



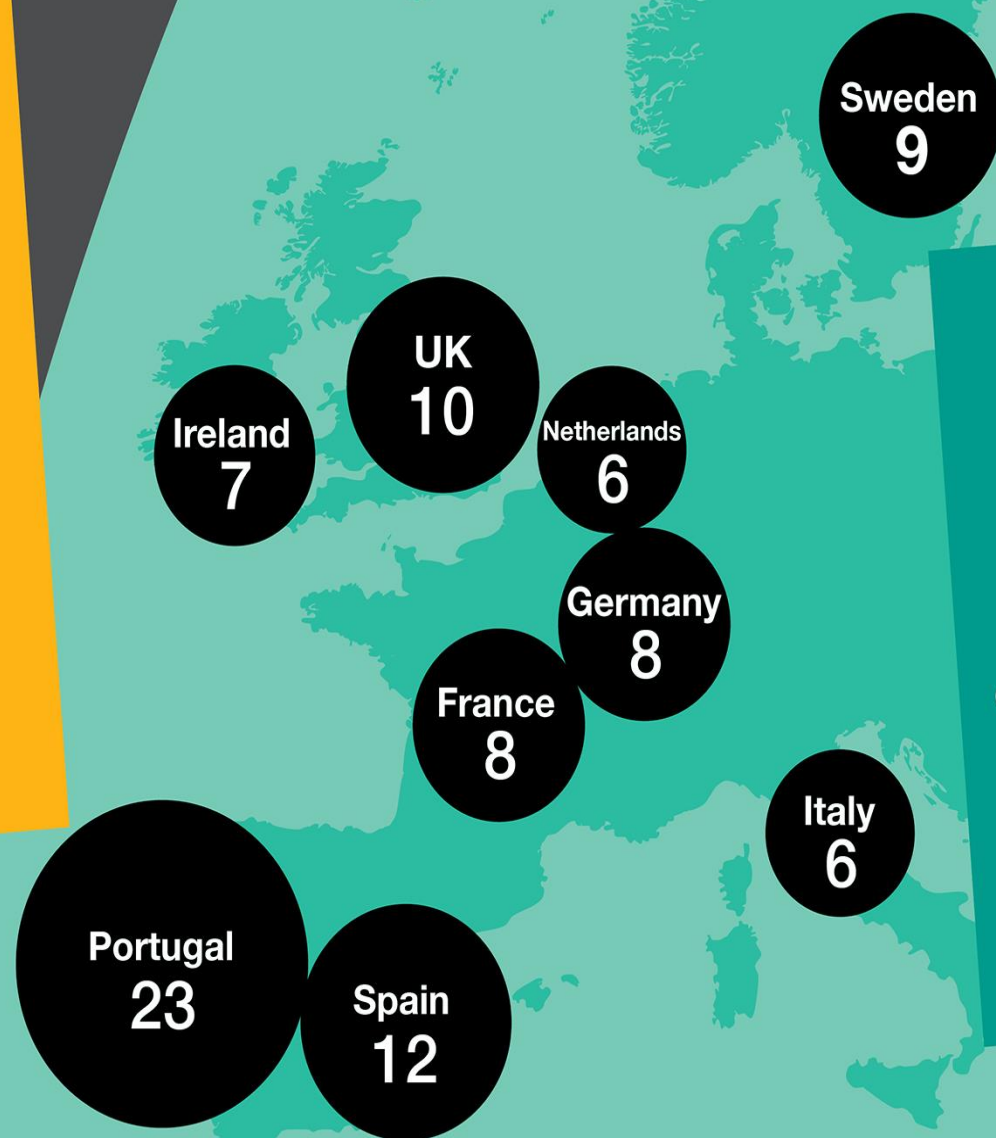
Public Health  
England

Protecting and improving the nation's health

# Latent TB Infection and Screening Programme

Johan van Wijgerden – London TB Programme Manager

**TB rates  
in England  
remain  
among the  
highest in  
Western  
Europe**



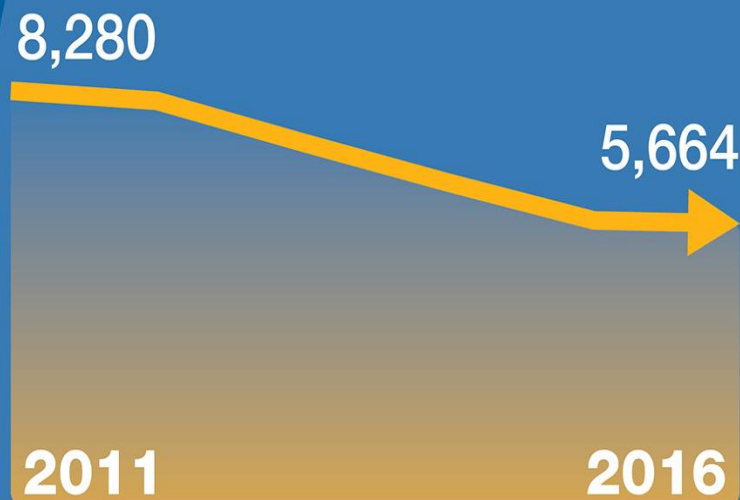
**Estimated  
incidence  
of all forms  
of TB**  
(cases per  
100,000 of  
population)

