NATIONAL TB PRIORITIES

BRIEFING SESSION

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Date: 25 October 2021

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Department:
Health
REPUBLIC OF SOUTH AFRICA

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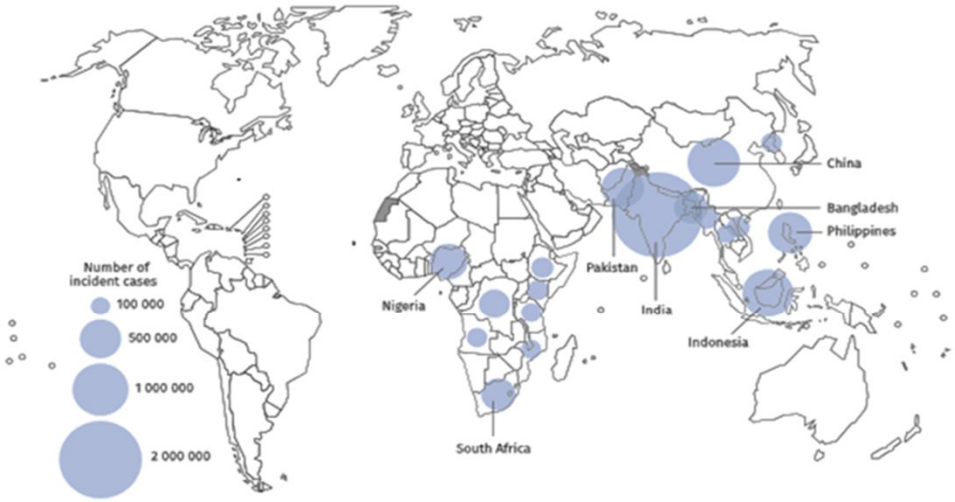
Inspired to live

2030
NDP

Global TB Burden



8 Countries that accounted for 2/3 of global burden (in numbers) in 2020

10 Countries with largest notification gap. 2020

South Africa TB Burden

Incidence:

- 554 per 100 000 (328 000)
- 394 per 100 000 in HIV+ve

Mortality:

- 42 per 100 000 (HIV –ve)
- 61 per 100 000 (HIV +ve)

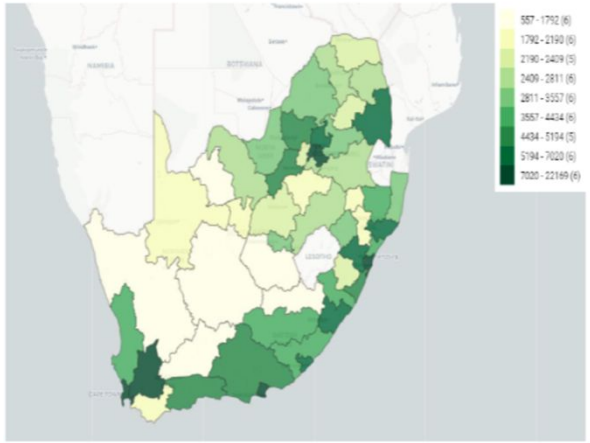
Total Notifications:

- 208 000 (All)
- 191 100 (New and relapse

Drug resistant TB

- RR/ MDR-TB: 6 800
- Pre XDR-TB: 733

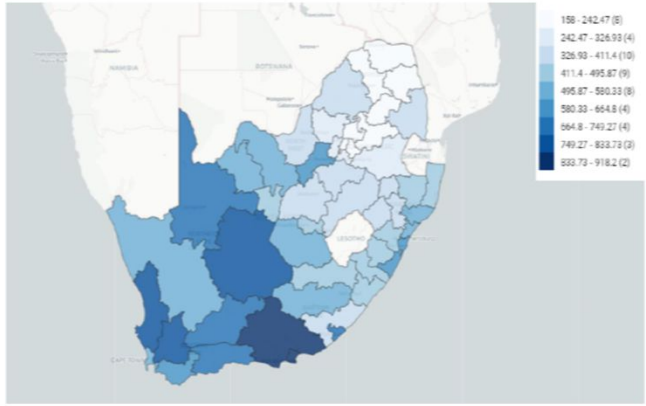
TB notifications, new and relapse (number)
District level



5 highest burden districts (absolute numbers):

1. eThekwini
2. Cape Town
3. Jahannesburg
4. N Mandela Bay
5. Ekurhuleni

Disaggregation of TB case by location
TB notification rate (per 100 000 population) 2018



5 highest burden (rates):

