

# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Albania

Population estimate 2016 by UN Statistical Database: 2926348

### Tuberculosis case notifications, 2016

Total number of cases	415
Notification rate per 100 000	14.2
New* & relapses	415
New* & relapses notification rate per 100 000	14.2
Pulmonary	301 (72.5%)
of which smear positive	-
of which laboratory confirmed	207 (68.8%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.6 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	405 (97.6%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	40 (19.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	7-1-14
Pulmonary MDR TB cases notified	1 (2.5%)
of which XDR TB cases	0 (0.0%)
Notified MDR	4 -
of which XDR TB cases	0 -
TB cases tested for HIV	223 (53.7%)
HIV-positive TB cases	6 (3.3%)
of these on antiretroviral therapy	6 (100.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

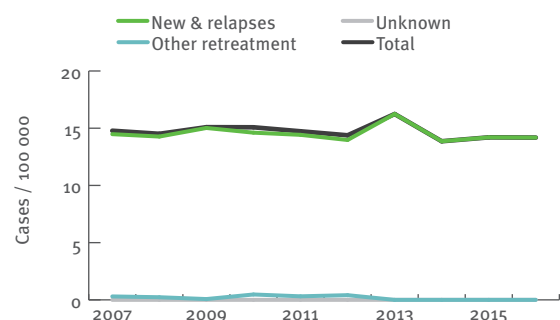
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	409	0
Success	354 (86.6%)	-
Died	11 (2.7%)	-
Failed	3 (0.7%)	-
Lost to follow-up	21 (5.1%)	-
Not evaluated	20 (4.9%)	-

\* Treatment outcome as presented is treatment outcome after 12 months.

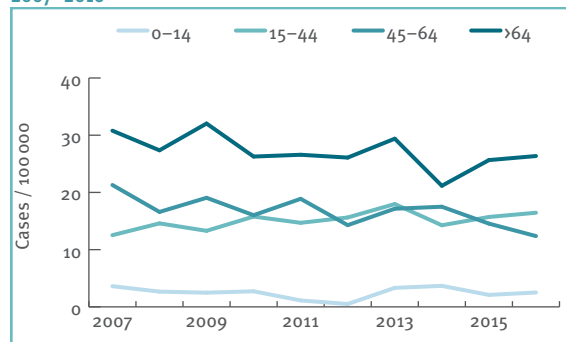
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



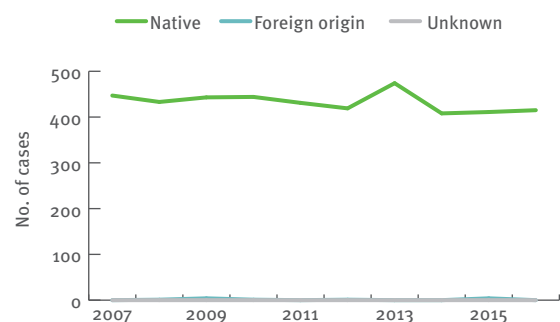
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

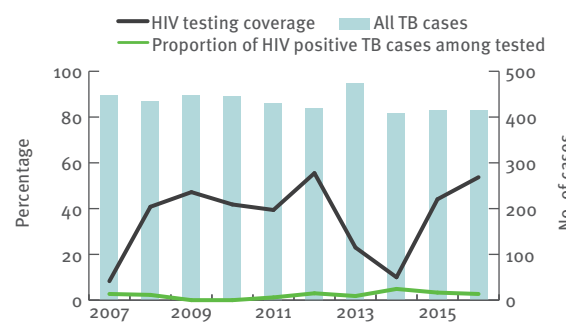


\* Data up to 2012 include new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

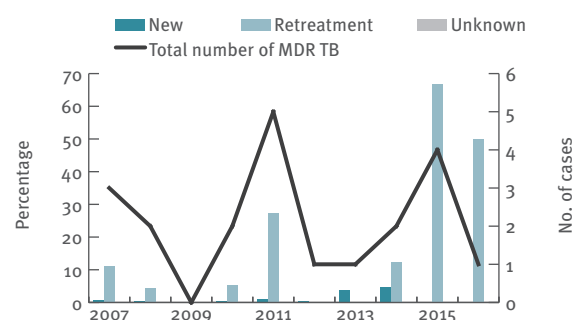


### TB-HIV co-infection, 2007-2016

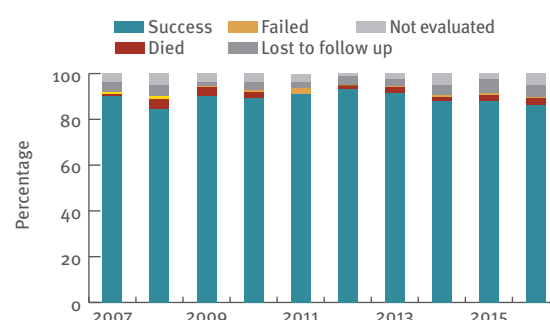


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2007-2016\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Andorra

Population estimate 2016 by UN Statistical Database: 77281

### Tuberculosis case notifications. 2016

Total number of cases	4
Notification rate per 100 000	5.2
New* & relapses	4
New* & relapses notification rate per 100 000	5.2
Pulmonary	3 (75.0%)
of which smear positive	-
of which laboratory confirmed	2 (66.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	42.5 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%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	1 (50.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-3
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 (0.0%)
Notified MDR	0 -
of which XDR TB cases	- -
TB cases tested for HIV	0 (0.0%)
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

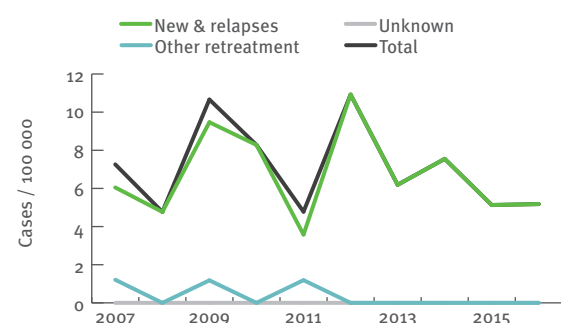
### Treatment outcome monitoring

Geographical coverage	National	
	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Outcome cohort		
Case-linked data reporting	Yes	
Cases notified	4	0
Success	4 (100%)	- -
Died	0 (0.0%)	- -
Failed	0 (0.0%)	- -
Lost to follow-up	0 (0.0%)	- -
Not evaluated	0 (0.0%)	- -

\* Treatment outcome as presented is treatment outcome after 12 months.

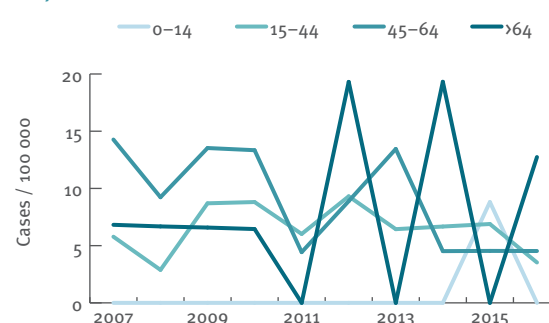
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



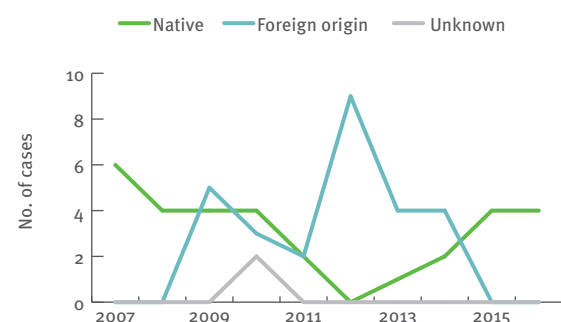
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

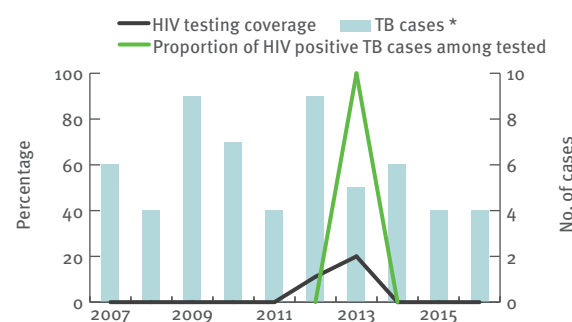


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016



### TB-HIV co-infection, 2007-2016

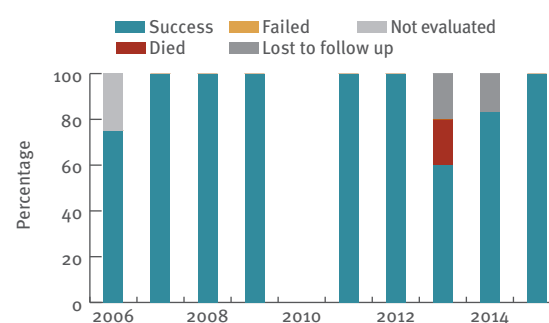


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016

No MDR cases reported

### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Armenia

Population estimate 2016 by UN Statistical Database: 2924816

### Tuberculosis case notifications, 2016

Total number of cases	1080
Notification rate per 100 000	36.9
New* & relapses	1027
New* & relapses notification rate per 100 000	35.1
Pulmonary	829 (80.7%)
of which smear positive	-
of which laboratory confirmed	438 (52.8%)
Laboratory-confirmed TB cases	-
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)	818 (75.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	457 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	180-160-210
Pulmonary MDR TB cases notified	115 (25.2%)
of which XDR TB cases	6 (5.2%)
Notified MDR	128 -
of which XDR TB cases	29 -
TB cases tested for HIV	1027 (100.0%)
HIV-positive TB cases	57 (5.6%)
of these on antiretroviral therapy	57 (100.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

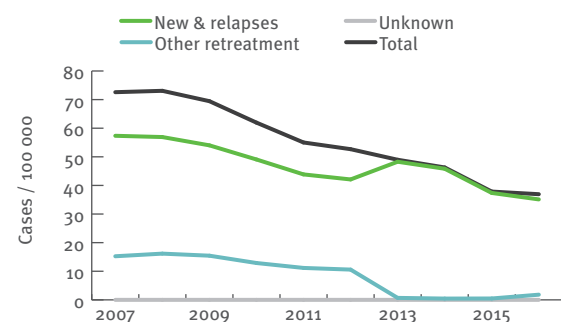
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2015*		All MDR TB cases enrolled into MDR treatment in 2014**	
Case-linked data reporting	Yes			
Cases notified	910		118	
Success	721 (79.2%)	68 (57.6%)		
Died	47 (5.2%)	8 (6.8%)		
Failed	11 (1.2%)	19 (16.1%)		
Lost to follow-up	131 (14.4%)	23 (19.5%)		
Not evaluated	0 (0.0%)	0 (0.0%)		

\* Treatment outcome as presented is treatment outcome after 12 months.

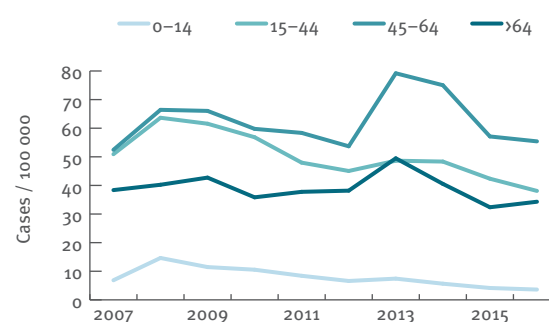
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



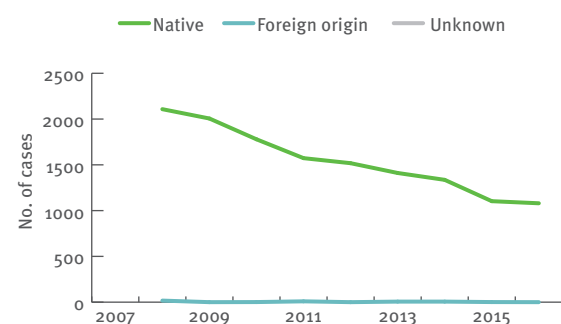
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

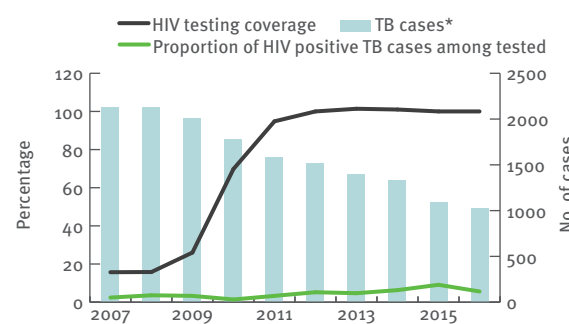


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

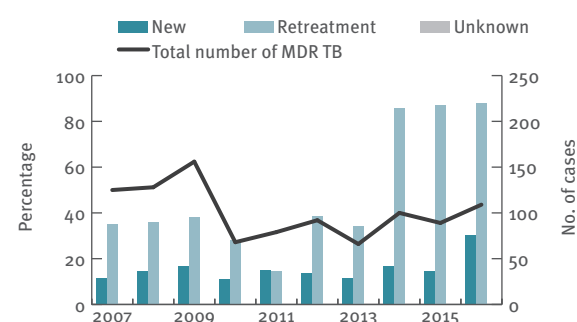


### TB-HIV co-infection, 2007-2016

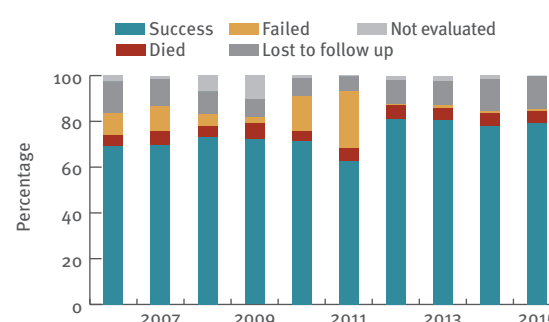


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Austria

Total population at 22 September 2017 by EUROSTAT: 8690 076

### Tuberculosis case notifications, 2016

Total number of cases	634
Notification rate per 100 000	7.3
New* & relapses	619
New* & relapses notification rate per 100 000	7.1
Pulmonary	483 (76.1%)
of which microscopy-positive	178 (36.9%)
of which laboratory confirmed	384 (79.5%)
Laboratory-confirmed TB cases	489 (77.0%)
Mean age of new native TB cases	57.3 years
Mean age of new foreign TB cases	33.5 years
Foreign origin of all TB cases	424 (66.8%)
New (not previously treated)	449 (70.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	473 (96.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	16-6-26
Pulmonary MDR TB cases notified	14 (3.7%)
of which XDR TB cases	2 (14.3%)
Notified MDR TB	16 (3.4%)
of which XDR TB cases	2 (12.5%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

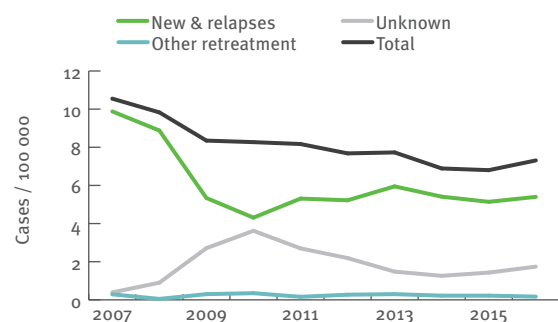
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	267		20	
Success	187 (70.0%)	13 (65.0%)		
Died	17 (6.4%)	0 (0.0%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	2 (0.7%)	1 (5.0%)		
Still on treatment	27 (10.1%)	1 (5.0%)		
Not evaluated	34 (12.7%)	5 (25.0%)		

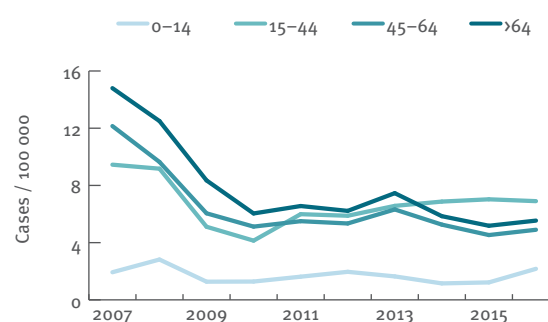
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

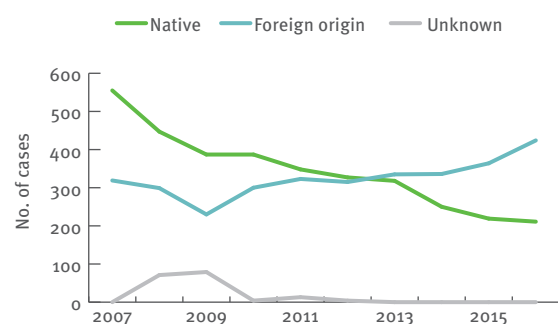
### Tuberculosis notification rates by treatment history, 2007-2016



### New and relapsed TB cases – notification rates by age group, 2007-2016



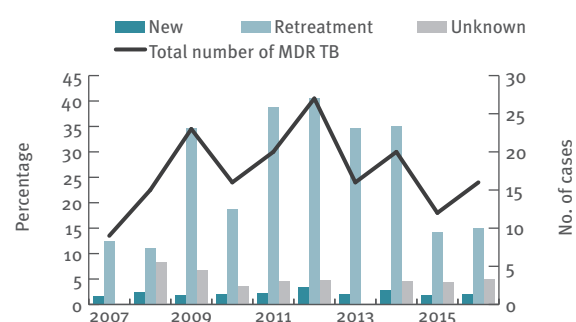
### Tuberculosis cases by geographical origin, 2007-2016



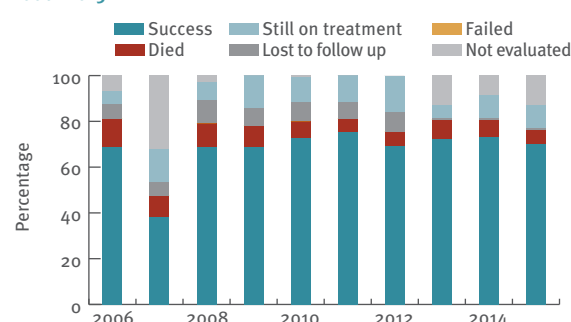
### TB-HIV co-infection, 2007-2016

Data not available

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Azerbaijan

Population estimate 2016 by UN Statistical Database: 9725376

### Tuberculosis case notifications, 2016

Total number of cases	6707
Notification rate per 100 000	69.0
New* & relapses	5159
New* & relapses notification rate per 100 000	53.0
Pulmonary	4122 (79.9%)
of which smear positive	-
of which laboratory confirmed	2529 (61.4%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	28.2 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	12 (0.2%)
New (not previously treated)	3793 (56.6%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2614 (103.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1500-1400-1600
Pulmonary MDR TB cases notified	777 (29.7%)
of which XDR TB cases	71 (13.3%)
Notified MDR	925 -
of which XDR TB cases	77 -
TB cases tested for HIV	4722 (91.5%)
HIV-positive TB cases	99 (2.1%)
of these on antiretroviral therapy	78 (78.8%)

\* National coverage 100% or culturing 90%. C+/All TB cases 50%. DST done for C+ 75%. EQA 95%.

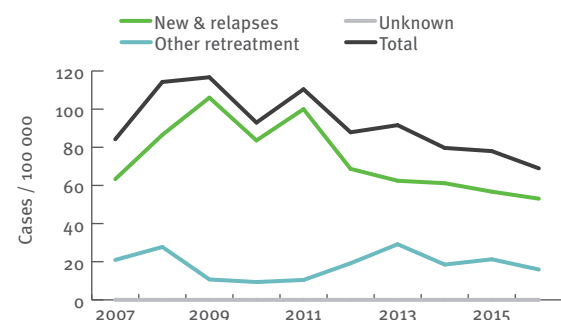
\*\* More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	Bacteriologically confirmed new TB cases in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	1475	745
Success	1221 (82.8%)	441 (59.2%)
Died	49 (3.3%)	127 (17.0%)
Failed	34 (2.3%)	135 (18.1%)
Lost to follow-up	132 (8.9%)	42 (5.6%)
Not evaluated	39 (2.6%)	0 (0.0%)

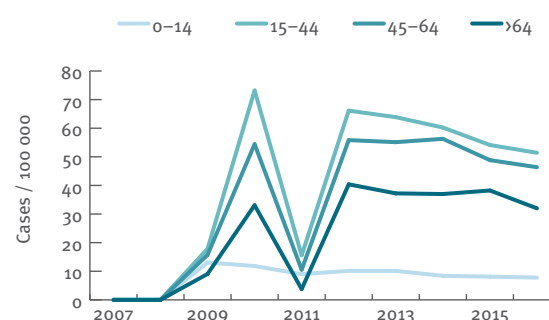
\* Treatment outcome as presented is treatment outcome after 12 months.  
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



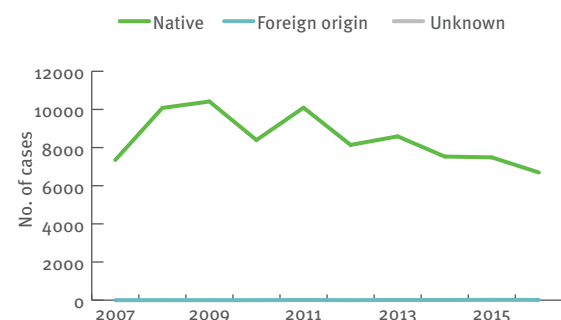
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

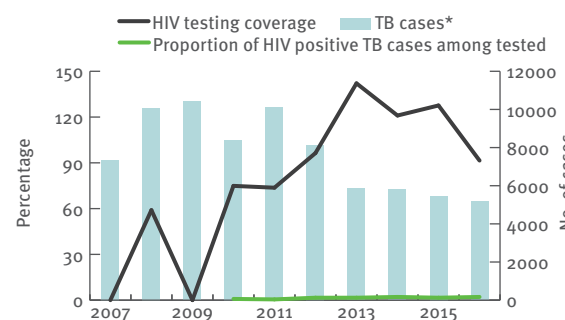


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

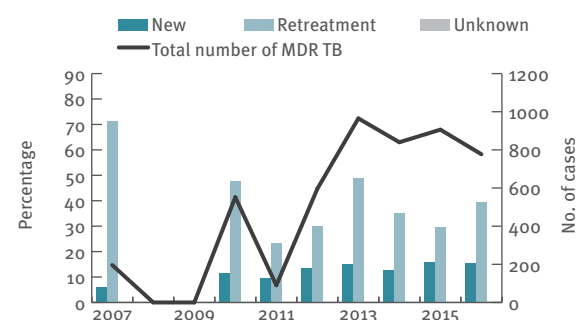


### TB-HIV co-infection, 2007-2016

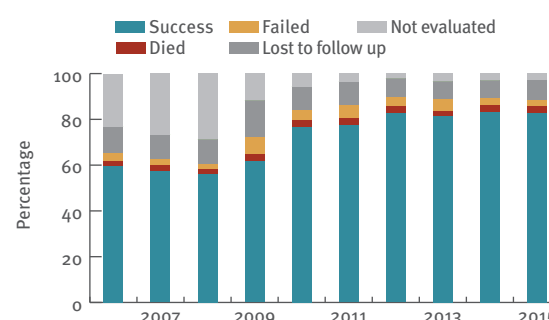


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome of new TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Belarus

Population estimate 2016 by UN Statistical Database: 9 480 042

### Tuberculosis case notifications, 2016

Total number of cases	3598
Notification rate per 100 000	38.0
New* & relapses	3211
New* & relapses notification rate per 100 000	33.9
Pulmonary	2964 (92.3%)
of which smear positive	-
of which laboratory confirmed	2350 (79.3%)
Laboratory-confirmed TB cases	-
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	0 (0.0%)
New (not previously treated)	2653 (73.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2555 (108.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1600-1500-1600
Pulmonary MDR TB cases notified	1222 (47.8%)
of which XDR TB cases	572 (46.8%)
Notified MDR	1543 -
of which XDR TB cases	572 -
TB cases tested for HIV	3148 (98.0%)
HIV-positive TB cases	275 (8.7%)
of these on antiretroviral therapy	229 (83.3%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

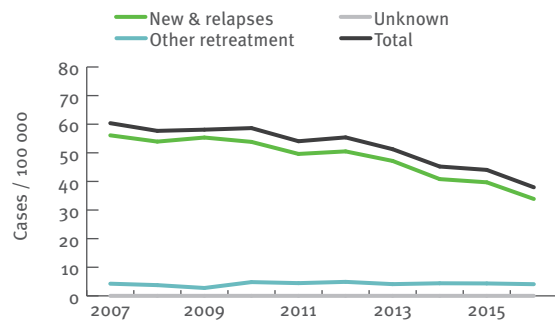
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2014*	All MDR TB cases enrolled into MDR treatment in 2013**
Case-linked data reporting	Yes	
Cases notified	2525	1472
Success	2243 (88.8%)	872 (59.2%)
Died	76 (3.0%)	126 (8.6%)
Failed	72 (2.9%)	289 (19.6%)
Lost to follow-up	77 (3.0%)	181 (12.3%)
Not evaluated	57 (2.3%)	4 (0.3%)

\* Treatment outcome as presented is treatment outcome after 12 months.

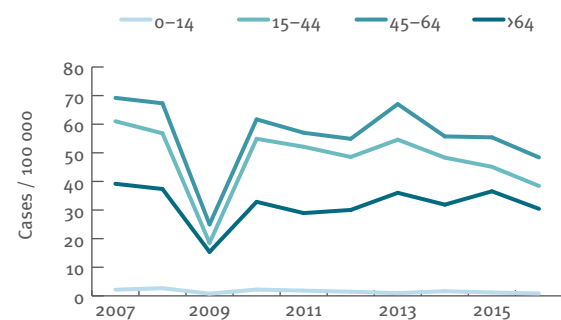
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



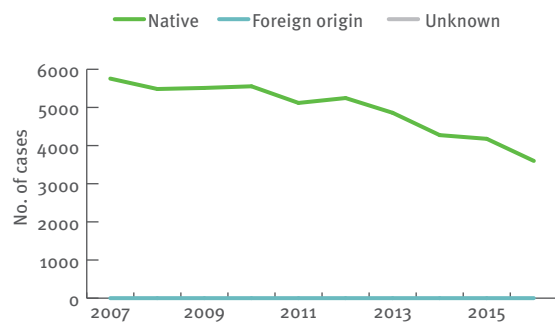
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases - notification rates by age group, 2007-2016\*

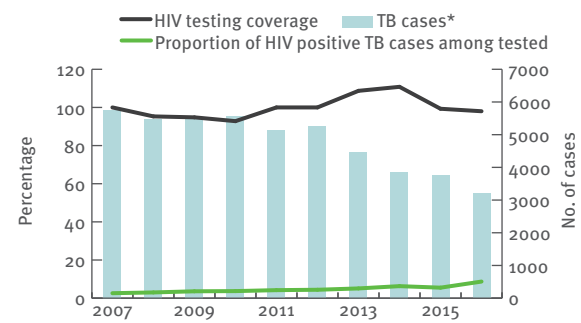


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

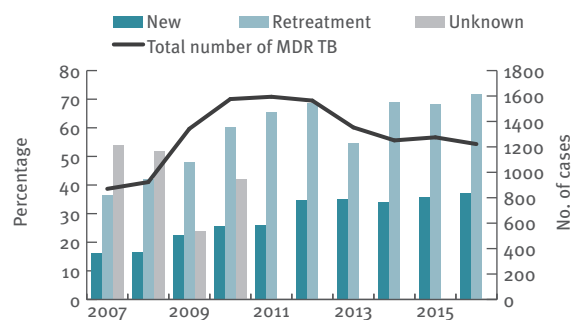


### TB-HIV co-infection, 2007-2016

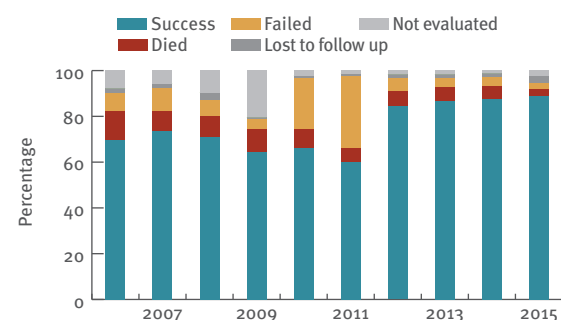


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Belgium

Total population at 22 September 2017 by EUROSTAT: 1131117

### Tuberculosis case notifications, 2016

Total number of cases	1047
Notification rate per 100 000	9.3
New* & relapses	986
New* & relapses notification rate per 100 000	8.7
Pulmonary	715 (68.3%)
of which microscopy-positive	331 (46.3%)
of which laboratory confirmed	593 (82.9%)
Laboratory-confirmed TB cases	801 (76.5%)
Mean age of new native TB cases	45.2 years
Mean age of new foreign TB cases	35.5 years
Foreign origin of all TB cases	547 (52.2%)
New (not previously treated)	757 (72.3%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	769 (96.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	16-6-26
Pulmonary MDR TB cases notified	9 (1.6%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	10 (1.3%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	479 (45.7%)
HIV-positive TB cases	33 (6.9%)
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

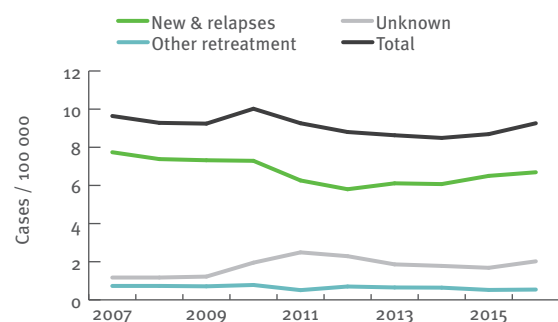
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	422		11	
Success	351 (79.4%)	6 (54.5%)		
Died	34 (7.7%)	1 (9.1%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	33 (7.5%)	0 (0.0%)		
Still on treatment	12 (2.7%)	4 (36.4%)		
Not evaluated	12 (2.7%)	0 (0.0%)		

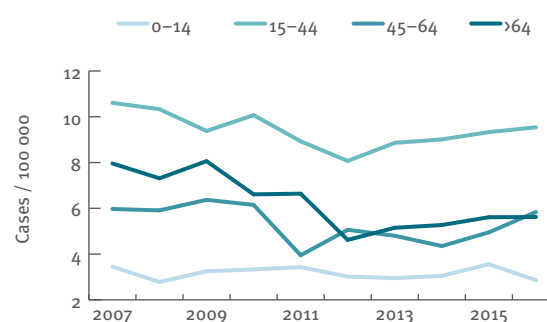
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