# TB in England



**3 in 4**

**TB cases**  
born abroad



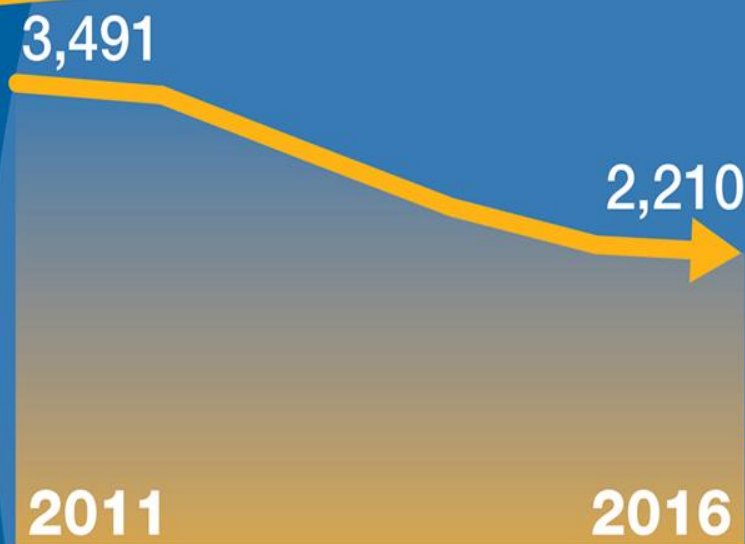
**The number of cases  
of TB in England has  
decreased over the  
past 5 years**



**Cases  
among both  
the UK and  
foreign born  
populations  
decreased  
2012-2016**

## TB in London

**82%**  
**TB cases**  
born abroad

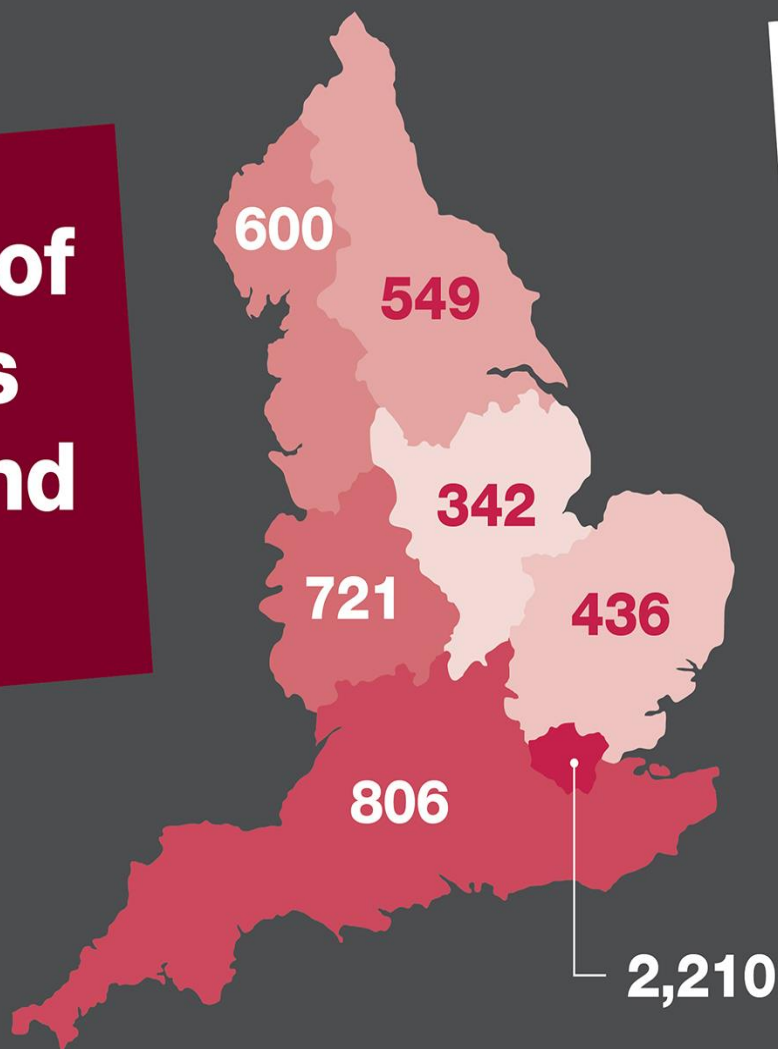


Overall, there has been a 37% reduction in the number of cases of TB in London over the past 5 years



Cases among both the UK and foreign born populations **decreased 2012-2016**

# Number of TB cases in England in 2016



## TB cases





# Improve TB diagnosis to ...

## Reduce the spread of multi-drug resistant TB

TB cases  
(2012-16)