1. Sarah Baartman
2. N mandela Bay
3. Pixley ka Seme
4. Cape Winelands
5. West Coast

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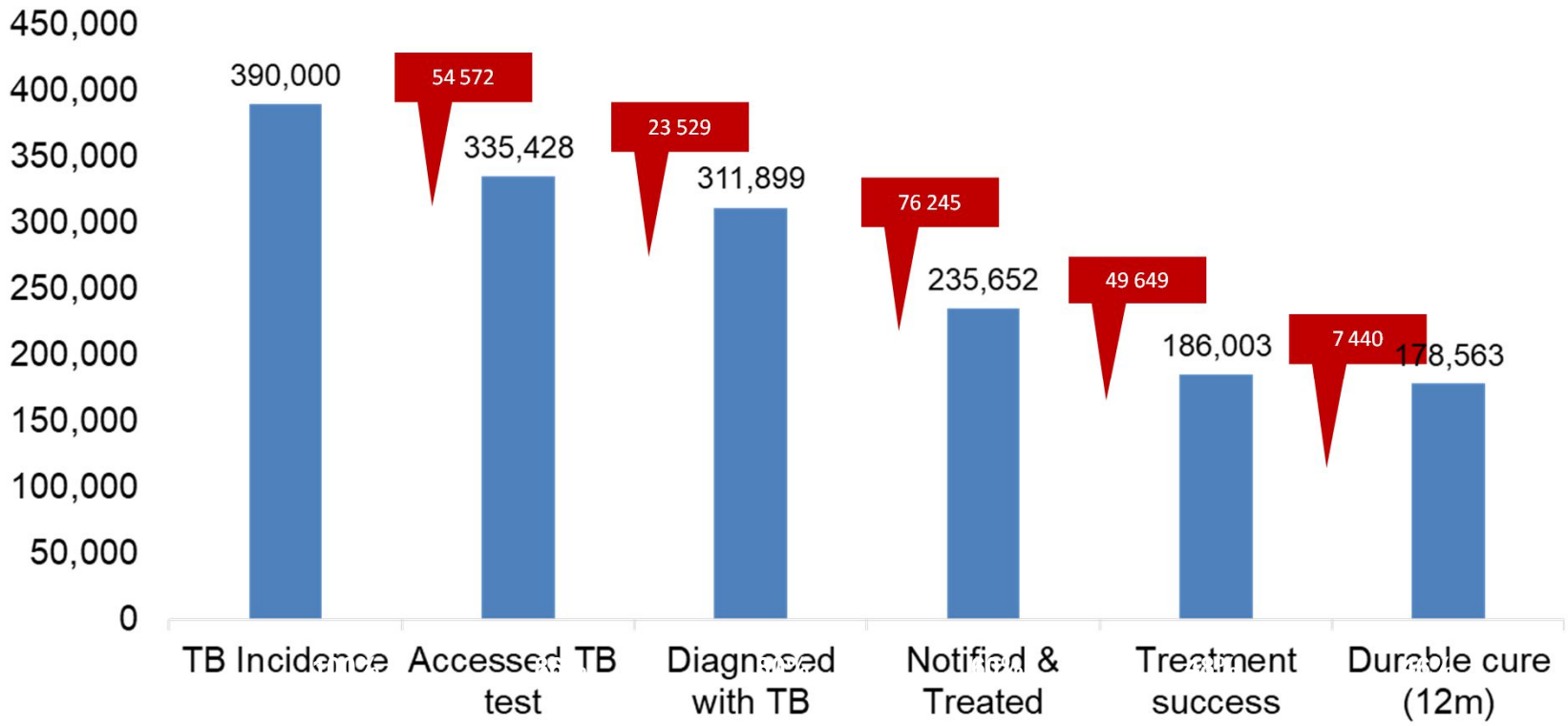
National TB Care Cascade



TB incidence based on National Prevalence Survey (MRC, NDOH); Accessed TB test back-calculated based on test sensitivity, assumption that 10% FN on Xpert get culture & empiric treatment; Diagnosed based on NHLS data on case-finding (Courtesy Harry Moultrie, NICD) and National TB Report on empiric treatment; Notified and treated and treatment outcomes based on National TB Report and DR TB report (NDOH, Courtesy Sicelo Dlamini & Norbert Ndjeka); Durable cure rates based on CT data on relapse within 18 moths for patients treated in 2018

