

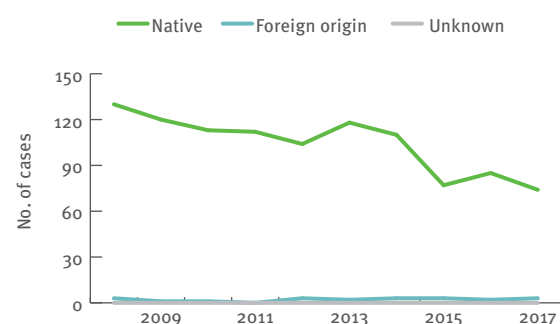## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

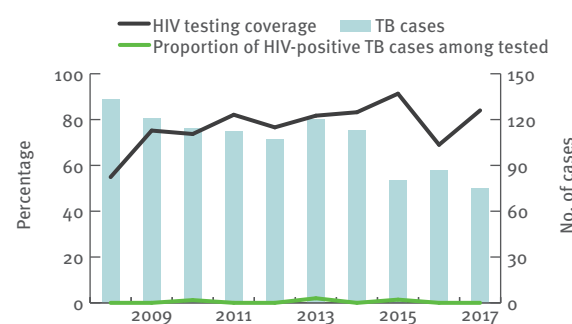## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome of new TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC — EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization — REGIONAL OFFICE FOR Europe

2017 data
Netherlands

Total population at 23 April 2018 by EUROSTAT: 17 081 507

TB case notifications, 2017

Total number of cases	787	
Notification rate per 100 000	4.6	
New[a] and relapses	776	
New[a] and relapses notification rate per 100 000	4.5	
Pulmonary	457	(58.1%)
of which microscopy-positive	213	(46.6%)
of which laboratory-confirmed	369	(80.7%)
Laboratory-confirmed TB cases	542	(68.9%)
Mean age of new native TB cases	42.9 years	
Mean age of new foreign TB cases	37.5 years	
Foreign origin of all TB cases	586	(74.5%)
New (not previously treated)	760	(96.6%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	542	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	9–3–16	
Pulmonary MDR-TB cases notified	6	(1.6%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	10	(1.8%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	526	(66.8%)
HIV-positive TB cases	22	(4.2%)
of these on ART	13	(59.1%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	346		8	
Success	279	(80.6%)	4	(50.0%)
Died	22	(6.4%)	1	(12.5%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	16	(4.6%)	1	(12.5%)
Still on treatment	6	(1.7%)	0	(0.0%)
Not evaluated	23	(6.6%)	2	(25.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017
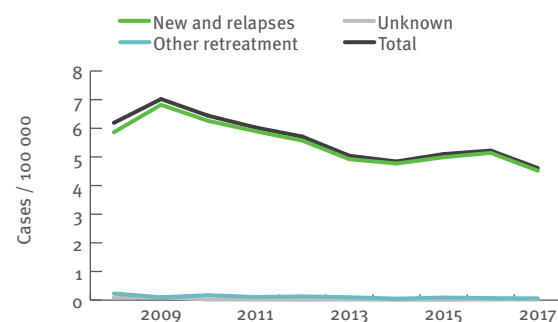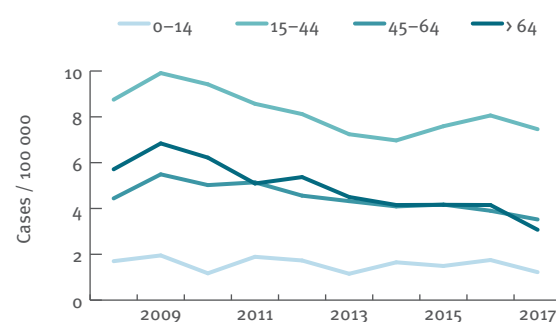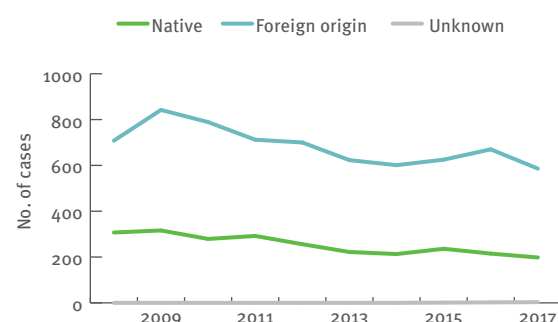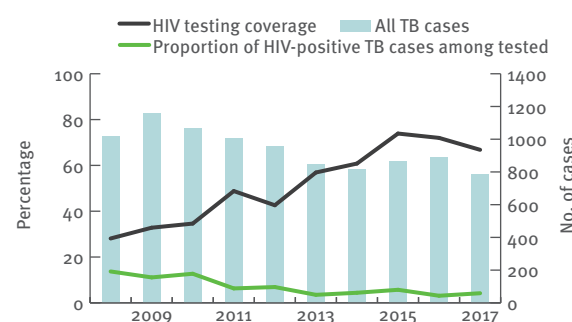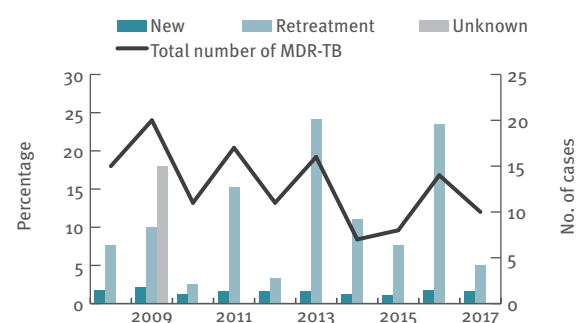

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019
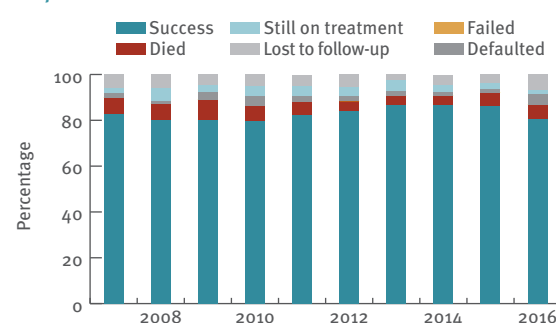
Tuberculosis surveillance and monitoring in Europe 2019

2017 data

North Macedonia

Population estimate 2017 by UN Statistical Database: 2 083 160

TB case notifications, 2017

Total number of cases	219	
Notification rate per 100 000	10.5	
New[a] and relapses	216	
New[a] and relapses notification rate per 100 000	10.4	
Pulmonary	171	(79.2%)
of which smear-positive	–	
of which laboratory-confirmed	152	(88.9%)
Laboratory-confirmed TB cases	155	(70.8%)
Mean age of new and relapse TB cases	44.5 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	3	(1.4%)
New (not previously treated)	197	(90.0%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	155	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–3	
Pulmonary MDR-TB cases notified	1	(0.6%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	0	(0.0%)
of which XDR-TB cases	0	–
TB cases tested for HIV	178	(82.4%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
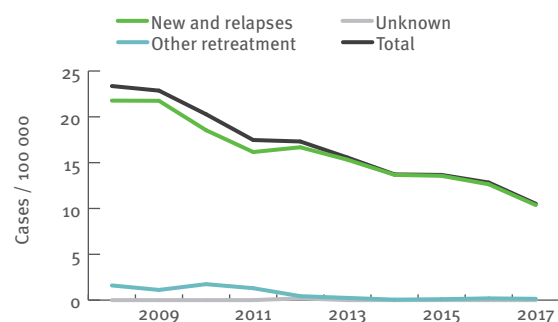[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

			All RR/MDR-TB	
Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	263		–	
Success	232	(88.2%)	–	–
Died	18	(6.8%)	–	–
Failed	1	(0.4%)	–	–
Lost to follow-up	11	(4.2%)	–	–
Not evaluated	1	(0.4%)	–	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
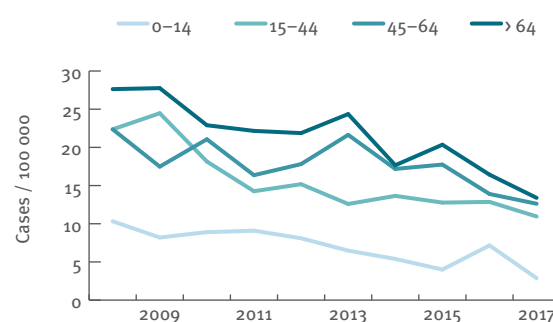[b] Treatment outcome as presented is treatment outcome after 24 months.

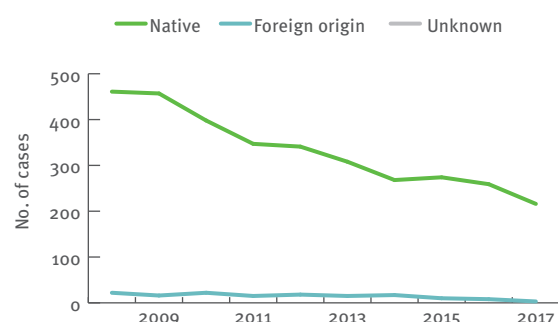## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

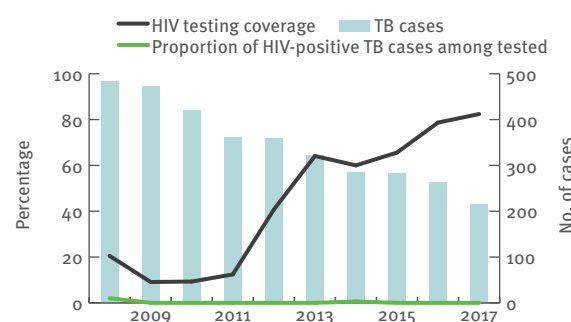## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.
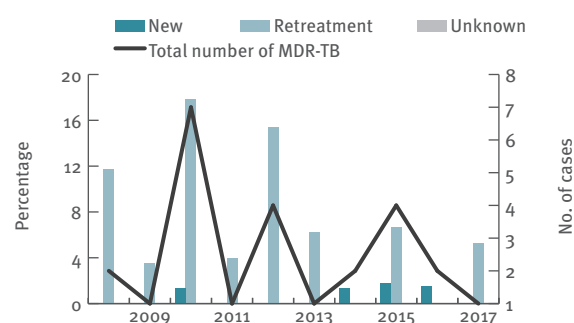
TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Norway

Total population at 23 April 2018 by EUROSTAT: 5 258 317

TB case notifications, 2017

Total number of cases	261	
Notification rate per 100 000	5.0	
New[a] and relapses	237	
New[a] and relapses notification rate per 100 000	4.5	
Pulmonary	158	(60.5%)
of which microscopy-positive	52	(32.9%)
of which laboratory-confirmed	144	(91.1%)
Laboratory-confirmed TB cases	216	(82.8%)
Mean age of new native TB cases	32.7 years	
Mean age of new foreign TB cases	33.1 years	
Foreign origin of all TB cases	231	(88.5%)
New (not previously treated)	237	(90.8%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	213	(98.6%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	7–0–13	
Pulmonary MDR-TB cases notified	6	(4.3%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	9	(4.2%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	228	(87.4%)
HIV-positive TB cases	7	(3.1%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	136		5	
Success	116	(85.3%)	5	(100.0%)
Died	3	(2.2%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	3	(2.2%)	0	(0.0%)
Still on treatment	6	(4.4%)	0	(0.0%)
Not evaluated	8	(5.9%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