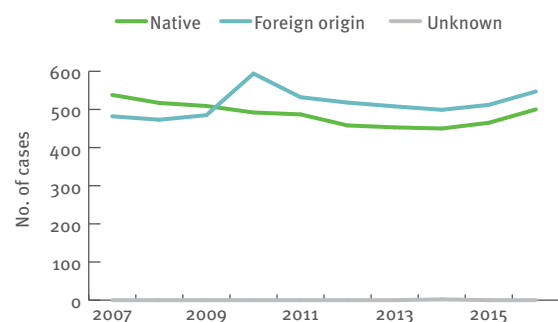
### Tuberculosis notification rates by treatment history, 2007-2016



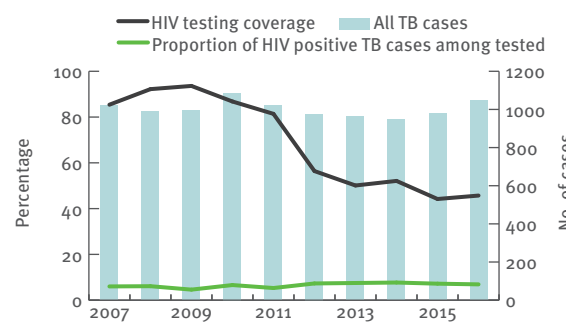
### New and relapsed TB cases – notification rates by age group, 2007-2016



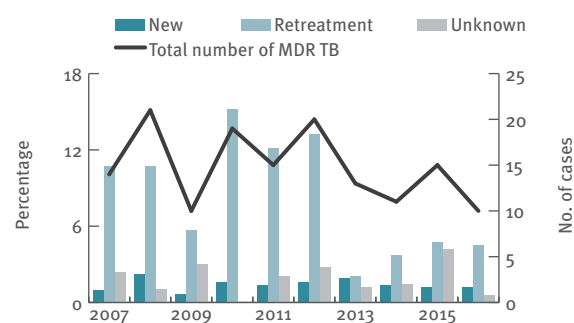
### Tuberculosis cases by geographical origin, 2007-2016



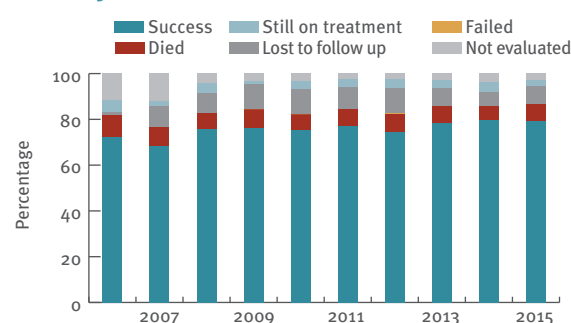
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015





# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Bosnia and Herzegovina

Population estimate 2016 by UN Statistical Database: 3 516 816

### Tuberculosis case notifications, 2016

Total number of cases	907
Notification rate per 100 000	25.8
New* & relapses	907
New* & relapses notification rate per 100 000	25.8
Pulmonary	792 (87.3%)
of which smear positive	-
of which laboratory confirmed	597 (75.4%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	40.0 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	829 (91.4%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	597 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0
Notified MDR	0
of which XDR TB cases	0
TB cases tested for HIV	1 (0.1%)
HIV-positive TB cases	1 (100.0%)
of these on antiretroviral therapy	1 (100.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

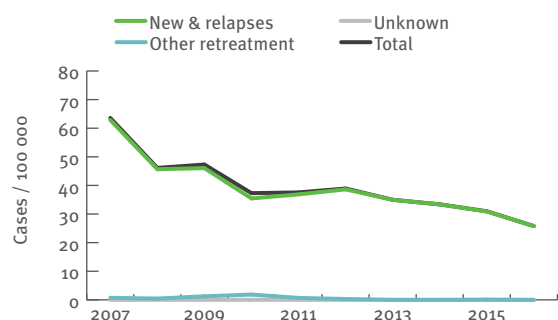
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	1092	3
Success	707 (64.7%)	2 (66.7%)
Died	84 (7.7%)	1 (33.3%)
Failed	19 (1.7%)	0 (0.0%)
Lost to follow-up	2 (0.2%)	0 (0.0%)
Not evaluated	280 (25.6%)	0 (0.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

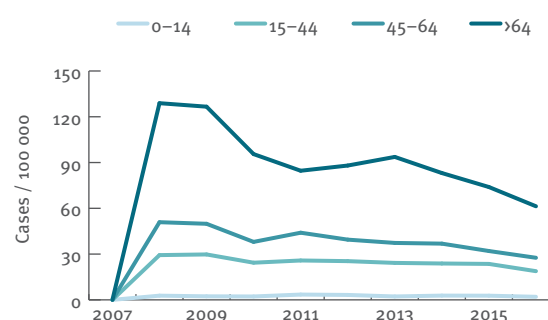
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007–2016\*



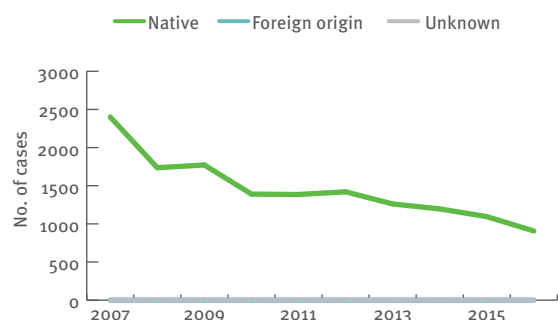
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007–2016\*

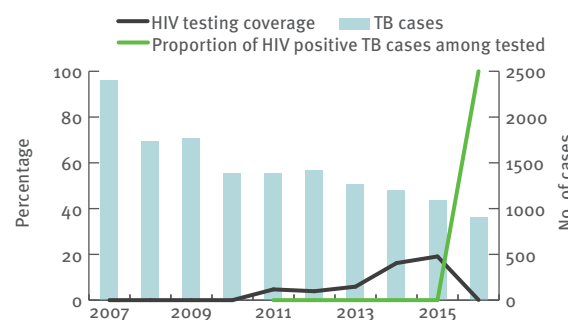


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007–2016

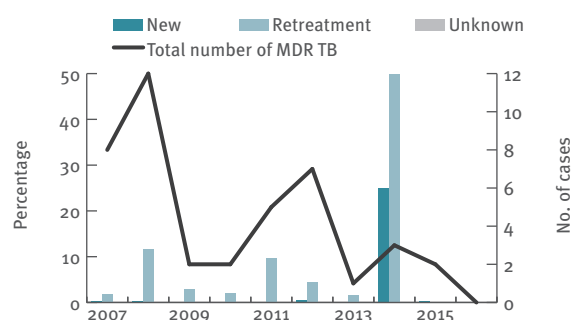


### TB-HIV co-infection, 2007–2016

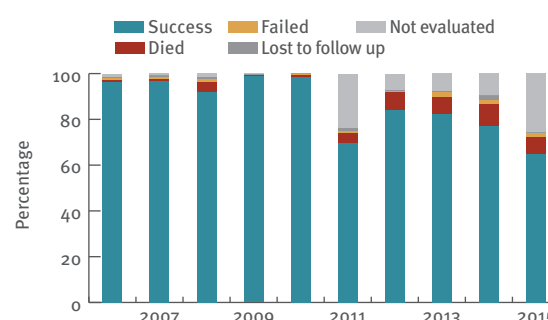


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new and relapsed TB cases, 2006–2015\*





# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Bulgaria

Total population at 22 September 2017 by EUROSTAT: 7153784

### Tuberculosis case notifications, 2016

Total number of cases	1603
Notification rate per 100 000	22.4
New* & relapses	1525
New* & relapses notification rate per 100 000	21.3
Pulmonary	1186 (74.0%)
of which microscopy-positive	618 (52.1%)
of which laboratory confirmed	745 (62.8%)
Laboratory-confirmed TB cases	764 (47.7%)
Mean age of new native TB cases	46.1 years
Mean age of new foreign TB cases	26.0 years
Foreign origin of all TB cases	4 (0.2%)
New (not previously treated)	1416 (88.3%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	670 (87.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	44-27-61
Pulmonary MDR TB cases notified	19 (2.9%)
of which XDR TB cases	0 (0.0%)
Notified MDR	19 (2.8%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	1260 (78.6%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

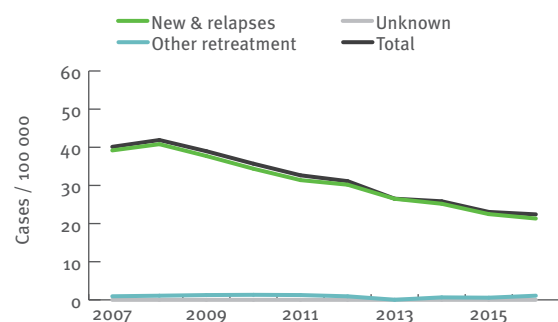
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	663		37	
Success	574 (86.6%)	18 (48.6%)		
Died	56 (8.4%)	12 (32.4%)		
Failed	10 (1.5%)	0 (0.0%)		
Lost to follow-up	18 (2.7%)	5 (13.5%)		
Still on treatment	2 (0.3%)	0 (0.0%)		
Not evaluated	3 (0.5%)	2 (5.4%)		

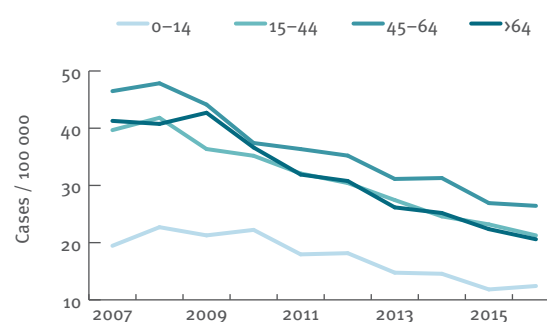
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

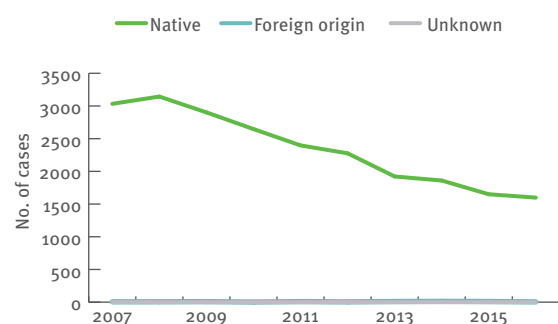
### Tuberculosis notification rates by treatment history, 2007-2016



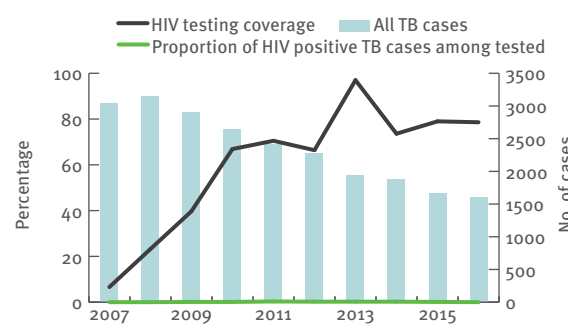
### New and relapsed TB cases – notification rates by age group, 2007-2016



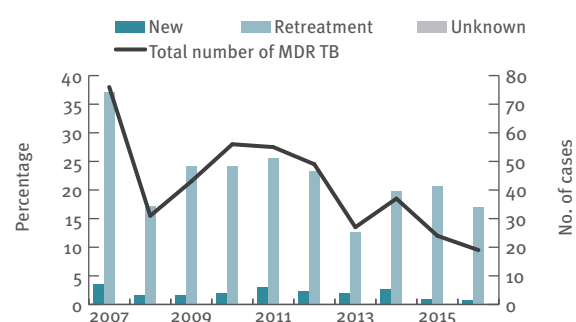
### Tuberculosis cases by geographical origin, 2007-2016



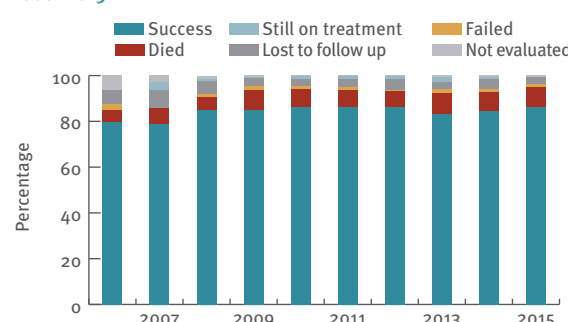
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Croatia

Total population at 22 September 2017 by EUROSTAT: 4190 669

### Tuberculosis case notifications, 2016

Total number of cases	460
Notification rate per 100 000	11.0
New* & relapses	449
New* & relapses notification rate per 100 000	10.7
Pulmonary	307 (66.7%)
of which microscopy-positive	0 (0.0%)
of which laboratory confirmed	193 (62.9%)
Laboratory-confirmed TB cases	262 (57.0%)
Mean age of new native TB cases	52.5 years
Mean age of new foreign TB cases	66.3 years
Foreign origin of all TB cases	3 (0.7%)
New (not previously treated)	293 (63.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	262 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 -
Notified MDR	0 (0.0%)
of which XDR TB cases	0 -
TB cases tested for HIV	- -
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

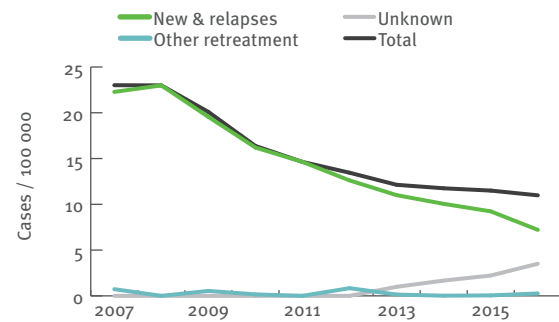
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	280		2	
Success	35 (12.5%)	0 (0.0%)		
Died	28 (10.0%)	1 (50.0%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	0 (0.0%)	0 (0.0%)		
Still on treatment	1 (0.4%)	0 (0.0%)		
Not evaluated	216 (77.1%)	1 (50.0%)		

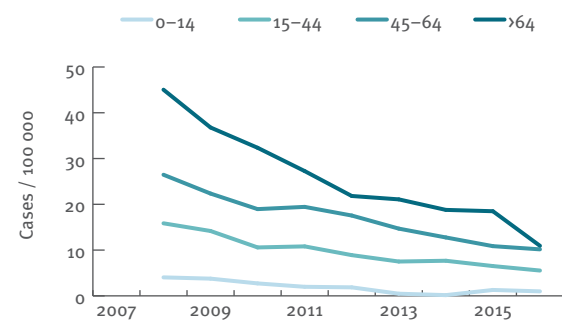
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

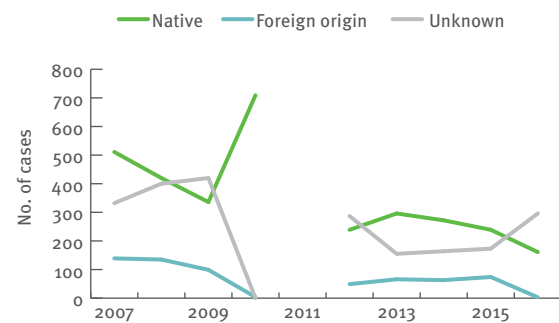
### Tuberculosis notification rates by treatment history, 2007–2016



### New and relapsed TB cases – notification rates by age group, 2007–2016



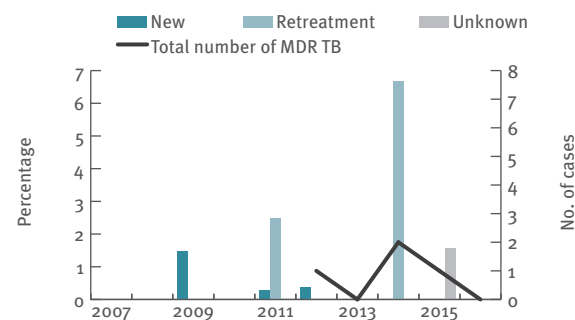
### Tuberculosis cases by geographical origin, 2007–2016



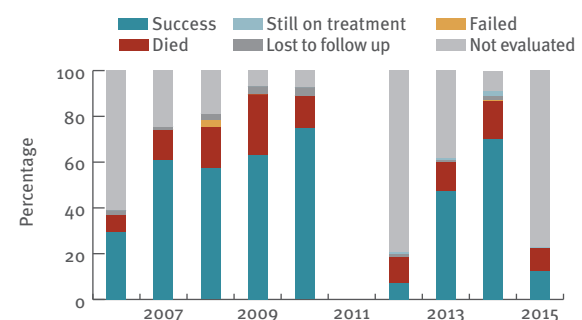
### TB-HIV co-infection, 2007–2016

Data not available

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Cyprus

Total population at 22 September 2017 by EUROSTAT: 848 319

### Tuberculosis case notifications, 2016

Total number of cases	60
Notification rate per 100 000	7.1
New* & relapses	57
New* & relapses notification rate per 100 000	6.7
Pulmonary	51 (85.0%)
of which microscopy-positive	23 (45.1%)
of which laboratory confirmed	39 (76.5%)
Laboratory-confirmed TB cases	42 (70.0%)
Mean age of new native TB cases	37.3 years
Mean age of new foreign TB cases	36.9 years
Foreign origin of all TB cases	56 (93.3%)
New (not previously treated)	55 (91.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	41 (97.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 -
Notified MDR	1 (2.4%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	48 (80.0%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

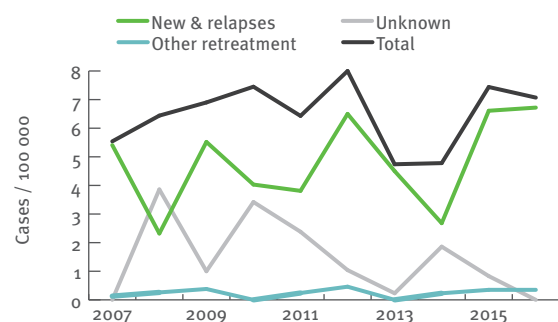
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	34		0	
Success	18 (52.9%)	0 (0.0%)		
Died	3 (8.8%)	0 (0.0%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	2 (5.9%)	0 (0.0%)		
Still on treatment	2 (5.9%)	0 (0.0%)		
Not evaluated	9 (26.5%)	0 (0.0%)		

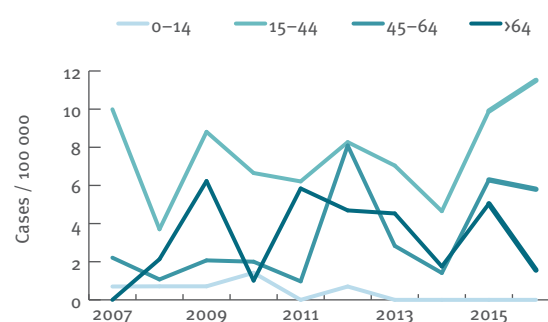
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

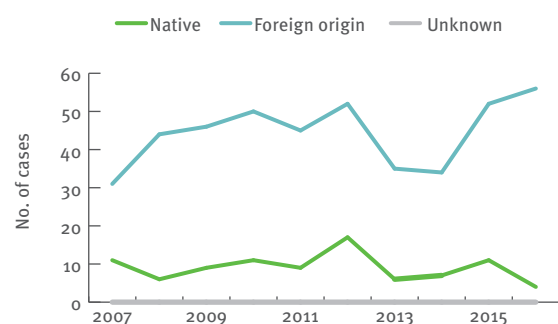
### Tuberculosis notification rates by treatment history, 2007–2016



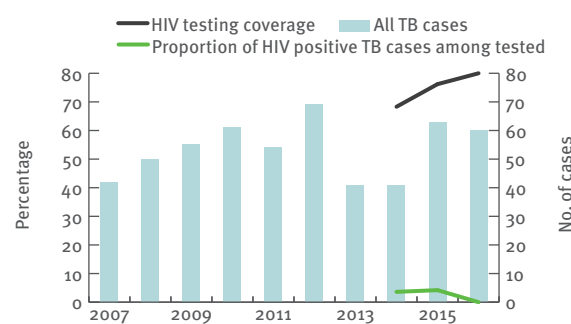
### New and relapsed TB cases – notification rates by age group, 2007–2016



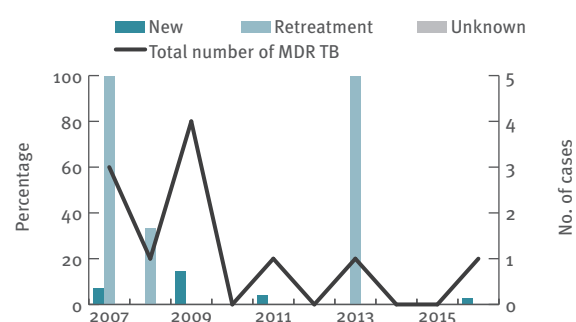
### Tuberculosis cases by geographical origin, 2007–2016



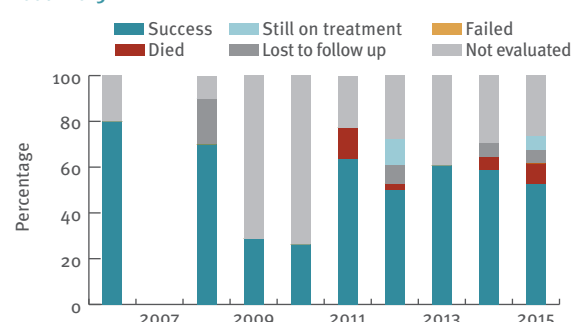
### TB-HIV co-infection, 2007–2016



### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Czech Republic

Total population at 22 September 2017 by EUROSTAT: 10538275

### Tuberculosis case notifications, 2016

Total number of cases	516
Notification rate per 100 000	4.9
New* & relapses	511
New* & relapses notification rate per 100 000	4.8
Pulmonary	446 (86.4%)
of which microscopy-positive	212 (47.5%)
of which laboratory confirmed	349 (78.3%)
Laboratory-confirmed TB cases	392 (76.0%)
Mean age of new native TB cases	55.7 years
Mean age of new foreign TB cases	39.7 years
Foreign origin of all TB cases	151 (29.3%)
New (not previously treated)	490 (95.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	367 (93.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	13-3-22
Pulmonary MDR TB cases notified	6 (1.8%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	6 (1.6%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	205 (39.7%)
HIV-positive TB cases	5 (2.4%)
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

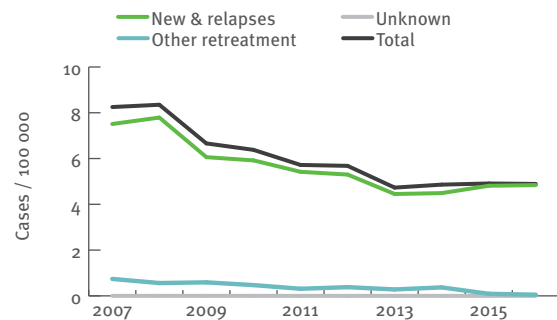
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	332		5	
Success	222 (66.9%)	2 (40.0%)		
Died	72 (21.7%)	0 (0.0%)		
Failed	2 (0.6%)	0 (0.0%)		
Lost to follow-up	15 (4.5%)	1 (20.0%)		
Still on treatment	12 (3.6%)	0 (0.0%)		
Not evaluated	9 (2.7%)	2 (40.0%)		

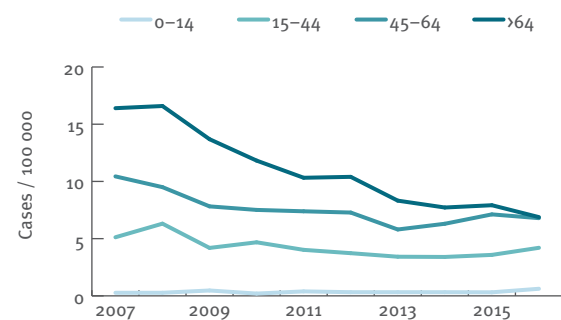
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

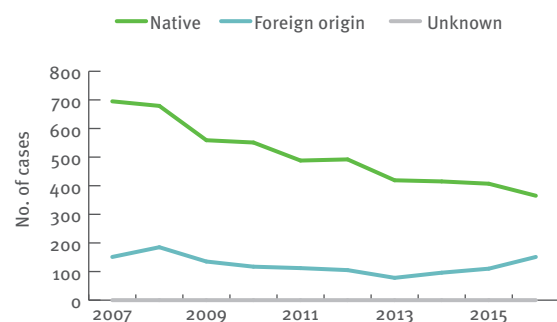
### Tuberculosis notification rates by treatment history, 2007-2016



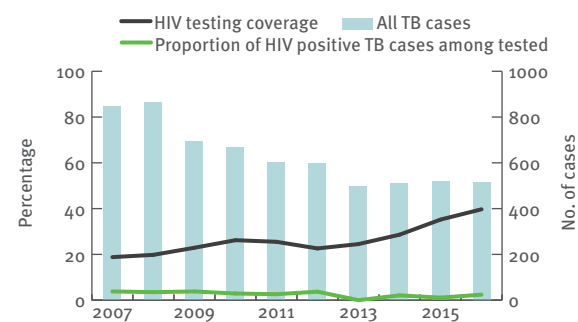
### New and relapsed TB cases – notification rates by age group, 2007-2016



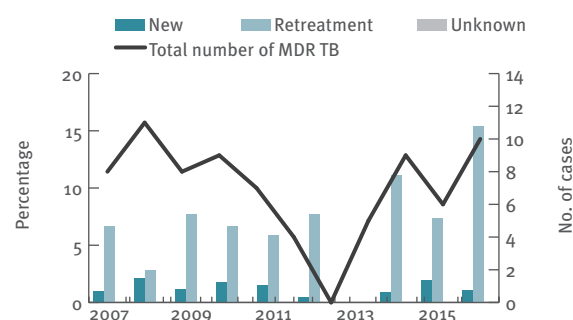
### Tuberculosis cases by geographical origin, 2007-2016



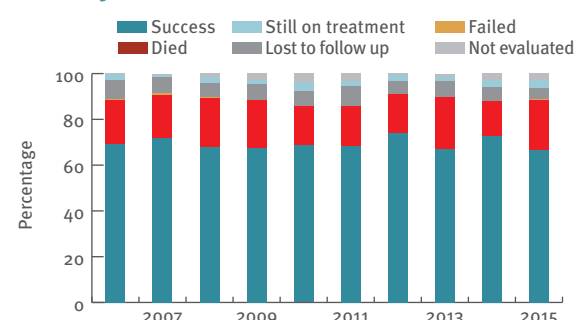
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Denmark

Total population at 22 September 2017 by EUROSTAT: 5 659 715

### Tuberculosis case notifications, 2016

Total number of cases	330
Notification rate per 100 000	5.8
New* & relapses	292
New* & relapses notification rate per 100 000	5.2
Pulmonary	262 (79.4%)
of which microscopy-positive	122 (46.6%)
of which laboratory confirmed	208 (79.4%)
Laboratory-confirmed TB cases	258 (78.2%)
Mean age of new native TB cases	44.7 years
Mean age of new foreign TB cases	38.0 years
Foreign origin of all TB cases	221 (67.0%)
New (not previously treated)	292 (88.5%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	252 (97.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1-0-4
Pulmonary MDR TB cases notified	3 (1.5%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	4 (1.6%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	150 (45.5%)
HIV-positive TB cases	9 (6.0%)
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

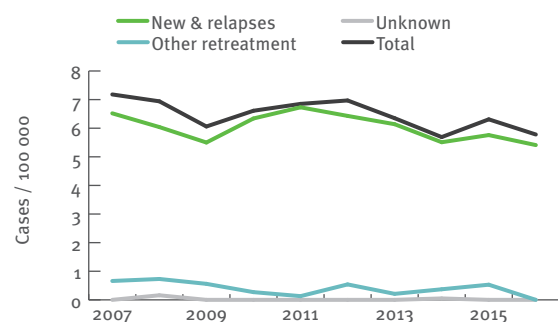
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	209		2	
Success	100 (47.8%)	1 (50.0%)		
Died	8 (3.8%)	0 (0.0%)		
Failed	6 (2.9%)	0 (0.0%)		
Lost to follow-up	1 (0.5%)	0 (0.0%)		
Still on treatment	8 (3.8%)	0 (0.0%)		
Not evaluated	86 (41.1%)	1 (50.0%)		

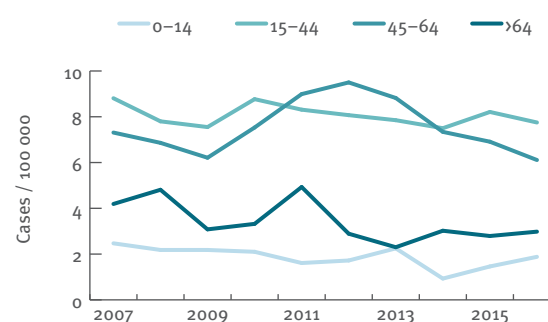
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

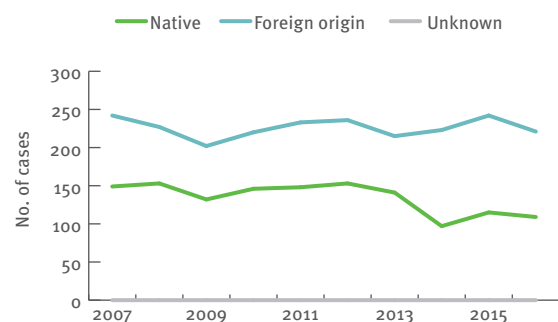
### Tuberculosis notification rates by treatment history, 2007-2016



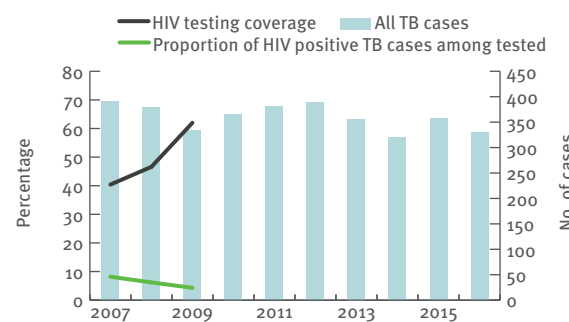
### New and relapsed TB cases – notification rates by age group, 2007-2016