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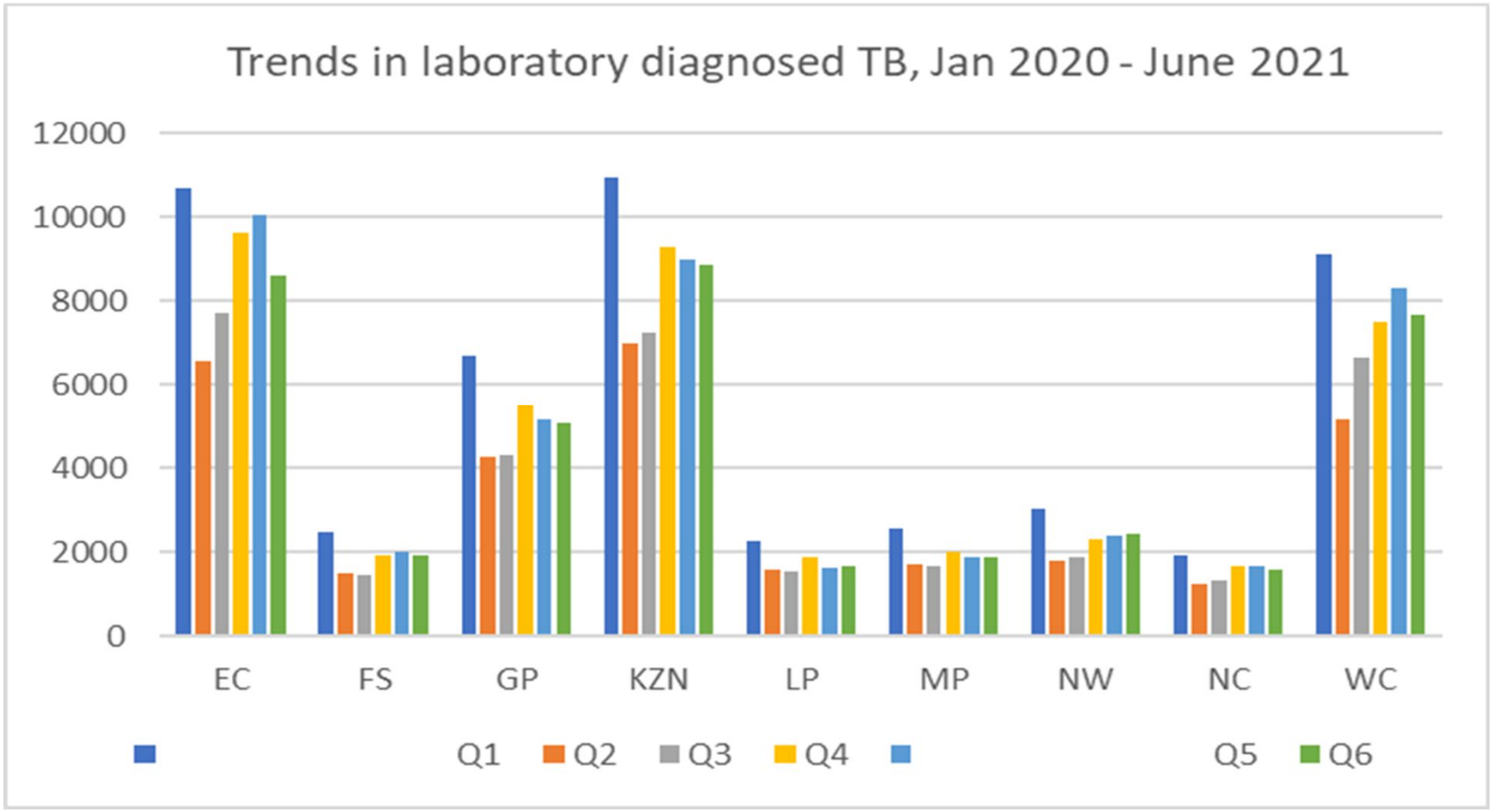
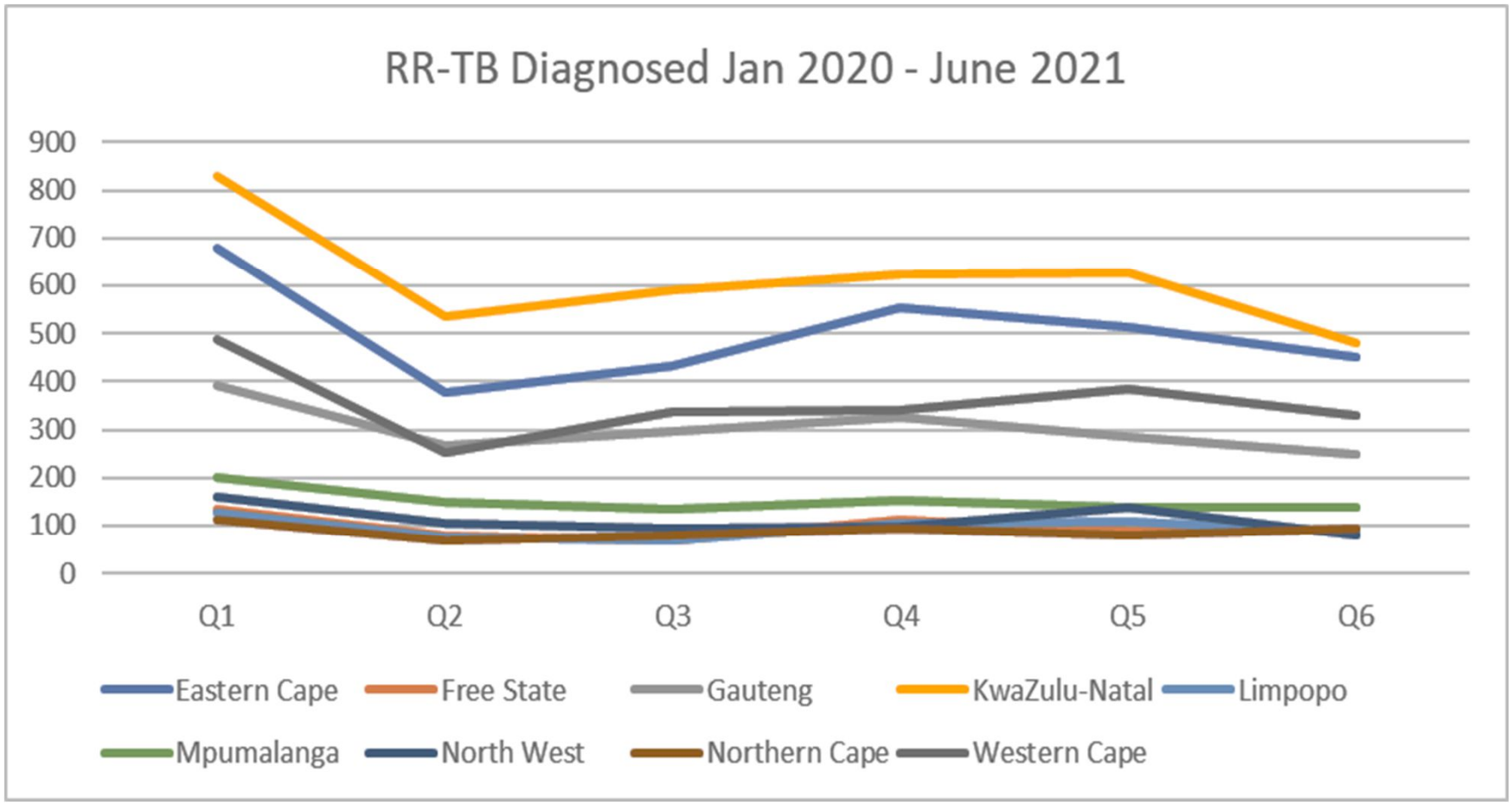
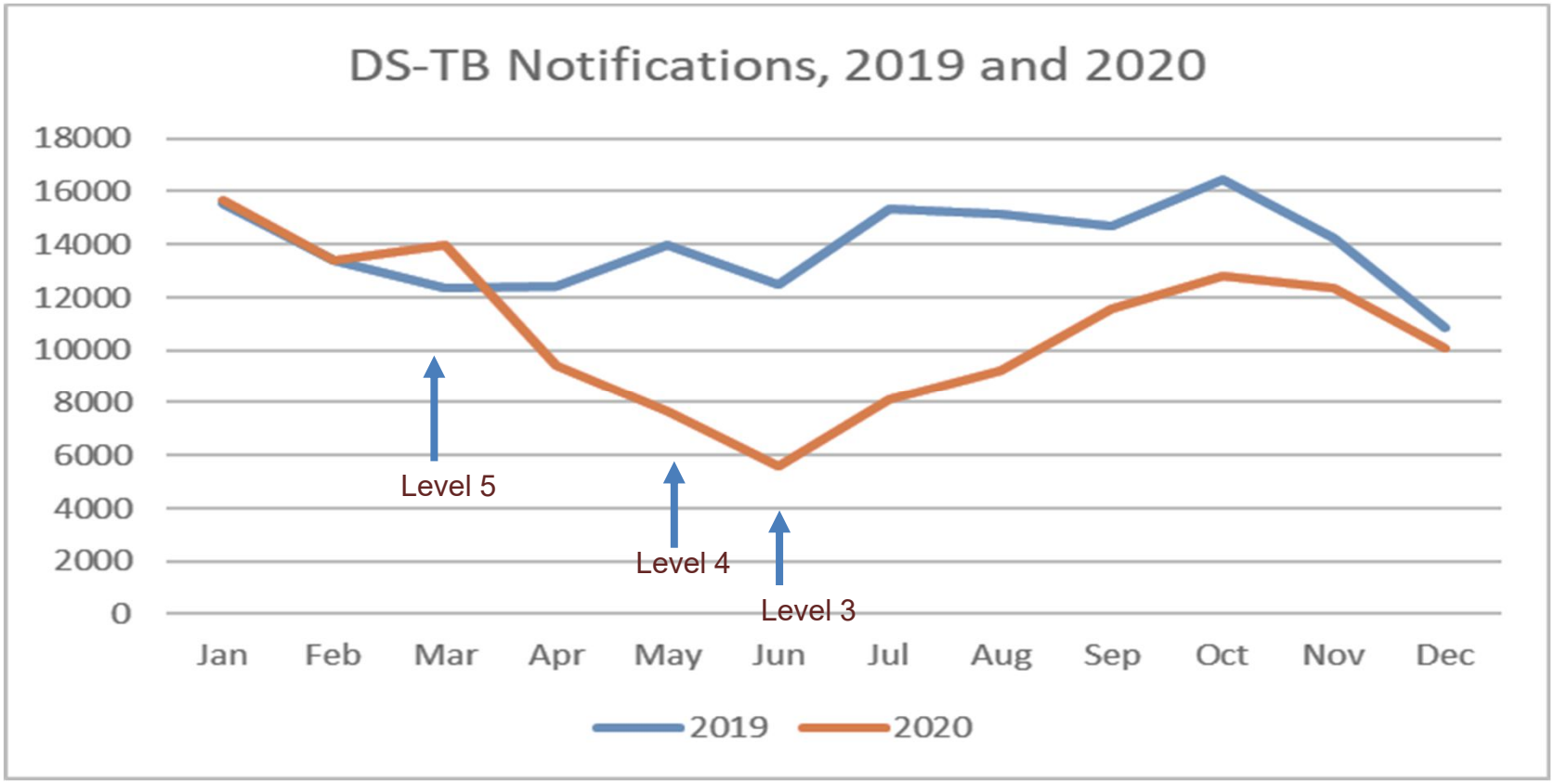
Trends in TB Diagnosed 2020 – 21 (NICD)