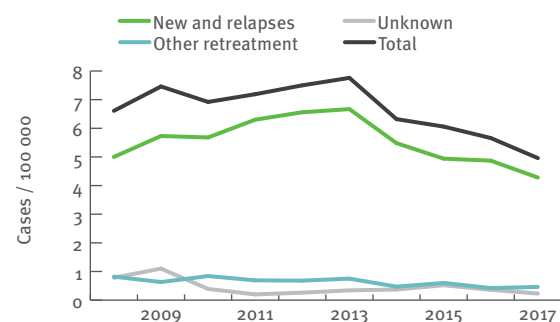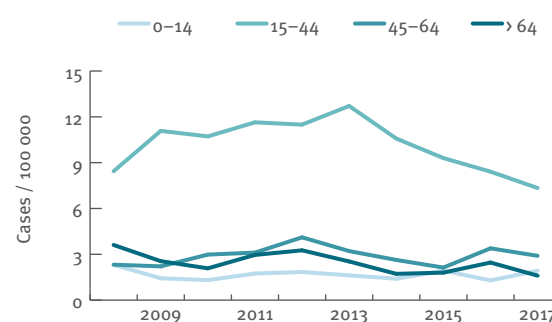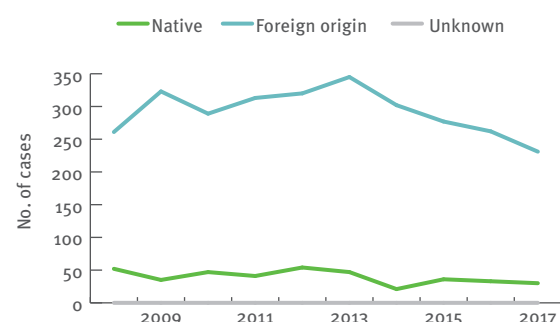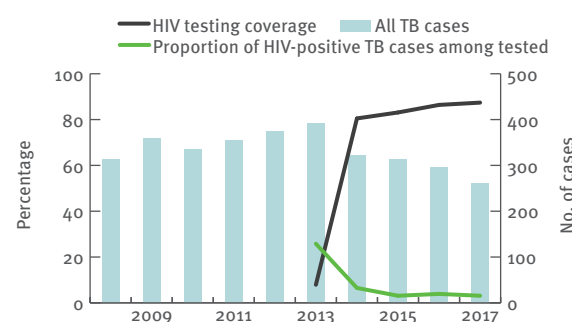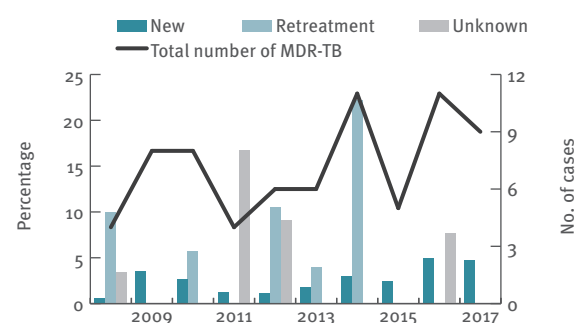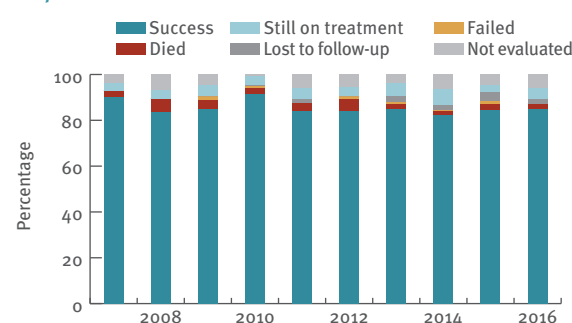## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC

World Health Organization — REGIONAL OFFICE FOR Europe

2017 data

Poland

Total population at 23 April 2018 by EUROSTAT: 37 972 964

TB case notifications, 2017

Total number of cases	5 787	
Notification rate per 100 000	15.2	
New[a] and relapses	5 535	
New[a] and relapses notification rate per 100 000	14.6	
Pulmonary	5 531	(95.6%)
of which microscopy-positive	2 498	(45.2%)
of which laboratory-confirmed	4 057	(73.4%)
Laboratory-confirmed TB cases	4 179	(72.2%)
Mean age of new native TB cases	53.9 years	
Mean age of new foreign TB cases	35.4 years	
Foreign origin of all TB cases	108	(1.9%)
New (not previously treated)	5 127	(88.6%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	–	
Case-linked data reporting	Yes	
Cases with DST results	3 809	(91.1%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	80–59–100	
Pulmonary MDR-TB cases notified	44	(1.2%)
of which XDR-TB cases	5	(14.3%)
Notified MDR-TB	44	(1.2%)
of which XDR-TB cases	5	(14.3%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
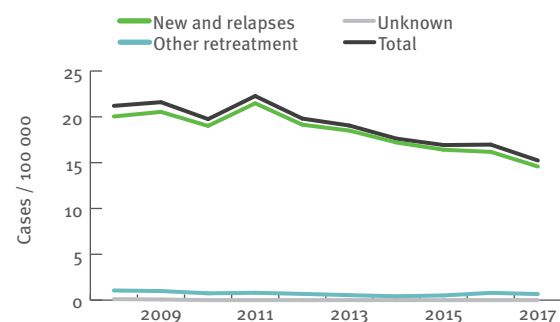[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

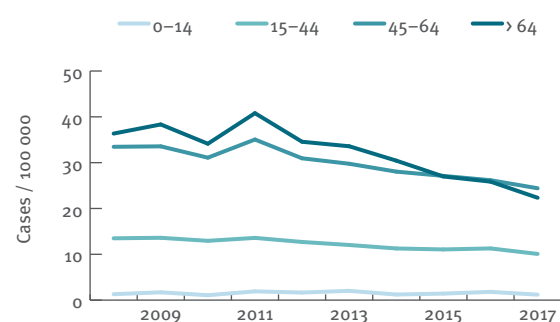|				
Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	3 973		35	
Success	2 199	(55.3%)	11	(31.4%)
Died	400	(10.1%)	6	(17.1%)
Failed	2	(0.1%)	0	(0.0%)
Lost to follow-up	209	(5.3%)	1	(2.9%)
Still on treatment	19	(0.5%)	1	(2.9%)
Not evaluated	1 144	(28.8%)	16	(45.7%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
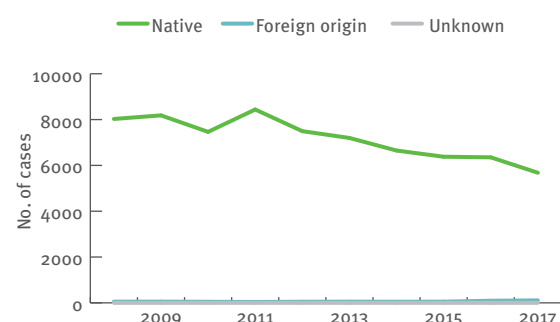[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

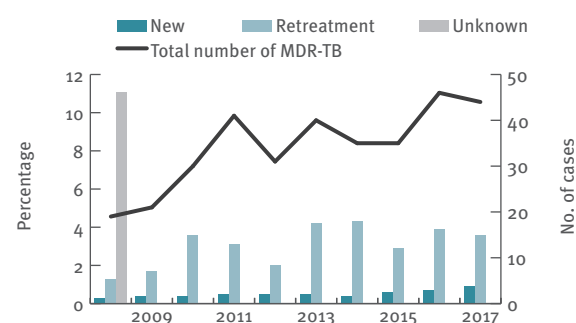## New and relapsed TB cases – notification rates by age group, 2008–2017

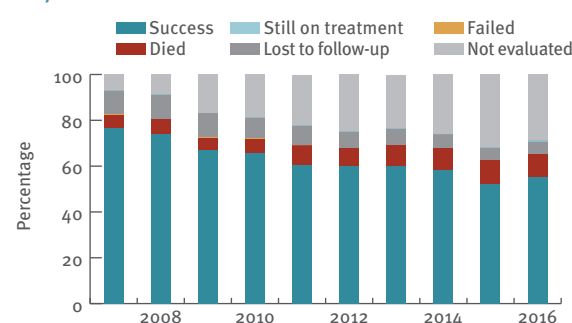## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC

World Health Organization
REGIONAL OFFICE FOR Europe

2017 data

Portugal

Total population at 23 April 2018 by EUROSTAT: 10 309 573

TB case notifications, 2017

Total number of cases	1 800	
Notification rate per 100 000	17.5	
New[a] and relapses	1 760	
New[a] and relapses notification rate per 100 000	17.1	
Pulmonary	1 290	(71.7%)
of which microscopy-positive	750	(58.1%)
of which laboratory-confirmed	945	(73.3%)
Laboratory-confirmed TB cases	1 106	(61.4%)
Mean age of new native TB cases	52.6 years	
Mean age of new foreign TB cases	38.4 years	
Foreign origin of all TB cases	351	(19.5%)
New (not previously treated)	1 680	(93.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	738	(66.7%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	19–10–27	
Pulmonary MDR-TB cases notified	10	(1.5%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	10	(1.4%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	1 183	(65.7%)
HIV-positive TB cases	135	(11.4%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
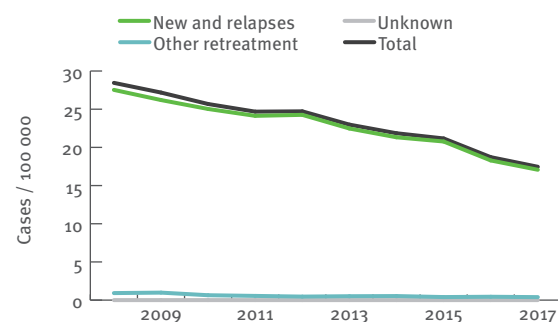[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

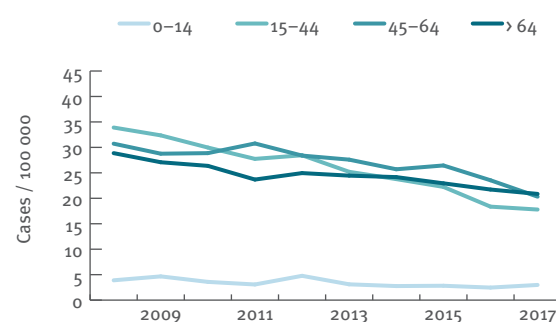|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	1 035		23	
Success	749	(72.4%)	7	(30.4%)
Died	77	(7.4%)	5	(21.7%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	31	(3.0%)	1	(4.3%)
Still on treatment	140	(13.5%)	5	(21.7%)
Not evaluated	38	(3.7%)	5	(21.7%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
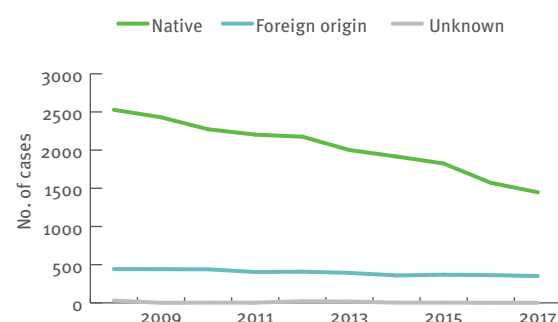[b] Treatment outcome as presented is treatment outcome after 24 months.