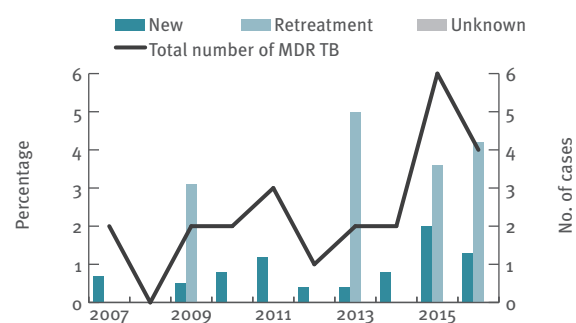
### Tuberculosis cases by geographical origin, 2007-2016



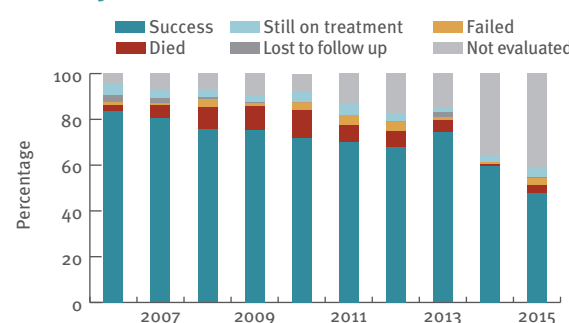
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Estonia

Total population at 22 September 2017 by EUROSTAT: 1315944

### Tuberculosis case notifications, 2016

Total number of cases	192
Notification rate per 100 000	14.6
New* & relapses	188
New* & relapses notification rate per 100 000	14.3
Pulmonary	177 (92.2%)
of which microscopy-positive	90 (50.8%)
of which laboratory confirmed	149 (84.2%)
Laboratory-confirmed TB cases	156 (81.3%)
Mean age of new native TB cases	50.2 years
Mean age of new foreign TB cases	61.2 years
Foreign origin of all TB cases	42 (21.9%)
New (not previously treated)	167 (87.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	152 (97.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	34-23-45
Pulmonary MDR TB cases notified	23 (15.9%)
of which XDR TB cases	7 (30.4%)
Notified MDR TB	24 (15.8%)
of which XDR TB cases	7 (29.2%)
TB cases tested for HIV	184 (95.8%)
HIV-positive TB cases	22 (12.0%)
of these on antiretroviral therapy	20 (90.9%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

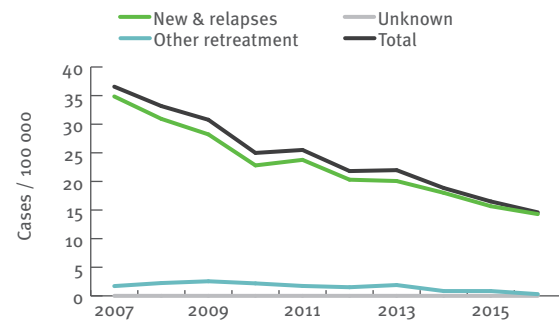
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	133		50	
Success	98 (73.7%)	29 (58.0%)		
Died	20 (15.0%)	10 (20.0%)		
Failed	0 (0.0%)	3 (6.0%)		
Lost to follow-up	3 (2.3%)	3 (6.0%)		
Still on treatment	11 (8.3%)	3 (6.0%)		
Not evaluated	1 (0.8%)	2 (4.0%)		

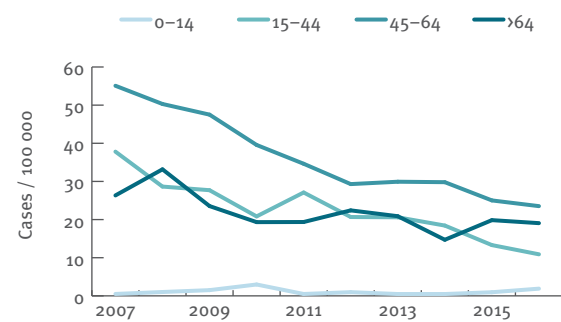
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

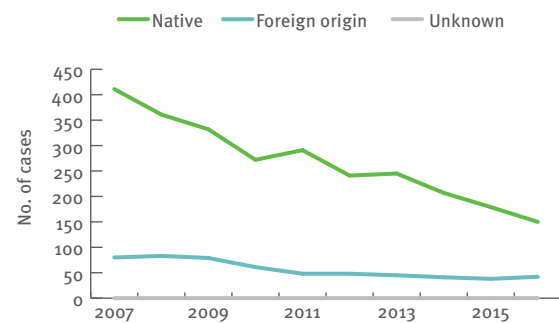
### Tuberculosis notification rates by treatment history, 2007-2016



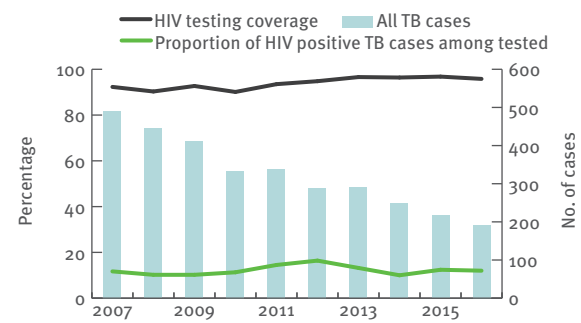
### New and relapsed TB cases – notification rates by age group, 2007-2016



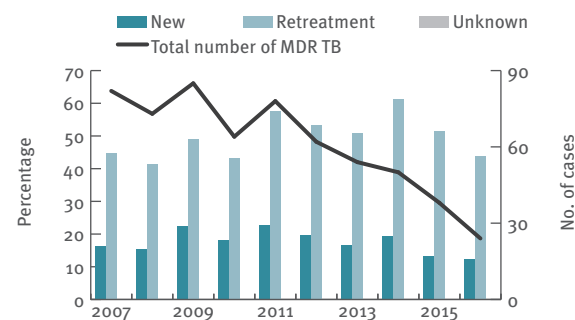
### Tuberculosis cases by geographical origin, 2007-2016



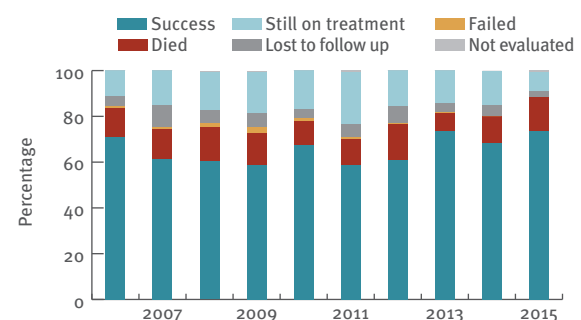
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Finland

Total population at 22 September 2017 by EUROSTAT: 5,487,308

### Tuberculosis case notifications, 2016

Total number of cases	236
Notification rate per 100 000	4.3
New* & relapses	225
New* & relapses notification rate per 100 000	4.1
Pulmonary	175 (74.2%)
of which microscopy-positive	55 (31.4%)
of which laboratory confirmed	136 (77.7%)
Laboratory-confirmed TB cases	186 (78.8%)
Mean age of new native TB cases	67.4 years
Mean age of new foreign TB cases	33.4 years
Foreign origin of all TB cases	111 (47.0%)
New (not previously treated)	219 (92.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	183 (98.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	3-0-6
Pulmonary MDR TB cases notified	3 (2.2%)
of which XDR TB cases	1 (33.3%)
Notified MDR TB	6 (3.3%)
of which XDR TB cases	1 (16.7%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

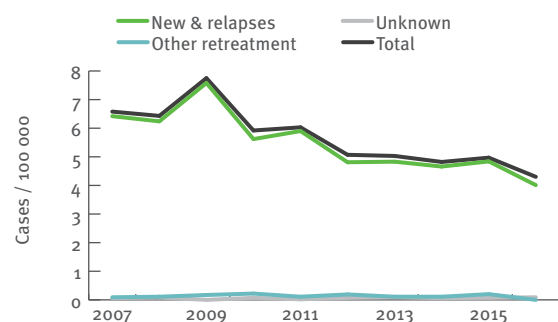
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	161		8	
Success	86 (53.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Died	14 (8.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Lost to follow-up	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Still on treatment	2 (1.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Not evaluated	59 (36.6%)	8 (100.0%)	0 (0.0%)	0 (0.0%)

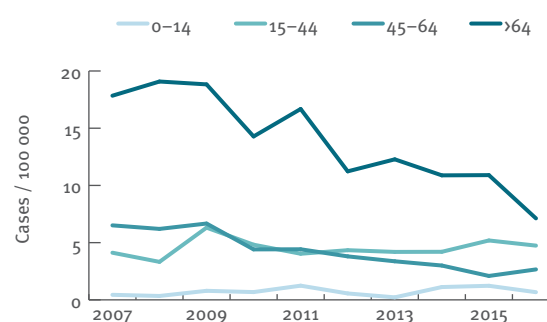
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

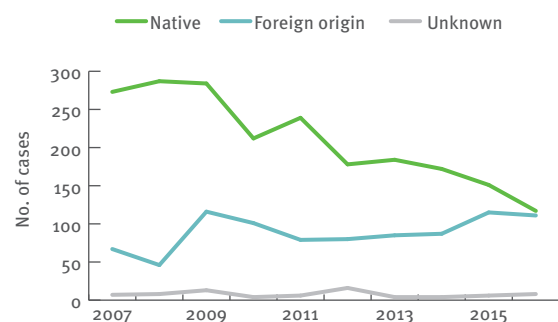
### Tuberculosis notification rates by treatment history, 2007-2016



### New and relapsed TB cases – notification rates by age group, 2007-2016



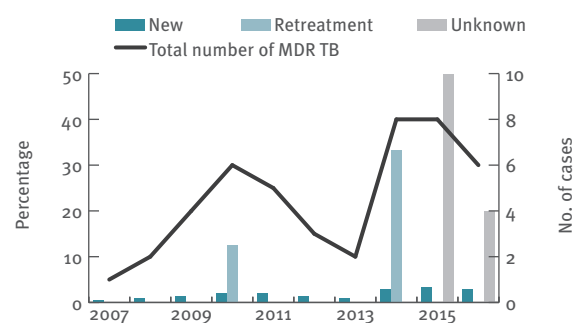
### Tuberculosis cases by geographical origin, 2007-2016



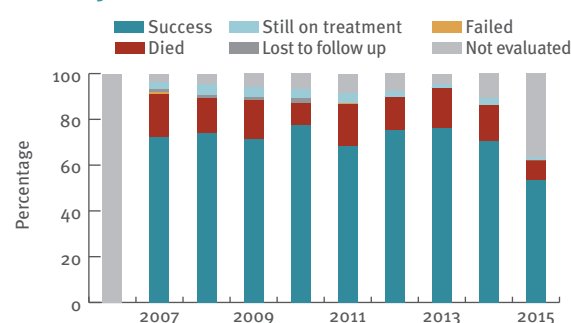
### TB-HIV co-infection, 2007-2016

Data not available

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015





# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## former Yugoslav Republic of Macedonia, the

Population estimate 2016 by UN Statistical Database: 2 081 206

### Tuberculosis case notifications, 2016

Total number of cases	267
Notification rate per 100 000	12.8
New* & relapses	263
New* & relapses notification rate per 100 000	12.6
Pulmonary	211 (80.2%)
of which smear positive	-
of which laboratory confirmed	178 (84.4%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.3 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	8 (3.0%)
New (not previously treated)	243 (91.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	143 (80.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	3-0-6
Pulmonary MDR TB cases notified	2 (1.4%)
of which XDR TB cases	0 (0.0%)
Notified MDR	2 -
of which XDR TB cases	0 -
TB cases tested for HIV	207 (78.7%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

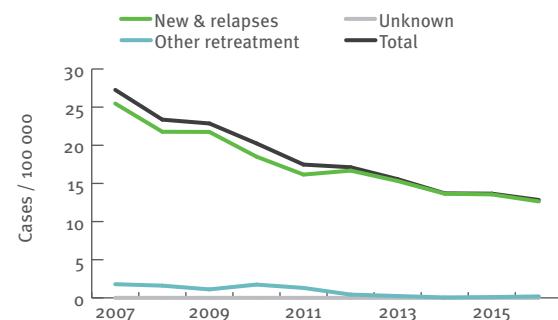
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	282	3
Success	243 (86.2%)	1 (33.3%)
Died	25 (8.9%)	0 (0.0%)
Failed	3 (1.1%)	0 (0.0%)
Lost to follow-up	7 (2.5%)	2 (66.7%)
Not evaluated	4 (1.4%)	0 (0.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

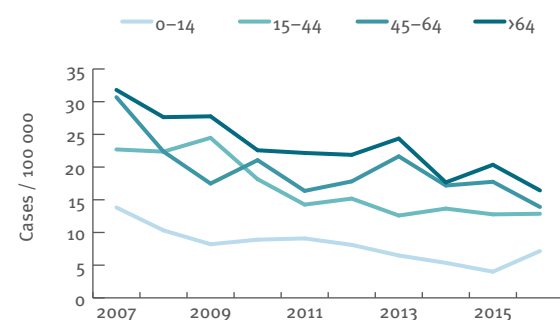
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



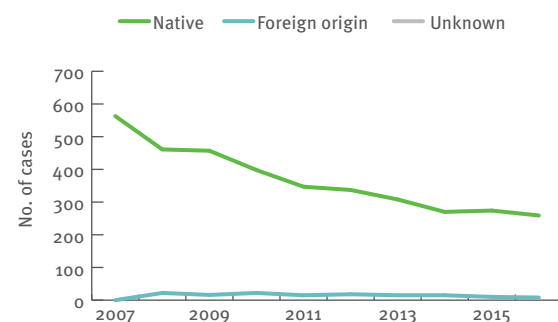
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

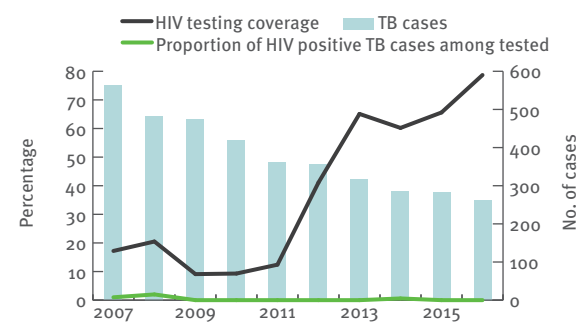


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

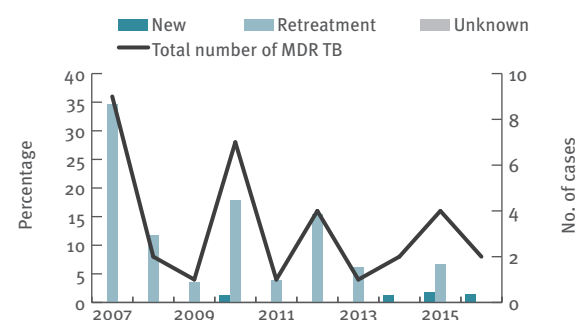


### TB-HIV co-infection, 2007-2016

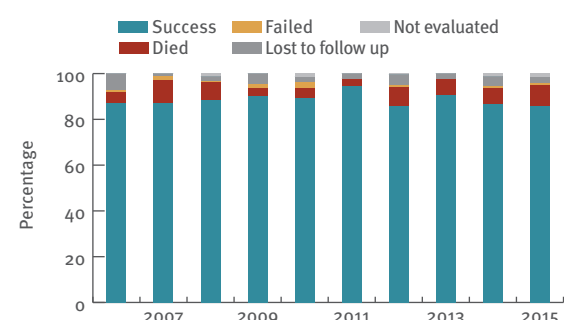


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## France

Total population at 22 September 2017 by EUROSTAT: 66 488 186

### Tuberculosis case notifications, 2016

Total number of cases	4 958
Notification rate per 100 000	7.5
New* & relapses	4 675
New* & relapses notification rate per 100 000	7.0
Pulmonary	3 319 (66.9%)
of which microscopy-positive	-
of which laboratory confirmed	3 120 (94.0%)
Laboratory-confirmed TB cases	4 197 (84.7%)
Mean age of new native TB cases	. years
Mean age of new foreign TB cases	. years
Foreign origin of all TB cases	2 758 (55.6%)
New (not previously treated)	-

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	No
Cases with DST results	4 197 (84.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	63-47-79
Pulmonary MDR TB cases notified	51 (1.6%)
of which XDR TB cases	6 (11.8%)
Notified MDR TB	69
of which XDR TB cases	6 (6.3%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

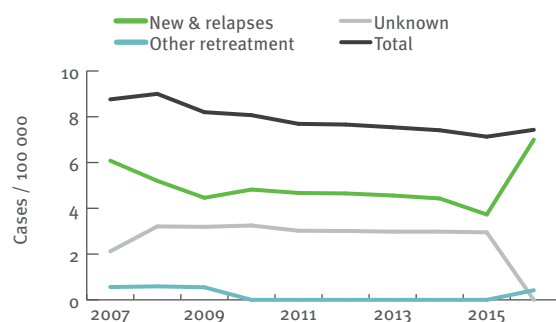
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

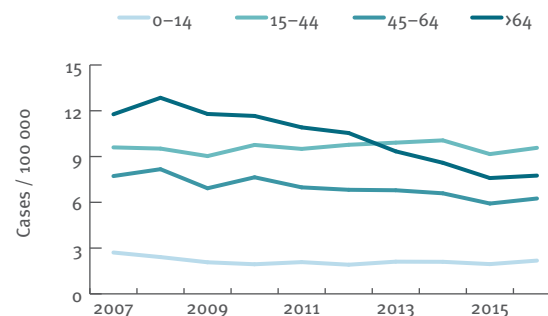
### Treatment outcome monitoring

Data not available

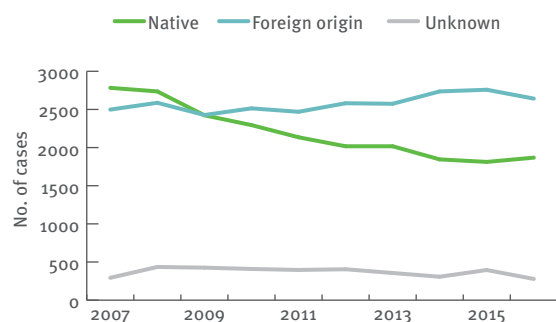
### Tuberculosis notification rates by treatment history, 2007-2016



### New and relapsed TB cases – notification rates by age group, 2007-2016



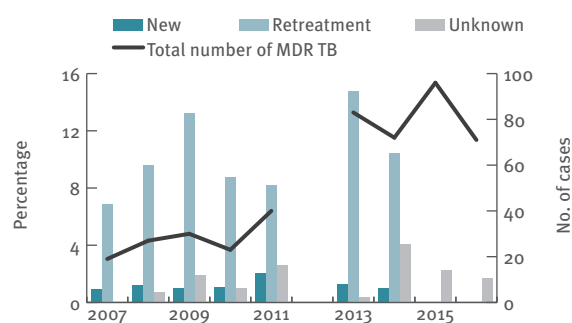
### Tuberculosis cases by geographical origin, 2007-2016



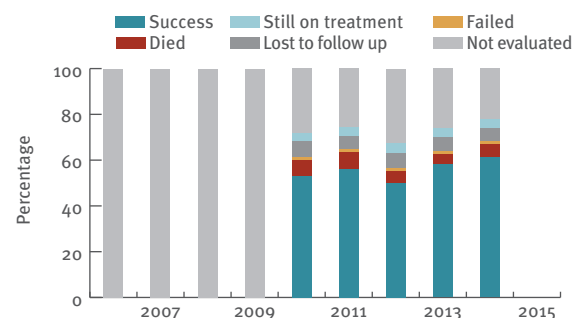
### TB-HIV co-infection, 2007-2016

Data not available

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Georgia

Population estimate 2016 by UN Statistical Database: 3925405

### Tuberculosis case notifications, 2016

Total number of cases	3330
Notification rate per 100 000	84.8
New* & relapses	2983
New* & relapses notification rate per 100 000	76.0
Pulmonary	2371 (79.5%)
of which smear positive	-
of which laboratory confirmed	1998 (84.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	42.2 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	2463 (74.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1791 (89.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	460-420-500
Pulmonary MDR TB cases notified	296 (16.5%)
of which XDR TB cases	52 (17.6%)
Notified MDR	401 -
of which XDR TB cases	56 -
TB cases tested for HIV	2866 (96.1%)
HIV-positive TB cases	61 (2.1%)
of these on antiretroviral therapy	56 (91.8%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

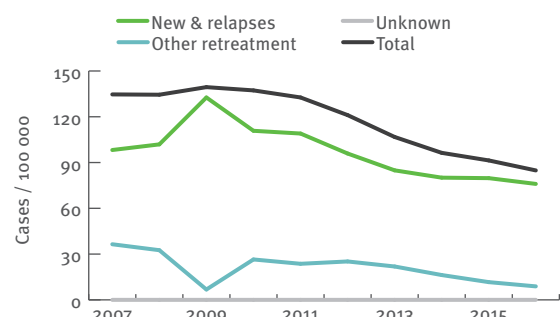
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	2841	411
Success	2386 (84.0%)	201 (48.9%)
Died	110 (3.9%)	32 (7.8%)
Failed	60 (2.1%)	27 (6.6%)
Lost to follow-up	225 (7.9%)	118 (28.7%)
Not evaluated	60 (2.1%)	33 (8.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

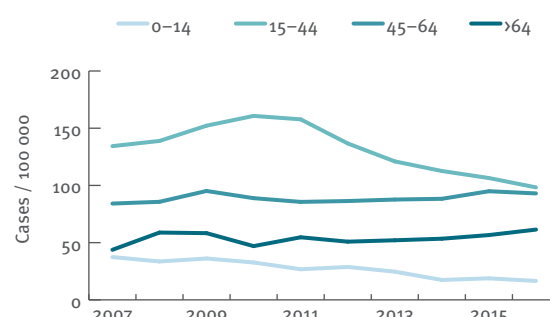
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



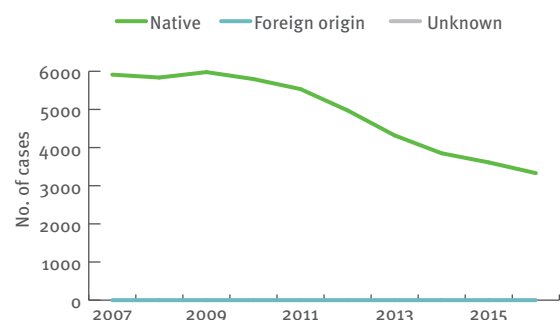
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New TB cases - notification rates by age group, 2007-2016\*

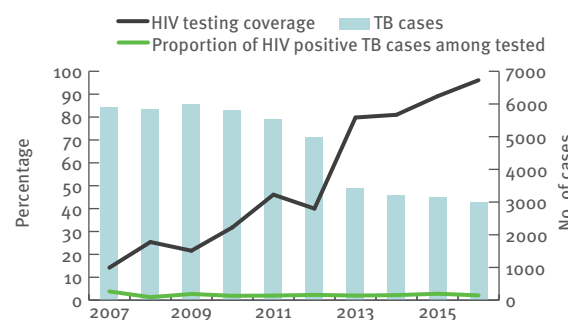


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

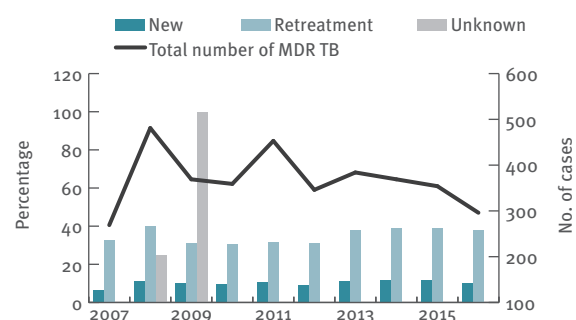


### TB-HIV co-infection, 2007-2016

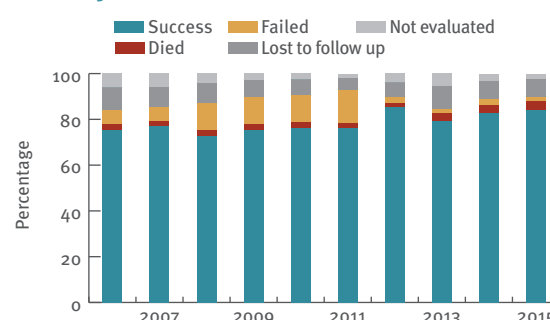


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Germany

Total population at 22 September 2017 by EUROSTAT: 82175 684

### Tuberculosis case notifications, 2016

Total number of cases	5915
Notification rate per 100 000	7.2
New* & relapses	5737
New* & relapses notification rate per 100 000	7.0
Pulmonary	4397 (74.3%)
of which microscopy-positive	1404 (31.9%)
of which laboratory confirmed	3253 (74.0%)
Laboratory-confirmed TB cases	4164 (70.4%)
Mean age of new native TB cases	62.4 years
Mean age of new foreign TB cases	35.7 years
Foreign origin of all TB cases	4125 (69.7%)
New (not previously treated)	5589 (94.5%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	3757 (90.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	160240
Pulmonary MDR TB cases notified	90 (3.0%)
of which XDR TB cases	5 (8.6%)
Notified MDR TB	101 (2.7%)
of which XDR TB cases	5 (7.8%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

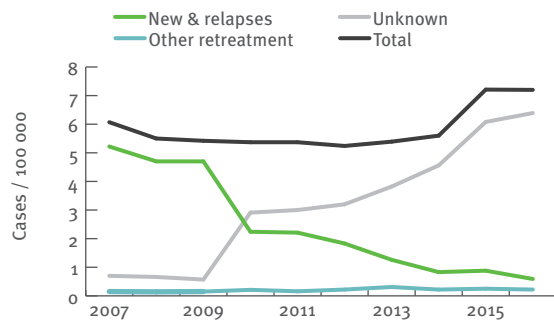
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	312	92
Success	176 (56.4%)	29 (31.5%)
Died	29 (9.3%)	9 (9.8%)
Failed	0 (0.0%)	1 (1.1%)
Lost to follow-up	4 (1.3%)	3 (3.3%)
Still on treatment	32 (10.3%)	12 (13.0%)
Not evaluated	71 (22.8%)	38 (41.3%)

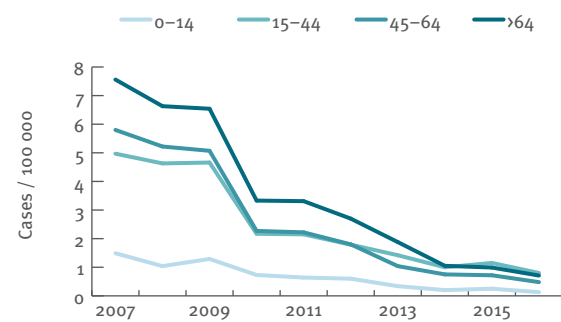
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

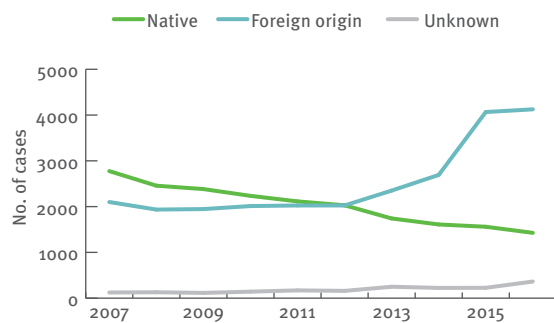
### Tuberculosis notification rates by treatment history, 2007–2016



### New and relapsed TB cases – notification rates by age group, 2007–2016



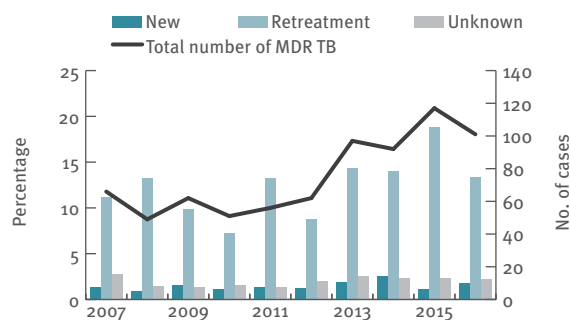
### Tuberculosis cases by geographical origin, 2007–2016



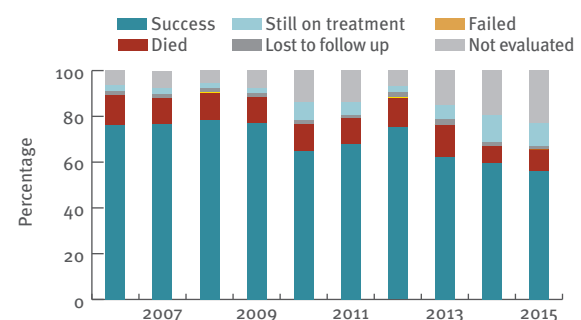
### TB-HIV co-infection, 2007–2016

Data not available

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Greece

Total population at 22 September 2017 by EUROSTAT: 10 783 748

### Tuberculosis case notifications, 2016

Total number of cases	443
Notification rate per 100 000	4.1
New* & relapses	407
New* & relapses notification rate per 100 000	3.8
Pulmonary	394 (88.9%)
of which microscopy-positive	223 (56.6%)
of which laboratory confirmed	227 (57.6%)
Laboratory-confirmed TB cases	246 (55.5%)
Mean age of new native TB cases	61.1 years
Mean age of new foreign TB cases	35.1 years
Foreign origin of all TB cases	189 (42.7%)
New (not previously treated)	407 (91.9%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	124 (50.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	10-0-23
Pulmonary MDR TB cases notified	5 (4.3%)
of which XDR TB cases	0 -
Notified MDR TB	5 (4.0%)
of which XDR TB cases	0 -
TB cases tested for HIV	- -
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

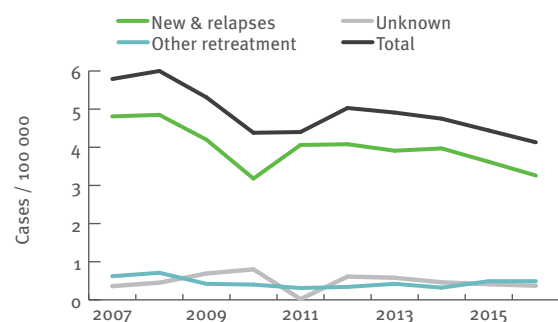
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