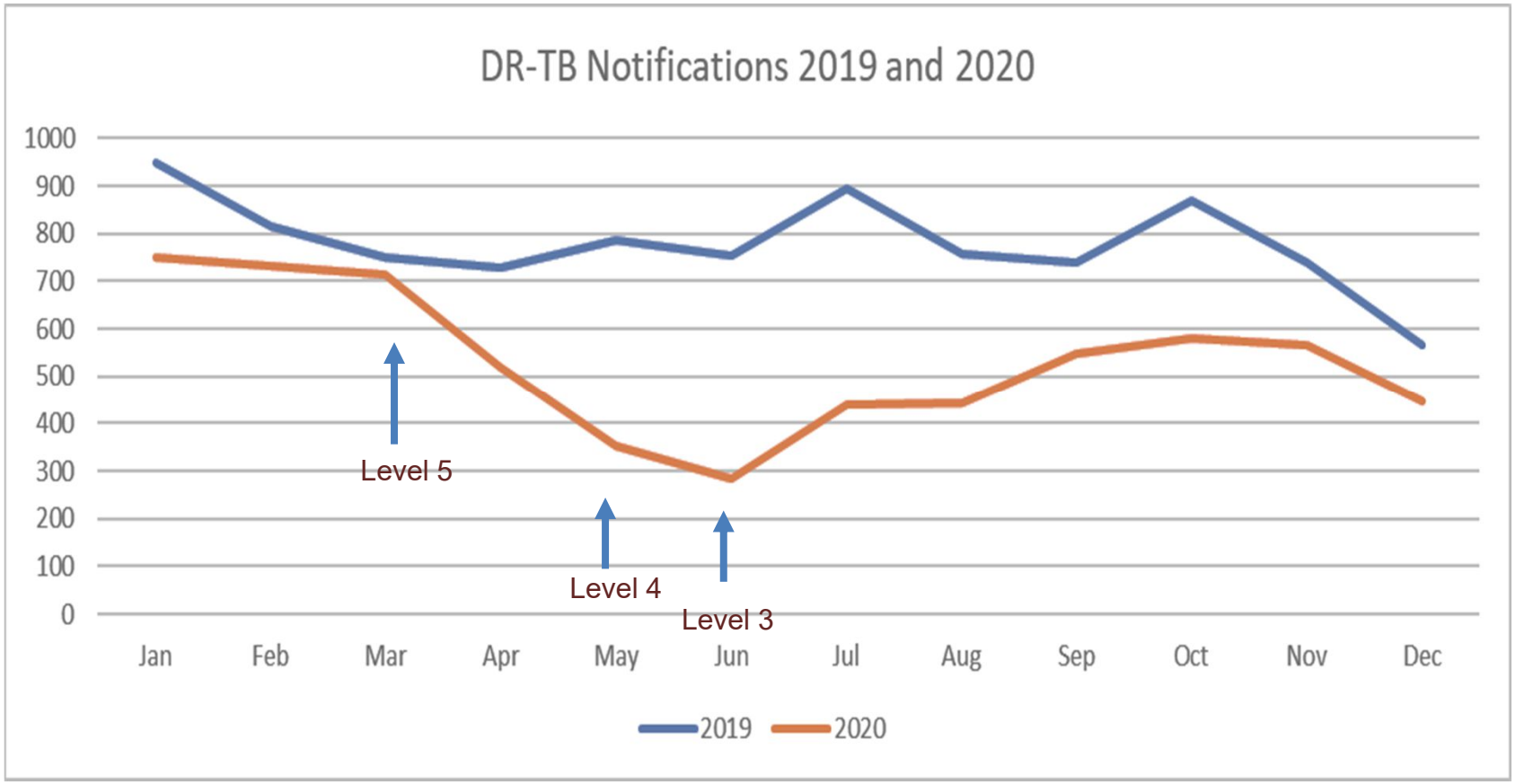
RR – TB Diagnosed Trends 2020-21 (NICD)