Drug  
sensitive  
TB

13,261

MDR/RR-TB cases take longer and cost more to treat

London

## Reduce delays



in access,  
diagnosis  
and care



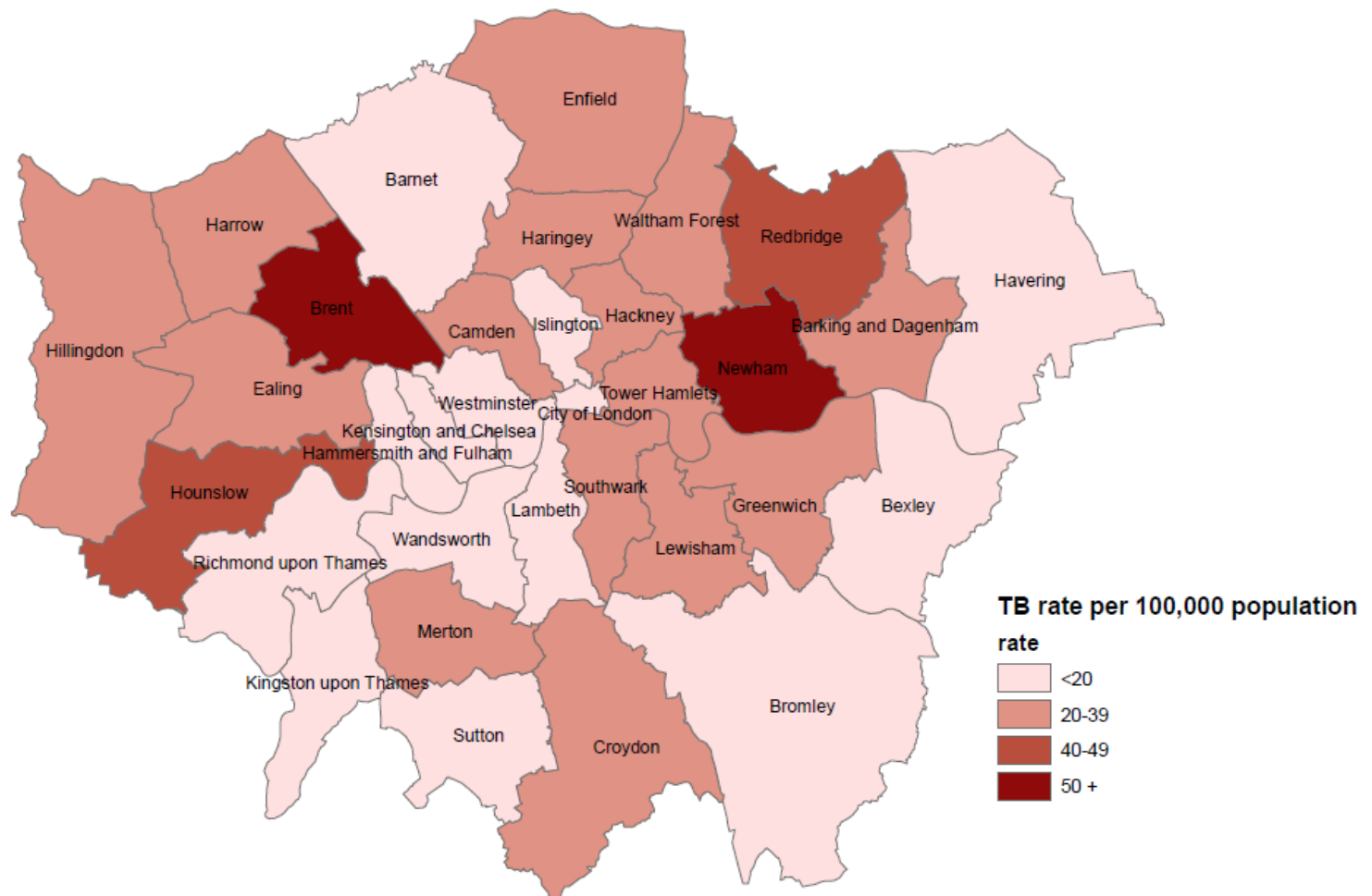