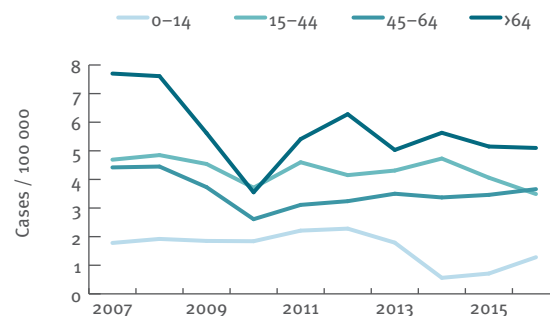
### Treatment outcome monitoring

Data not available

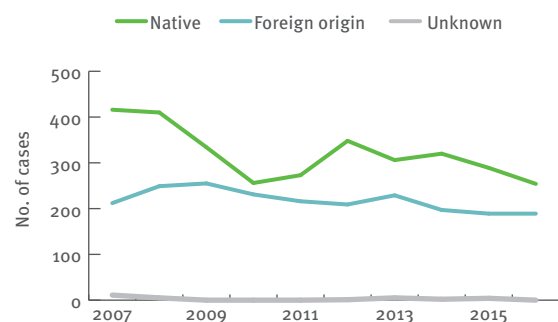
### Tuberculosis notification rates by treatment history, 2007-2016



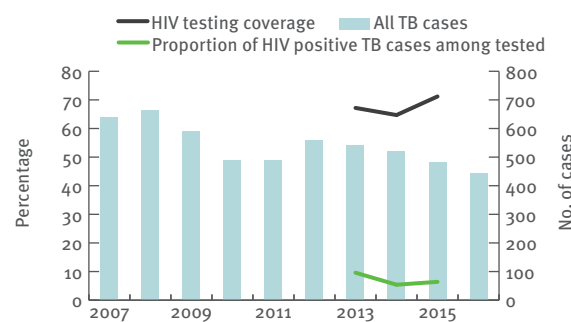
### New and relapsed TB cases – notification rates by age group, 2007-2016



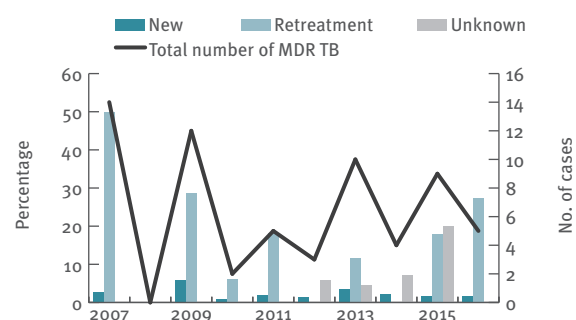
### Tuberculosis cases by geographical origin, 2007-2016



### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015

Data not available

# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Hungary

Total population at 22 September 2017 by EUROSTAT: 9855571

### Tuberculosis case notifications, 2016

Total number of cases	786
Notification rate per 100 000	8.0
New* & relapses	737
New* & relapses notification rate per 100 000	7.5
Pulmonary	757 (96.3%)
of which microscopy-positive	252 (33.3%)
of which laboratory confirmed	396 (52.3%)
Laboratory-confirmed TB cases	404 (51.4%)
Mean age of new native TB cases	53.7 years
Mean age of new foreign TB cases	36.6 years
Foreign origin of all TB cases	30 (3.8%)
New (not previously treated)	677 (86.1%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	340 (84.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	30-17-43
Pulmonary MDR TB cases notified	18 (5.4%)
of which XDR TB cases	7 (46.7%)
Notified MDR TB	18 (5.3%)
of which XDR TB cases	7 (46.7%)
TB cases tested for HIV	19 (2.4%)
HIV-positive TB cases	1 (5.3%)
of these on antiretroviral therapy	-

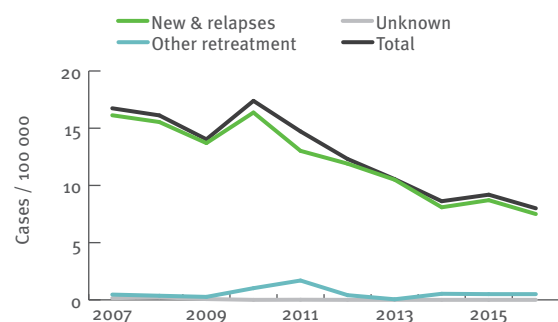
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.  
\*\* More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

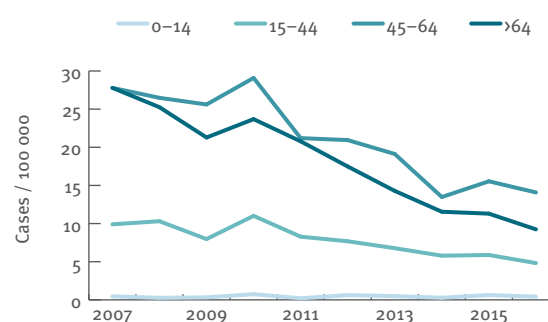
Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	366		3	
Success	224 (61.2%)	3 (100.0%)		
Died	55 (15.0%)	0 (0.0%)		
Failed	4 (1.1%)	0 (0.0%)		
Lost to follow-up	48 (13.1%)	0 (0.0%)		
Still on treatment	17 (4.6%)	0 (0.0%)		
Not evaluated	18 (4.9%)	0 (0.0%)		

\* Treatment outcome as presented is treatment outcome after 12 months.  
\*\* Treatment outcome as presented is treatment outcome after 24 months.

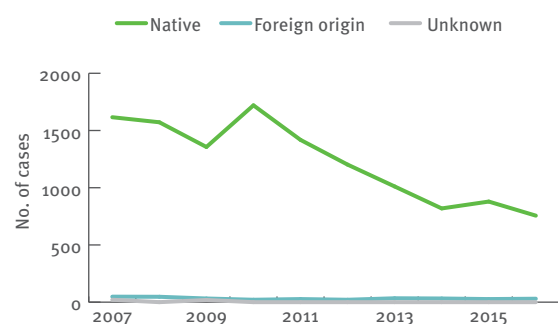
### Tuberculosis notification rates by treatment history, 2007-2016



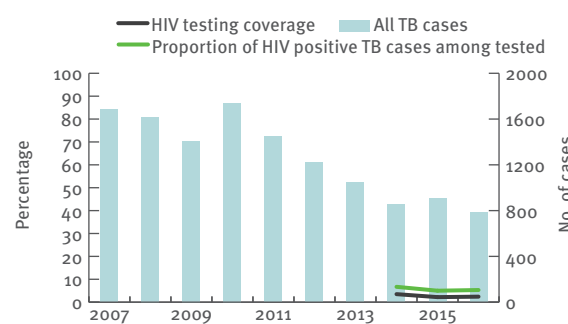
### New and relapsed TB cases – notification rates by age group, 2007-2016



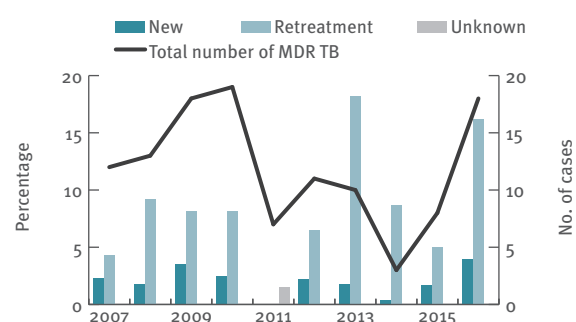
### Tuberculosis cases by geographical origin, 2007-2016



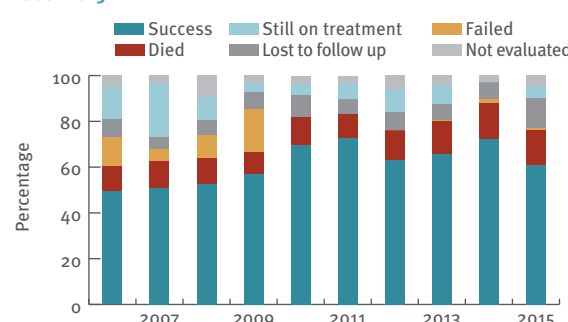
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Iceland

Total population at 22 September 2017 by EUROSTAT: 332529

### Tuberculosis case notifications, 2016

Total number of cases	6
Notification rate per 100 000	1.8
New* & relapses	6
New* & relapses notification rate per 100 000	1.8
Pulmonary	6 (100.0%)
of which microscopy-positive	5 (83.3%)
of which laboratory confirmed	5 (83.3%)
Laboratory-confirmed TB cases	5 (83.3%)
Mean age of new native TB cases	69.0 years
Mean age of new foreign TB cases	37.3 years
Foreign origin of all TB cases	4 (66.7%)
New (not previously treated)	6 (100.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	4 (80.0%)
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	6 (100.0%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

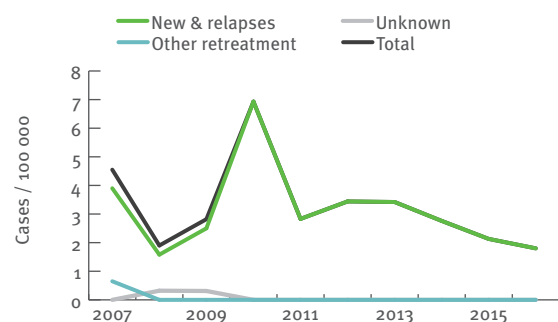
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	3		0	
Success	3 (100.0%)	0	0	
Died	0 (0.0%)	0	0	
Failed	0 (0.0%)	0	0	
Lost to follow-up	0 (0.0%)	0	0	
Still on treatment	0 (0.0%)	0	0	
Not evaluated	0 (0.0%)	0	0	

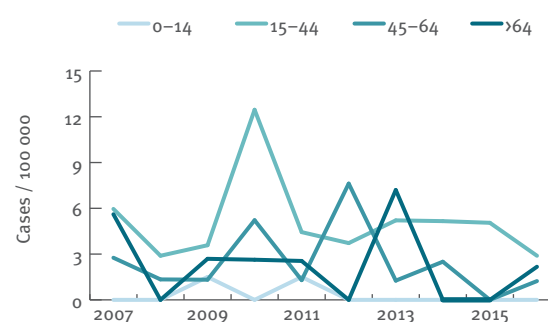
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

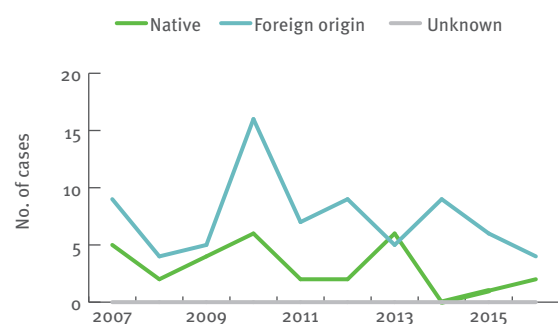
### Tuberculosis notification rates by treatment history, 2007-2016



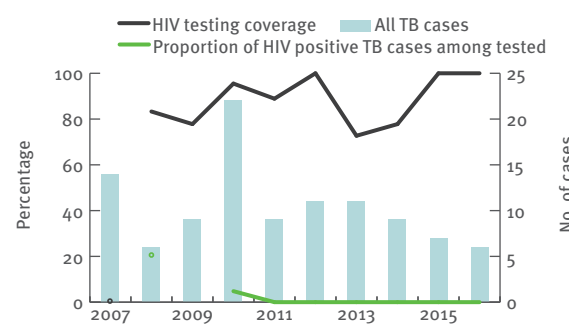
### New and relapsed TB cases – notification rates by age group, 2007-2016



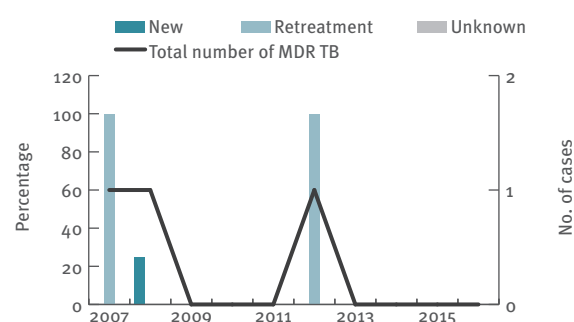
### Tuberculosis cases by geographical origin, 2007-2016



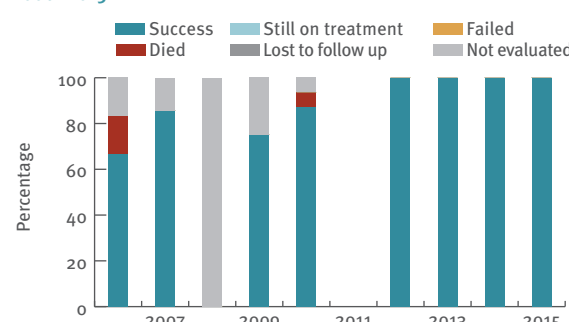
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015





# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Ireland

Total population at 22 September 2017 by EUROSTAT: 4724720

### Tuberculosis case notifications, 2016

Total number of cases	318
Notification rate per 100 000	6.7
New* & relapses	293
New* & relapses notification rate per 100 000	6.2
Pulmonary	211 (66.4%)
of which microscopy-positive	85 (40.3%)
of which laboratory confirmed	170 (80.6%)
Laboratory-confirmed TB cases	237 (74.5%)
Mean age of new native TB cases	52.7 years
Mean age of new foreign TB cases	35.4 years
Foreign origin of all TB cases	161 (50.6%)
New (not previously treated)	293 (92.1%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	232 (97.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	2-0-6
Pulmonary MDR TB cases notified	6 (3.6%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	6 (2.6%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	132 (41.5%)
HIV-positive TB cases	4 (3.0%)
of these on antiretroviral therapy	3 (75.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

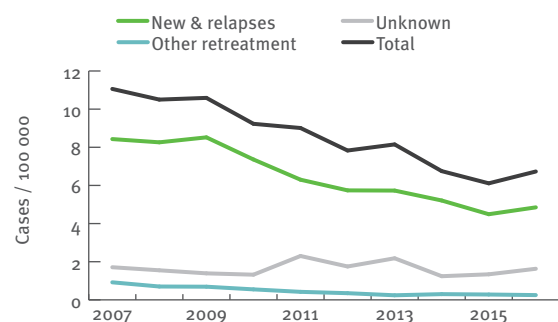
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	99		2	
Success	68 (68.7%)	1 (50.0%)		
Died	3 (3.0%)	0 (0.0%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	0 (0.0%)	0 (0.0%)		
Still on treatment	0 (0.0%)	0 (0.0%)		
Not evaluated	28 (28.3%)	1 (50.0%)		

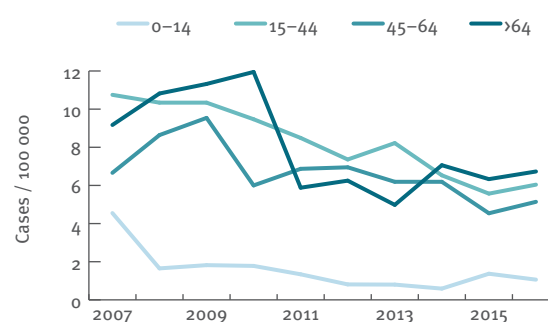
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

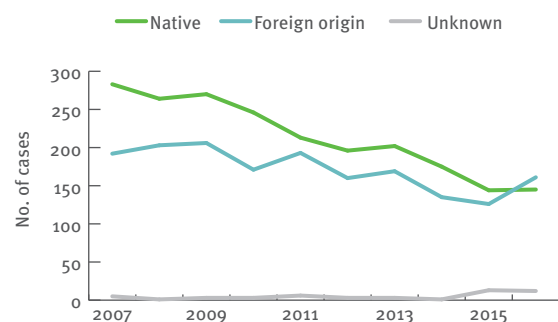
### Tuberculosis notification rates by treatment history, 2007-2016



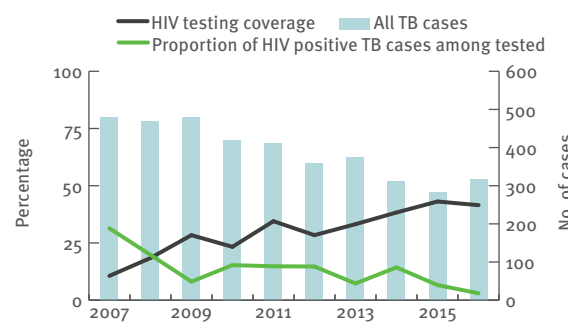
### New and relapsed TB cases – notification rates by age group, 2007-2016



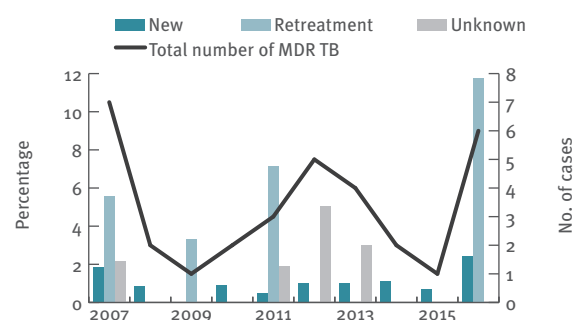
### Tuberculosis cases by geographical origin, 2007-2016



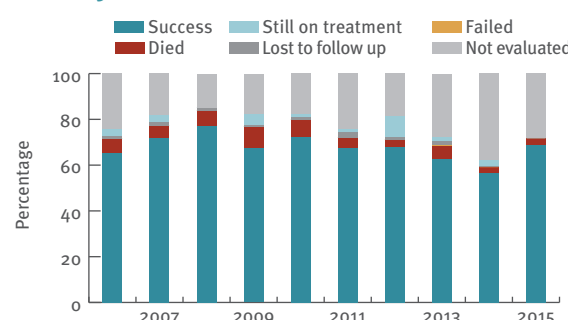
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Israel

Population estimate 2016 by UN Statistical Database: 8 191 828

### Tuberculosis case notifications, 2016

Total number of cases	250
Notification rate per 100 000	3.1
New* & relapses	250
New* & relapses notification rate per 100 000	3.1
Pulmonary	184 (73.6%)
of which smear positive	-
of which laboratory confirmed	132 (71.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	37.4 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	202 (80.8%)
New (not previously treated)	242 (96.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	123 (93.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	13-5-22
Pulmonary MDR TB cases notified	9 (7.3%)
of which XDR TB cases	2 (22.2%)
Notified MDR	11 -
of which XDR TB cases	2 -
TB cases tested for HIV	250 (100.0%)
HIV-positive TB cases	18 (7.2%)
of these on antiretroviral therapy	16 (88.9%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

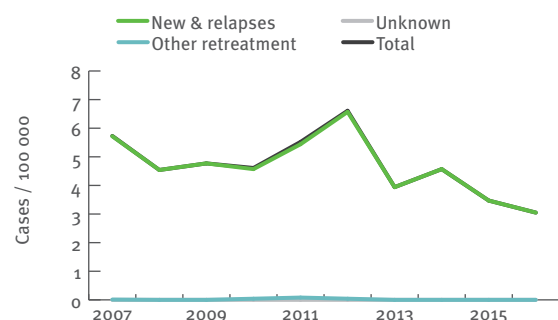
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	263	16
Success	218 (82.9%)	12 (75.0%)
Died	19 (7.2%)	2 (12.5%)
Failed	1 (0.4%)	0 (0.0%)
Lost to follow-up	8 (3.0%)	1 (6.3%)
Not evaluated	17 (6.5%)	1 (6.3%)

\* Treatment outcome as presented is treatment outcome after 12 months.

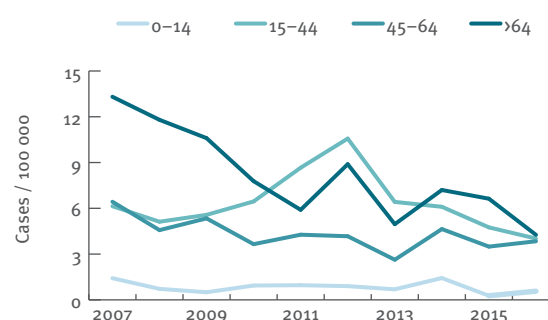
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



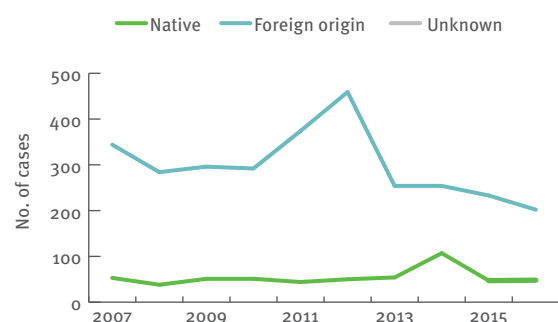
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases - notification rates by age group, 2007-2016\*

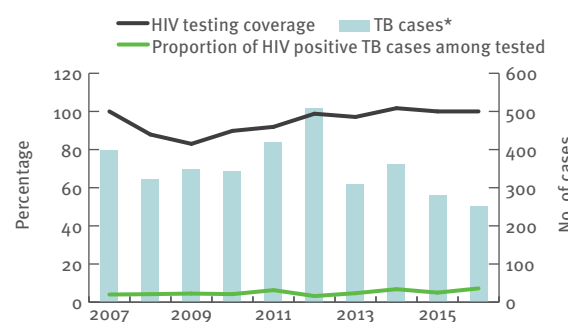


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

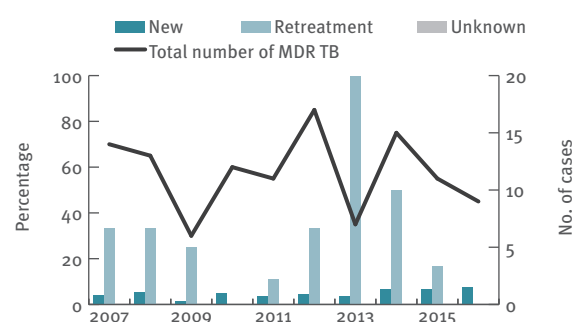


### TB-HIV co-infection, 2007-2016

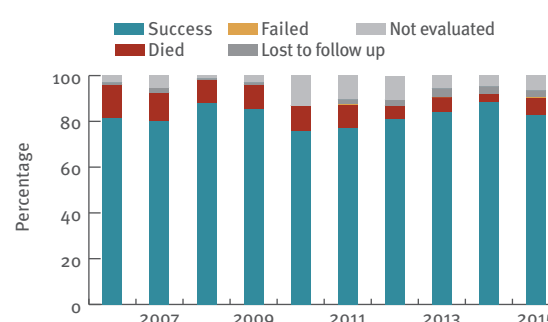


\* HIV testing data are available for new TB cases in civilian population only.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Italy

Total population at 22 September 2017 by EUROSTAT: 60 655 551

### Tuberculosis case notifications, 2016

Total number of cases	4 032
Notification rate per 100 000	6.6
New* & relapses	3 778
New* & relapses notification rate per 100 000	6.2
Pulmonary	2 820 (69.9%)
of which microscopy-positive	1 515 (53.7%)
of which laboratory confirmed	1 967 (69.8%)
Laboratory-confirmed TB cases	2 666 (66.1%)
Mean age of new native TB cases	51.0 years
Mean age of new foreign TB cases	35.9 years
Foreign origin of all TB cases	2 509 (62.2%)
New (not previously treated)	3 778 (93.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	No
Cases with DST results	2 666 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	110-76-150
Pulmonary MDR TB cases notified	33 (1.7%)
of which XDR TB cases	5 (11.4%)
Notified MDR TB	70 (2.6%)
of which XDR TB cases	7 (12.7%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

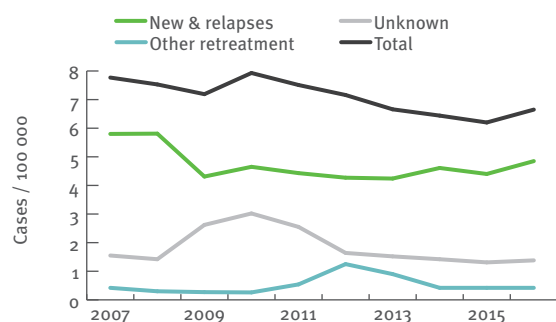
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

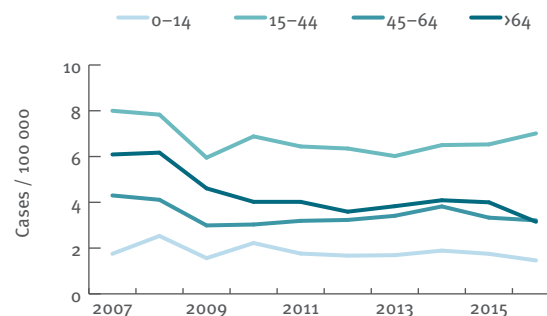
### Treatment outcome monitoring

Data not available

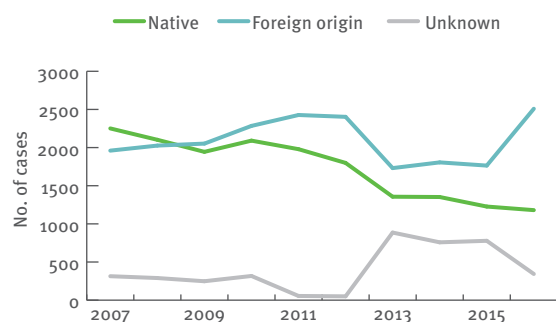
### Tuberculosis notification rates by treatment history, 2007–2016



### New and relapsed TB cases – notification rates by age group, 2007–2016



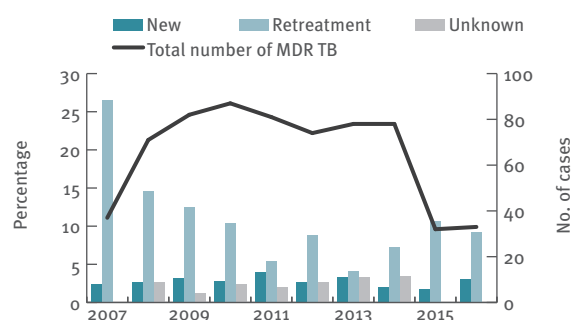
### Tuberculosis cases by geographical origin, 2007–2016



### TB-HIV co-infection, 2007–2016

Data not available

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015

Data not available

# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Kazakhstan

Population estimate 2016 by UN Statistical Database: 17987736

### Tuberculosis case notifications, 2016

Total number of cases	12 658
Notification rate per 100 000	70.4
New* & relapses	12 322
New* & relapses notification rate per 100 000	68.5
Pulmonary	10 927 (88.7%)
of which smear positive	-
of which laboratory confirmed	9 679 (88.6%)
Laboratory-confirmed TB cases	-
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	153 (1.2%)
New (not previously treated)	9 381 (74.1%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	5 213 (53.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	3 500-3 400-3 600
Pulmonary MDR TB cases notified	1 231 (23.6%)
of which XDR TB cases	-
TB cases tested for HIV	5 817
Notified MDR	386
of which XDR TB cases	10 616 (86.2%)
HIV-positive TB cases	576 (5.4%)
of these on antiretroviral therapy	478 (83.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

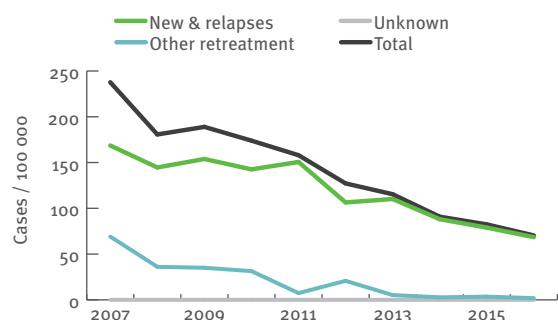
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	14 006	6 320
Success	12 691 (90.6%)	4 813 (76.2%)
Died	674 (4.8%)	604 (9.6%)
Failed	440 (3.1%)	371 (5.9%)
Lost to follow-up	201 (1.4%)	468 (7.4%)
Not evaluated	0 (0.0%)	64 (1.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

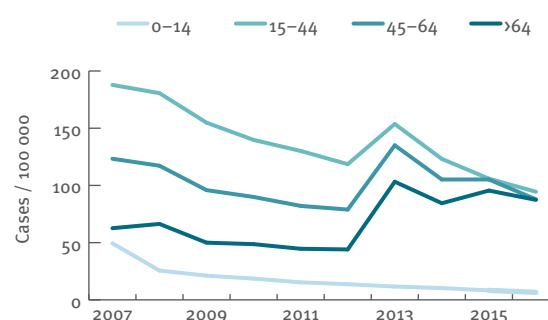
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



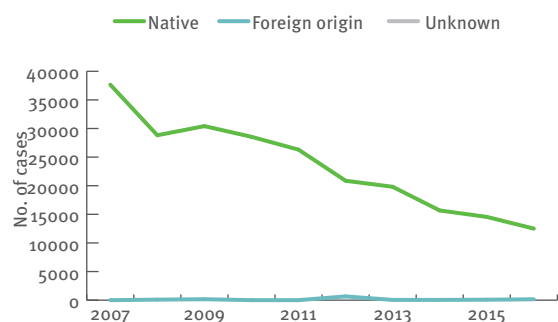
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

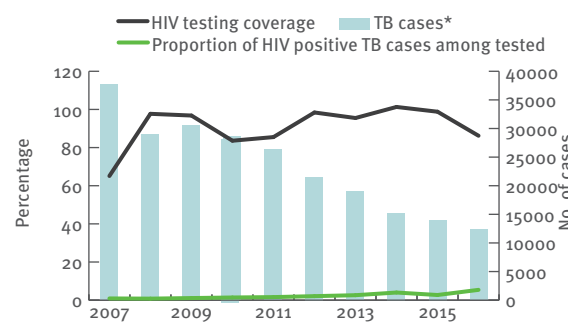


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

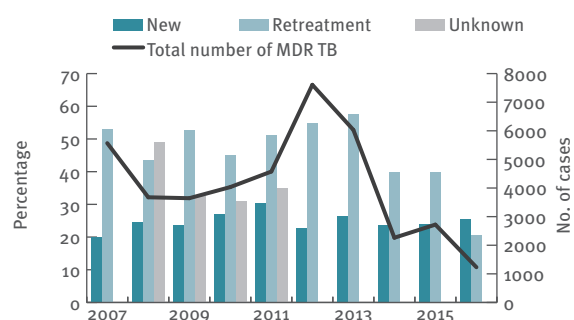


### TB-HIV co-infection, 2007-2016

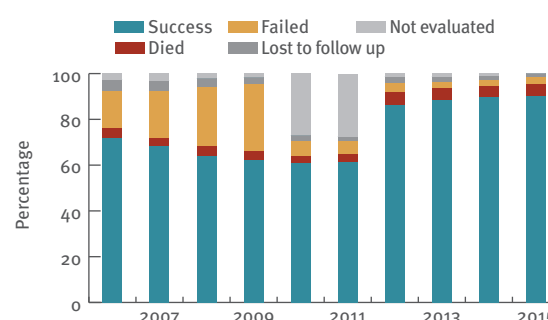


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Kyrgyzstan

Population estimate 2016 by UN Statistical Database: 5955734

### Tuberculosis case notifications, 2016

Total number of cases	7995
Notification rate per 100 000	134.2
New* & relapses	7026
New* & relapses notification rate per 100 000	118.0
Pulmonary	5514 (78.5%)
of which smear positive	-
of which laboratory confirmed	3183 (57.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	38.9 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	5702 (71.3%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2642 (83.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	2500-2400-2600
Pulmonary MDR TB cases notified	864 (32.7%)
of which XDR TB cases	72 (8.3%)
Notified MDR	1236 -
of which XDR TB cases	73 -
TB cases tested for HIV	6254 (89.0%)
HIV-positive TB cases	210 (3.4%)
of these on antiretroviral therapy	144 (68.6%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