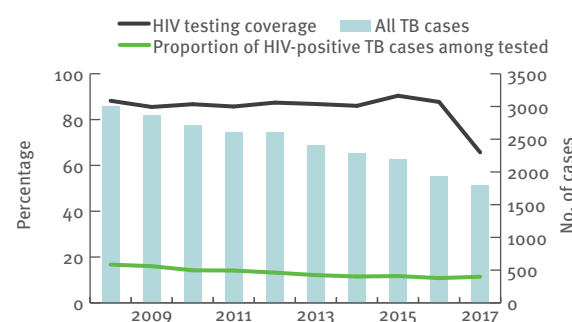## TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017
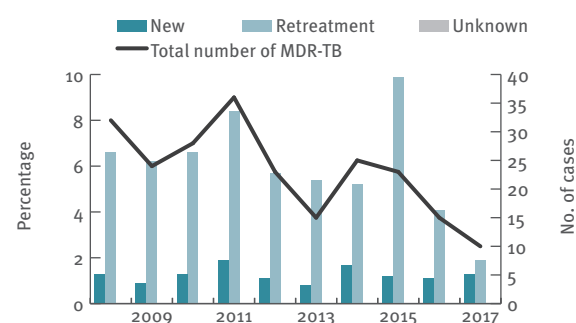

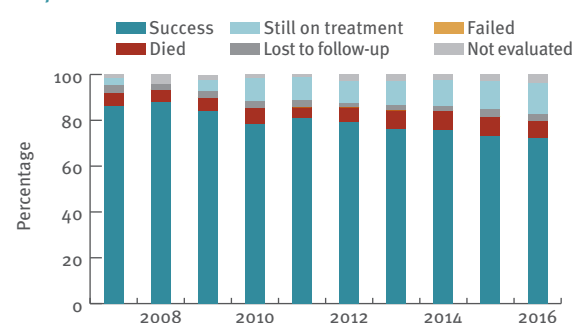## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR **Europe**

2017 data
Republic of Moldova

Population estimate 2017 by UN Statistical Database: 4 051 212

TB case notifications, 2017

Total number of cases	3 858	
Notification rate per 100 000	95.2	
New[a] and relapses	3 358	
New[a] and relapses notification rate per 100 000	82.9	
Pulmonary	3 017	(89.8%)
of which smear-positive	–	
of which laboratory-confirmed	1 880	(62.3%)
Laboratory-confirmed TB cases	2 267	(58.8%)
Mean age of new native TB cases	42.9 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	24	(0.6%)
New (not previously treated)	2 690	(69.7%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	1 953	(86.1%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	1300–1200–1400	
Pulmonary MDR-TB cases notified	486	(32.7%)
of which XDR-TB cases	30	(6.3%)
Notified MDR-TB	679	(34.8%)
of which XDR-TB cases	32	(6.0%)
TB cases tested for HIV	3 352	(99.8%)
HIV-positive TB cases	277	(8.3%)
of these on ART	190	(68.6%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
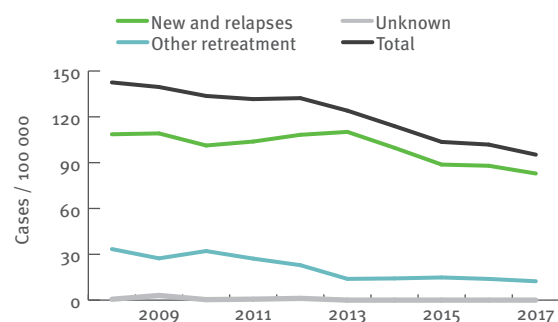[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	3 048		996	
Success	2 515	(82.5%)	487	(48.9%)
Died	294	(9.6%)	120	(12.0%)
Failed	77	(2.5%)	177	(17.8%)
Lost to follow-up	123	(4.0%)	202	(20.3%)
Not evaluated	39	(1.3%)	10	(1.0%)

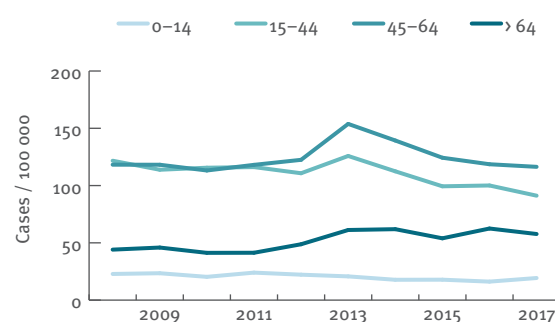[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017[a]
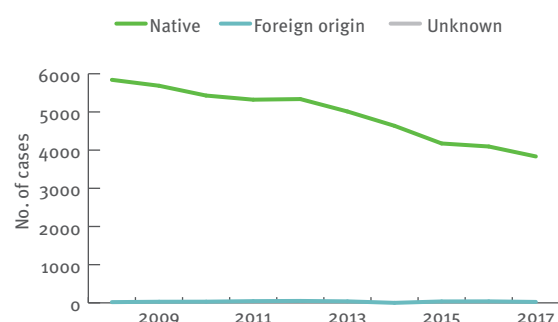

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

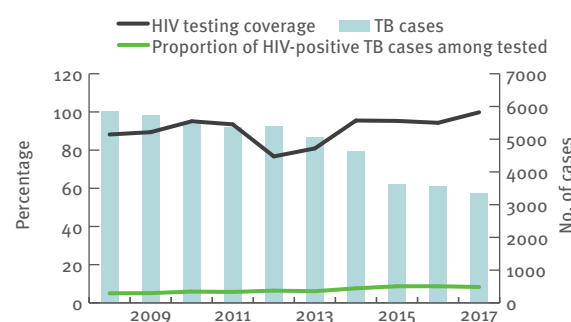### New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR **Europe**

2017 data
Romania

Total population at 23 April 2018 by EUROSTAT: 19 644 350

TB case notifications, 2017

Total number of cases	13 004	
Notification rate per 100 000	66.2	
New[a] and relapses	12 310	
New[a] and relapses notification rate per 100 000	62.7	
Pulmonary	11 047	(85.0%)
of which microscopy-positive	7 255	(65.7%)
of which laboratory-confirmed	8 878	(80.4%)
Laboratory-confirmed TB cases	9 194	(70.7%)
Mean age of new native TB cases	44.0 years	
Mean age of new foreign TB cases	32.4 years	
Foreign origin of all TB cases	27	(0.2%)
New (not previously treated)	10 377	(79.8%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	8 183	(89.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	590–540–650	
Pulmonary MDR-TB cases notified	356	(4.5%)
of which XDR-TB cases	43	(30.3%)
Notified MDR-TB	361	(4.4%)
of which XDR-TB cases	45	(30.8%)
TB cases tested for HIV	10 760	(82.7%)
HIV-positive TB cases	232	(2.2%)
of these on ART	173	(74.6%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	6 890		537	
Success	5 861	(85.1%)	222	(41.3%)
Died	512	(7.4%)	94	(17.5%)
Failed	133	(1.9%)	157	(29.2%)
Lost to follow-up	288	(4.2%)	61	(11.4%)
Still on treatment	90	(1.3%)	3	(0.6%)
Not evaluated	6	(0.1%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

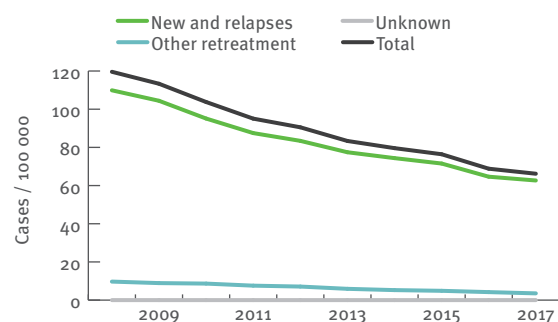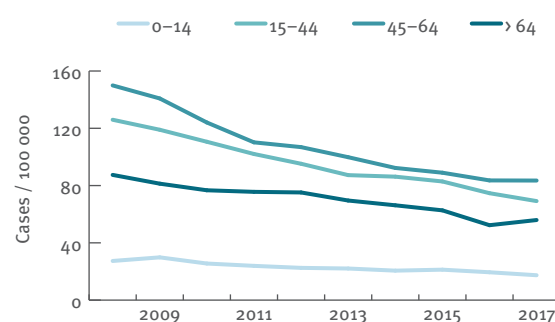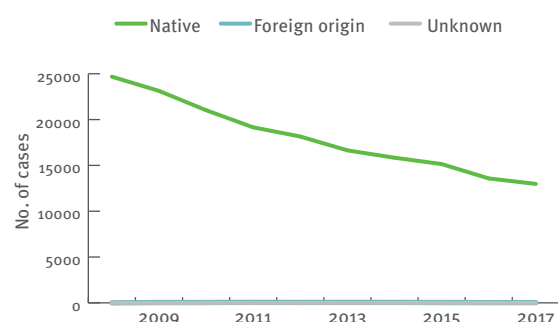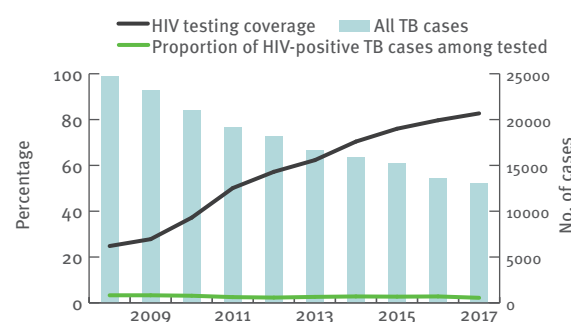### TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR **Europe**
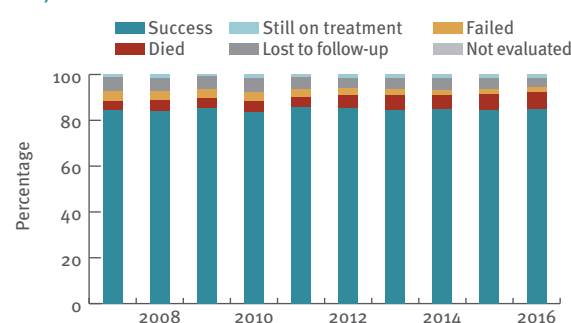
2017 data

Russia Federation

Population estimate 2017 by UN Statistical Database: 143 989 754

TB case notifications, 2017

Total number of cases	114 187	
Notification rate per 100 000[b]	79.3	
New[a] and relapses	84 510	
New[a] and relapses notification rate per 100 000	58.7	
Pulmonary	77 574	(91.8%)
of which smear-positive	–	
of which laboratory-confirmed	40 254	(51.9%)
Laboratory-confirmed TB cases[ba]	59 036	(51.7%)
Mean age of new and relapse TB cases	41.4 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	2 498	(2.2%)
New (not previously treated)	70 861	(62.1%)

[a] Cases with unknown previous treatment included in new cases.
[b] UN Population Division estimates are lower than the population registered by the Federal State Statistics Service of the Russian Federation.
[ba] New and relapses before start of treatment.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	–	(91.3%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	49000–49000–50000	
Pulmonary MDR-TB cases notified	22 817	(42.4%)
of which XDR-TB cases	3 562	(17.4%)
Notified MDR-TB	25 879	(48.0%)
of which XDR-TB cases	3 562	(15.8%)
TB cases tested for HIV	81 443	(96.4%)
HIV-positive TB cases	15 695	(19.3%)
of these on ART	9 748	(62.1%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	73 137		22 607	
Success	52 335	(71.6%)	12 117	(53.6%)
Died	7 423	(10.1%)	3 554	(15.7%)
Failed	4 602	(6.3%)	2 778	(12.3%)
Lost to follow-up	3 541	(4.8%)	1 909	(8.4%)
Not evaluated	5 236	(7.2%)	2 249	(9.9%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

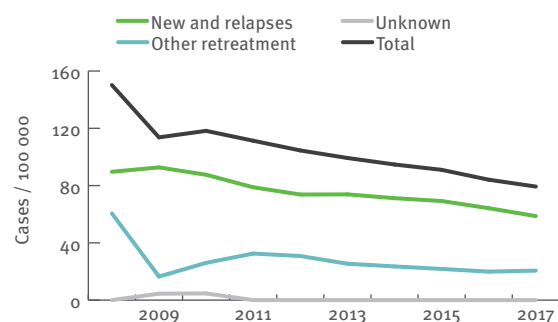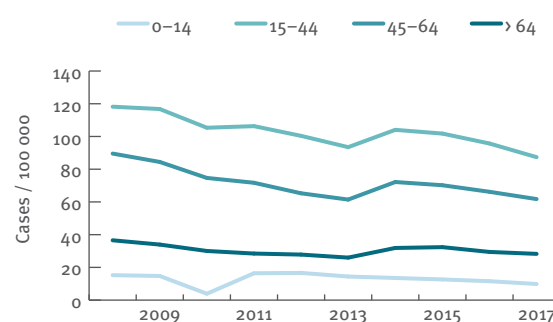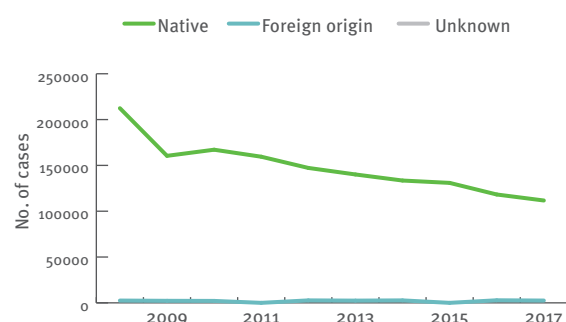## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