% London



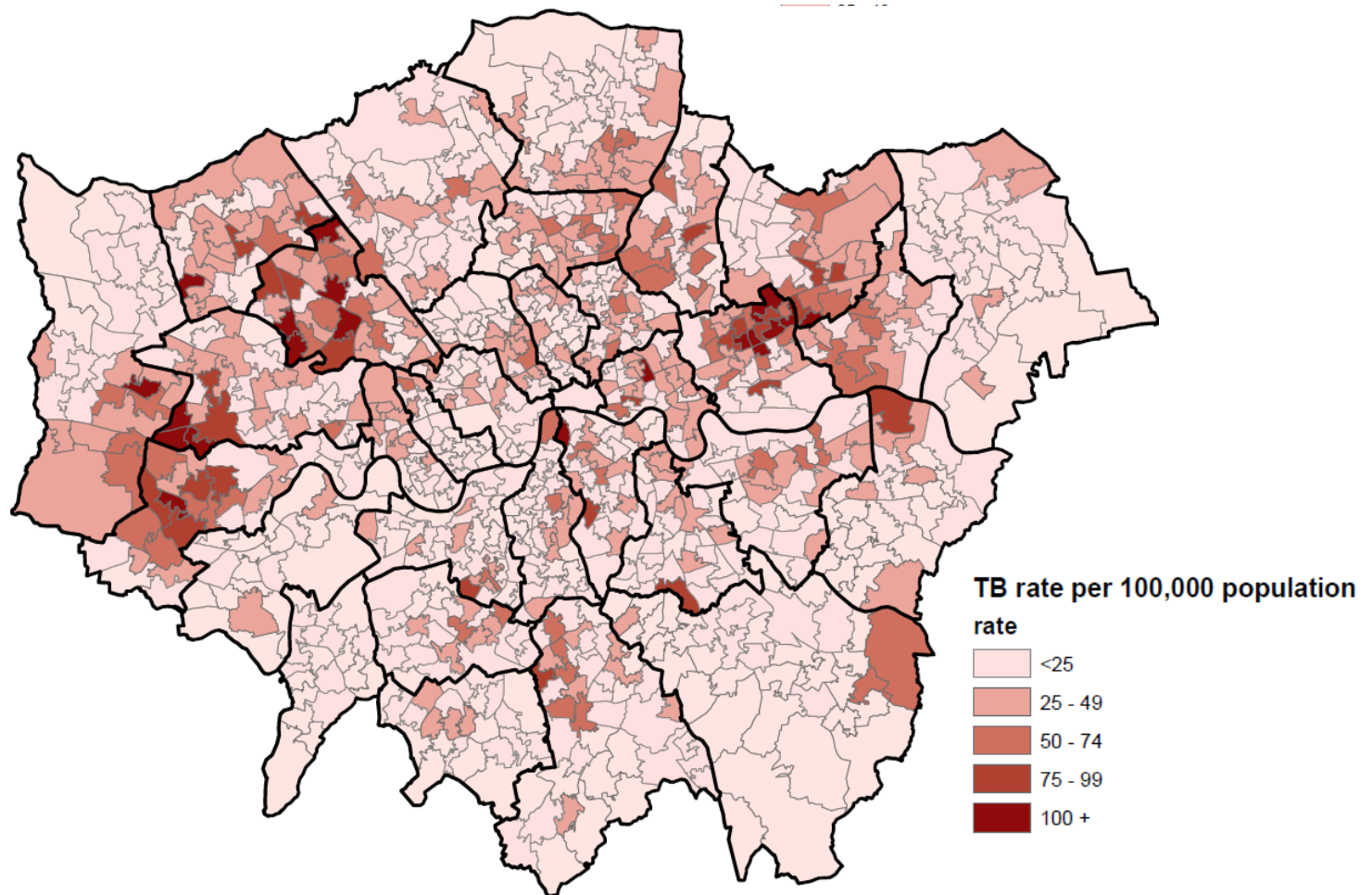
% England

Percentage of pulmonary TB patients in 2016 experiencing a delay of more than 4 months before starting treatment