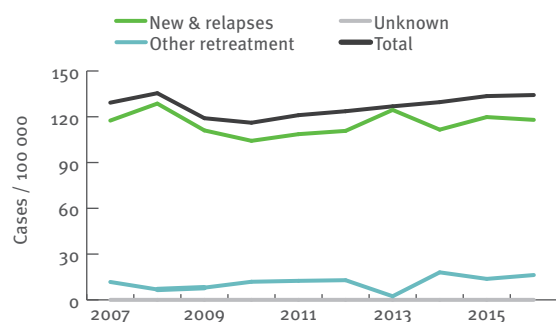
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	6139	1157
Success	5063 (82.5%)	650 (56.2%)
Died	364 (5.9%)	142 (12.3%)
Failed	138 (2.2%)	105 (9.1%)
Lost to follow-up	564 (9.2%)	260 (22.5%)
Not evaluated	10 (0.2%)	0 (0.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

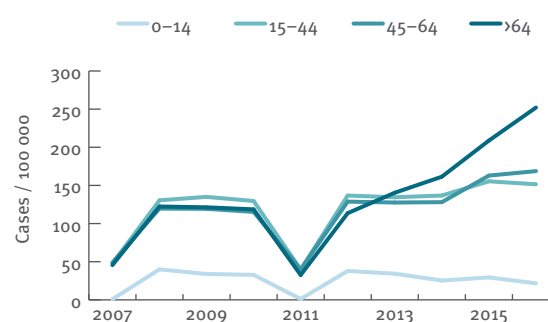
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016



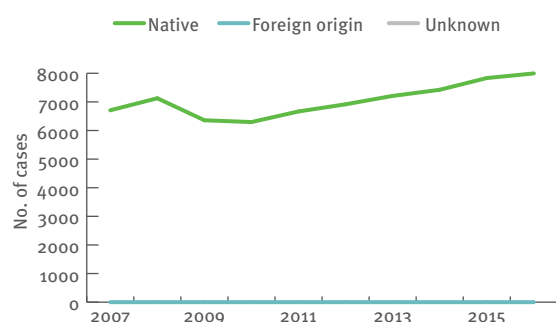
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases - notification rates by age group, 2007-2016\*

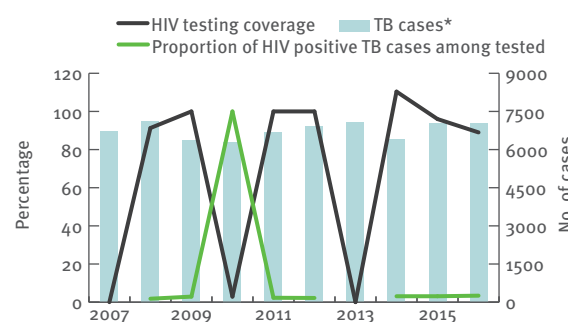


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

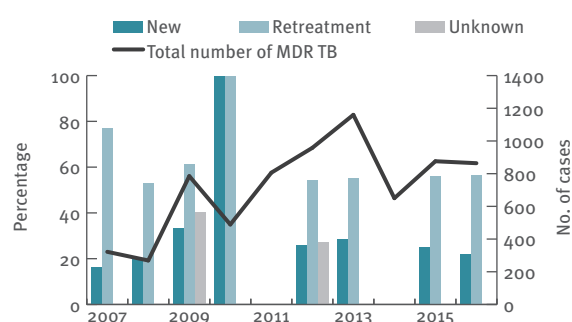


### TB-HIV co-infection, 2007-2016

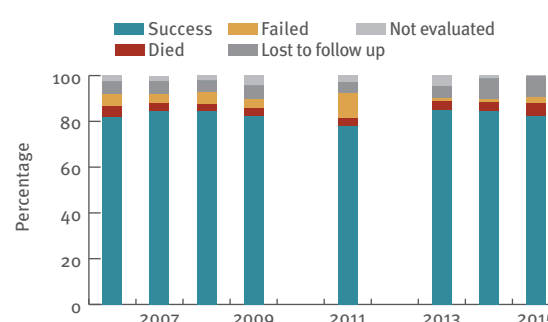


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome of new TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Latvia

Total population at 22 September 2017 by EUROSTAT: 1986957

### Tuberculosis case notifications, 2016

Total number of cases	660
Notification rate per 100 000	33.5
New* & relapses	641
New* & relapses notification rate per 100 000	32.6
Pulmonary	619 (93.8%)
of which microscopy-positive	265 (42.8%)
of which laboratory confirmed	535 (86.4%)
Laboratory-confirmed TB cases	559 (84.7%)
Mean age of new native TB cases	44.1 years
Mean age of new foreign TB cases	56.6 years
Foreign origin of all TB cases	43 (6.5%)
New (not previously treated)	560 (84.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	536 (95.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	62-47-78
Pulmonary MDR TB cases notified	53 (10.4%)
of which XDR TB cases	20 (37.7%)
Notified MDR TB	56 (10.4%)
of which XDR TB cases	21 (37.5%)
TB cases tested for HIV	507 (76.8%)
HIV-positive TB cases	57 (11.2%)
of these on antiretroviral therapy	34 (59.6%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

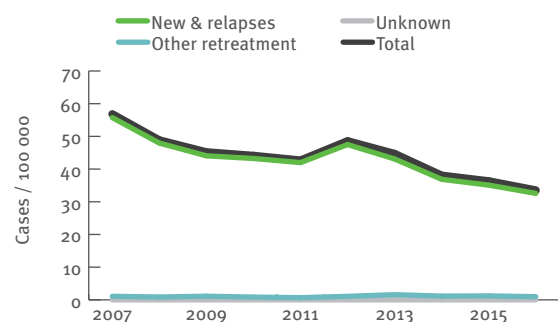
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	477		70	
Success	383 (80.3%)	52 (74.3%)		
Died	36 (7.5%)	5 (7.1%)		
Failed	0 (0.0%)	1 (1.4%)		
Lost to follow-up	23 (4.8%)	11 (15.7%)		
Still on treatment	33 (6.9%)	0 (0.0%)		
Not evaluated	2 (0.4%)	1 (1.4%)		

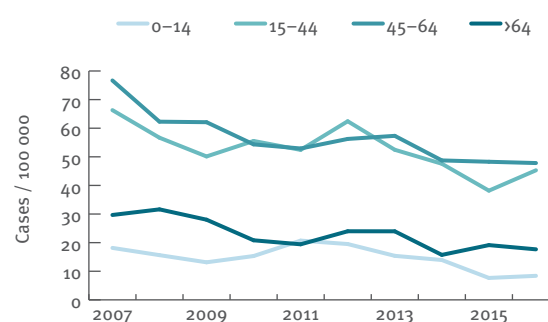
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

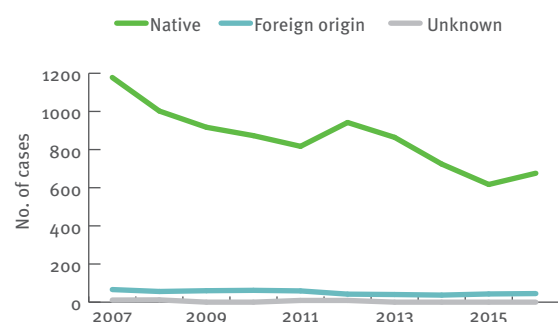
### Tuberculosis notification rates by treatment history, 2007–2016



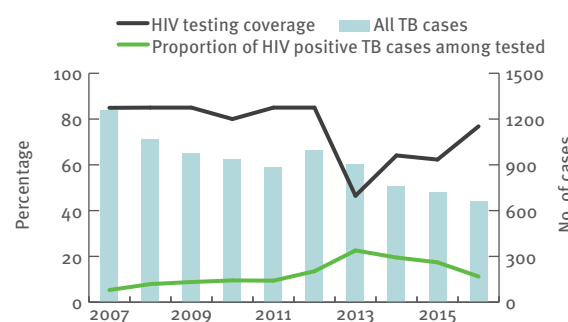
### New and relapsed TB cases – notification rates by age group, 2007–2016



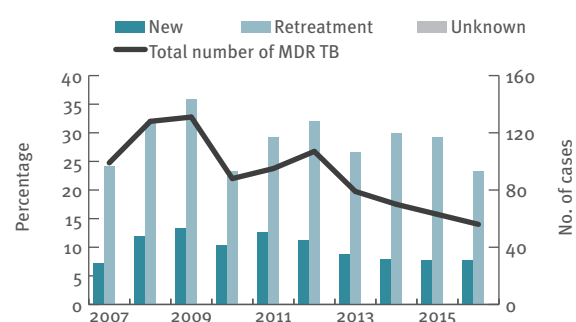
### Tuberculosis cases by geographical origin, 2007–2016



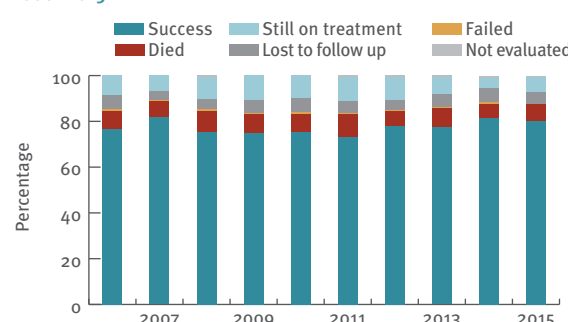
### TB-HIV co-infection, 2007–2016



### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Lithuania

Total population at 22 September 2017 by EUROSTAT: 2888558

### Tuberculosis case notifications, 2016

Total number of cases	1442
Notification rate per 100 000	49.9
New* & relapses	1347
New* & relapses notification rate per 100 000	46.6
Pulmonary	1327 (92.0%)
of which microscopy-positive	827 (62.3%)
of which laboratory confirmed	1171 (88.2%)
Laboratory-confirmed TB cases	1201 (83.3%)
Mean age of new native TB cases	46.0 years
Mean age of new foreign TB cases	57.3 years
Foreign origin of all TB cases	13 (0.9%)
New (not previously treated)	1150 (79.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1201 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	260-240-290
Pulmonary MDR TB cases notified	242 (20.7%)
of which XDR TB cases	58 (24.0%)
Notified MDR TB	244 (20.3%)
of which XDR TB cases	58 (23.8%)
TB cases tested for HIV	1138 (78.9%)
HIV-positive TB cases	41 (3.6%)
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

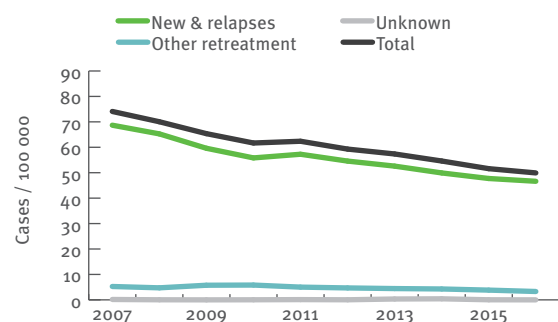
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	894		271	
Success	607 (67.9%)	32 (11.8%)		
Died	11 (1.2%)	59 (21.8%)		
Failed	12 (1.3%)	7 (2.6%)		
Lost to follow-up	66 (7.4%)	37 (13.7%)		
Still on treatment	97 (10.9%)	131 (48.3%)		
Not evaluated	1 (0.1%)	5 (1.8%)		

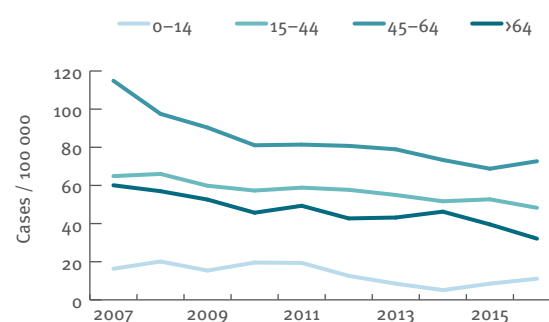
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

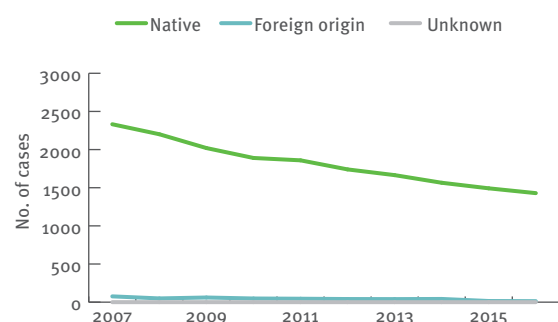
### Tuberculosis notification rates by treatment history, 2007-2016



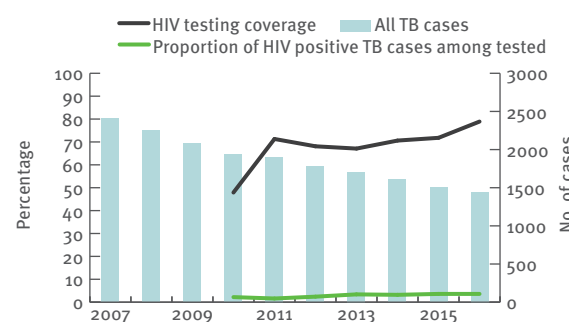
### New and relapsed TB cases – notification rates by age group, 2007-2016



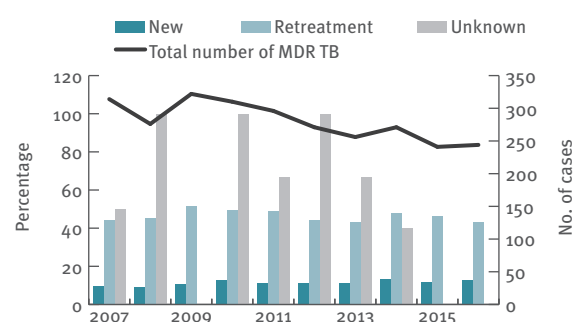
### Tuberculosis cases by geographical origin, 2007-2016



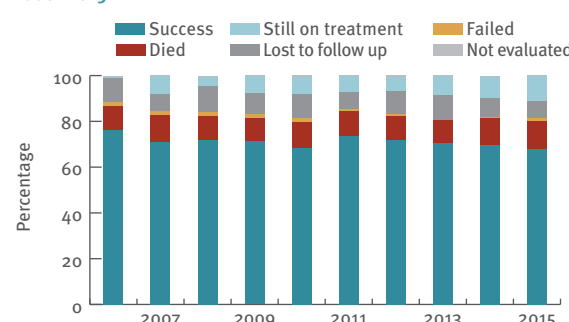
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015





# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Luxembourg

Total population at 22 September 2017 by EUROSTAT: 576 249

### Tuberculosis case notifications, 2016

Total number of cases	29
Notification rate per 100 000	5.0
New* & relapses	29
New* & relapses notification rate per 100 000	5.0
Pulmonary	24 (82.8%)
of which microscopy-positive	10 (41.7%)
of which laboratory confirmed	22 (91.7%)
Laboratory-confirmed TB cases	26 (89.7%)
Mean age of new native TB cases	42.9. years
Mean age of new foreign TB cases	49.0 years
Foreign origin of all TB cases	22 (75.9%)
New (not previously treated)	29 (100.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	25 (96.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	1 (4.8%)
of which XDR TB cases	0 -
Notified MDR TB	1 (4.0%)
of which XDR TB cases	0 -
TB cases tested for HIV	5 (17.2%)
HIV-positive TB cases	2 (39.7%)
of these on antiretroviral therapy	- -

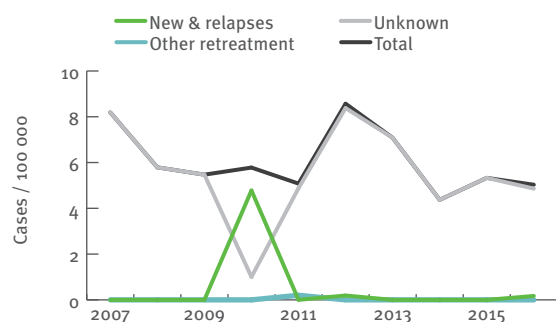
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

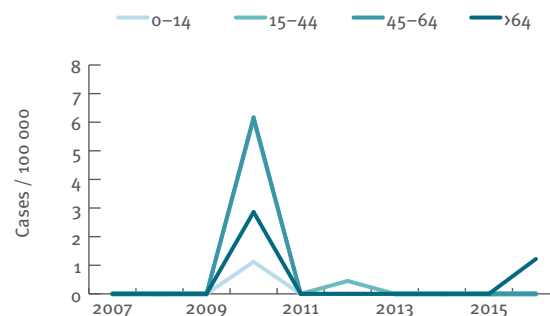
### Treatment outcome monitoring

Data not available

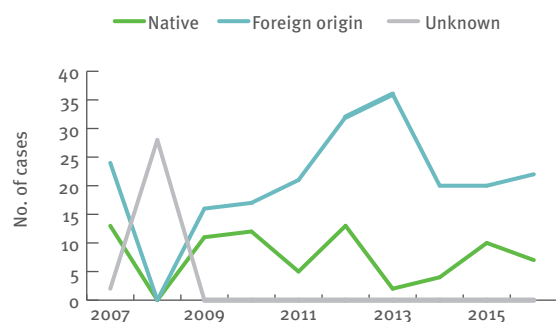
### Tuberculosis notification rates by treatment history, 2007–2016



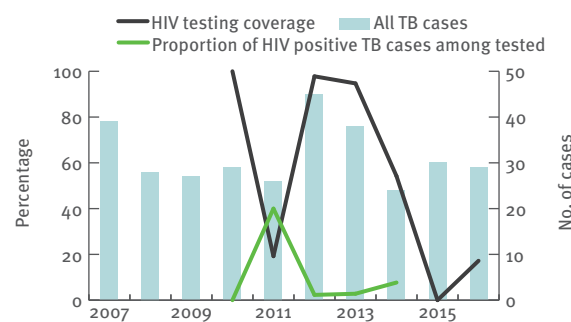
### New and relapsed TB cases – notification rates by age group, 2007–2016



### Tuberculosis cases by geographical origin, 2007–2016

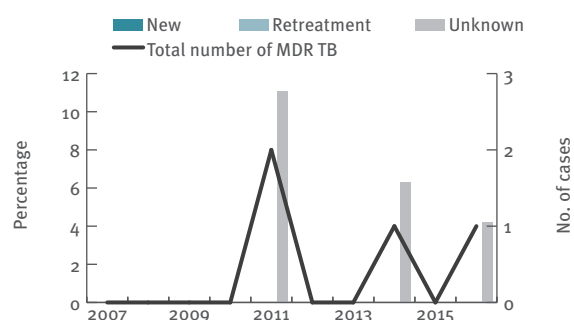


### TB-HIV co-infection, 2007–2016\*



\* No data available for 2006–2009

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015

Data not available

# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Malta

Total population at 22 September 2017 by EUROSTAT: 434 403

### Tuberculosis case notifications, 2016

Total number of cases	50
Notification rate per 100 000	11.5
New* & relapses	50
New* & relapses notification rate per 100 000	11.5
Pulmonary	37 (74.0%)
of which microscopy-positive	18 (48.6%)
of which laboratory confirmed	33 (89.2%)
Laboratory-confirmed TB cases	42 (84.0%)
Mean age of new native TB cases	85.0 years
Mean age of new foreign TB cases	30.3 years
Foreign origin of all TB cases	48 (96.0%)
New (not previously treated)	50 (100.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	42 (100.0%)
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	46 (92.0%)
HIV-positive TB cases	8 (17.4%)
of these on antiretroviral therapy	8 (100.0%)

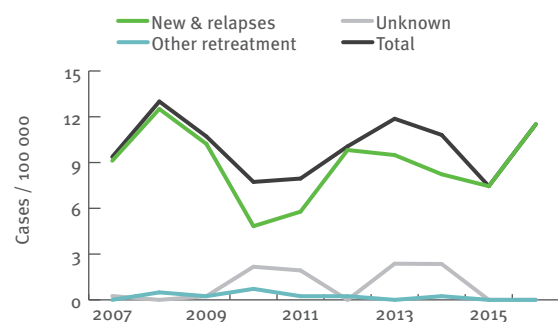
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

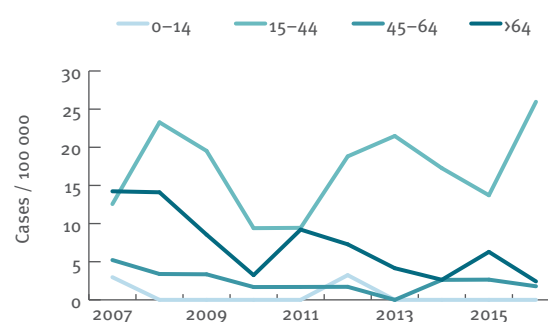
### Treatment outcome monitoring

Data not available

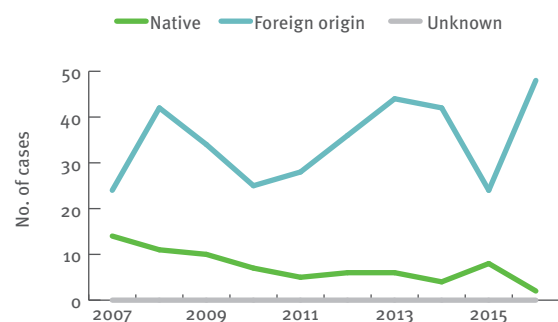
### Tuberculosis notification rates by treatment history, 2007-2016



### New and relapsed TB cases – notification rates by age group, 2007-2016

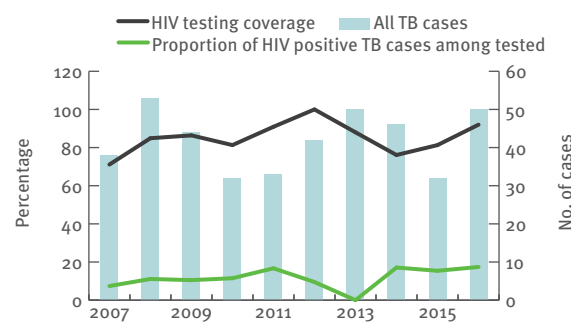


### Tuberculosis cases by geographical origin, 2007-2016

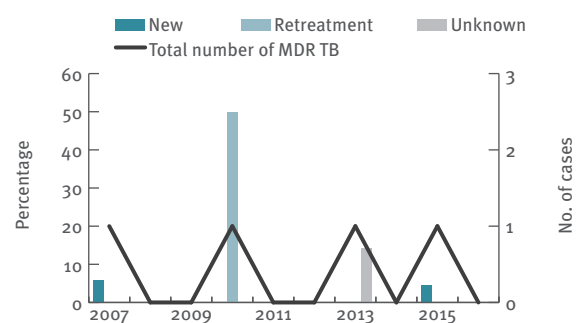


\* By nationality for 2000-2006

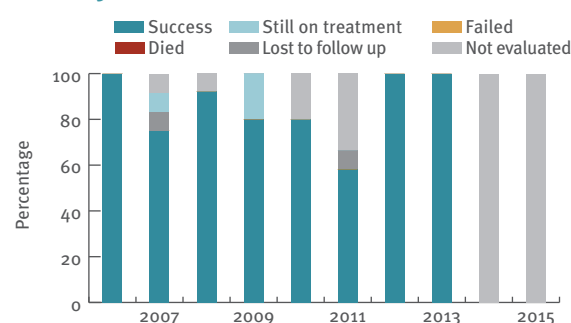
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Moldova

Population estimate 2016 by UN Statistical Database: 4 059 608

### Tuberculosis case notifications, 2016

Total number of cases	4134
Notification rate per 100 000	101.8
New* & relapses	3571
New* & relapses notification rate per 100 000	88.0
Pulmonary	3235 (90.6%)
of which smear positive	-
of which laboratory confirmed	2019 (62.4%)
Laboratory-confirmed TB cases	-
Mean age of new native TB cases	43.3 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	39 (0.9%)
New (not previously treated)	2846 (68.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1574 (78.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1400-1300-1400
Pulmonary MDR TB cases notified	525 (33.4%)
of which XDR TB cases	42 (8.0%)
Notified MDR	1031 -
of which XDR TB cases	72 -
TB cases tested for HIV	3366 (94.3%)
HIV-positive TB cases	293 (8.7%)
of these on antiretroviral therapy	193 (65.9%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

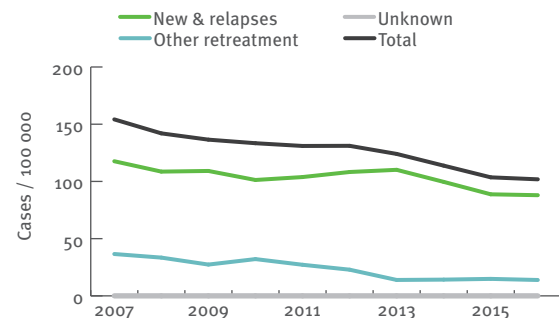
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	2992	919
Success	2379 (79.5%)	457 (49.7%)
Died	338 (11.3%)	129 (14.0%)
Failed	86 (2.9%)	142 (15.5%)
Lost to follow-up	137 (4.6%)	188 (20.5%)
Not evaluated	52 (1.7%)	3 (0.3%)

\* Treatment outcome as presented is treatment outcome after 12 months.