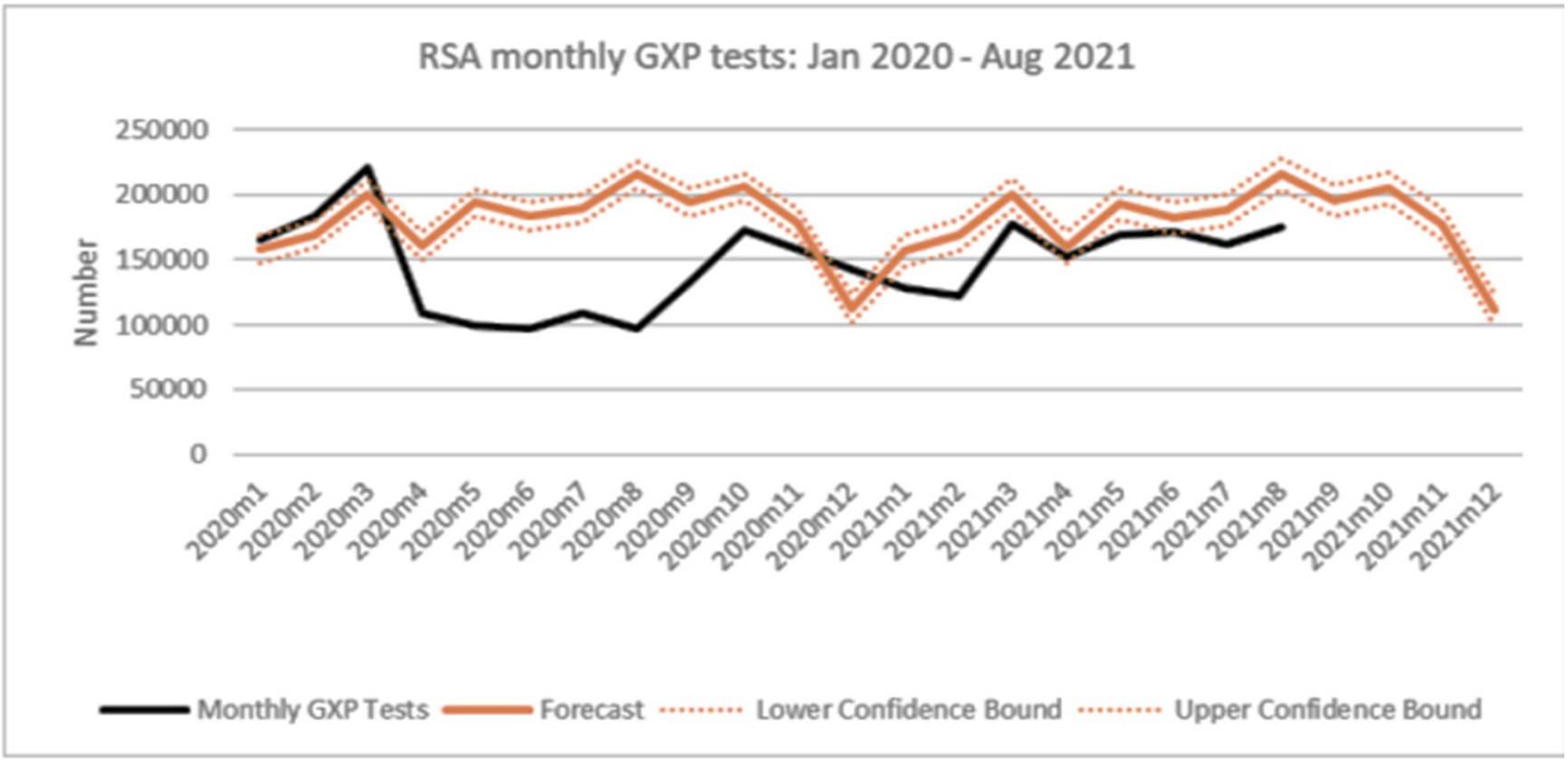
Trends in DS-TB Notifications in 2019 and 2020