# TB case rates by upper tier local authority of residence, London, 2016



# TB case rates by Middle Super Output Area/ward of residence, London, 2016



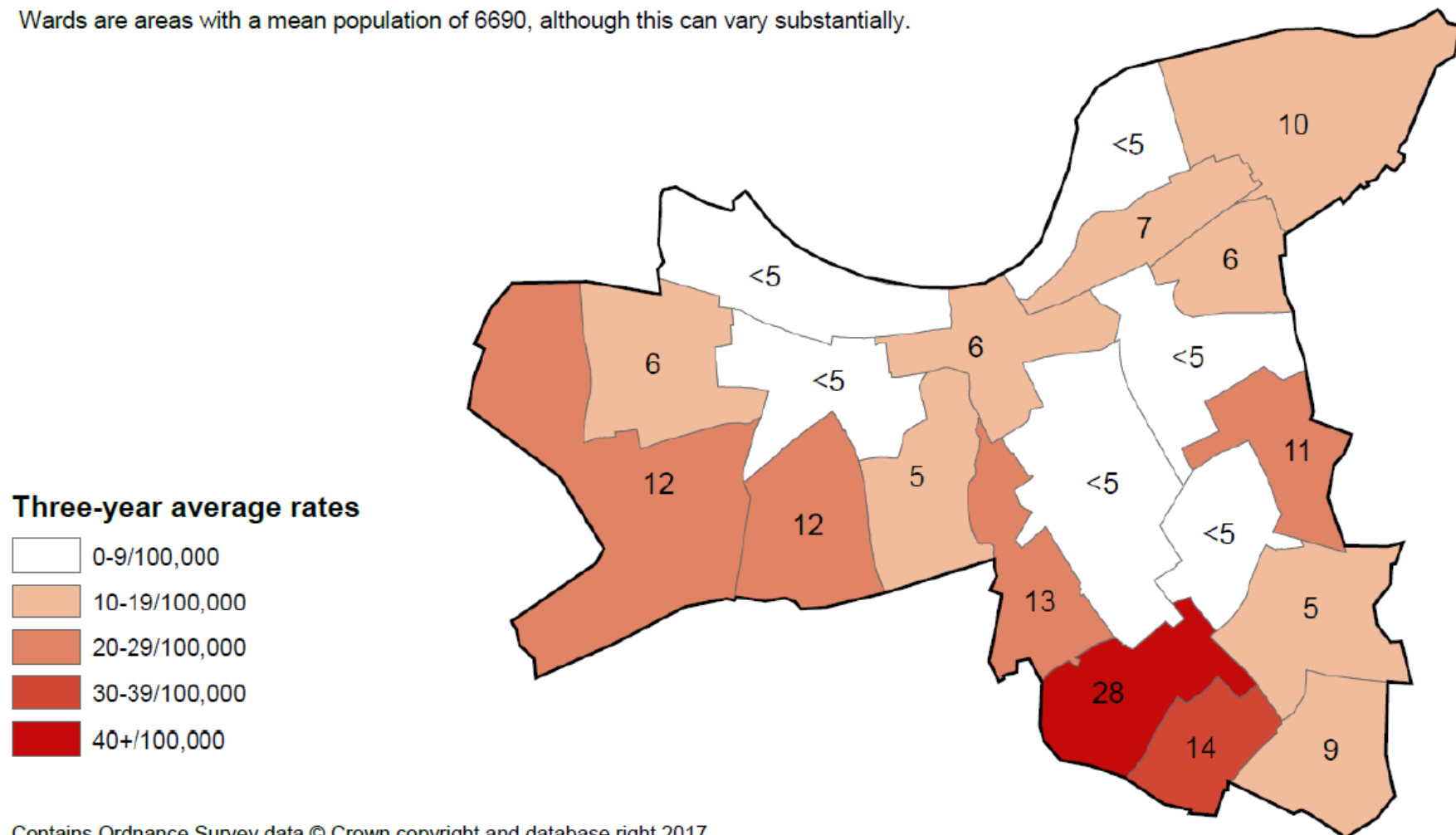


# Wandsworth

**Figure 1: Three-year case numbers and average TB incidence rate by ward, 2014-2016**

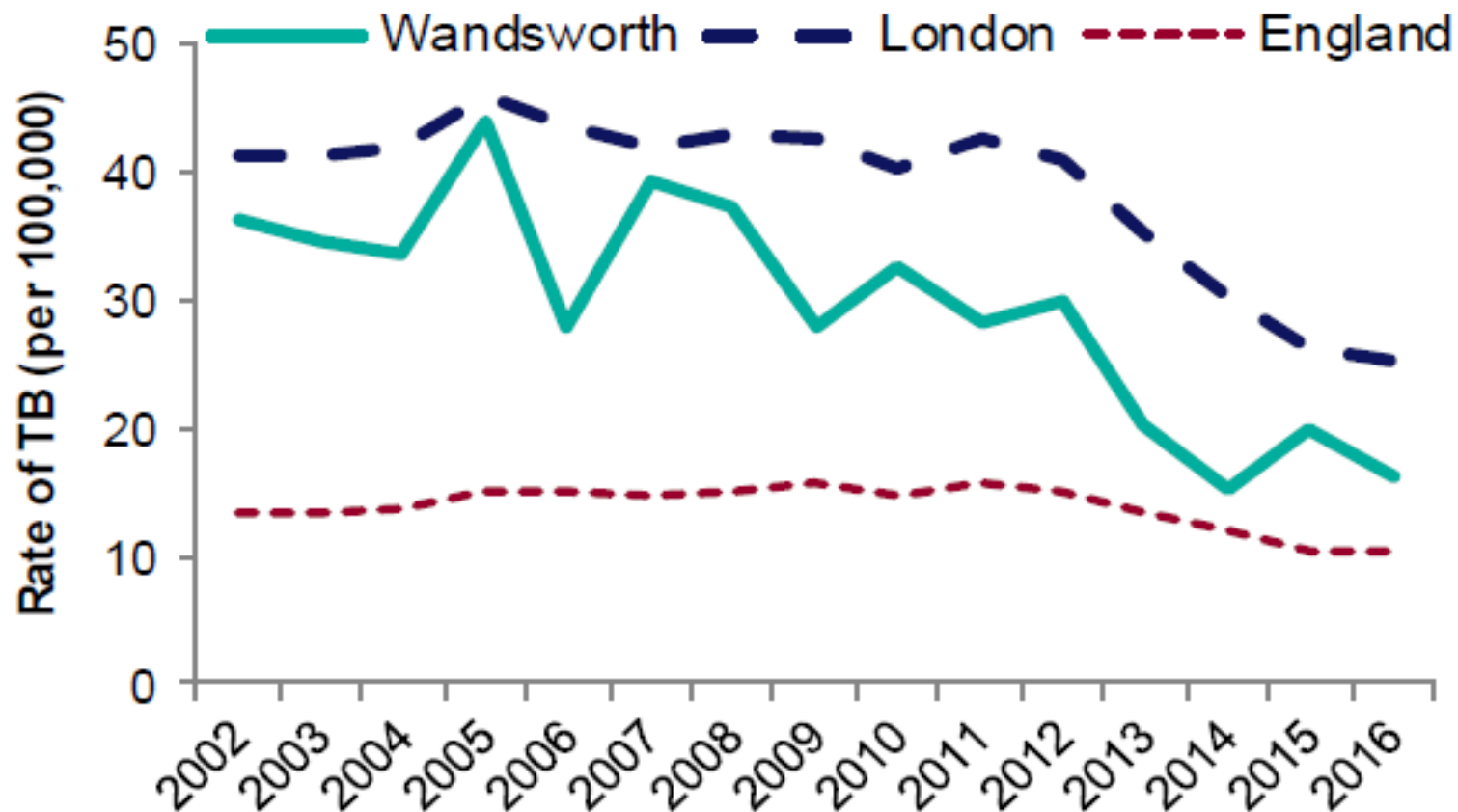
Rates were calculated using ONS mid-year population estimates from 2016. Numbers are the total notified between 2014 and 2016.