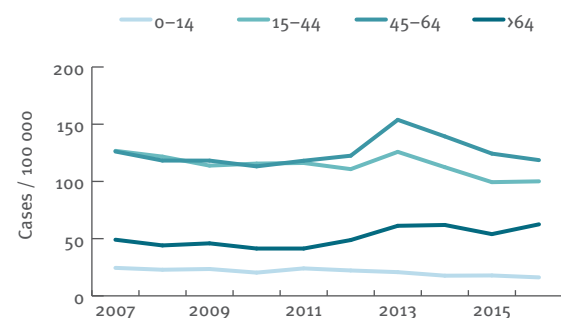
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



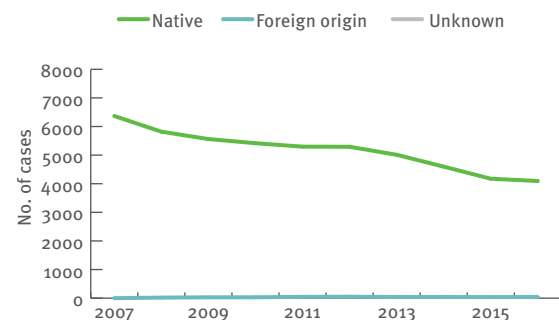
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

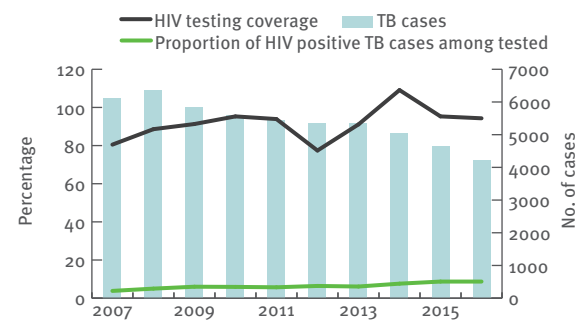


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

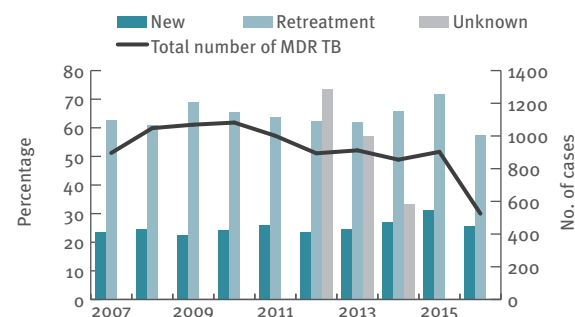


### TB-HIV co-infection, 2007-2016

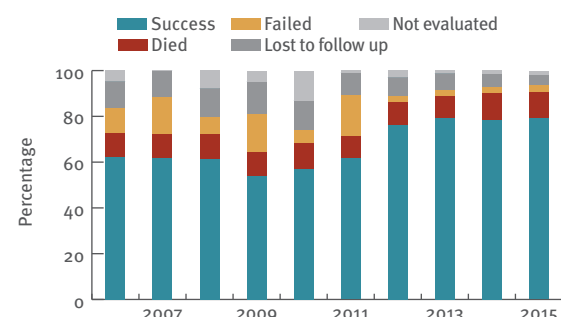


\*\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Montenegro

Population estimate 2016 by UN Statistical Database: 628 615

### Tuberculosis case notifications, 2016

Total number of cases	87
Notification rate per 100 000	13.8
New* & relapses	87
New* & relapses notification rate per 100 000	13.8
Pulmonary	77 (88.5%)
of which smear positive	-
of which laboratory confirmed	58 (75.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	47.6 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	2 (2.3%)
New (not previously treated)	73 (83.9%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	57 (98.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 -
Notified MDR	0 -
of which XDR TB cases	- -
TB cases tested for HIV	60 (69.0%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	0 -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

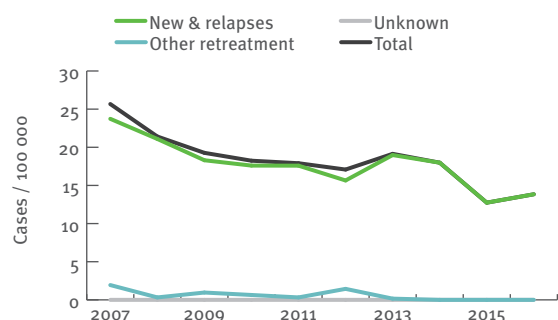
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New and relapsed TB cases notified in 2015*		All MDR TB cases enrolled into MDR treatment in 2014**	
Case-linked data reporting	Yes			
Cases notified	80		2	
Success	74 (92.5%)	0	0	(0.0%)
Died	3 (3.8%)	1	0	(50.0%)
Failed	0 (0.0%)	0	0	(0.0%)
Lost to follow-up	3 (3.8%)	1	0	(50.0%)
Not evaluated	0 (0.0%)	0	0	(0.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

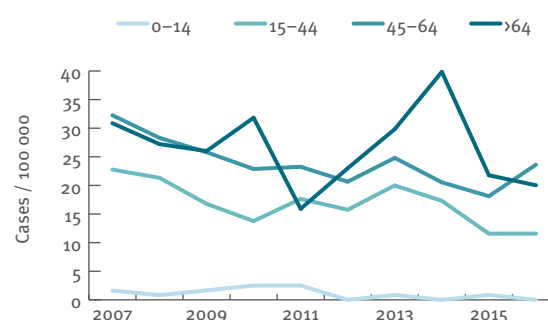
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



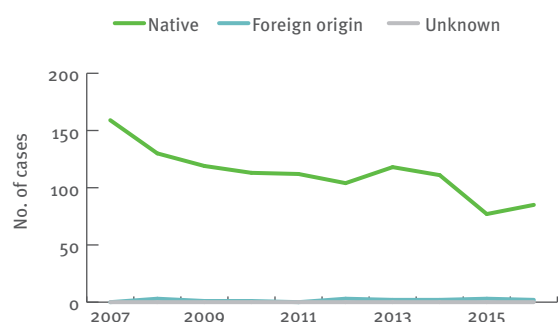
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

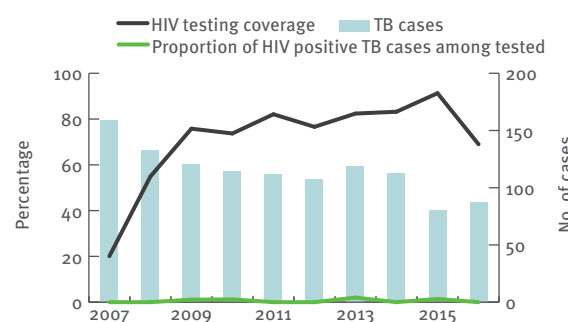


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

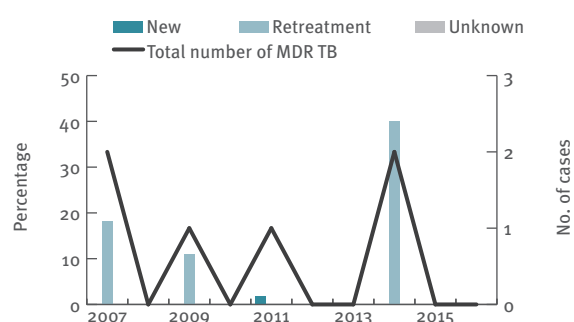


### TB-HIV co-infection, 2007-2016

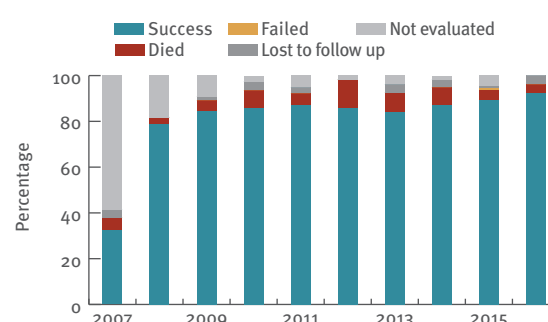


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome of new TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Netherlands

Total population at 22 September 2017 by EUROSTAT: 16 979 120

### Tuberculosis case notifications, 2016

Total number of cases	889
Notification rate per 100 000	5.2
New* & relapses	877
New* & relapses notification rate per 100 000	5.2
Pulmonary	477 (53.7%)
of which microscopy-positive	185 (38.8%)
of which laboratory confirmed	353 (74.0%)
Laboratory-confirmed TB cases	583 (65.6%)
Mean age of new native TB cases	44.2 years
Mean age of new foreign TB cases	38.2 years
Foreign origin of all TB cases	669 (75.3%)
New (not previously treated)	862 (97.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	583 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	15-6-24
Pulmonary MDR TB cases notified	8 (2.3%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	12 (2.1%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	554 (62.3%)
HIV-positive TB cases	21 (3.8%)
of these on antiretroviral therapy	15 (71.4%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

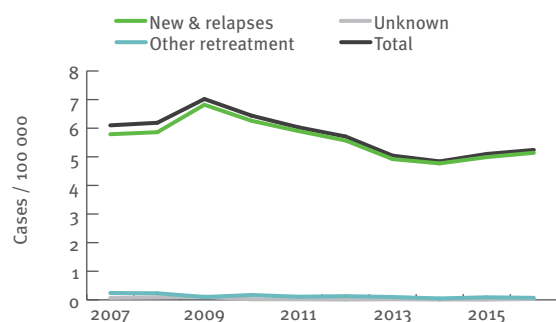
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	369		7	
Success	315 (85.4%)	5 (71.4%)		
Died	22 (6.0%)	0 (0.0%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	4 (1.1%)	0 (0.0%)		
Still on treatment	6 (1.6%)	1 (14.3%)		
Not evaluated	22 (6.0%)	1 (14.3%)		

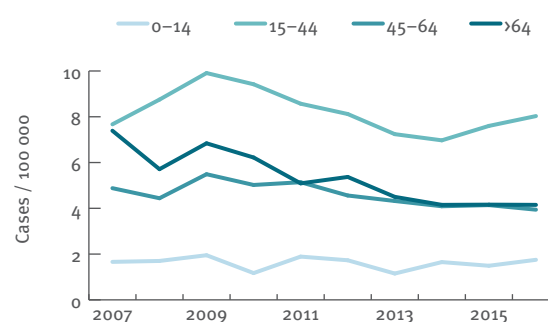
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

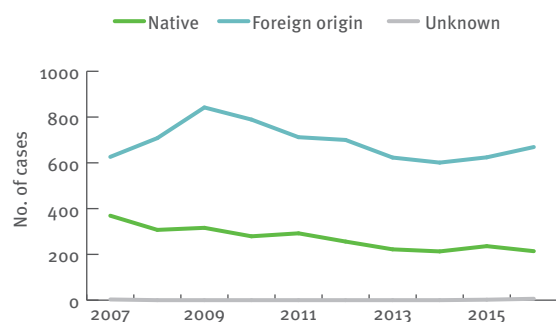
### Tuberculosis notification rates by treatment history, 2007-2016



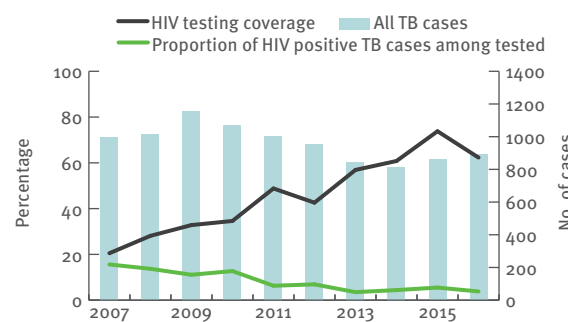
### New and relapsed TB cases – notification rates by age group, 2007-2016



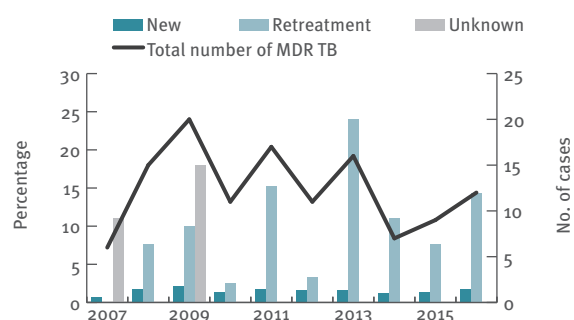
### Tuberculosis cases by geographical origin, 2007-2016



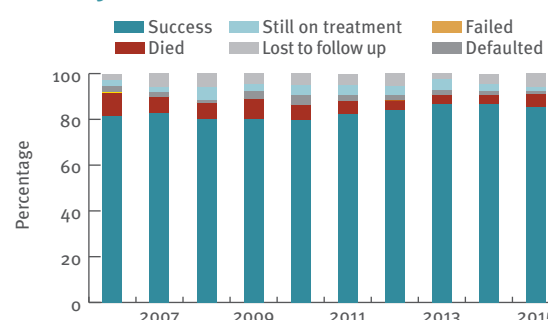
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Norway

Total population at 22 September 2017 by EUROSTAT: 5210721

### Tuberculosis case notifications, 2016

Total number of cases	299
Notification rate per 100 000	5.7
New* & relapses	278
New* & relapses notification rate per 100 000	5.3
Pulmonary	186 (62.2%)
of which microscopy-positive	72 (38.7%)
of which laboratory confirmed	158 (84.9%)
Laboratory-confirmed TB cases	230 (76.9%)
Mean age of new native TB cases	47.0 years
Mean age of new foreign TB cases	34.3 years
Foreign origin of all TB cases	264 (88.3%)
New (not previously treated)	278 (93.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	228 (99.1%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	6-1-10
Pulmonary MDR TB cases notified	7 (4.5%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	10 (4.4%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	254 (84.9%)
HIV-positive TB cases	10 (3.9%)
of these on antiretroviral therapy	8 (80.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

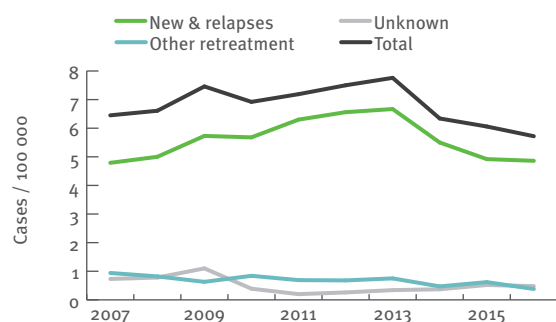
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	154		11	
Success	127 (82.5%)	9 (81.8%)		
Died	4 (2.6%)	0 (0.0%)		
Failed	2 (1.3%)	0 (0.0%)		
Lost to follow-up	6 (3.9%)	1 (9.1%)		
Still on treatment	6 (3.9%)	0 (0.0%)		
Not evaluated	9 (5.8%)	1 (9.1%)		

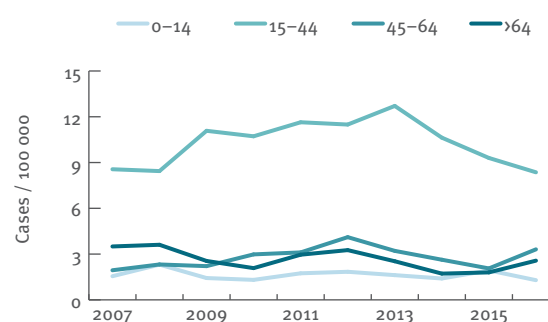
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

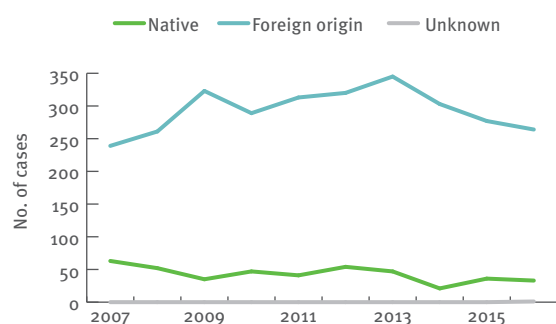
### Tuberculosis notification rates by treatment history, 2007-2016



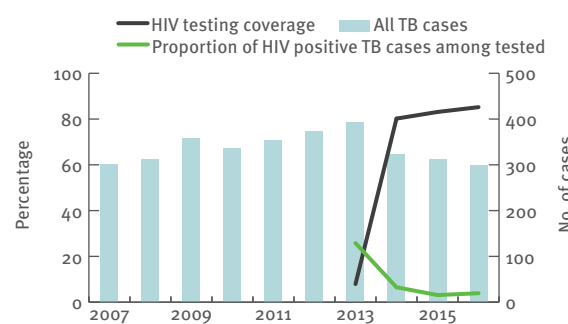
### New and relapsed TB cases – notification rates by age group, 2007-2016



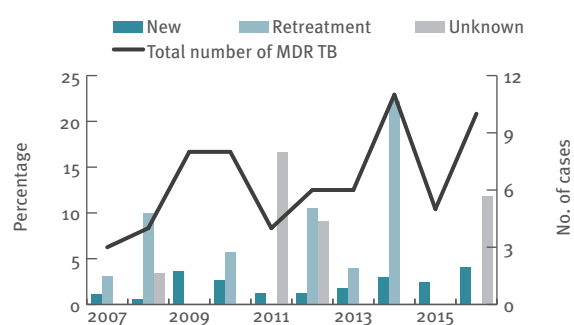
### Tuberculosis cases by geographical origin, 2007-2016



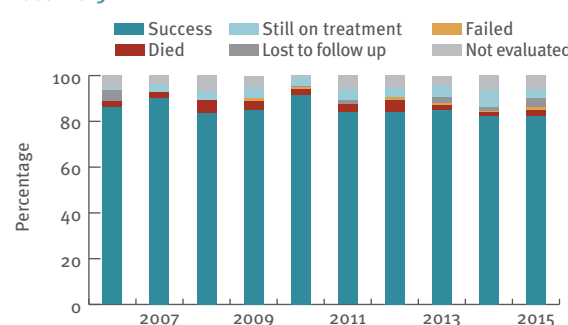
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Poland

Total population at 22 September 2017 by EUROSTAT: 37967209

### Tuberculosis case notifications, 2016

Total number of cases	6444
Notification rate per 100 000	17.0
New* & relapses	6143
New* & relapses notification rate per 100 000	16.2
Pulmonary	6116 (94.9%)
of which microscopy-positive	2644 (43.2%)
of which laboratory confirmed	4475 (73.2%)
Laboratory-confirmed TB cases	4619 (71.7%)
Mean age of new native TB cases	53.2 years
Mean age of new foreign TB cases	34.6 years
Foreign origin of all TB cases	92 (1.4%)
New (not previously treated)	5713 (88.7%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	4189 (90.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	77-56-98
Pulmonary MDR TB cases notified	45 (1.1%)
of which XDR TB cases	8 (21.1%)
Notified MDR TB	46 (1.1%)
of which XDR TB cases	8 (20.5%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

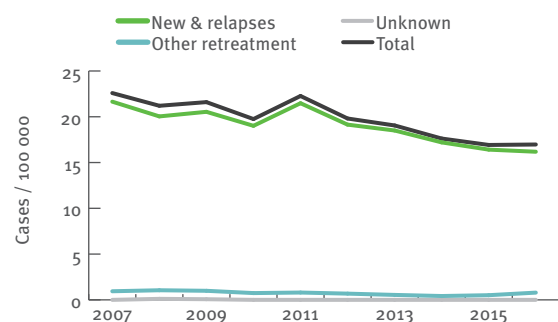
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	3 978		35	
Success	2 085	(52.4%)	3	(8.6%)
Died	414	(10.4%)	12	(34.3%)
Failed	3	(0.1%)	0	(0.0%)
Lost to follow-up	209	(5.3%)	5	(14.3%)
Still on treatment	8	(0.2%)	0	(0.0%)
Not evaluated	1 259	(31.6%)	15	(42.9%)

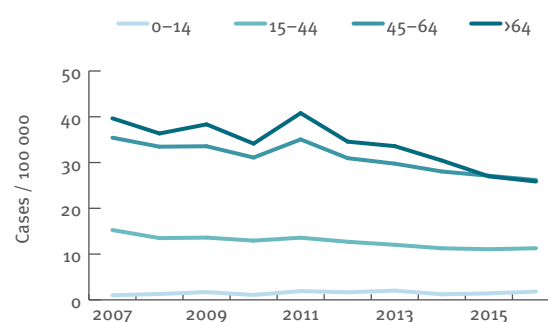
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

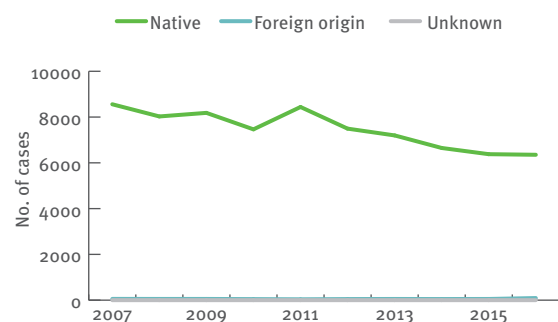
### Tuberculosis notification rates by treatment history, 2007–2016



### New and relapsed TB cases – notification rates by age group, 2007–2016



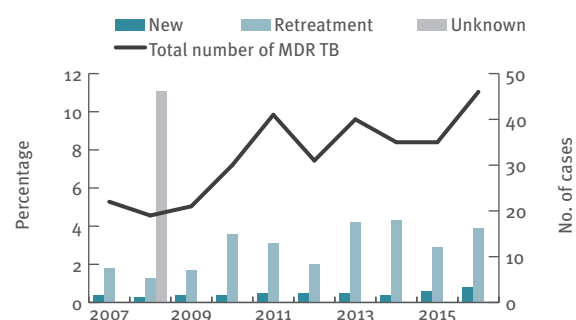
### Tuberculosis cases by geographical origin, 2007–2016



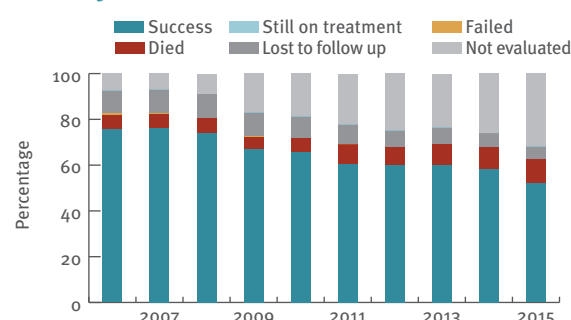
### TB-HIV co-infection, 2007–2016

Data not available

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015





# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Portugal

Total population at 22 September 2017 by EUROSTAT 10 341330

### Tuberculosis case notifications, 2016

Total number of cases	1836
Notification rate per 100 000	17.8
New* & relapses	1794
New* & relapses notification rate per 100 000	17.3
Pulmonary	1302 (70.9%)
of which microscopy-positive	760 (58.4%)
of which laboratory confirmed	945 (72.6%)
Laboratory-confirmed TB cases	1123 (61.2%)
Mean age of new native TB cases	52.2 years
Mean age of new foreign TB cases	40.7 years
Foreign origin of all TB cases	336 (18.3%)
New (not previously treated)	1715 (93.4%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	789 (70.3%)
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	1 (25.0%)
Notified MDR TB	12 (1.5%)
of which XDR TB cases	2 (40.0%)
TB cases tested for HIV	1212 (66.0%)
HIV-positive TB cases	168 (13.9%)
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

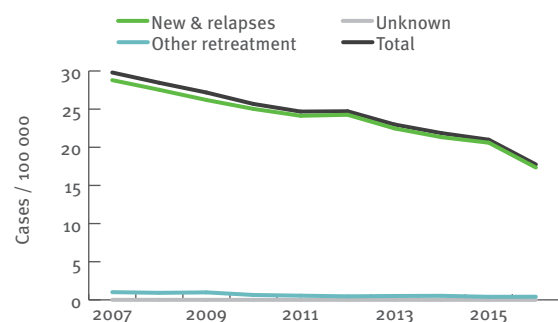
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	1157		25	
Success	835 (72.2%)	13 (52.0%)		
Died	98 (8.5%)	7 (28.0%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	40 (3.5%)	0 (0.0%)		
Still on treatment	153 (13.2%)	1 (4.0%)		
Not evaluated	31 (2.7%)	4 (16.0%)		

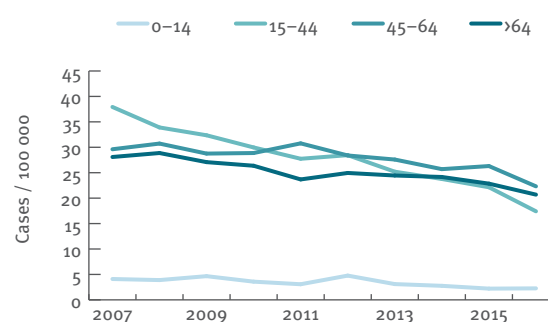
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

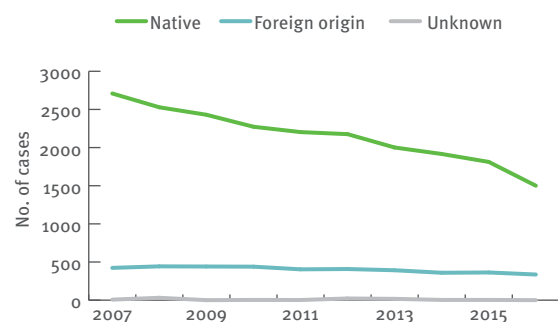
### Tuberculosis notification rates by treatment history, 2007-2016



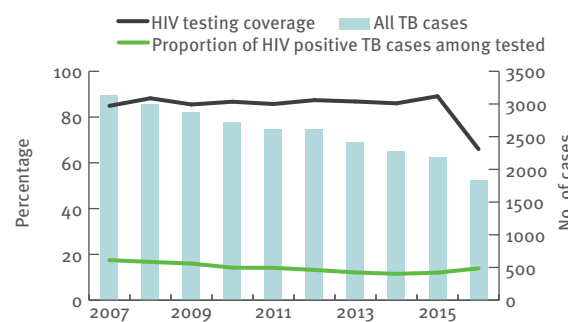
### New and relapsed TB cases – notification rates by age group, 2007-2016



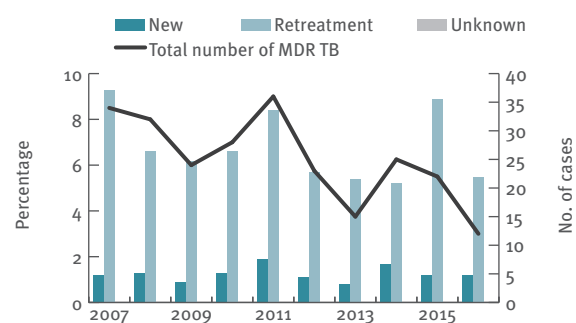
### Tuberculosis cases by geographical origin, 2007-2016



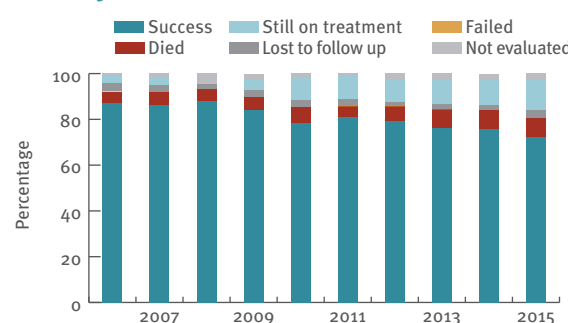
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Romania

Total population at 22 September 2017 by EUROSTAT: 19 870 647

### Tuberculosis case notifications, 2016

Total number of cases	13 617
Notification rate per 100 000	68.5
New* & relapses	12 790
New* & relapses notification rate per 100 000	64.4
Pulmonary	11 523 (84.6%)
of which microscopy-positive	7 454 (64.7%)
of which laboratory confirmed	9 185 (79.7%)
Laboratory-confirmed TB cases	9 517 (69.9%)
Mean age of new native TB cases	42.9 years
Mean age of new foreign TB cases	31.8 years
Foreign origin of all TB cases	24 (0.2%)
New (not previously treated)	10 741 (78.9%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	8 440 (88.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	730-670-790
Pulmonary MDR TB cases notified	458 (5.6%)
of which XDR TB cases	62 (29.8%)
Notified MDR TB	463 (5.5%)
of which XDR TB cases	63 (30.0%)
TB cases tested for HIV	10 634 (78.1%)
HIV-positive TB cases	287 (2.7%)
of these on antiretroviral therapy	254 (88.5%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

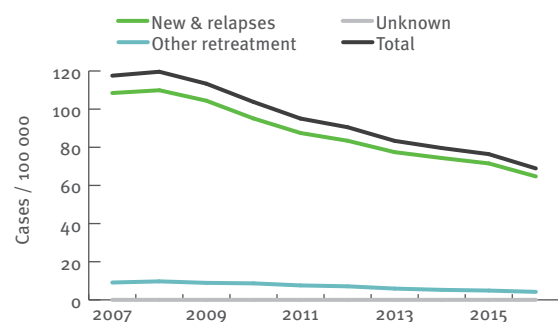
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	7 417	532		
Success	6 282 (84.7%)	199	(37.4%)	
Died	518 (7.0%)	93	(17.5%)	
Failed	152 (2.0%)	156	(29.3%)	
Lost to follow-up	371 (5.0%)	80	(15.0%)	
Still on treatment	89 (1.2%)	4	(0.8%)	
Not evaluated	5 (0.1%)	0	(0.0%)	

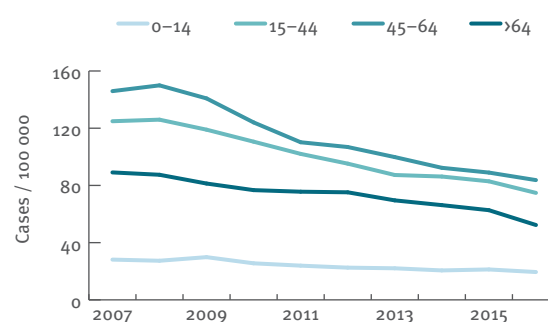
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

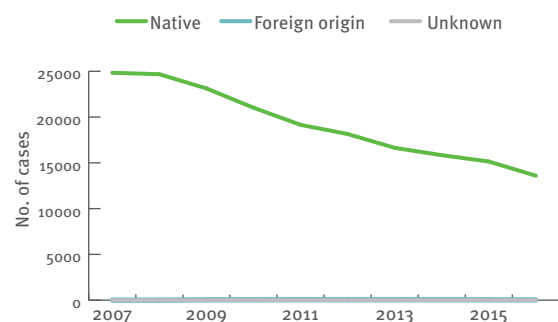
### Tuberculosis notification rates by treatment history, 2007-2016



### New and relapsed TB cases – notification rates by age group, 2007-2016



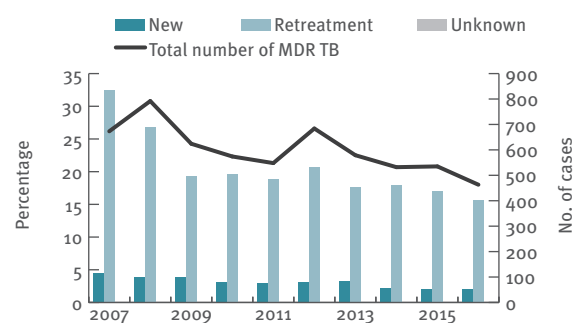
### Tuberculosis cases by geographical origin, 2007-2016



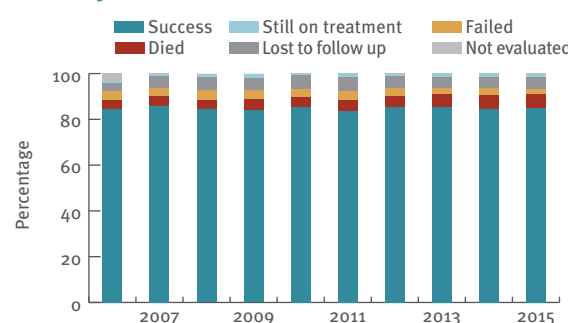
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Russia

Population estimate 20156 by UN Statistical Database: 143964513

### Tuberculosis case notifications, 2016

Total number of cases	121046
Notification rate per 100 000**	84.1
New* & relapses	92407
New* & relapses notification rate per 100 000	64.2
Pulmonary	84066 (91.0%)
of which smear positive	26060 (31%)
of which laboratory confirmed	42681 (50.8%)
Laboratory-confirmed TB cases***	63638 (52.6%)
Mean age of new and relapse TB cases	41.6 years
Mean age of new foreign TB cases	34.6 years
Foreign origin of all TB cases	2797 (2.3%)
New (not previously treated)	78121 (64.5%)

\* Cases with unknown previous treatment included in new cases.  
 \*\* UN Population Division estimates are lower than the population registered by the Federal State Statistics Service of the Russian Federation.  
 \*\*\* New & relapses before start of treatment.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	57910 (91.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	47000-46000-47000
Pulmonary MDR TB cases notified	25971 (44.8%)
of which XDR TB cases	3402 (13.1%)
Notified MDR	27363 -
of which XDR TB cases	3402 -
TB cases tested for HIV	79935 (86.5%)
HIV-positive TB cases	16570 (20.7%)
of these on antiretroviral therapy	10549 (63.7%)

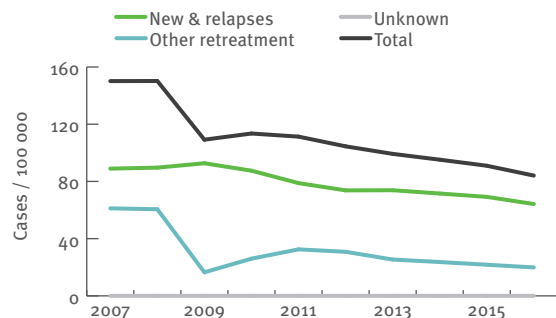
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.  
 \*\* More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	80424	20089
Success	57060 (70.9%)	10170 (50.6%)
Died	8035 (10.0%)	3409 (17.0%)
Failed	5646 (7.0%)	2655 (13.2%)
Lost to follow-up	4074 (5.1%)	1830 (9.1%)
Not evaluated	5609 (7.0%)	2025 (10.1%)

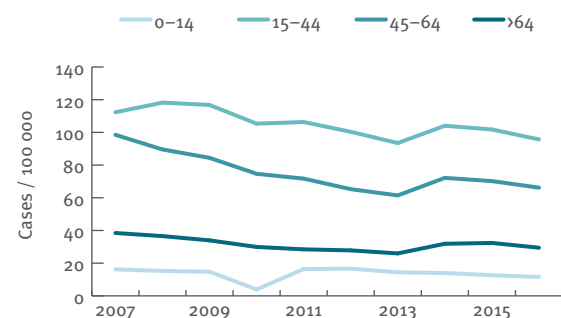
\* Treatment outcome as presented is treatment outcome after 12 months.  
 \*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