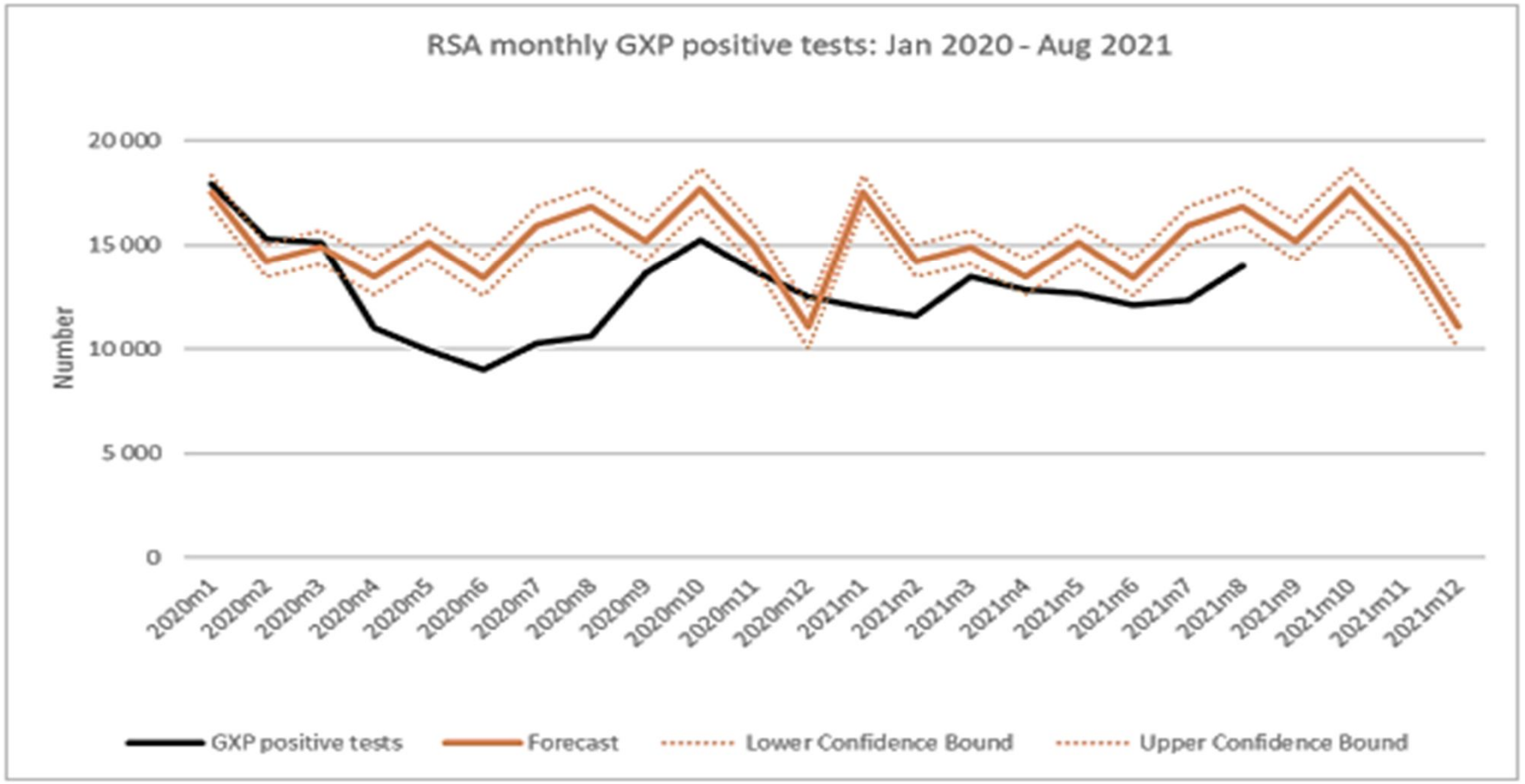
Trends in DR-TB Notifications in 2019 and 2020



Xpert Laboratory testing



Xpert Laboratory testing (2)