Wards are areas with a mean population of 6690, although this can vary substantially.



# Wandsworth

## Annual TB incidence rate, 2002-2016



# Outcomes at 12 months in drug-sensitive cohort, London, cases diagnosed in 2015\*

Outcome at 12 months	n	%
Completed	1,700	86.6
Died	63	3.2
Lost to follow up	66	3.4
Still on treatment	97	4.9
Treatment stopped	20	1.0
Not evaluated	16	0.8
<b>Total</b>	<b>1,962</b>	

\*excludes rifampicin-resistant TB, and patients with CNS, spinal, miliary or cryptic disseminated disease

# Outcomes at 24 months for patients with rifampicin-resistant TB, London, cases diagnosed in 2014

Outcome at 24 months	n	%
Completed	13	57
Completed at 12 months	2	9
Died	1	4
Still on treatment	4	17
Missing (LFU at 12 months)	3	13
<b>Total</b>	<b>23</b>	



Improve access  
and diagnosis



Quality diagnostics



Quality treatment  
and care



Contact tracing



Workforce strategy

# Key actions to eliminate TB

Collaborative TB Strategy for England, 2015-2020



Vaccination



Surveillance and  
monitoring



Latent TB screening



Tackle TB in under-  
served populations



Reduce drug  
resistance



# Active TB vs. Latent TB

- **Active TB = sick** (clinical diagnosis of tuberculosis)
- **Latent TB = not sick**, but infected (no symptoms, but a blood test shows that you've been exposed to the organism)

# Diagnosis and Treatment of LTBI

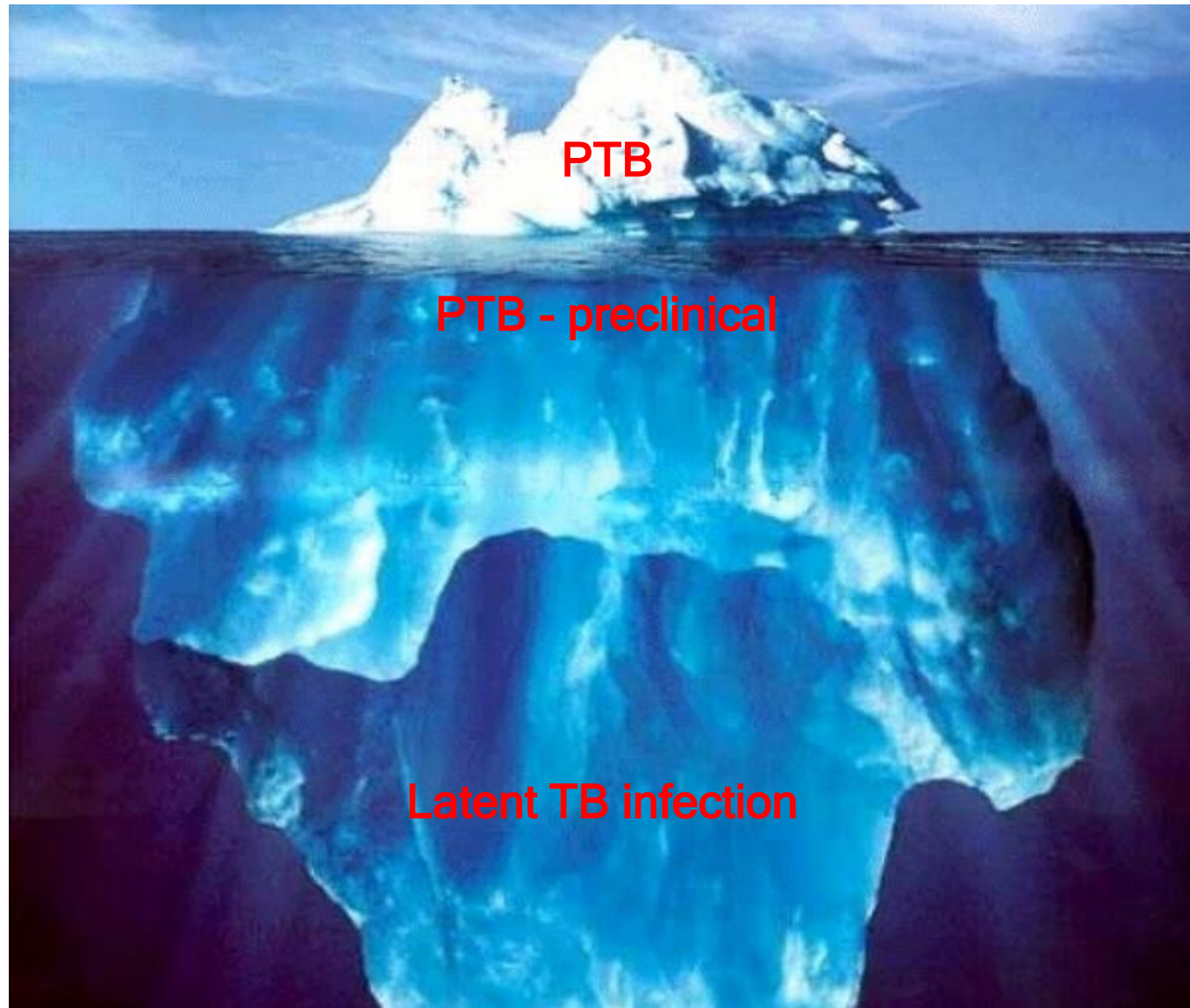
- Latent TB is diagnosed when a patient has a positive Interferon Gamma Release Assay (IGRA) or a strongly positive tuberculin skin test in the absence of illness. Clinical assessment and CXR (+/- CT Scan) are used to rule out active TB
- Latent TB is treated with a 3 month course of two antibiotics, Isoniazid and Rifampicin, or a 6 month course of Isoniazid
- Those with latent TB have a 10–15 % lifetime risk of going onto develop active TB disease
- Diagnosis and treatment of latent TB infection is recommended for certain populations (see NICE) so that the burden of TB disease is reduced