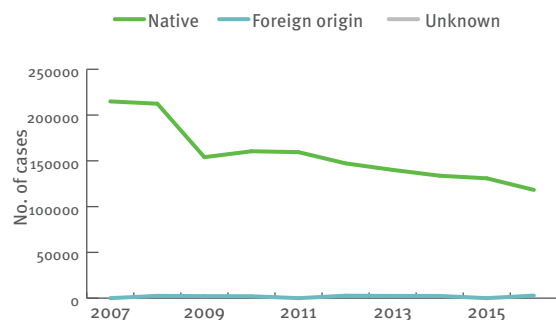
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

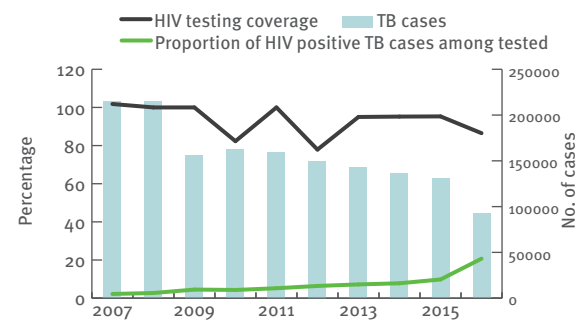


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

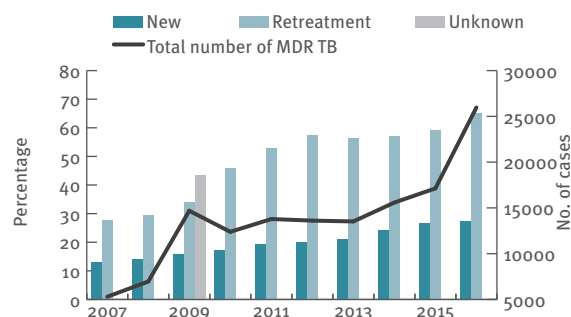


### TB-HIV co-infection, 2007-2016\*

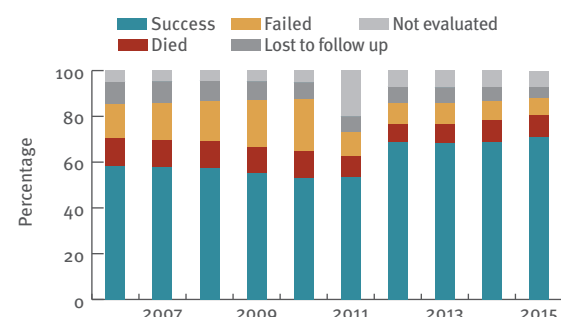


\* HIV testing data are available for new TB cases in civilian population only.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Serbia

Population estimate 2016 by UN Statistical Database: 8 820 083

### Tuberculosis case notifications, 2016

Total number of cases	1488
Notification rate per 100 000	16.9
New* & relapses	1472
New* & relapses notification rate per 100 000	16.7
Pulmonary	1206 (81.9%)
of which microscopy-positive	-
of which laboratory confirmed	815 (67.6%)
Laboratory-confirmed TB cases	-
Mean age of new native TB cases	41.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	5 (0.3%)
New (not previously treated)	1348 (90.6%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	398 (48.8%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	19-8-29
Pulmonary MDR TB cases notified	6 (1.5%)
of which XDR TB cases	1 (16.7%)
Notified MDR TB	8
of which XDR TB cases	1
TB cases tested for HIV	84 (5.7%)
HIV-positive TB cases	5 (6.0%)
of these on antiretroviral therapy	5 (100.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

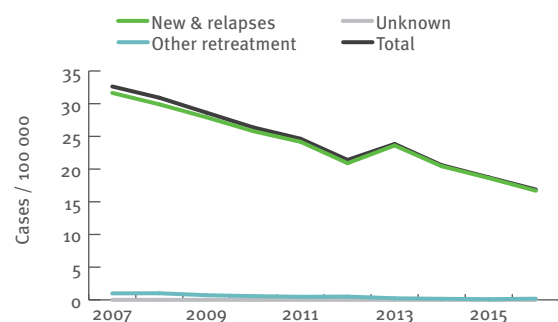
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	1647		19	
Success	1471 (89.3%)	12 (63.2%)		
Died	82 (5.0%)	2 (10.5%)		
Failed	12 (0.7%)	2 (10.5%)		
Lost to follow-up	60 (3.6%)	3 (15.8%)		
Not evaluated	22 (1.3%)	0 (0.0%)		

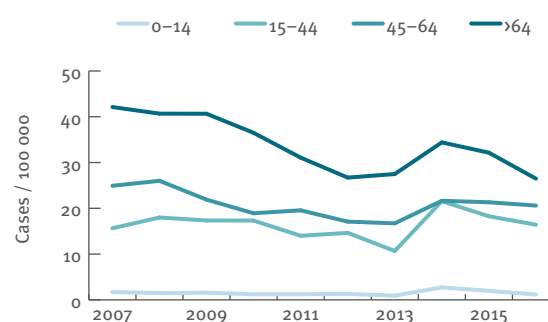
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

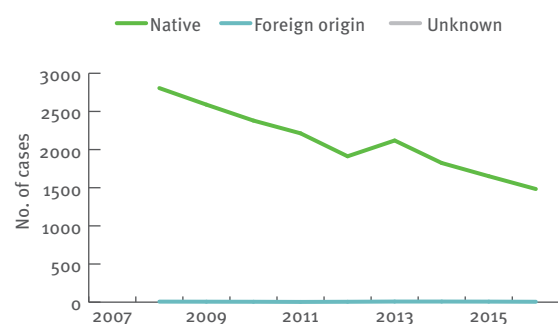
### Tuberculosis notification rates by treatment history, 2007-2016



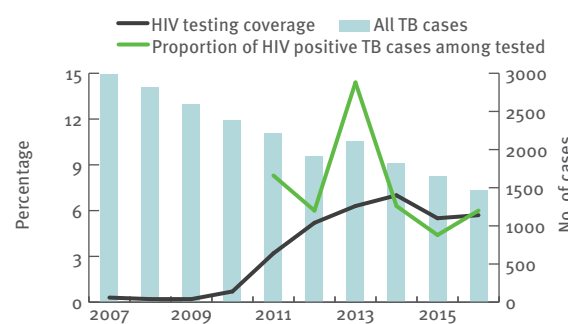
### New and relapsed TB cases – notification rates by age group, 2007-2016



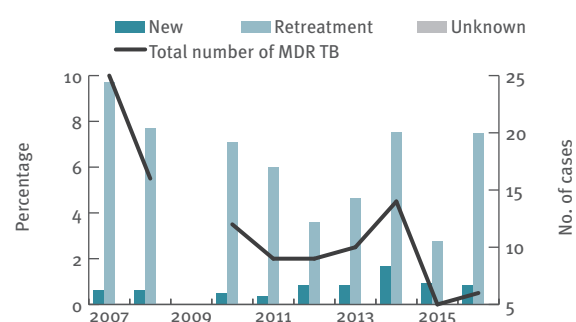
### Tuberculosis cases by geographical origin, 2007-2016



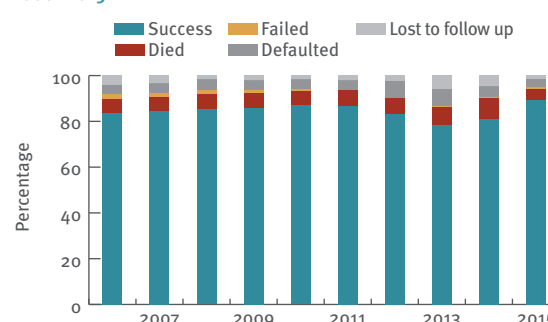
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Slovakia

Total population at 22 September 2017 by EUROSTAT: 5426 252

### Tuberculosis case notifications, 2016

Total number of cases	296
Notification rate per 100 000	5.5
New* & relapses	281
New* & relapses notification rate per 100 000	5.2
Pulmonary	253 (85.5%)
of which microscopy-positive	88 (34.8%)
of which laboratory confirmed	115 (45.5%)
Laboratory-confirmed TB cases	117 (39.5%)
Mean age of new native TB cases	44.4 years
Mean age of new foreign TB cases	30.4 years
Foreign origin of all TB cases	11 (3.7%)
New (not previously treated)	257 (86.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	113 (96.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1-0-4
Pulmonary MDR TB cases notified	3 (2.7%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	3 (2.7%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	132 (44.6%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	0 (0.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

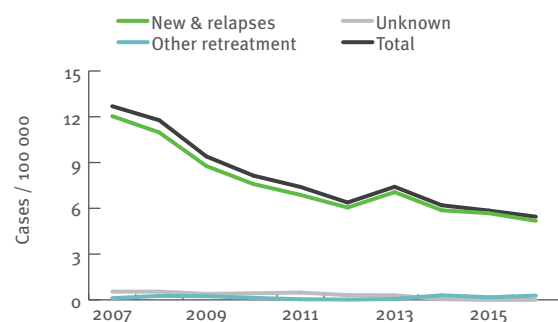
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	136		3	
Success	119 (87.5%)	1 (33.3%)		
Died	14 (10.3%)	2 (66.7%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	1 (0.7%)	0 (0.0%)		
Still on treatment	1 (0.7%)	0 (0.0%)		
Not evaluated	1 (0.7%)	0 (0.0%)		

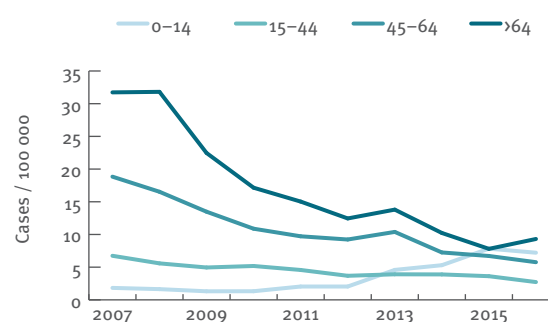
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

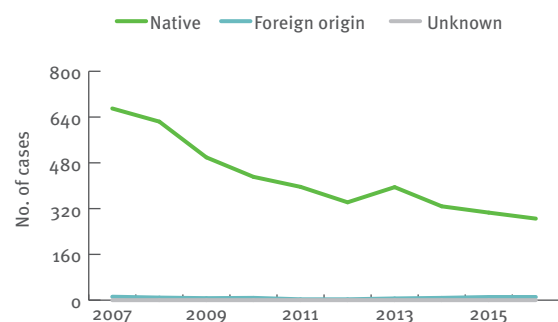
### Tuberculosis notification rates by treatment history, 2007-2016



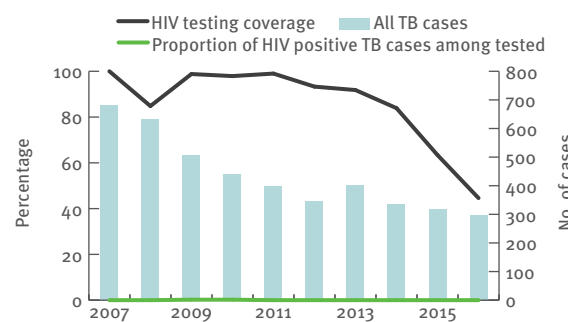
### New and relapsed TB cases – notification rates by age group, 2007-2016



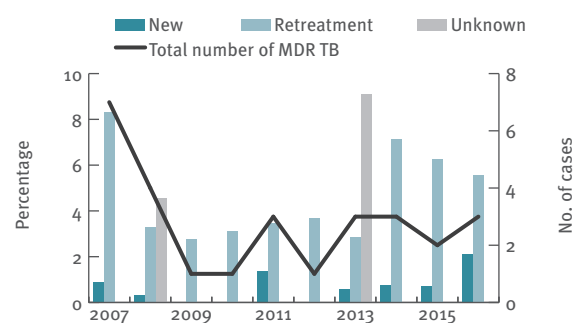
### Tuberculosis cases by geographical origin, 2007-2016



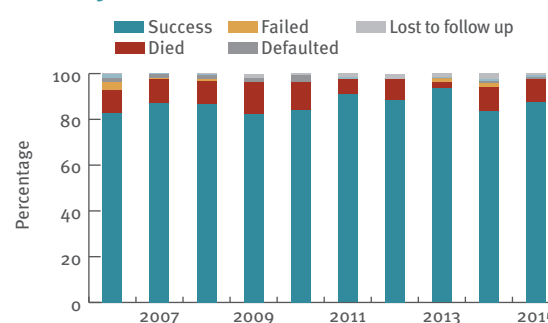
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Slovenia

Total population at 22 September 2017 by EUROSTAT: 2064188

### Tuberculosis case notifications, 2016

Total number of cases	118
Notification rate per 100 000	5.7
New* & relapses	118
New* & relapses notification rate per 100 000	5.7
Pulmonary	103 (87.3%)
of which microscopy-positive	58 (56.3%)
of which laboratory confirmed	96 (93.2%)
Laboratory-confirmed TB cases	109 (92.4%)
Mean age of new native TB cases	60.2 years
Mean age of new foreign TB cases	53.3 years
Foreign origin of all TB cases	43 (36.4%)
New (not previously treated)	113 (95.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	109 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
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	95 (80.5%)
HIV-positive TB cases	1 (1.1%)
of these on antiretroviral therapy	1 (100.0%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

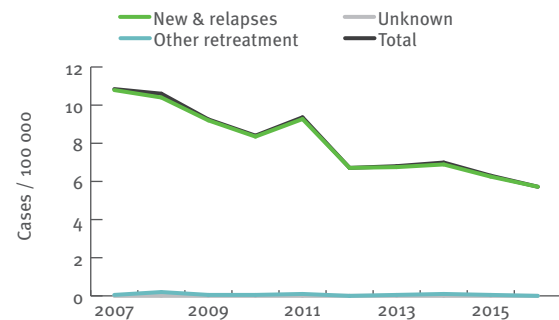
### Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes		
Cases notified	88	0	
Success	76 (86.4%)	0	-
Died	11 (12.5%)	0	-
Failed	0 (0.0%)	0	-
Lost to follow-up	0 (0.0%)	0	-
Still on treatment	1 (1.1%)	0	-
Not evaluated	0 (0.0%)	0	-

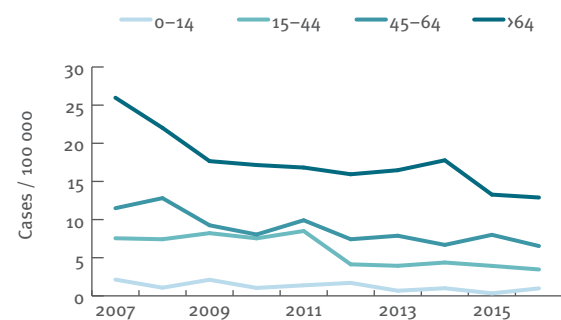
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

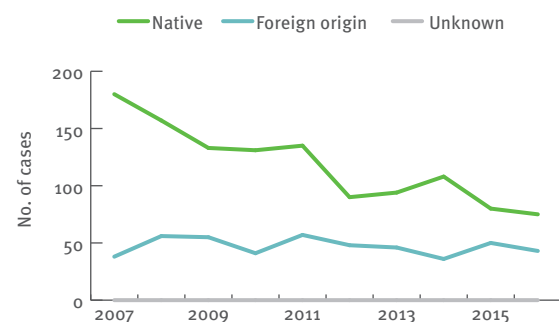
### Tuberculosis notification rates by treatment history, 2007–2016



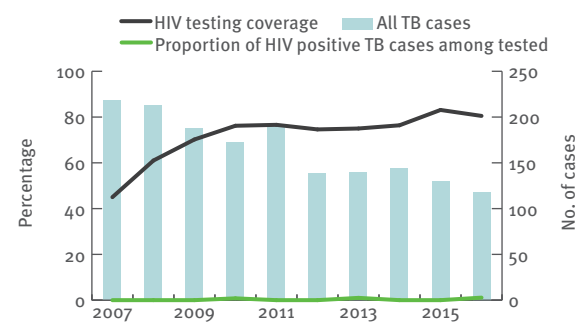
### New and relapsed TB cases – notification rates by age group, 2007–2016



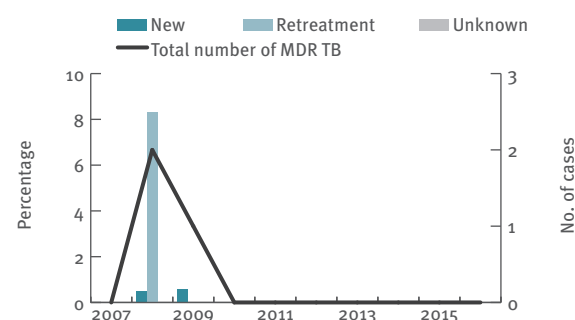
### Tuberculosis cases by geographical origin, 2007–2016



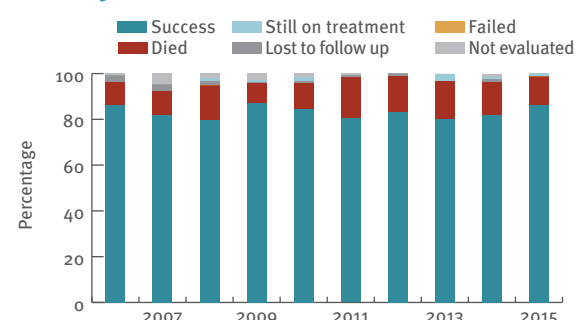
### TB-HIV co-infection, 2007–2016



### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Spain

Total population at 22 September 2017 by EUROSTAT: 46 449 565

### Tuberculosis case notifications, 2016

Total number of cases	4877
Notification rate per 100 000	10.5
New* & relapses	4734
New* & relapses notification rate per 100 000	10.2
Pulmonary	3515 (72.1%)
of which microscopy-positive	1675 (47.7%)
of which laboratory confirmed	2689 (76.5%)
Laboratory-confirmed TB cases	3372 (69.1%)
Mean age of new native TB cases	51.8 years
Mean age of new foreign TB cases	38.7 years
Foreign origin of all TB cases	1391 (28.5%)
New (not previously treated)	4734 (97.1%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	896 (26.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	25-10-40
Pulmonary MDR TB cases notified	39 (4.4%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	39 (4.4%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	2925 (60.0%)
HIV-positive TB cases	226 (7.7%)
of these on antiretroviral therapy	- -

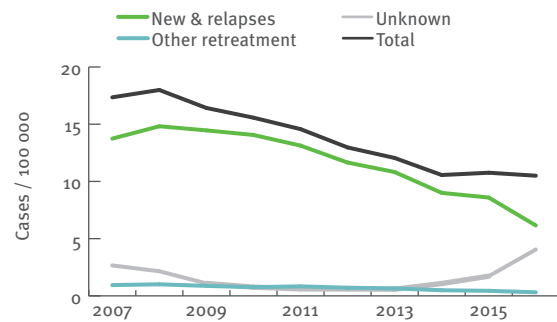
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

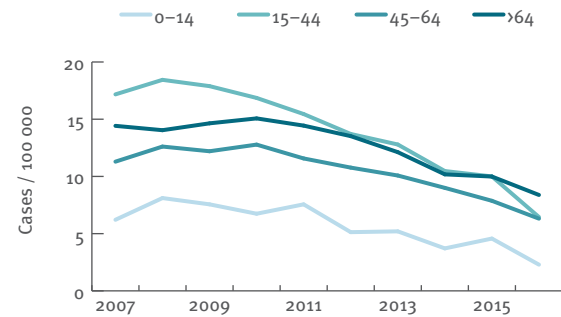
### Treatment outcome monitoring

Data not available

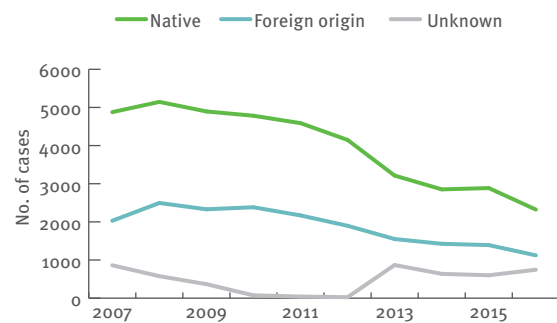
### Tuberculosis notification rates by treatment history, 2007-2016



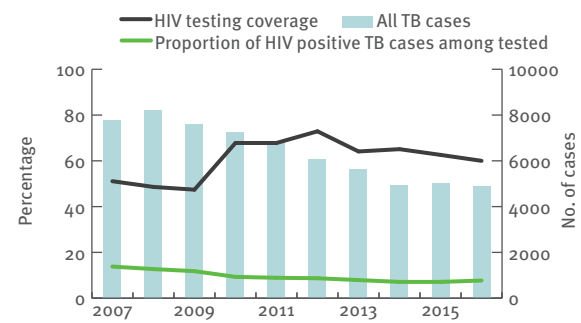
### New and relapsed TB cases – notification rates by age group, 2007-2016



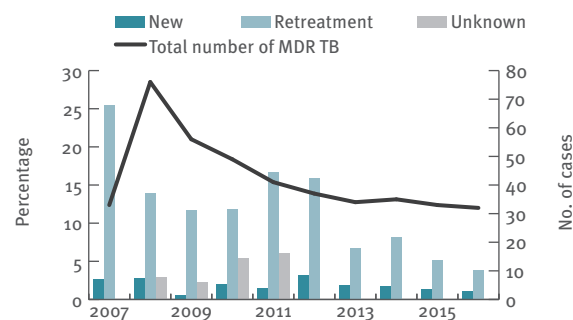
### Tuberculosis cases by geographical origin, 2007-2016



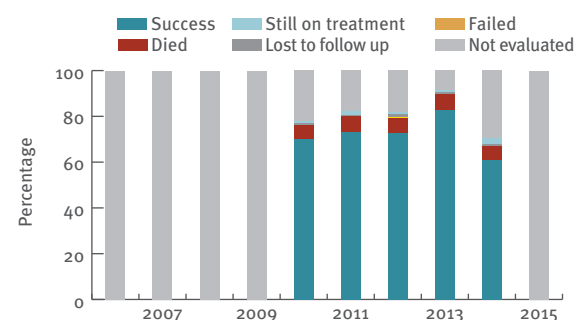
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015





# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Sweden

Total population at 22 September 2017 by EUROSTAT: 9747 355

### Tuberculosis case notifications, 2016

Total number of cases	726
Notification rate per 100 000	7.4
New* & relapses	702
New* & relapses notification rate per 100 000	7.2
Pulmonary	482 (66.4%)
of which microscopy-positive	123 (25.5%)
of which laboratory confirmed	419 (86.9%)
Laboratory-confirmed TB cases	597 (82.2%)
Mean age of new native TB cases	49.5 years
Mean age of new foreign TB cases	30.3 years
Foreign origin of all TB cases	652 (89.8%)
New (not previously treated)	697 (96.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	595 (99.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	23-13-32
Pulmonary MDR TB cases notified	14 (3.3%)
of which XDR TB cases	4 (28.6%)
Notified MDR TB	22 (3.7%)
of which XDR TB cases	4 (18.2%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

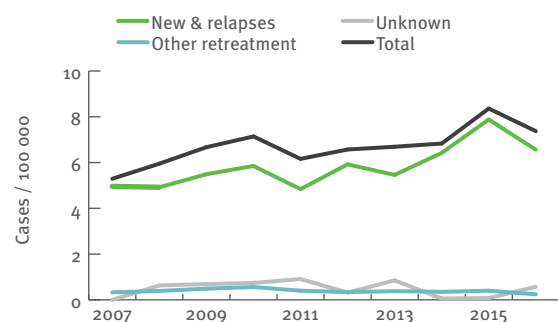
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	428		15	
Success	345 (80.6%)	13 (86.7%)		
Died	15 (3.5%)	1 (6.7%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	6 (1.4%)	0 (0.0%)		
Still on treatment	24 (5.6%)	0 (0.0%)		
Not evaluated	38 (8.9%)	1 (6.7%)		

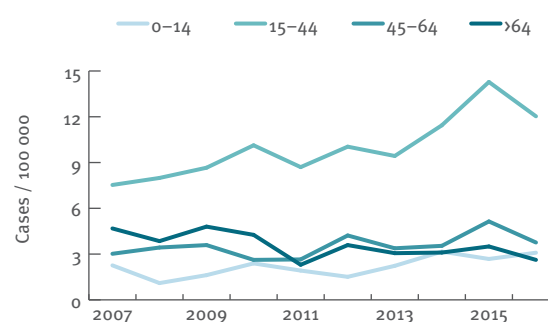
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

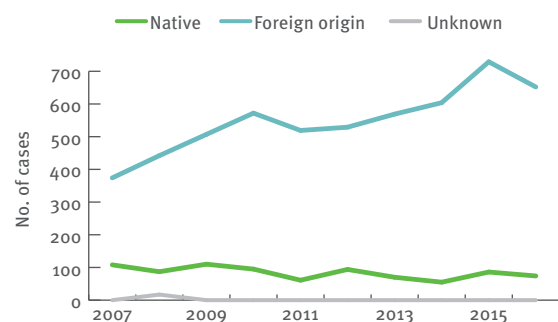
### Tuberculosis notification rates by treatment history, 2007–2016



### New and relapsed TB cases – notification rates by age group, 2007–2016



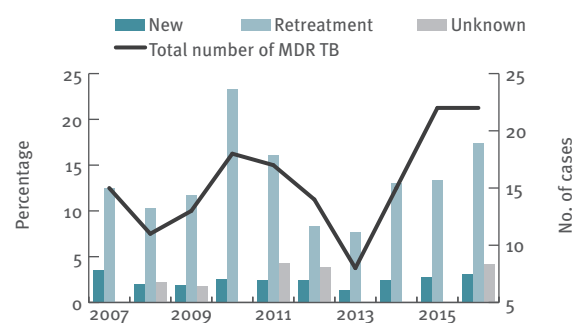
### Tuberculosis cases by geographical origin, 2007–2016



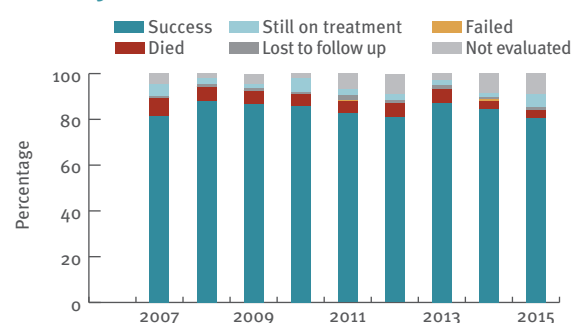
### TB-HIV co-infection, 2007–2016

Data not available

### MDR TB cases by previous treatment history, 2007–2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Switzerland

Population estimate 2016 by UN Statistical Database: 8 401 739

### Tuberculosis case notifications, 2016

Total number of cases	609
Notification rate per 100 000	7.2
New* & relapses	573
New* & relapses notification rate per 100 000	6.8
Pulmonary	402 (70.2%)
of which smear positive	-
of which laboratory confirmed	362 (90.0%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	34.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	486 (79.8%)
New (not previously treated)	573 (94.1%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	296 (81.8%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	22-11-34
Pulmonary MDR TB cases notified	13 (4.4%)
of which XDR TB cases	0 (0.0%)
Notified MDR	18 -
of which XDR TB cases	0 -
TB cases tested for HIV	- -
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

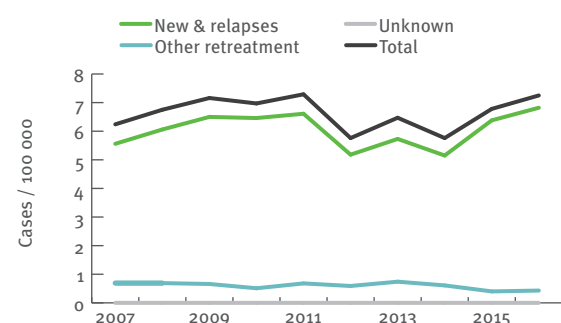
### Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes		
Cases notified	-	12	
Success	-	9	(75.0%)
Died	-	0	(0.0%)
Failed	-	1	(8.3%)
Lost to follow-up	-	0	(0.0%)
Not evaluated	-	2	(16.7%)

\* Treatment outcome as presented is treatment outcome after 12 months.

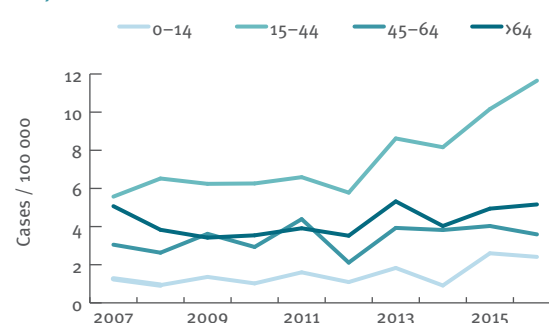
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



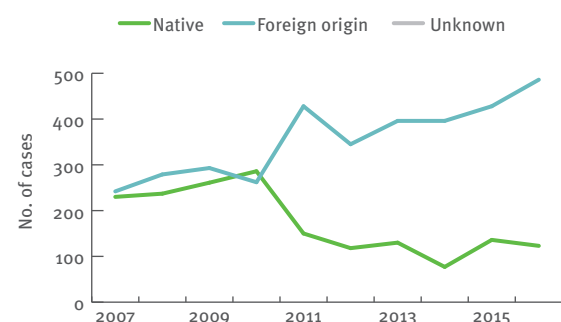
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

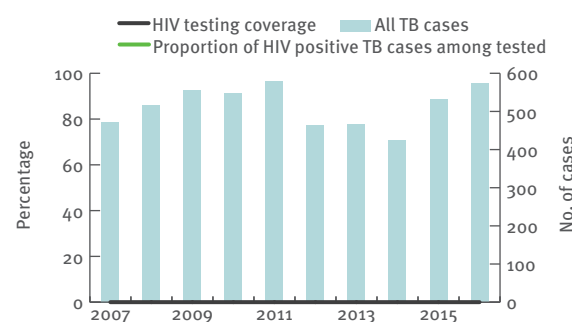


\* Data up to 2012 includes new TB cases only.