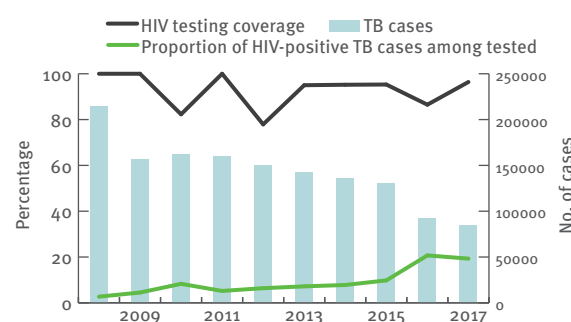## New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017
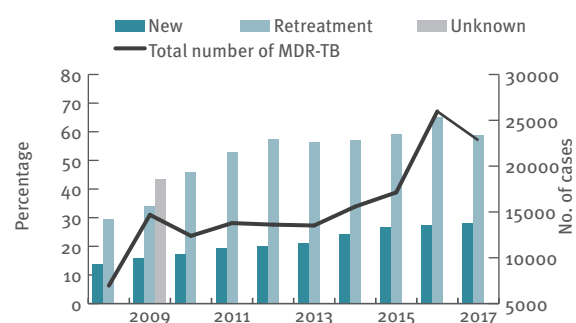

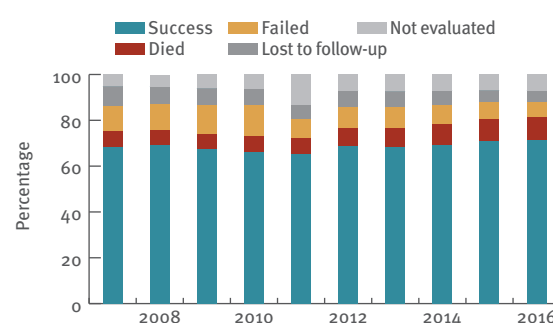## TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Serbia

Population estimate 2017 by UN Statistical Database: 8 790 574

TB case notifications, 2017

Total number of cases	1 466	
Notification rate per 100 000	16.7	
New[a] and relapses	1 450	
New[a] and relapses notification rate per 100 000	16.5	
Pulmonary	1 135	(78.3%)
of which microscopy-positive	–	
of which laboratory-confirmed	781	(68.8%)
Laboratory-confirmed TB cases	783	(53.4%)
Mean age of new native TB cases	49.8 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1 354	(92.4%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	357	(45.6%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	16–7–26	
Pulmonary MDR-TB cases notified	5	(1.4%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	5	(1.4%)
of which XDR-TB cases	0	-
TB cases tested for HIV	71	(4.9%)
HIV-positive TB cases	8	(11.3%)
of these on ART	8	(100.0%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
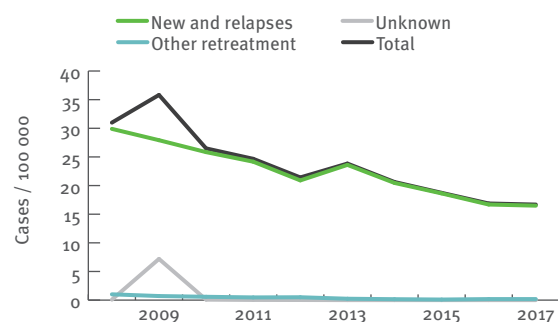[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

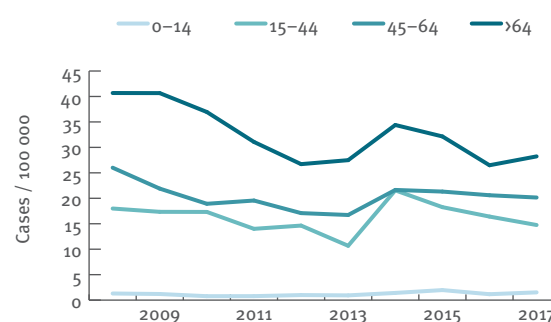|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	1 443		5	
Success	1 191	(82.5%)	4	(80.0%)
Died	100	(6.9%)	0	(0.0%)
Failed	9	(0.6%)	1	(20.0%)
Lost to follow-up	88	(6.1%)	0	(0.0%)
Not evaluated	55	(3.8%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.
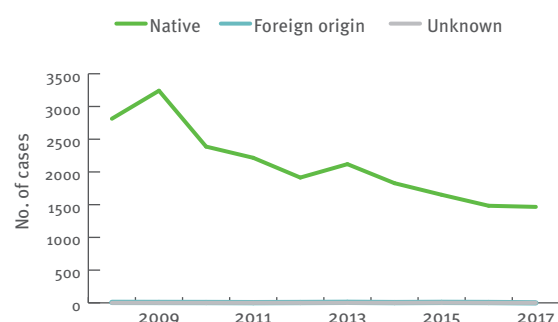
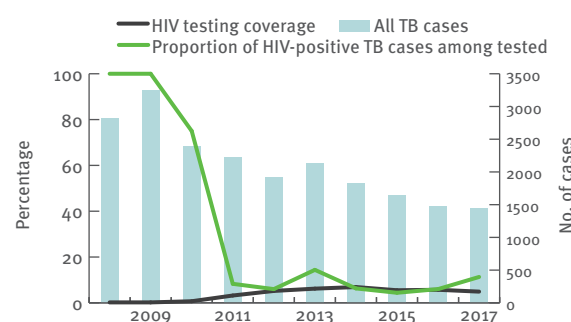## TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017
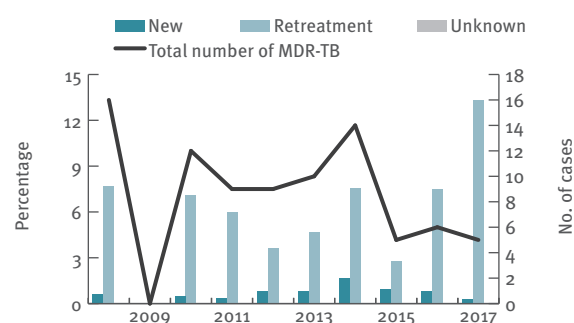

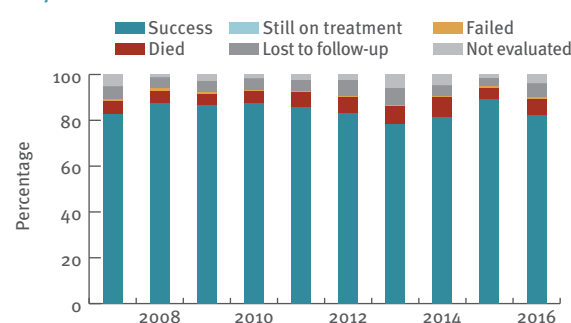## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR Europe

2017 data
Slovakia
Total population at 23 April 2018 by EUROSTAT: 5 435 343

TB case notifications, 2017

Total number of cases	249	
Notification rate per 100 000	4.6	
New[a] and relapses	228	
New[a] and relapses notification rate per 100 000	4.2	
Pulmonary	206	(82.7%)
of which microscopy-positive	76	(36.9%)
of which laboratory-confirmed	125	(60.7%)
Laboratory-confirmed TB cases	134	(53.8%)
Mean age of new native TB cases	43.0 years	
Mean age of new foreign TB cases	43.0 years	
Foreign origin of all TB cases	5	(2.0%)
New (not previously treated)	208	(83.5%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	134	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	10–2–18	
Pulmonary MDR-TB cases notified	5	(4.0%)
of which XDR-TB cases	2	(40.0%)
Notified MDR-TB	6	(4.5%)
of which XDR-TB cases	2	(33.3%)
TB cases tested for HIV	227	(91.2%)
HIV-positive TB cases	0	(0.0%)
of these on ART	0	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
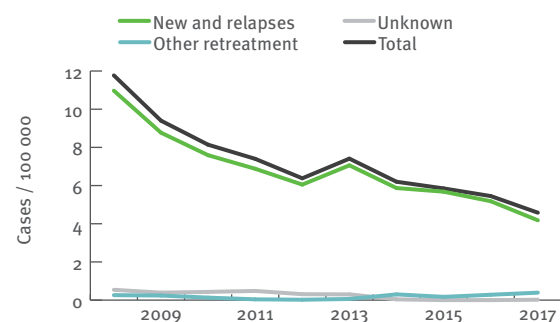[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

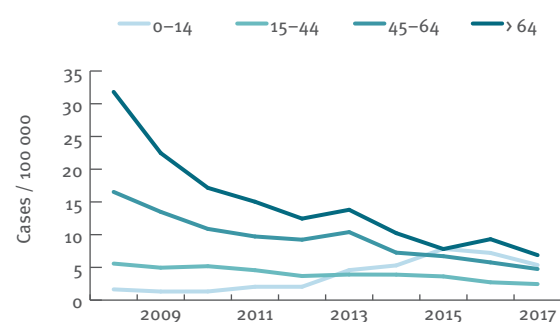|				
Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	93		2	
Success	74	(79.6%)	0	(0.0%)
Died	17	(18.3%)	2	(100.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	0	(0.0%)	0	(0.0%)
Still on treatment	1	(1.1%)	0	(0.0%)
Not evaluated	1	(1.1%)	0	(0.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
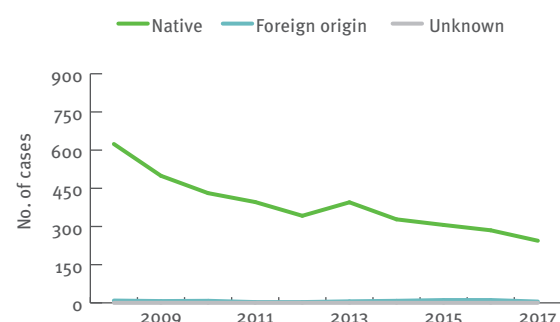[b] Treatment outcome as presented is treatment outcome after 24 months.

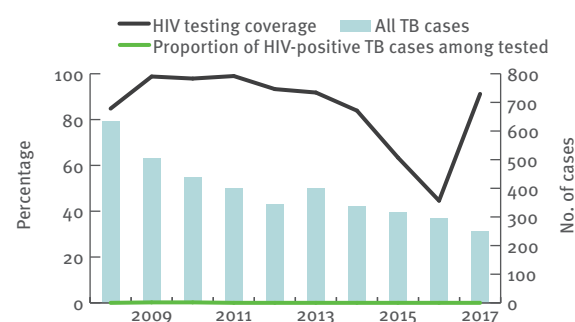### TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR Europe

2017 data

Slovenia

Total population at 23 April 2018 by EUROSTAT: 2 065 895

TB case notifications, 2017

Total number of cases	112	
Notification rate per 100 000	5.4	
New[a] and relapses	112	
New[a] and relapses notification rate per 100 000	5.4	
Pulmonary	91	(81.3%)
of which microscopy-positive	40	(44.0%)
of which laboratory-confirmed	89	(97.8%)
Laboratory-confirmed TB cases	109	(97.3%)
Mean age of new native TB cases	65.9 years	
Mean age of new foreign TB cases	54.3 years	
Foreign origin of all TB cases	46	(41.1%)
New (not previously treated)	107	(95.5%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	109	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	0–0–2	
Pulmonary MDR-TB cases notified	1	(1.1%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	1	(0.9%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	77	(68.8%)
HIV-positive TB cases	0	(0.0%)
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	93		0	
Success	66	(71.0%)	0	–
Died	18	(19.4%)	0	–
Failed	0	(0.0%)	0	–
Lost to follow-up	0	(0.0%)	0	–
Still on treatment	7	(7.5%)	0	–
Not evaluated	2	(2.2%)	0	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

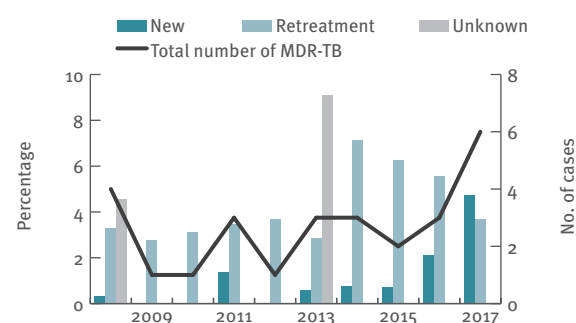## New and relapsed TB cases – notification rates by age group, 2008–2017