# Iceberg Model

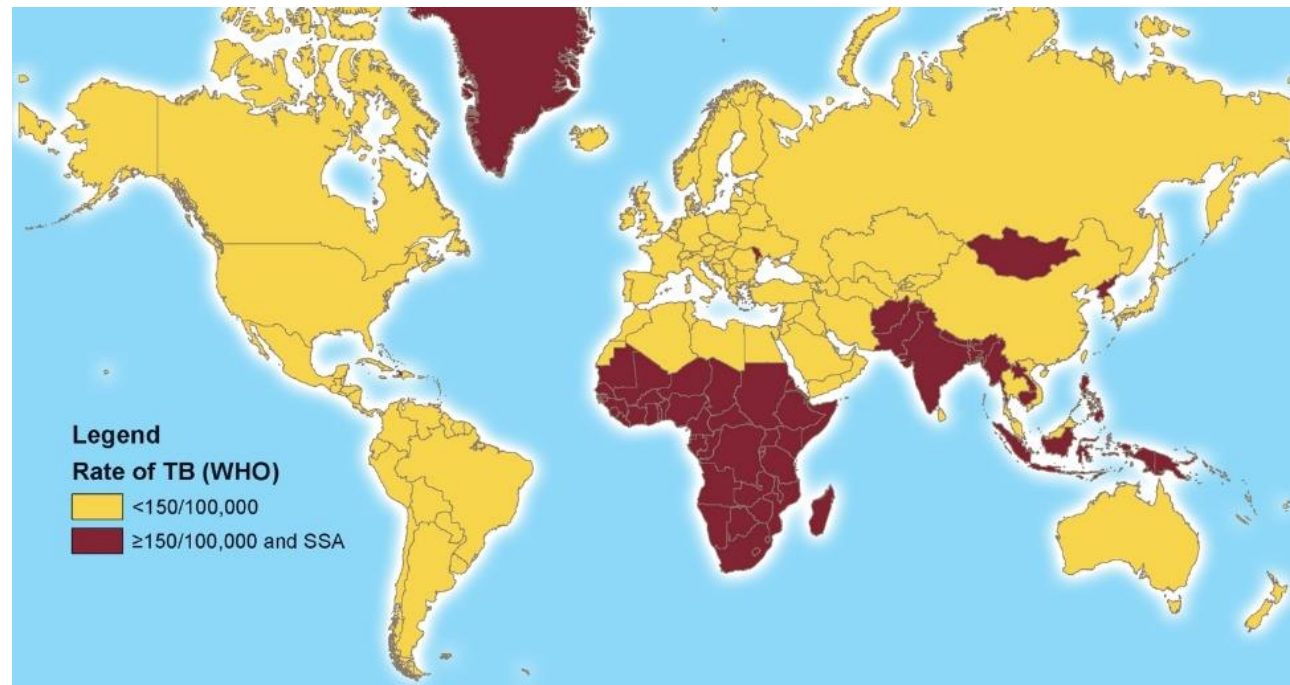
CXR screening

LTBI testing

Awareness raising



# LTBI – Eligibility



## Eligibility criteria for LTBI testing

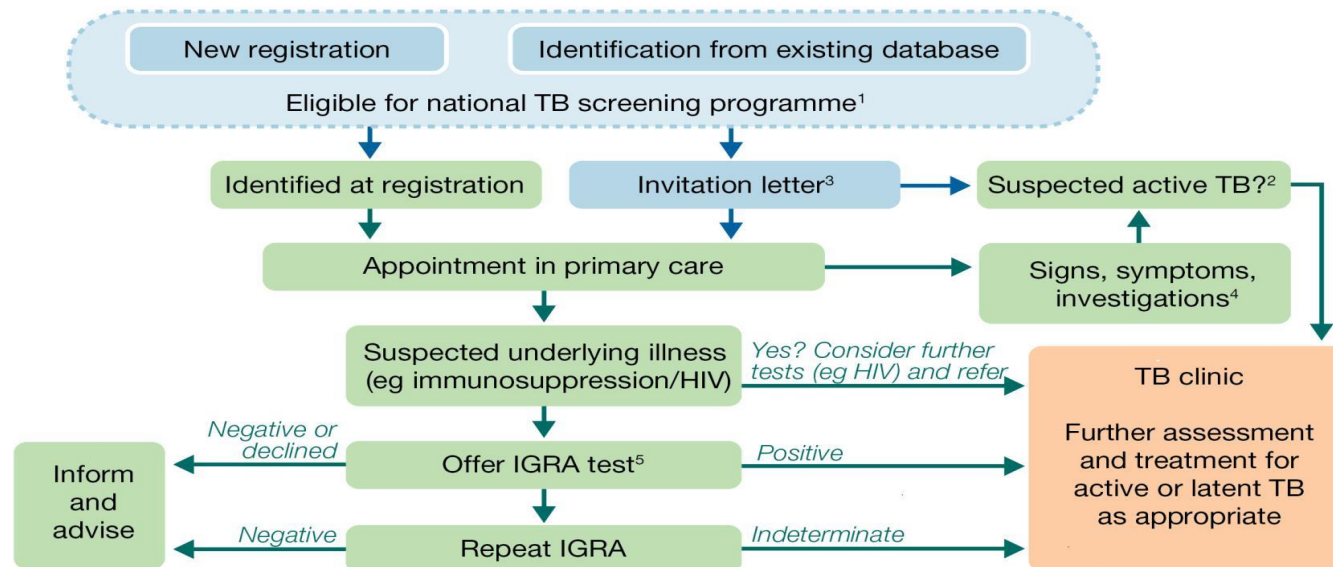
- a) Born or spent >6 m in high TB incidence country (≥150/100,000 or Sub Saharan Africa)
- b) Entered the UK within the last 5 years (including entry via other countries)
- c) Aged between 16-35 years.
- d) No history of TB or LTBI, not previously screened for LTBI in UK

Check website:

<https://www.gov.uk/guidance/tuberculosis-screening>



## Latent Tuberculosis Infection (LTBI) testing and treatment algorithm



1 Full eligibility criteria a) Born or spent >6 months in high TB incidence country (150 cases per 100,000 or more/Sub-Saharan Africa); b) Entered the UK within the last 5 years (including where entry was via other countries (e.g. within EU/EEA)); c) Aged 16-35 years; d) No history of TB either treated or untreated; e) Never screened for TB in UK. Also review indication for LTBI screening using NICE guidance (e.g. if outside age group).

2 TB contacts should be referred to the local TB service. TB suggestive symptoms include a) Cough> 3 weeks; b) Haemoptysis (cough with blood); c) Night sweats; d) Unexplained weight loss; e) Unexplained fever; f) Lymph node swelling (especially cervical).

3 The invitation letter advises patients to seek clinical care if they have symptoms of TB

4 The recommended investigations prior to referral will depend on local arrangements, but might include CXR and sputum collection as appropriate NB- colours of the boxes denote location and responsibilities: blue- systematic identification mechanism; Green- Primary Care; Orange- Secondary Care

5 Also offer HIV test according to BHIVA/HPA recommendations and consider hepatitis B/C testing where appropriate.