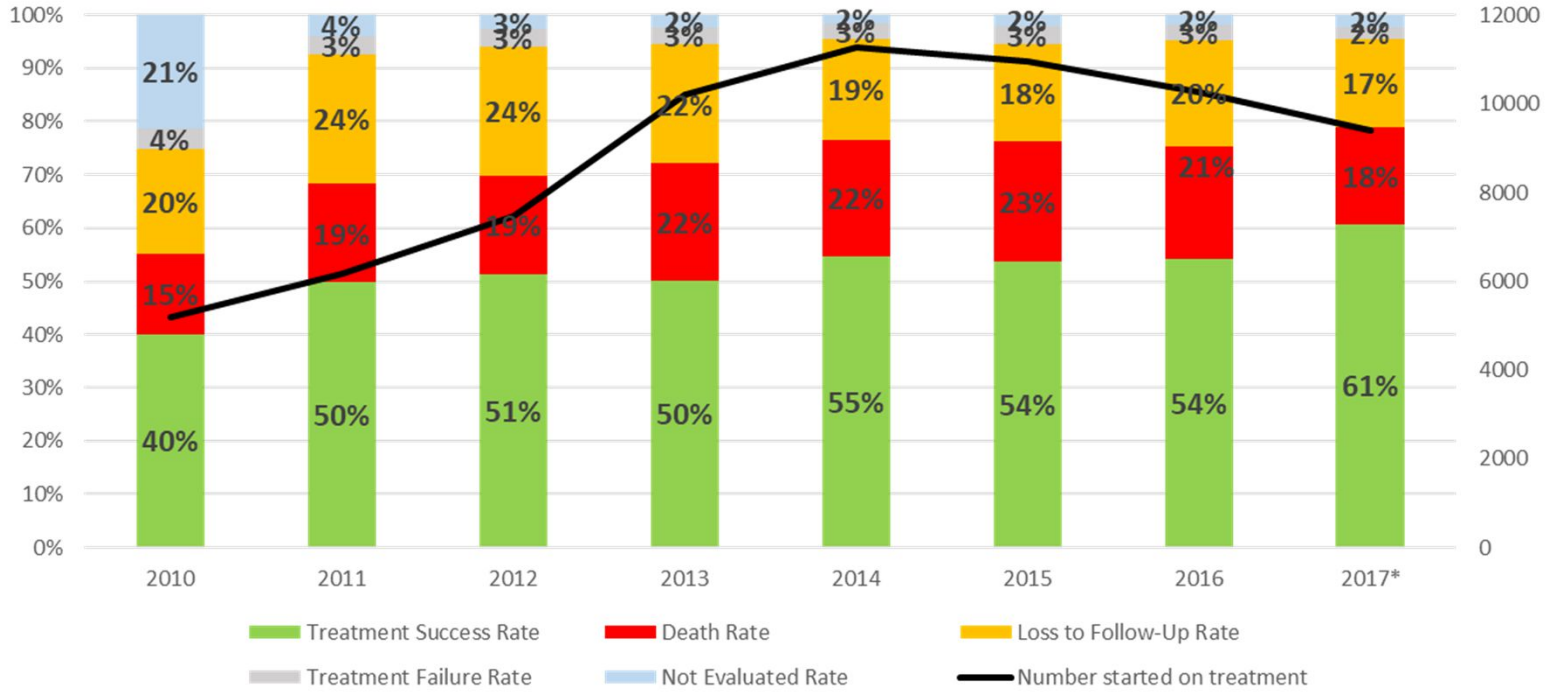
DR-TB Burden: South Africa and Global Contexts

	GLOBAL		SOUTH AFRICA	
Incidence	465,000 RR and MDR-TB estimated in 2019		13,005 RR and MDR-TB diagnosed in 2019	
Treatment	177,099 RR and MDR-TB initiated during 2019	57 % 2017 RR and MDR-TB success rate	9,040 RR and MDR-TB initiated in 2019 (incl. 406 XDR-TB)	65 % 2018 RR and MDR-TB success rate-**LTR & STR** (n= **8,804**)
	38 % of MDR-TB cases are initiated on treatment		70 % of DR-TB cases are initiated on treatment in 2019	
XDR	47 % Success rate of those started on second-line treatment in 2017		60 % Success rate of those started on second-line	

South Africa has one of the **highest DR-TB burdens** in the world but **outperforms the global standard of treatment initiations** almost two-fold