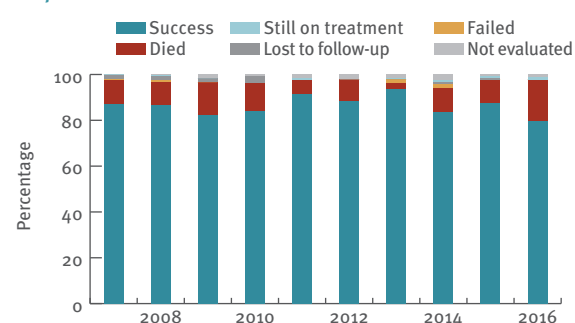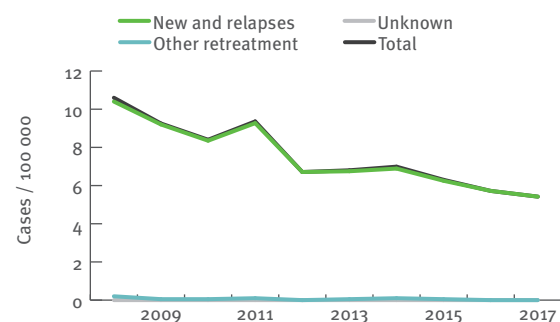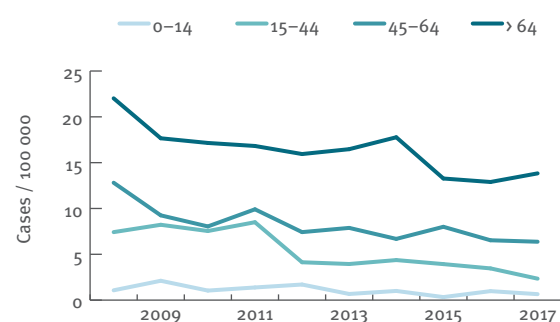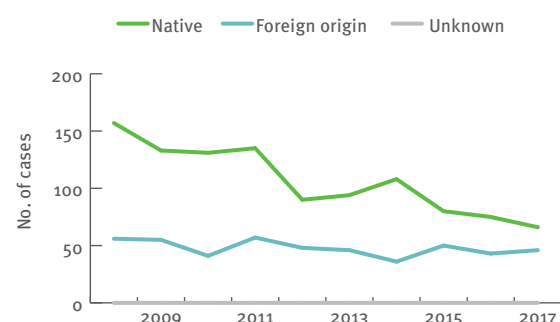## TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR Europe

2017 data

Spain

Total population at 23 April 2018 by EUROSTAT: 46 528 024

TB case notifications, 2017

Total number of cases	4 570	
Notification rate per 100 000	9.8	
New[a] and relapses	4 379	
New[a] and relapses notification rate per 100 000	9.4	
Pulmonary	3 315	(72.5%)
of which microscopy-positive	1 592	(48.0%)
of which laboratory-confirmed	2 625	(79.2%)
Laboratory-confirmed TB cases	3 216	(70.4%)
Mean age of new native TB cases	51.2 years	
Mean age of new foreign TB cases	37.9 years	
Foreign origin of all TB cases	1 352	(29.6%)
New (not previously treated)	4 379	(95.8%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	969	(30.1%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	17–120–210	
Pulmonary MDR-TB cases notified	16	(1.7%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	19	(2.0%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	3 408	(74.6%)
HIV-positive TB cases	277	(8.1%)
of these on ART	–	

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	1794		–	
Success	1257	(70.1%)	–	–
Died	129	(7.2%)	–	–
Failed	0	(0.0%)	–	–
Lost to follow-up	12	(0.7%)	–	–
Still on treatment	33	(1.8%)	–	–
Not evaluated	363	(20.2%)	–	–

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

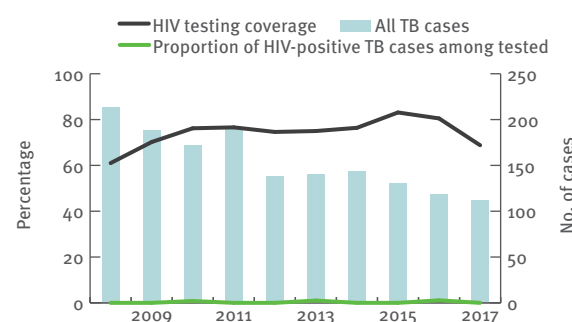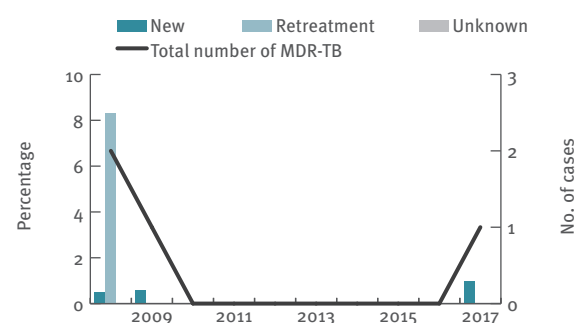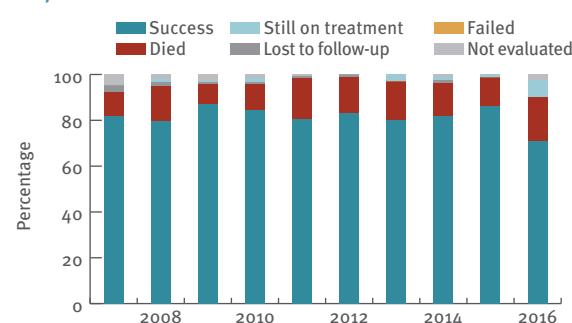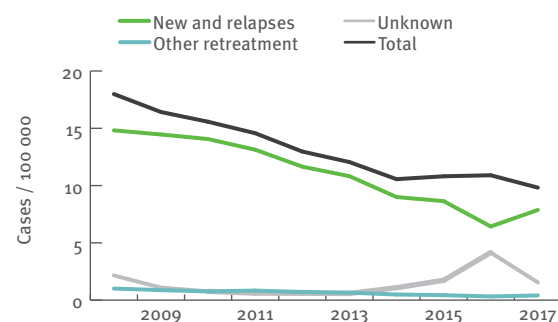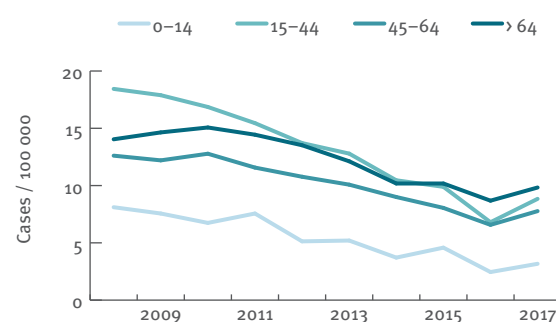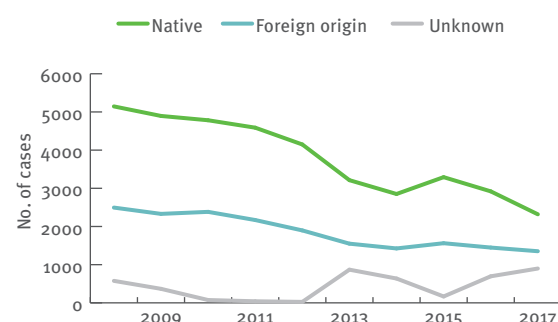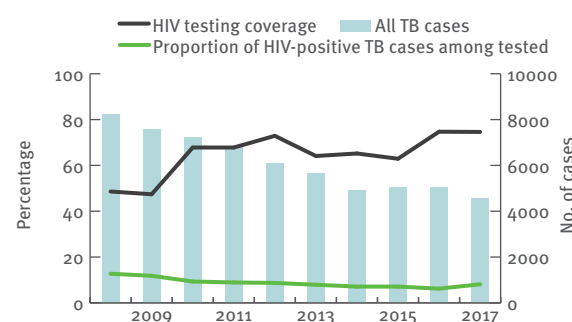## TB notification rates by treatment history, 2008–2017

New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017[a]
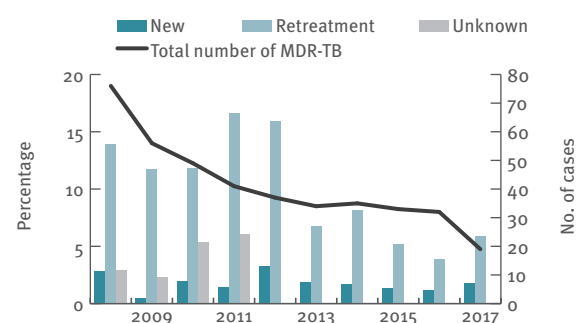
[a] In 2013, 2015 and 2016, only pulmonary MDR-TB cases were reported.

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Sweden

Total population at 23 April 2018 by EUROSTAT: 9 995 153

TB case notifications, 2017

Total number of cases	520	
Notification rate per 100 000	5.2	
New[a] and relapses	488	
New[a] and relapses notification rate per 100 000	4.9	
Pulmonary	324	(62.3%)
of which microscopy-positive	104	(32.1%)
of which laboratory-confirmed	287	(88.6%)
Laboratory-confirmed TB cases	424	(81.5%)
Mean age of new native TB cases	56.8 years	
Mean age of new foreign TB cases	35.0 years	
Foreign origin of all TB cases	468	(90.0%)
New (not previously treated)	484	(93.1%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	–	
Case-linked data reporting	Yes	
Cases with DST results	422	(99.5%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	13–5–20	
Pulmonary MDR-TB cases notified	9	(3.2%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	11	(2.6%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	370		22	
Success	326	(88.1%)	20	(90.9%)
Died	10	(2.7%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	5	(1.4%)	0	(0.0%)
Still on treatment	10	(2.7%)	1	(4.5%)
Not evaluated	19	(5.1%)	1	(4.5%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017

### New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017
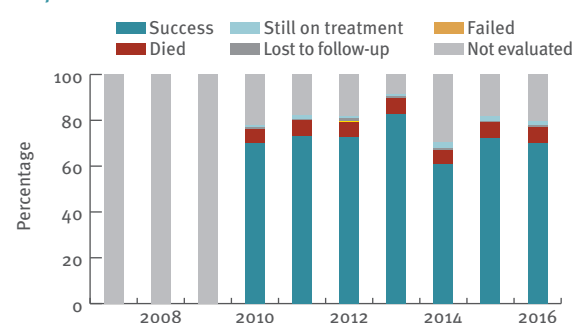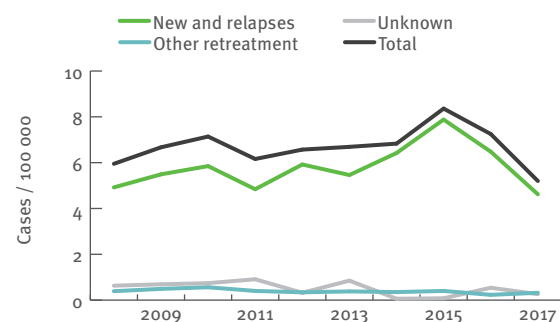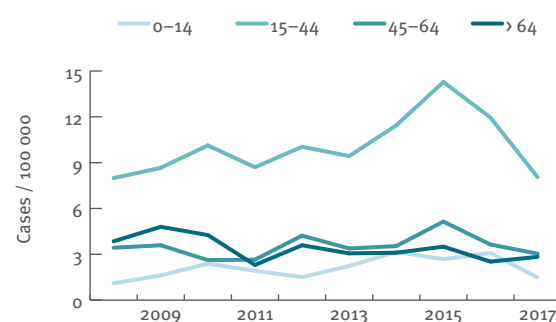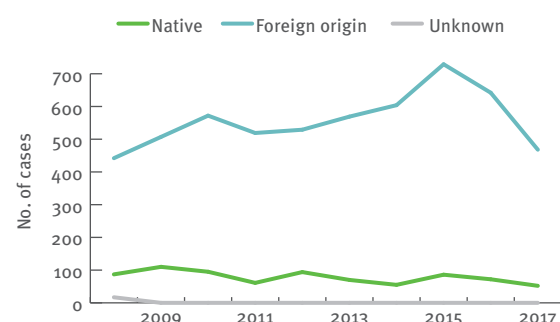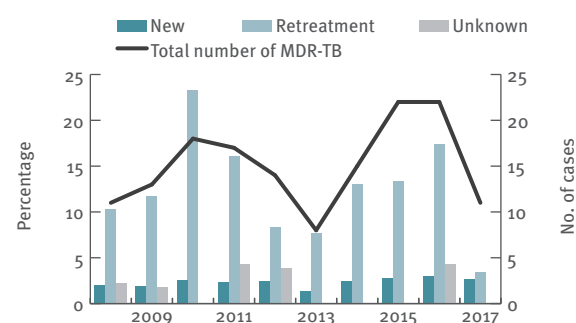