Public Health  
England

# Clinical follow up

**Rifamycins (rifampicin, rifabutin and rifapentine) compared to isoniazid for preventing tuberculosis in HIV-negative people at risk of active TB (Review)**

Sharma SK, Sharma A, Kadiravan T, Tharyan P

**Annals of Internal Medicine**

## **Treatment of Latent Tuberculosis Infection**

**A Network Meta-analysis**

Helen R. Stagg, PhD\*; Dominik Zenner, MD\*; Ross J. Harris, MSc; Laura Muñoz, MD; Marc C. Lipman, MD; and Ibrahim Abubakar, MBBS, PhD

- LTBI –ve patients: inform and advise
- LTBI +ve patients: clinical work up before treatment (to exclude active TB disease).
- Referral of LTBI +ve patients to TB Nursing service

# London Numbers (Q1-Q3 2017-18)

CCG Location	Planned Activity Q1-Q3	Q1	Q2	Q3	Total	Percentage
NHS Brent CCG	1260	285	245	445	975	77
NHS Central London(Westminster) CCG	135	1	1	0	2	1
NHS City And Hackney CCG	582	4	9	1	14	2
NHS Croydon CCG	0	8	7	47	62	n/a
NHS Ealing CCG	942	65	52	148	265	28
NHS Greenwich CCG	918	188	386	114	688	75
NHS Hammersmith & F..	159	1	0	0	1	1
NHS Harrow CCG	399	102	53	73	228	57
NHS Hillingdon CCG	687	12	30	7	49	7
NHS Hounslow CCG	627	141	112	105	358	57
NHS Lambeth CCG	468	7	3	30	40	9
NHS Lewisham CCG	636	4	5	3	12	2
<b>NHS Merton CCG</b>	<b>375</b>	<b>20</b>	<b>19</b>	<b>22</b>	<b>61</b>	<b>16</b>
NHS Newham CCG	2790	579	453	251	1283	46
NHS Southwark CCG	270	2	0	0	2	1
NHS Tower Hamlets CCG	918	2	4	7	13	1
NHS Waltham Forest CCG	825	10	10	11	31	4
<b>NHS Wandsworth CCG</b>	<b>600</b>	<b>31</b>	<b>38</b>	<b>49</b>	<b>118</b>	<b>20</b>
NHS West London CCG	174	1	0	0	1	1
<b>Total</b>	<b>12765</b>	<b>1464</b>	<b>1427</b>	<b>1313</b>	<b>4204</b>	<b>33</b>

# Questions

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H  
E N D**