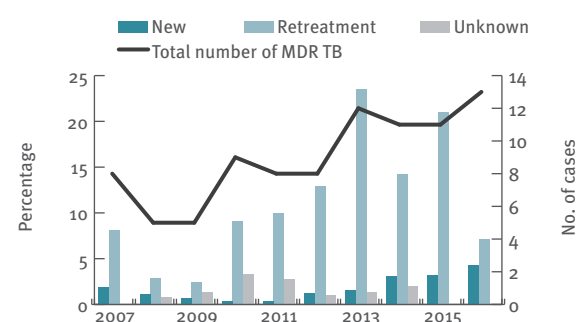
### Tuberculosis cases by geographical origin, 2007-2016



### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015

Data not available

# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Tajikistan

Population estimate 2016 by UN Statistical Database: 8734951

### Tuberculosis case notifications, 2016

Total number of cases	6241
Notification rate per 100 000	71.4
New* & relapses	5965
New* & relapses notification rate per 100 000	68.3
Pulmonary	4368 (73.2%)
of which smear positive	-
of which laboratory confirmed	3011 (68.9%)
Laboratory-confirmed TB cases	-
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)	5241 (84.0%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2702 (89.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1200-1200-1300
Pulmonary MDR TB cases notified	646 (23.9%)
of which XDR TB cases	59 (9.1%)
Notified MDR	748 -
of which XDR TB cases	59 -
TB cases tested for HIV	5850 (98.1%)
HIV-positive TB cases	201 (3.4%)
of these on antiretroviral therapy	182 (90.5%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

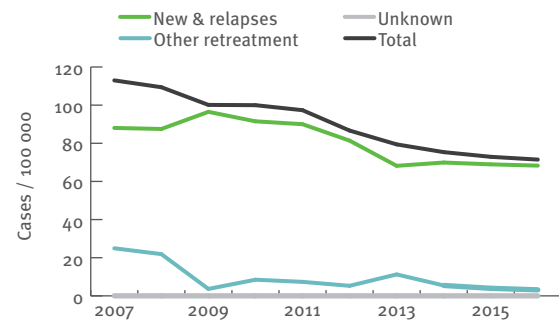
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	5298	804
Success	4734 (89.4%)	398 (49.5%)
Died	237 (4.5%)	170 (21.1%)
Failed	111 (2.1%)	67 (8.3%)
Lost to follow-up	172 (3.2%)	159 (19.8%)
Not evaluated	44 (0.8%)	10 (1.2%)

\* Treatment outcome as presented is treatment outcome after 12 months.

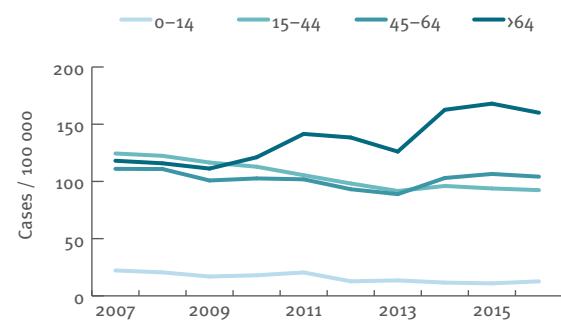
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



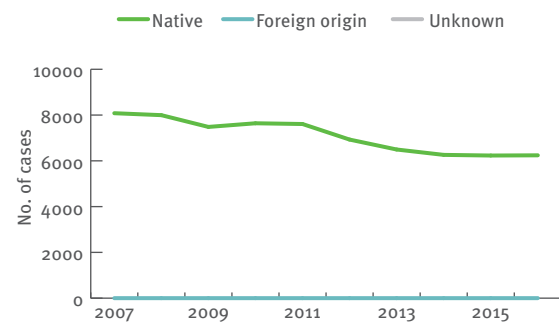
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

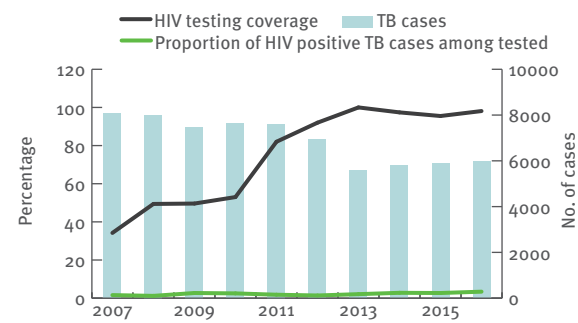


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

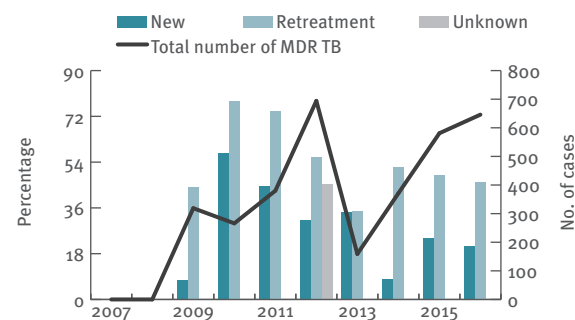


### TB-HIV co-infection, 2007-2016

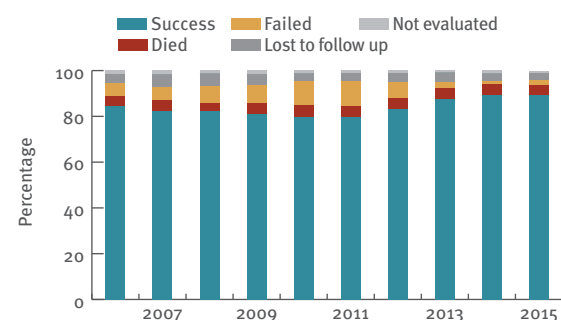


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Turkey

Population estimate 2016 by UN Statistical Database: 79512426

### Tuberculosis case notifications, 2016

Total number of cases	12 417
Notification rate per 100 000	15.6
New* & relapses	12 186
New* & relapses notification rate per 100 000	15.3
Pulmonary (new and relapse)	8 044 (66.0%)
of which smear positive	-
of which laboratory confirmed	6 334 (78.7%)
Laboratory-confirmed TB cases	-
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	904 (7.3%)
New (not previously treated)	11 442 (92.1%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	5 612 (88.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	350-300-390
Pulmonary MDR TB cases notified	190 (3.4%)
of which XDR TB cases	9 (4.7%)
Notified MDR	256 -
of which XDR TB cases	9 -
TB cases tested for HIV	8 549 (70.2%)
HIV-positive TB cases	56 (0.7%)
of these on antiretroviral therapy	51 (91.1%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

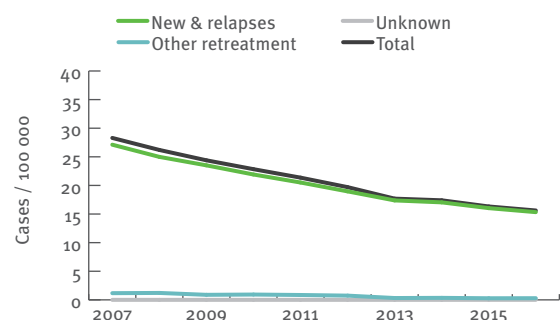
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	12 362	257
Success	10 735 (86.8%)	163 (63.4%)
Died	695 (5.6%)	27 (10.5%)
Failed	30 (0.2%)	15 (5.8%)
Lost to follow-up	432 (3.5%)	30 (11.7%)
Not evaluated	470 (3.8%)	22 (8.6%)

\* Treatment outcome as presented is treatment outcome after 12 months.

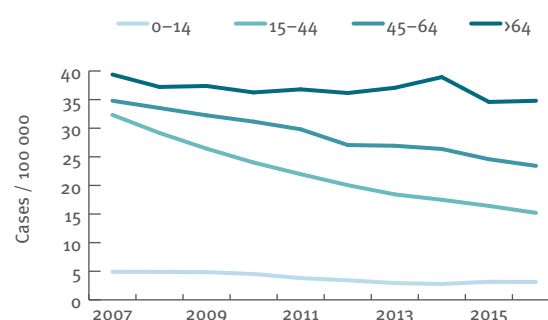
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



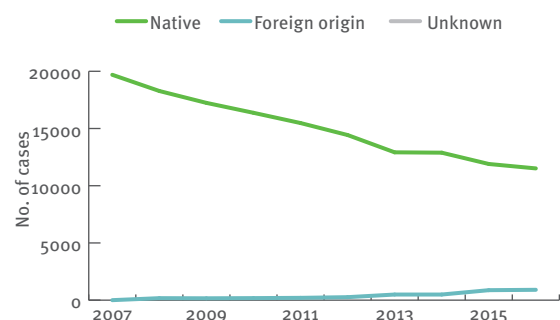
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

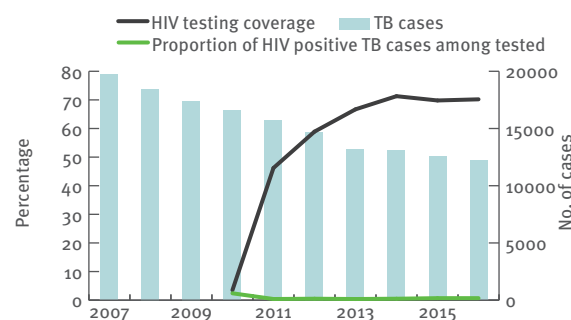


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

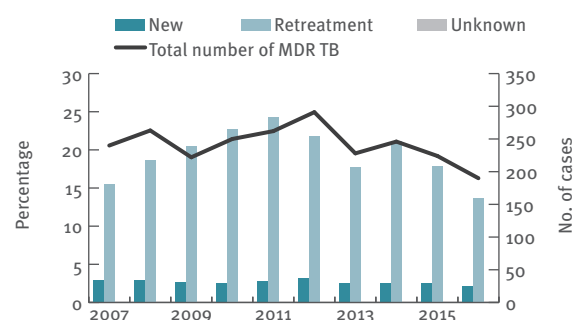


### TB-HIV co-infection, 2007-2016

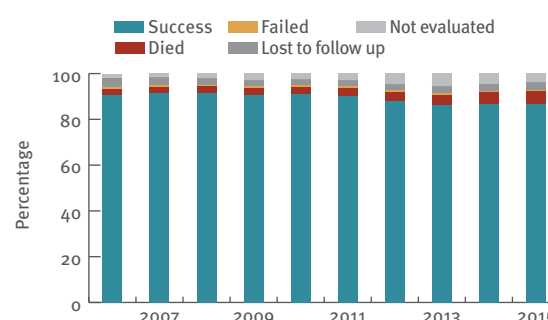


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Turkmenistan

Population estimate 2016 by UN Statistical Database: 5622544

### Tuberculosis case notifications, 2016

Total number of cases	2376
Notification rate per 100 000	42.0
New* & relapses	2104
New* & relapses notification rate per 100 000	37.2
Pulmonary	1616 (76.8%)
of which smear positive	-
of which laboratory confirmed	1616 (100.0%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	40.0 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	1952 (82.2%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	No
Cases with DST results	-
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	450-390-520
Pulmonary MDR TB cases notified	557
of which XDR TB cases	-
Notified MDR	557
of which XDR TB cases	-
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

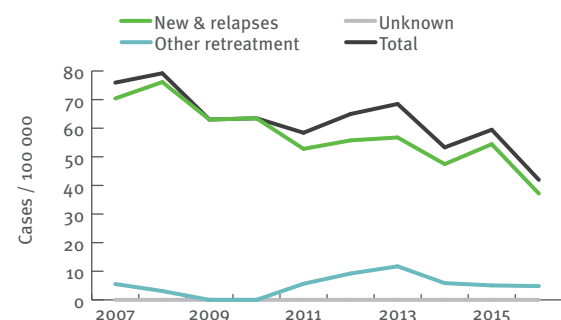
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	2472	213
Success	2126 (86.0%)	143 (67.1%)
Died	105 (4.2%)	24 (11.3%)
Failed	105 (4.2%)	32 (15.0%)
Lost to follow-up	82 (3.3%)	9 (6.6%)
Not evaluated	54 (2.2%)	0 (0.0%)

\* Treatment outcome as presented is treatment outcome after 12 months.

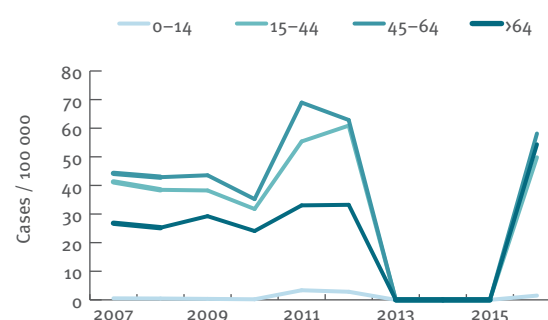
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



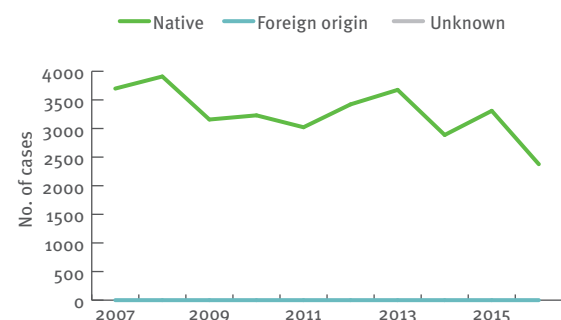
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases – notification rates by age group, 2007-2016\*

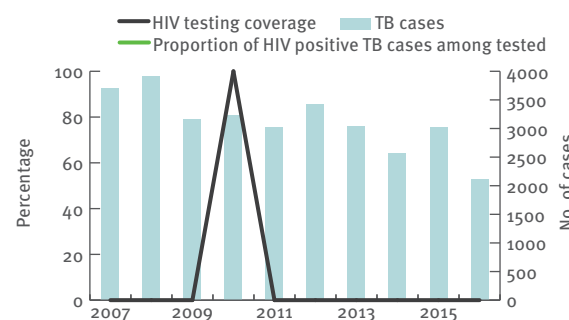


\* Data up to 2012 includes new TB cases only.

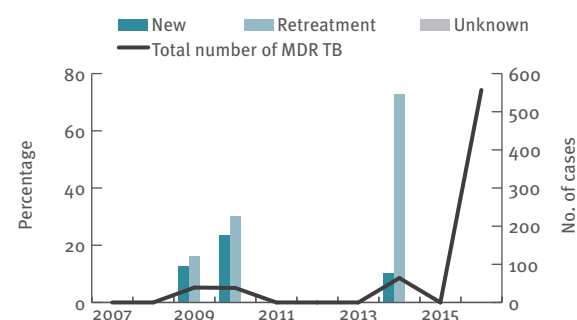
### Tuberculosis cases by geographical origin, 2007-2016



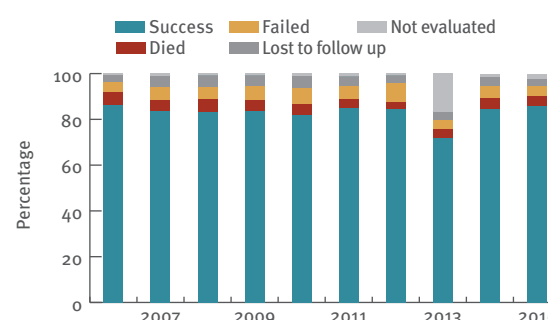
### TB-HIV co-infection, 2006-2014



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome of new TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



## 2016 data Ukraine

Population estimate 2016 by UN Statistical Database: 44 438 625

### Tuberculosis case notifications, 2016

Total number of cases	34 088
Notification rate per 100 000	76.7
New* & relapses	29 052
New* & relapses notification rate per 100 000	65.4
Pulmonary	26 357 (90.7%)
of which smear positive	-
of which laboratory confirmed	18 125 (68.8%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	20 (0.1%)
New (not previously treated)	23 316 (68.4%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	20 147 (111.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	10 000-10 000-11 000
Pulmonary MDR TB cases notified	5 756 (28.6%)
of which XDR TB cases	247 (4.3%)
Notified MDR	8 651 -
of which XDR TB cases	1 195 -
TB cases tested for HIV	28 194 (97.0%)
HIV-positive TB cases	5 832 (20.7%)
of these on antiretroviral therapy	3 945 (67.6%)

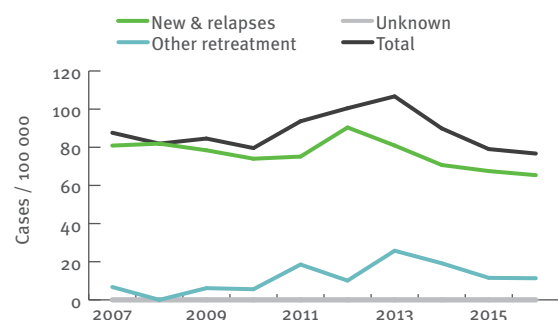
\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.  
\*\* More than 50% of TB cases with reported HIV status.

### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	23 892	7 174
Success	17 939 (75.1%)	3 297 (46.0%)
Died	2 393 (10.0%)	1 210 (16.9%)
Failed	1 950 (8.2%)	1 284 (17.9%)
Lost to follow-up	1 552 (6.5%)	1 186 (16.5%)
Not evaluated	58 (0.2%)	197 (2.7%)

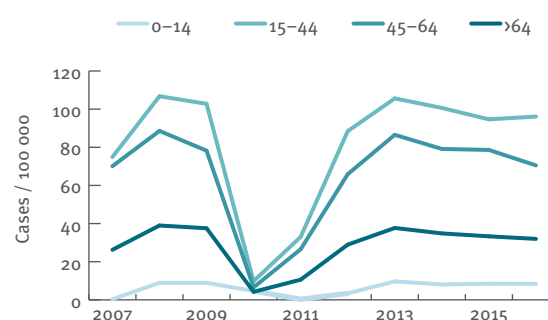
\* Treatment outcome as presented is treatment outcome after 12 months.  
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



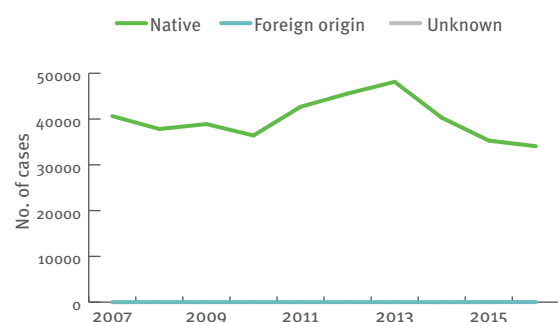
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases - notification rates by age group, 2007-2016\*

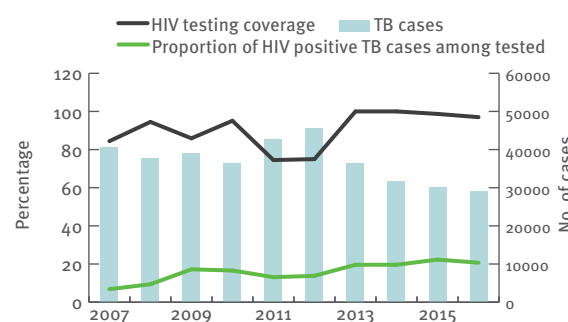


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

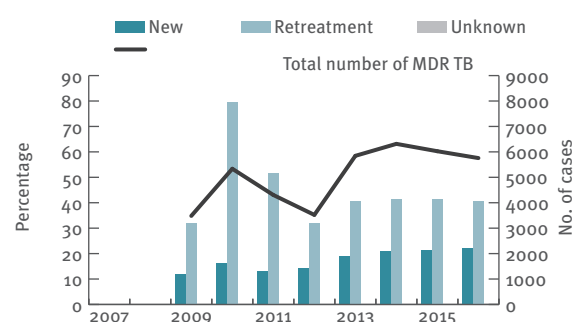


### TB-HIV co-infection, 2007-2016

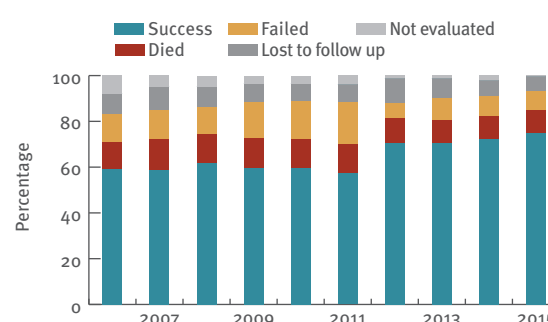


\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*



# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## United Kingdom

Total population at 22 September 2017 by EUROSTAT: 65 382 556

### Tuberculosis case notifications, 2016

Total number of cases	6 175
Notification rate per 100 000	9.4
New* & relapses	5 793
New* & relapses notification rate per 100 000	8.9
Pulmonary	3 354 (54.3%)
of which microscopy-positive	1 379 (41.1%)
of which laboratory confirmed	2 535 (75.6%)
Laboratory-confirmed TB cases	3 907 (63.3%)
Mean age of new native TB cases	43.7 years
Mean age of new foreign TB cases	41.5 years
Foreign origin of all TB cases	4 369 (70.8%)
New (not previously treated)	5 793 (93.8%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	3 789 (97.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	58-39-78
Pulmonary MDR TB cases notified	43 (1.8%)
of which XDR TB cases	6 (15.4%)
Notified MDR TB	56 (1.5%)
of which XDR TB cases	7 (14.0%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

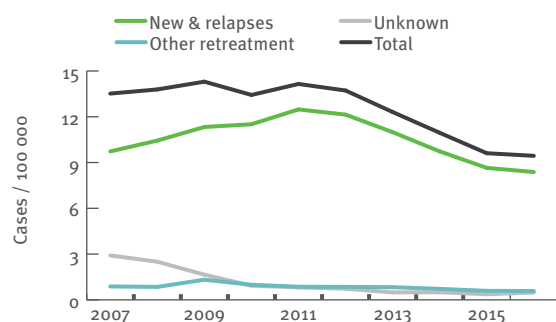
### Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*		All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes			
Cases notified	2 210		56	
Success	1 679 (76.0%)	29 (51.8%)		
Died	158 (7.1%)	2 (3.6%)		
Failed	0 (0.0%)	0 (0.0%)		
Lost to follow-up	112 (5.1%)	12 (21.4%)		
Still on treatment	226 (10.2%)	10 (17.9%)		
Not evaluated	35 (1.6%)	3 (5.4%)		

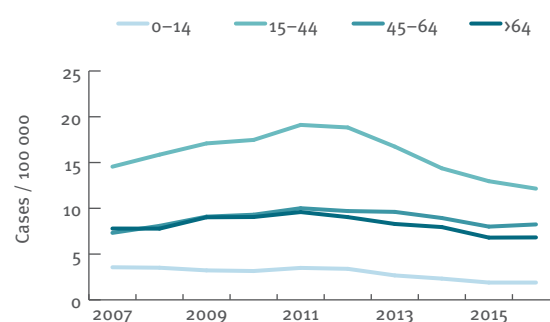
\* Treatment outcome as presented is treatment outcome after 12 months.

\*\* Treatment outcome as presented is treatment outcome after 24 months.

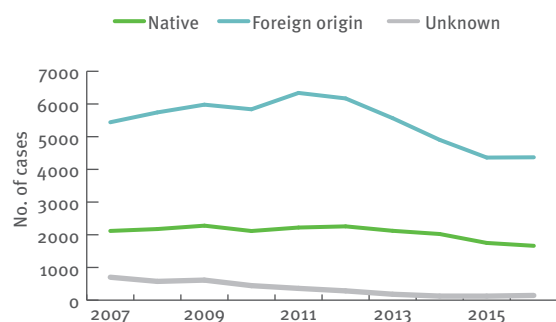
### Tuberculosis notification rates by treatment history, 2007-2016



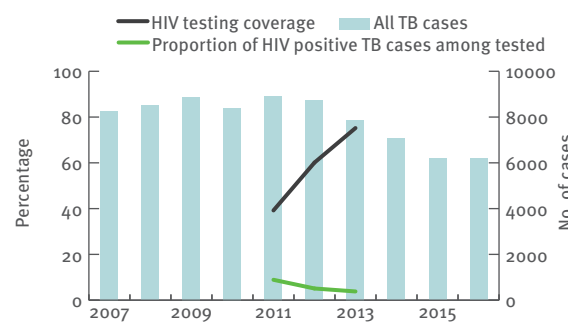
### New and relapsed TB cases – notification rates by age group, 2007-2016



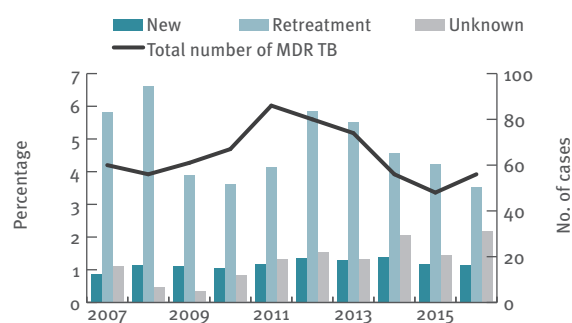
### Tuberculosis cases by geographical origin, 2007-2016



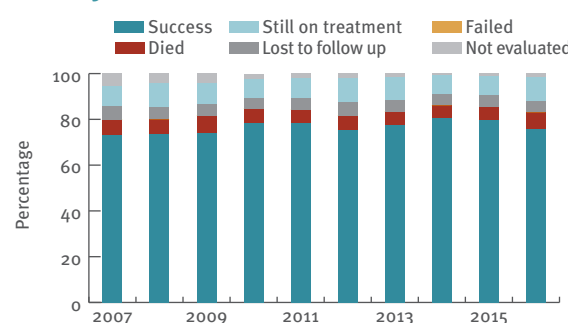
### TB-HIV co-infection, 2007-2016



### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015





# Tuberculosis surveillance and monitoring in Europe 2018.



2016 data

## Uzbekistan

Population estimate 2016 by UN Statistical Database: 31446795

### Tuberculosis case notifications, 2016

Total number of cases	18 441
Notification rate per 100 000	58.6
New* & relapses	16 050
New* & relapses notification rate per 100 000	51.0
Pulmonary (new and relapse)	10 709 (66.7%)
of which smear positive	-
of which laboratory confirmed	4 854 (45.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	39.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	14 436 (78.3%)

\* Cases with unknown previous treatment included in new cases.

### Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1 986 (40.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	5 800-4 900-6 600
Pulmonary MDR TB cases notified	603 (30.4%)
of which XDR TB cases	184
Notified MDR	1 956 -
of which XDR TB cases	184 -
TB cases tested for HIV	18 441 (114.9%)
HIV-positive TB cases	758 (4.1%)
of these on antiretroviral therapy	496 (65.4%)

\* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+75%, EQA 95%.

\*\* More than 50% of TB cases with reported HIV status.

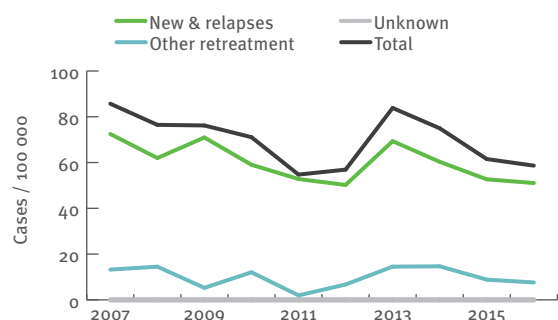
### Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	15 220	3 602
Success	13 536 (88.9%)	2 216 (61.5%)
Died	688 (4.5%)	587 (16.3%)
Failed	193 (1.3%)	221 (6.1%)
Lost to follow-up	172 (1.1%)	220 (6.1%)
Not evaluated	631 (4.1%)	358 (9.9%)

\* Treatment outcome as presented is treatment outcome after 12 months.

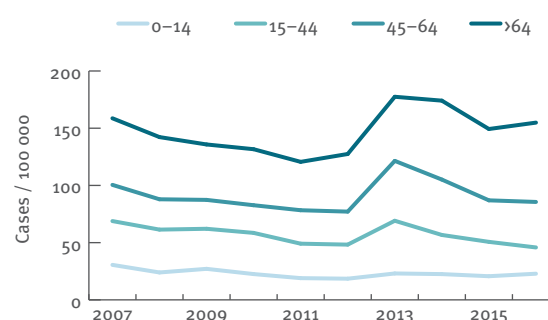
\*\* Treatment outcome as presented is treatment outcome after 24 months.

### Tuberculosis notification rates by treatment history, 2007-2016\*



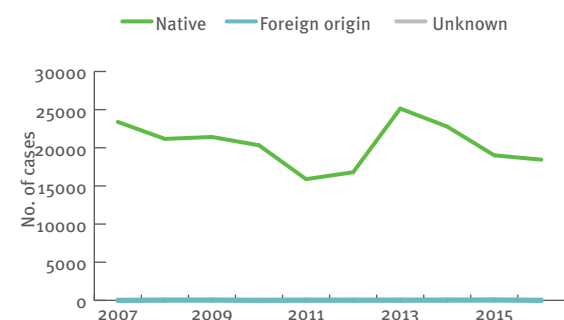
\* Starting from 2013 onward cases with unknown history are included in new and relapses.

### New and relapsed TB cases - notification rates by age group, 2007-2016\*

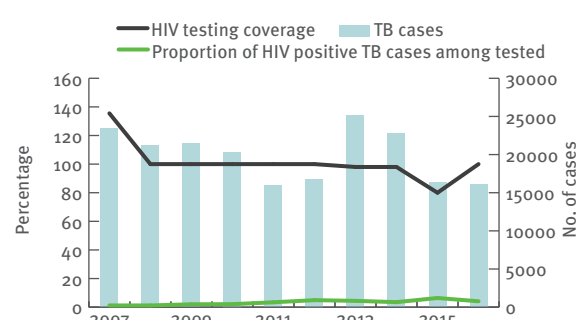


\* Data up to 2012 includes new TB cases only.

### Tuberculosis cases by geographical origin, 2007-2016

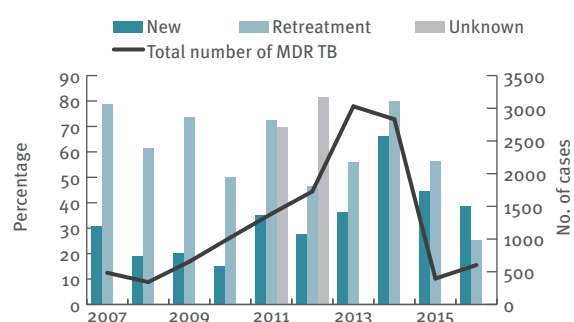


### TB-HIV co-infection, 2007-2016



\* Since 2015 data on HIV detection are collected for new TB cases and relapses.

### MDR TB cases by previous treatment history, 2007-2016



### Treatment outcome, new and relapsed TB cases, 2006-2015\*