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Switzerland

Population estimate 2017 by UN Statistical Database: 8 476 005

TB case notifications, 2017

Total number of cases	555
Notification rate per 100 000	6.5
New[a] and relapses	529
New[a] and relapses notification rate per 100 000	6.2
Pulmonary	379 (71.6%)
of which smear-positive	–
of which laboratory-confirmed	348 (91.8%)
Laboratory-confirmed TB cases	364 (65.6%)
Mean age of new and relapse TB cases	38.1 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	366 (65.9%)
New (not previously treated)	529 (95.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	276	(75.8%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	19–9–29	
Pulmonary MDR-TB cases notified	8	(2.9%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	9	(3.3%)
of which XDR-TB cases	0	–
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	565		16	
Success	384	(68.0%)	7	(43.8%)
Died	10	(1.8%)	0	(0.0%)
Failed	1	(0.2%)	0	(0.0%)
Lost to follow-up	9	(1.6%)	1	(6.3%)
Not evaluated	161	(28.5%)	8	(50.0%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.
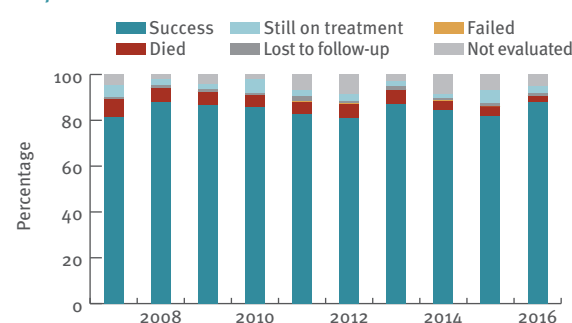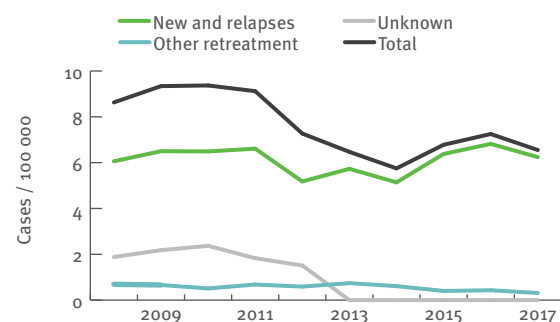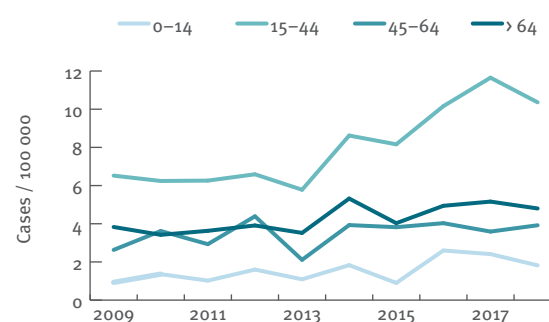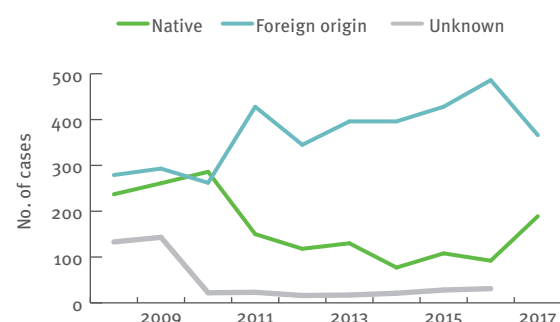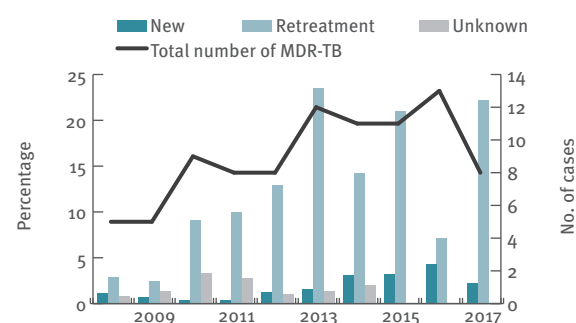
TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2008–2017

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Tajikistan

Population estimate 2017 by UN Statistical Database: 8 921 343

TB case notifications, 2017

Total number of cases	6 279	
Notification rate per 100 000	70.4	
New[a] and relapses	5 895	
New[a] and relapses notification rate per 100 000	66.1	
Pulmonary	4 119	(69.9%)
of which smear-positive	–	
of which laboratory-confirmed	2 820	(68.5%)
Laboratory-confirmed TB cases	3 084	(49.1%)
Mean age of new and relapse TB cases	36.0 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	5 231	(83.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	3 084	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	940–870–1000	
Pulmonary MDR-TB cases notified	546	(84.0%)
of which XDR-TB cases	279	(54.9%)
Notified MDR-TB	643	(20.8%)
of which XDR-TB cases	122	(26.3%)
TB cases tested for HIV	5 937	(100.7%)
HIV-positive TB cases	219	(3.7%)
of these on ART	117	(53.4%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	5 324		682	
Success	4 751	(89.2%)	398	(58.4%)
Died	228	(4.3%)	122	(17.9%)
Failed	104	(2.0%)	54	(7.9%)
Lost to follow-up	198	(3.7%)	100	(14.7%)
Not evaluated	43	(0.8%)	8	(1.2%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.
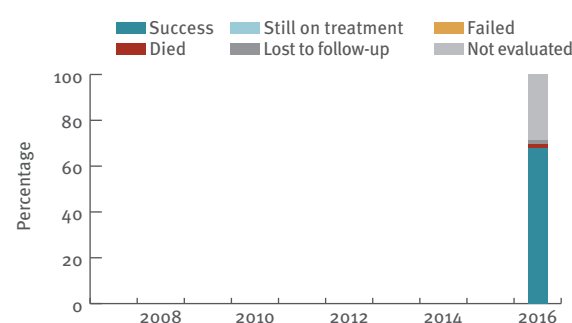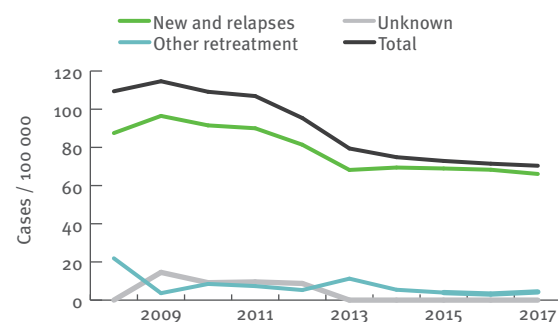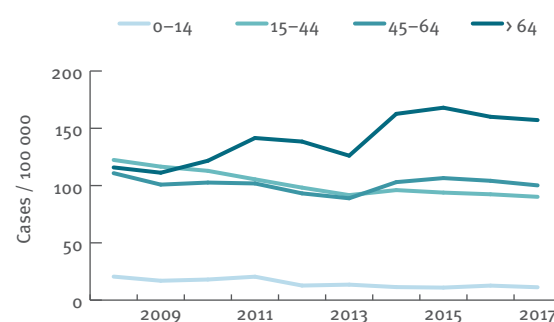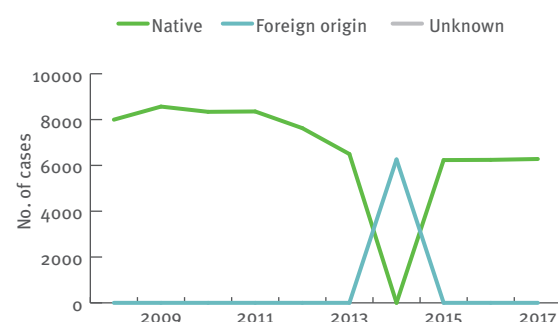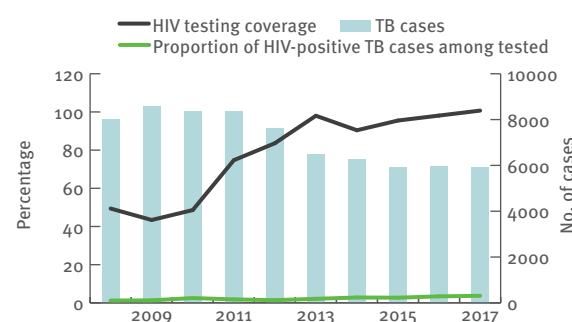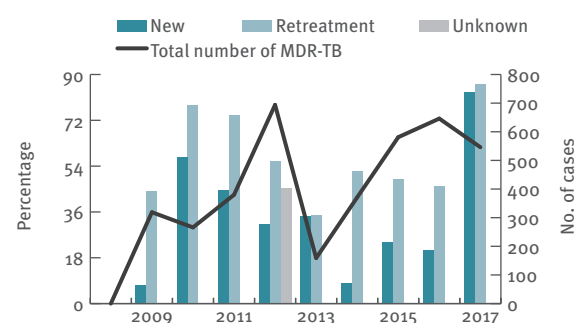
TB cases by geographical origin, 2008–2017

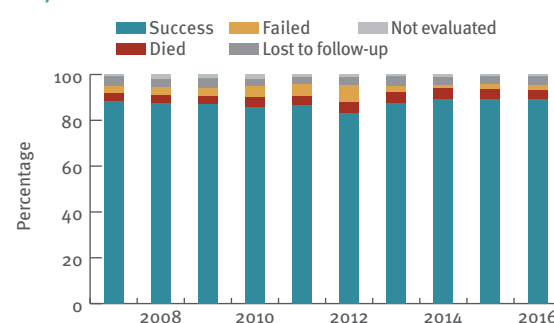## TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Turkey

Population estimate 2017 by UN Statistical Database: 80 745 020

TB case notifications, 2017

Total number of cases	12 046
Notification rate per 100 000	14.9
New[a] and relapses	11 821
New[a] and relapses notification rate per 100 000	14.6
Pulmonary (new and relapse)	7 767 (65.7%)
of which smear-positive	–
of which laboratory-confirmed	6 162 (79.3%)
Laboratory-confirmed TB cases	6 338 (52.6%)
Mean age of new and relapse TB cases	44.2 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	1 107 (9.2%)
New (not previously treated)	11 101 (92.2%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	5 460	(86.1%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	350–310–390	
Pulmonary MDR-TB cases notified	182	(3.3%)
of which XDR-TB cases	2	(2.0%)
Notified MDR-TB	239	(4.4%)
of which XDR-TB cases	2	(1.7%)
TB cases tested for HIV	8 423	(71.3%)
HIV-positive TB cases	65	(0.8%)
of these on ART	51	(78.5%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
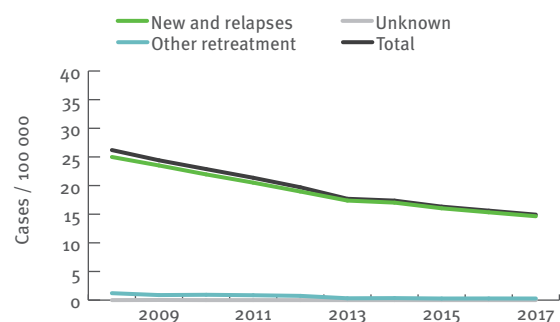[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	12 017		230	
Success	10 462	(87.1%)	156	(67.8%)
Died	705	(5.9%)	15	(6.5%)
Failed	32	(0.3%)	18	(7.8%)
Lost to follow-up	325	(2.7%)	26	(11.3%)
Not evaluated	493	(4.1%)	15	(6.5%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
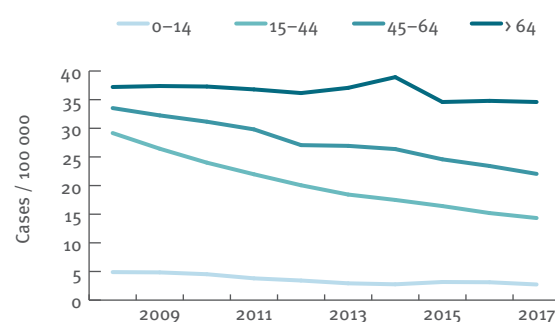[b] Treatment outcome as presented is treatment outcome after 24 months.

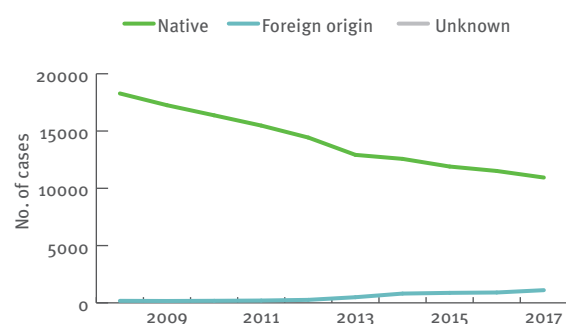## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2008–2017[a]
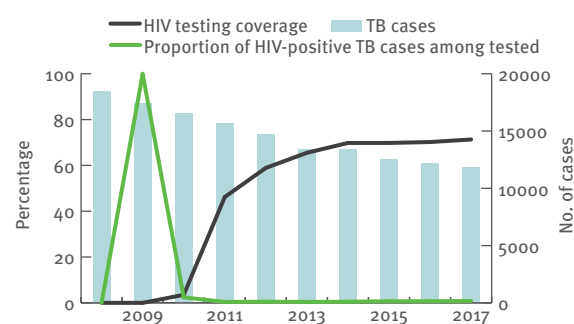

[a] Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2008–2017
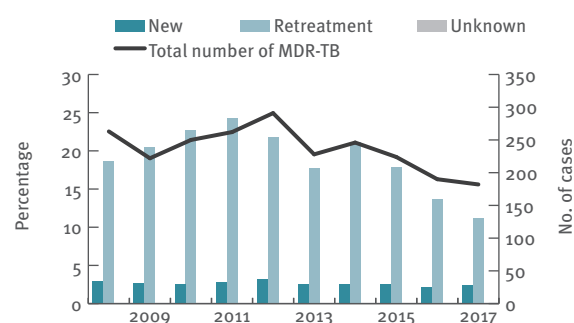

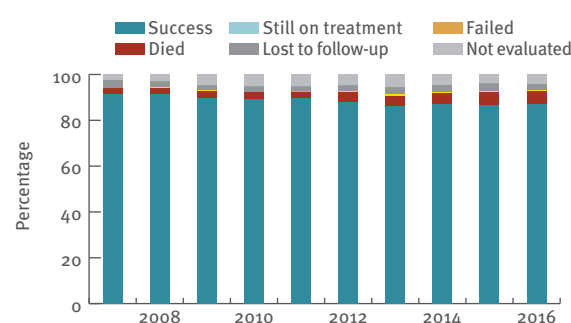## TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Tuberculosis surveillance and monitoring in Europe 2019

ECDC — EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization — REGIONAL OFFICE FOR Europe

2017 data

Turkmenistan

Population estimate 2017 by UN Statistical Database: 5 758 075

TB case notifications, 2017

Total number of cases	2 232	
Notification rate per 100 000	38.8	
New[a] and relapses	1968	
New[a] and relapses notification rate per 100 000	34.2	
Pulmonary	1 488	(75.6%)
of which smear-positive	–	
of which laboratory-confirmed	693	(46.6%)
Laboratory–confirmed TB cases	921	(41.3%)
Mean age of new and relapse TB cases	38.4 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	1 880	(84.2%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	No	
Case-linked data reporting	Yes	
Cases with DST results	1 085	(100.0%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	450–390–520	
Pulmonary MDR-TB cases notified	–	–
of which XDR-TB cases	–	–
Notified MDR-TB	343	(31.6%)
of which XDR-TB cases	6	–
TB cases tested for HIV	–	–
HIV-positive TB cases	–	–
of these on ART	–	–

[a] National coverage 100% or culturing 90%, C+/all TB cases ›50%, DST done for C+ ›75%, EQA ≥95%.
[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	2 068		210	
Success	1 738	(84.0%)	142	(67.6%)
Died	84	(4.1%)	23	(11.0%)
Failed	85	(4.1%)	31	(14.8%)
Lost to follow-up	102	(4.9%)	14	(6.7%)
Not evaluated	59	(2.9%)	0	(0.0%)

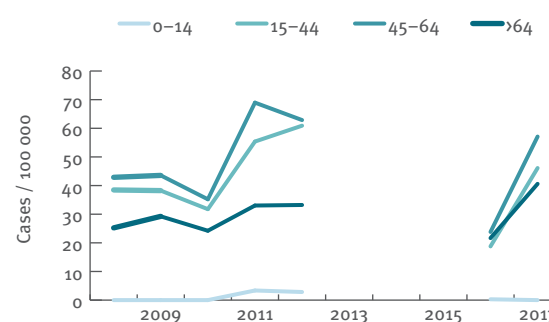[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2008–2017[a]
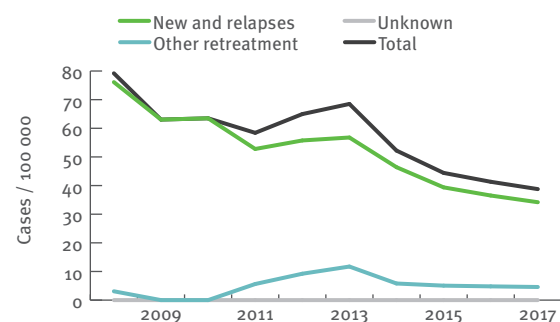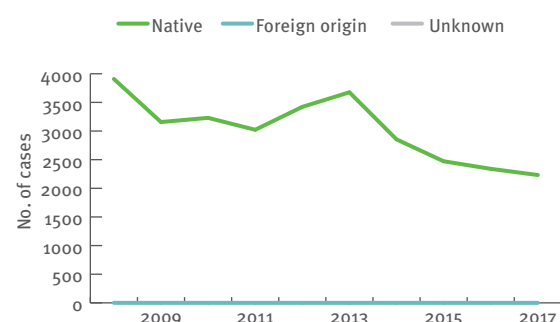

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2008–2017[a]

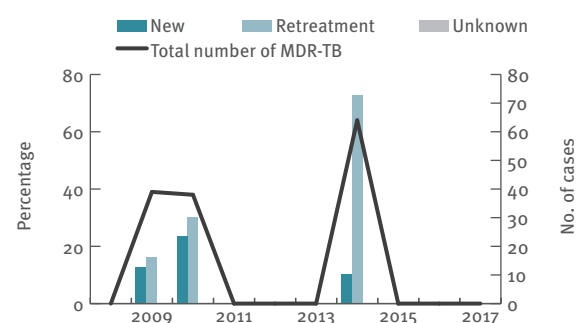[a] Data up to 2012 includes new TB cases only.
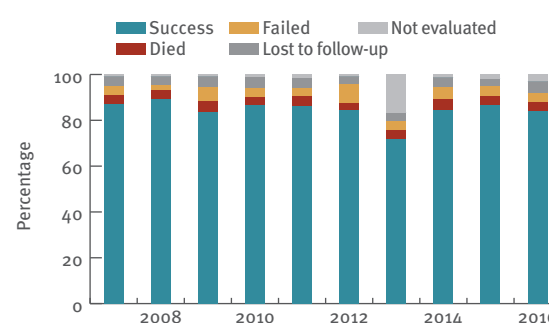
TB cases by geographical origin, 2008–2017

TB/HIV coinfection, 2006–2014

Data not available

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome of new TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization REGIONAL OFFICE FOR Europe

2017 data
Ukraine

Population estimate 2017 by UN Statistical Database: 44 222 947

TB case notifications, 2017

Total number of cases	31 584	
Notification rate per 100 000	71.4	
New[a] and relapses	27 229	
New[a] and relapses notification rate per 100 000	61.6	
Pulmonary	24 735	(90.8%)
of which smear-positive	–	
of which laboratory-confirmed	16 561	(67.0%)
Laboratory-confirmed TB cases	20 052	(63.5%)
Mean age of new and relapse TB cases	42.9 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	26	(0.1%)
New (not previously treated)	21 899	(69.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	18 624	(92.9%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	10 000 (–9800–10 000)	
Pulmonary MDR-TB cases notified	5 008	(26.9%)
of which XDR-TB cases	1001	(20.0%)
Notified MDR-TB	6 501	(34.9%)
of which XDR-TB cases	1 097	(16.6%)
TB cases tested for HIV	26 623	(97.8%)
HIV-positive TB cases	5 955	(22.4%)
of these on ART	4 426	(74.3%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
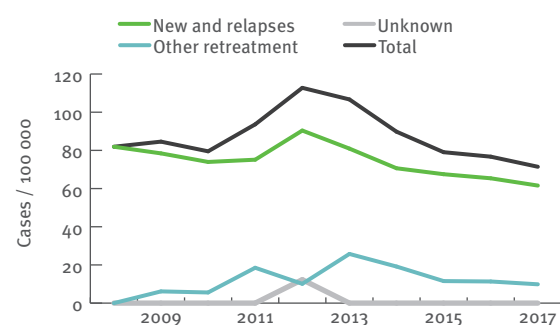[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	22 615		7 592	
Success	17 234	(76.2%)	3 855	(50.8%)
Died	2 140	(9.5%)	1 193	(15.7%)
Failed	1 760	(7.8%)	1 220	(16.1%)
Lost to follow-up	1 387	(6.1%)	1 257	(16.6%)
Not evaluated	94	(0.4%)	67	(0.9%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
[b] Treatment outcome as presented is treatment outcome after 24 months.

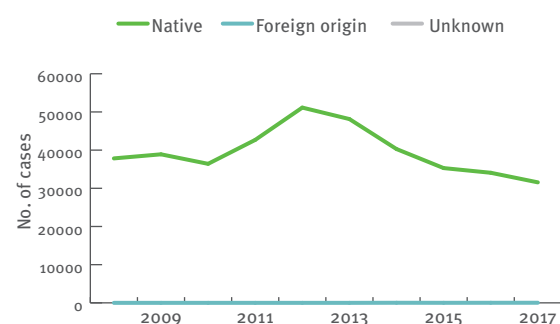### TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

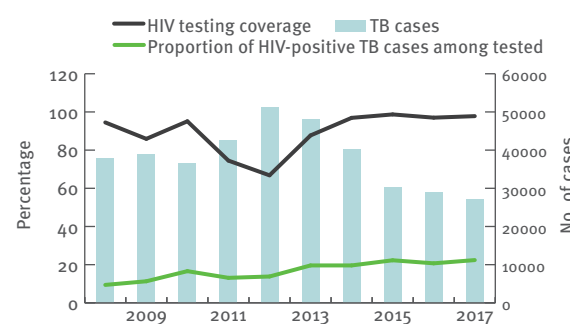### New and relapsed TB cases – notification rates by age group, 2008–2017[a]

[a] Data up to 2012 includes new TB cases only.

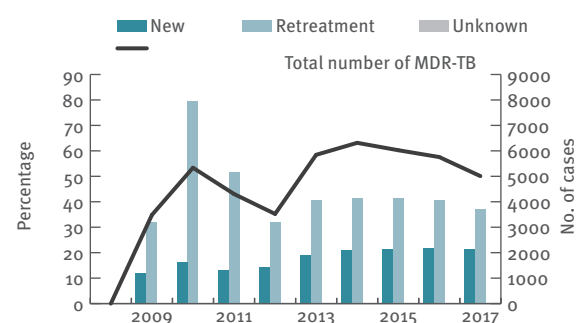### TB cases by geographical origin, 2008–2017
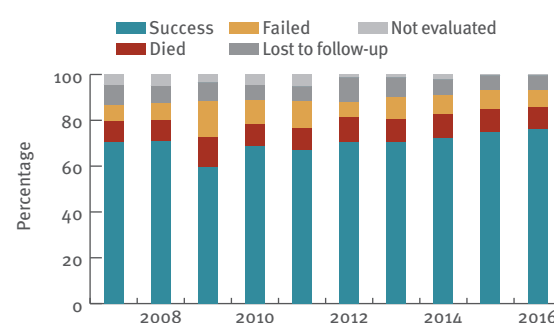

TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019.
© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

ECDC — EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

World Health Organization — REGIONAL OFFICE FOR Europe

2017 data

United Kingdom

Total population at 23 April 2018 by EUROSTAT: 65 808 573

TB case notifications, 2017

Total number of cases	5 567	
Notification rate per 100 000	8.5	
New[a] and relapses	5 248	
New[a] and relapses notification rate per 100 000	8.0	
Pulmonary	3 048	(54.8%)
of which microscopy-positive	1 202	(39.4%)
of which laboratory-confirmed	2 287	(75.0%)
Laboratory-confirmed TB cases	3 478	(62.5%)
Mean age of new native TB cases	43.3 years	
Mean age of new foreign TB cases	42.0 years	
Foreign origin of all TB cases	3 797	(68.2%)
New (not previously treated)	5 248	(94.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2017

Completeness of DRS data[a]	Yes	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	3 400	(97.8%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	55–36–74	
Pulmonary MDR-TB cases notified	32	(1.4%)
of which XDR-TB cases	3	(10.0%)
Notified MDR-TB	47	(1.4%)
of which XDR-TB cases	3	(6.8%)
TB cases tested for HIV	4 671	(83.9%)
HIV-positive TB cases	138	(3.0%)
of these on ART	115	(83.3%)

[a] National coverage 100% or culturing ≥ 90%, C+/all TB cases › 50%, DST done for C+ › 75%, EQA ≥ 95%.
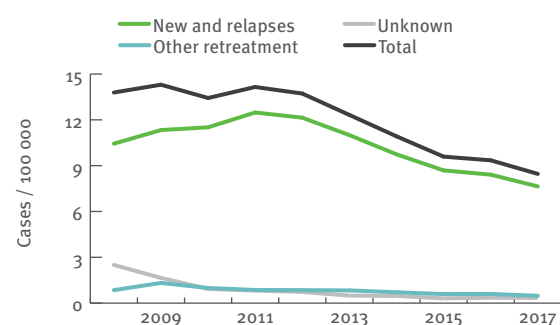[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

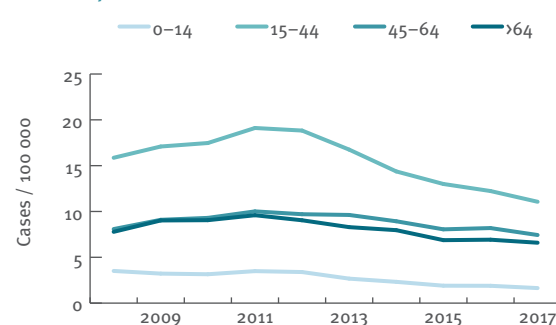|	New culture positive pulmonary TB cases notified in 2016[a]		All MDR-TB cases notified in 2015[b]	
Geographical coverage	National			
Outcome cohort				
Case-linked data reporting	Yes			
Cases notified	2 284		48	
Success	1736	(76.0%)	29	(60.4%)
Died	155	(6.8%)	3	(6.3%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	118	(5.2%)	3	(6.3%)
Still on treatment	209	(9.2%)	10	(20.8%)
Not evaluated	66	(2.9%)	3	(6.3%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
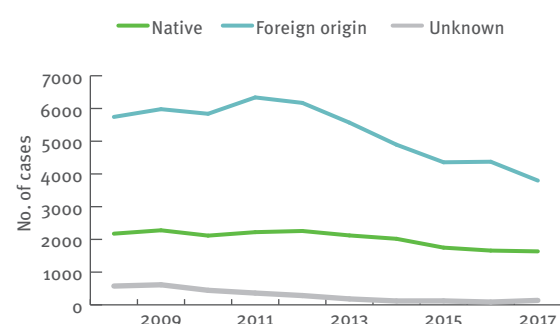[b] Treatment outcome as presented is treatment outcome after 24 months.

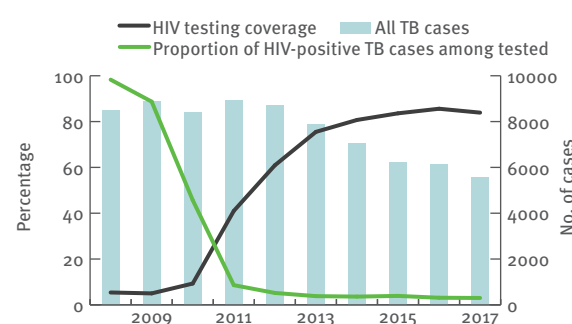### TB notification rates by treatment history, 2008–2017

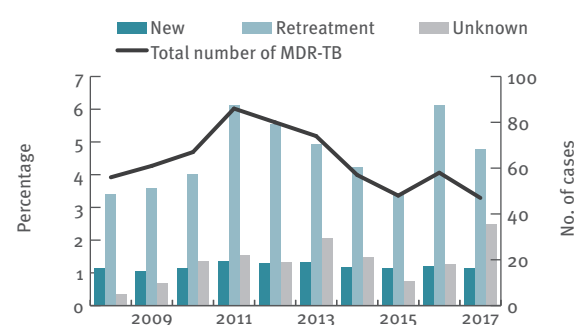### New and relapsed TB cases – notification rates by age group, 2008–2017

TB cases by geographical origin, 2008–2017
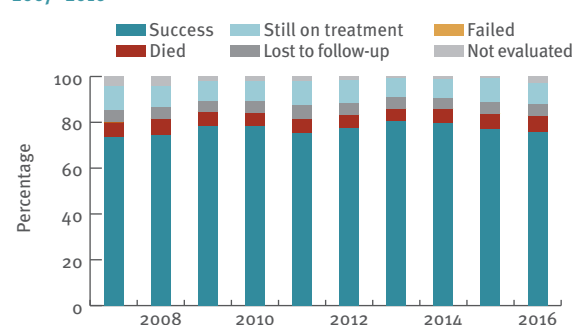

TB/HIV coinfection, 2008–2017

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new culture-confirmed pulmonary TB cases, 2007–2016

Source: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2019 – 2017 data. Stockholm: ECDC; 2019

© European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2019

Tuberculosis surveillance and monitoring in Europe 2019

2017 data

Uzbekistan

Population estimate 2017 by UN Statistical Database: 31 910 641

TB case notifications, 2017

Total number of cases	19 329	
Notification rate per 100 000	60.6	
New[a] and relapses	16 842	
New[a] and relapses notification rate per 100 000	52.8	
Pulmonary (new and relapse)	11 179	(66.4%)
of which smear-positive	–	
of which laboratory-confirmed	5 705	(51.0%)
Laboratory-confirmed TB cases	8 192	(42.4%)
Mean age of new and relapse TB cases	40.3 years	
Mean age of new foreign TB cases	– years	
Foreign origin of all TB cases	0	(0.0%)
New (not previously treated)	14 553	(75.3%)

[a] Cases with unknown previous treatment included in new cases.

Drug resistance surveillance and TB/HIV coinfection, 2016

Completeness of DRS data[a]	No	
Completeness of HIV data[b]	Yes	
Case-linked data reporting	Yes	
Cases with DST results	6 526	(79.7%)
Estimated RR-TB among notified pulmonary cases N, (best–low–high)	3900–3800–4100	
Pulmonary MDR-TB cases notified	540	(10.7%)
of which XDR-TB cases	0	(0.0%)
Notified MDR-TB	1 857	(28.5%)
of which XDR-TB cases	0	(0.0%)
TB cases tested for HIV	16 842	(100.0%)
HIV-positive TB cases	935	(5.6%)
of these on ART	935	(100.0%)

[a] National coverage 100% or culturing 90%, C+/all TB cases 50%, DST done for C+75%, EQA 95%.
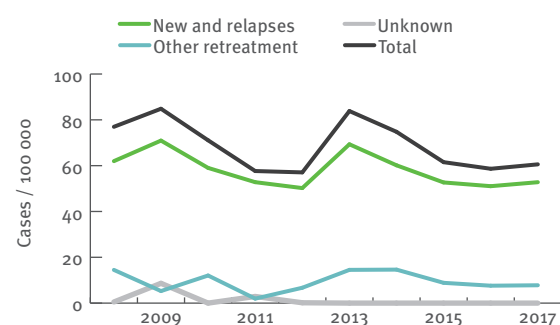[b] More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2016[a]		All RR/MDR-TB cases enrolled into second-line treatment in 2015[b]	
Case-linked data reporting	Yes			
Cases notified	14 743		2 149	
Success	12 906	(87.5%)	1 259	(58.6%)
Died	639	(4.3%)	357	(16.6%)
Failed	219	(1.5%)	153	(7.1%)
Lost to follow-up	311	(2.1%)	167	(7.8%)
Not evaluated	668	(4.5%)	213	(9.9%)

[a] Treatment outcome as presented is treatment outcome after 12 months.
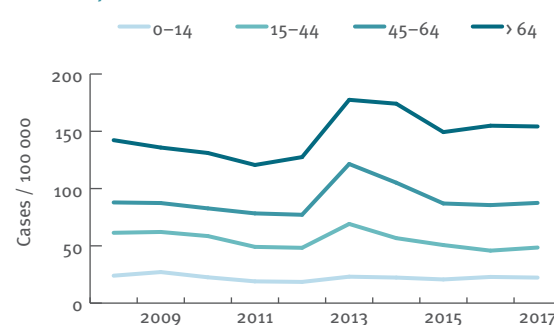[b] Treatment outcome as presented is treatment outcome after 24 months.

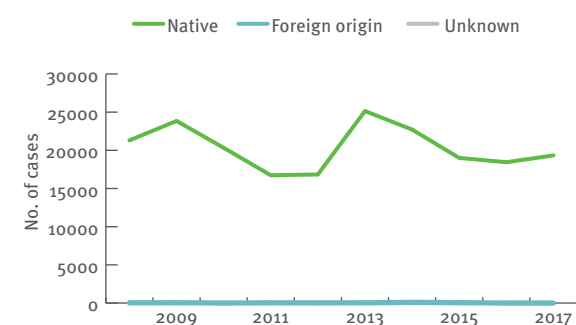## TB notification rates by treatment history, 2008–2017[a]

[a] Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2008–2017[a]
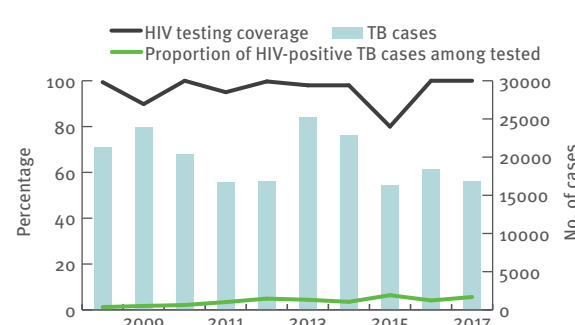

[a] Data up to 2012 includes new TB cases only.

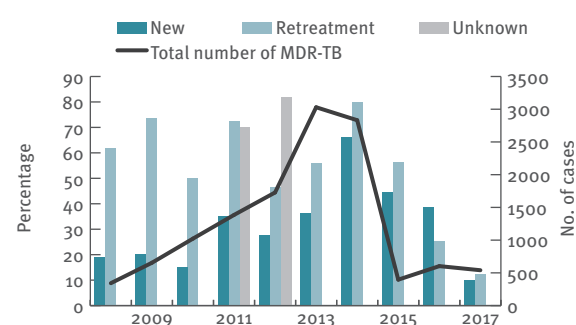## TB cases by geographical origin, 2008–2017

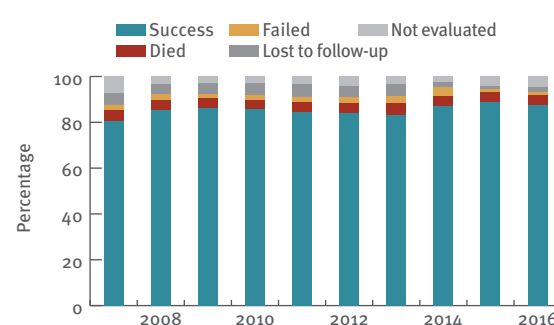## TB/HIV coinfection, 2008–2017[a]

[a] Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2008–2017

Treatment outcome, new and relapsed TB cases, 2007–2016[a]

[a] 2007–2011 cohorts include new cases only.