World Health Organisation, Global TB Report 2020

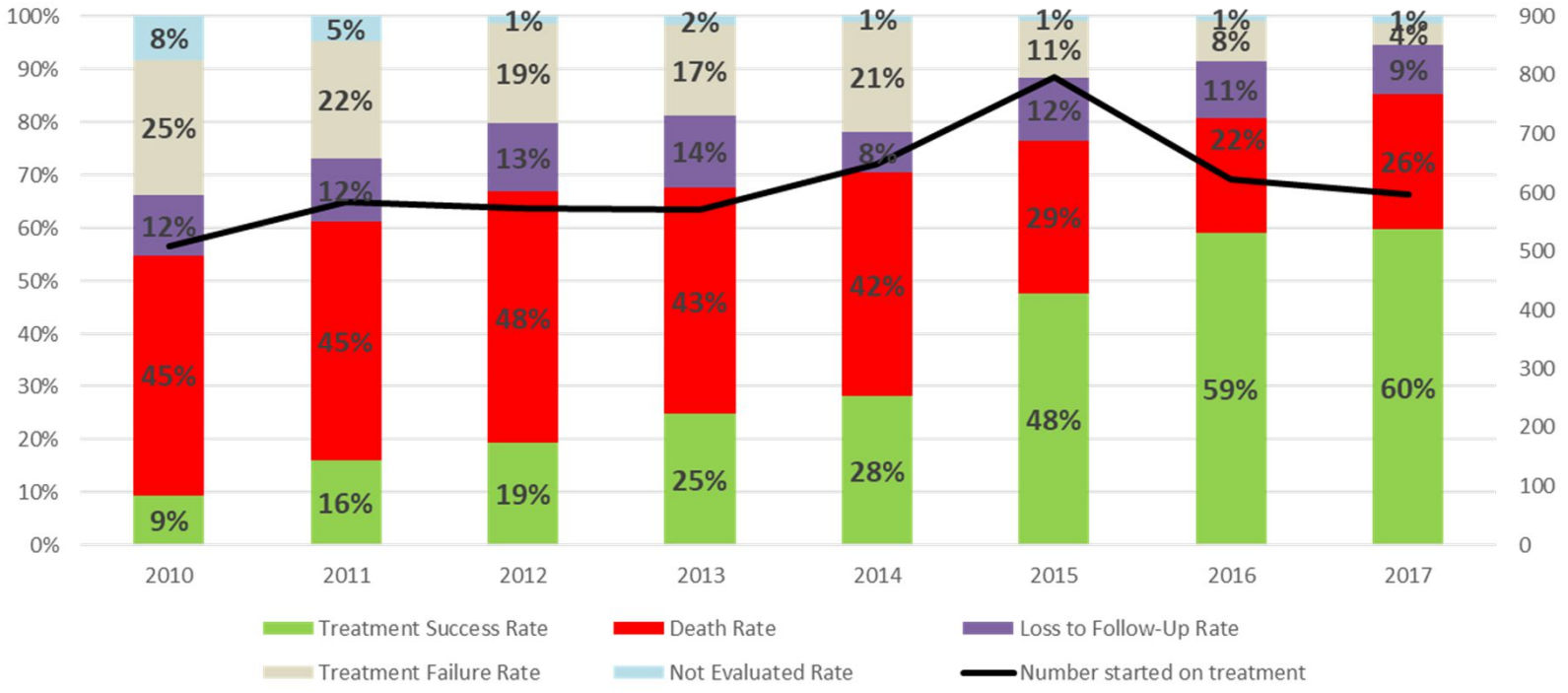
RR/MDR-TB Treatment Outcomes Trends (2010-2017)



*2017 results include both longer and shorter regimens

**Long and Short Regimen Combined*

XDR-TB Treatment Outcomes Trends (2010-2017)



UNHLM TB Targets

Indicators	Targets					Cummulative Total
	2018	2019	2020	2021	2022	
Childhood TB diagnosis and treatment	15 900	18 300	20 700	21 100	21 100	97 100
MDR-TB diagnosis and treatment	9 600	10 100	11 100	12 100	11 100	54 000
Preventative Therapy (PT) for under-five Child Contacts	15 400	23 900	31 000	35 000	38 500	143 800
Preventative Therapy (PT) in contacts more than 5 years of age	11 793	39 867	85 485	116 347	138 379	391 870
Preventative Therapy (PT) in PLHIV	392 089	459 797	506 359	437 928	344 891	2 141 064
TB diagnosis and treatment	213 600	221 600	215 400	194 900	178 300	1 023 800
Total Preventative Therapy (PT)	419 300	523 600	622 800	589 300	521 800	2 676 800

END TB Strategy 2035

VISION	**A world free of TB: zero deaths, disease and suffering due to tuberculosis**			
GOAL	**End the global TB epidemic**			
INDICATORS	**MILESTONES**		**TARGETS**	
	2020	**2025**	**2030***	**2035**
Reduction in number of TB deaths compared with 2015	35%	75%	90%	95%
Reduction in TB incidence rate compared with 2015	20% (<85/100 000)	50% (<55/100 000)	80% (<20/100 000)	90% (<10/100 000)
TB-affected families facing catastrophic costs due to TB (%)	0	0	0	0
PRINCIPLES	1. Government stewardship and accountability, with monitoring and evaluation 2. Strong coalition with civil society organizations and communities 3. Protection and promotion of human rights, ethics and equity 4. Adaptation of the strategy and targets at country level, with global collaboration			

National Development Plan 2030

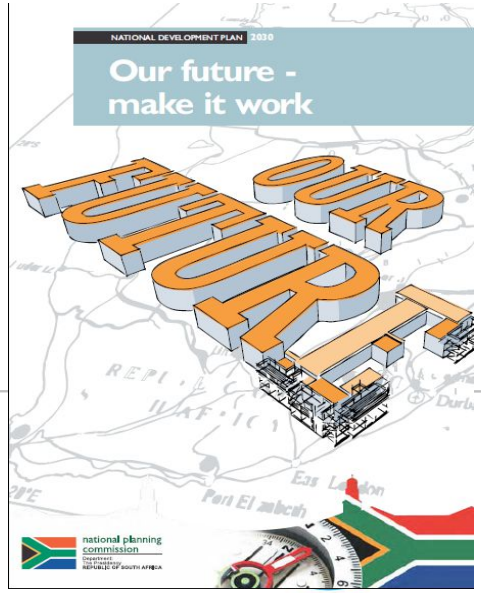
Unable to report on these

GOAL 2: Progressively improve TB prevention and cure

Methods of treating TB are well known and have been practiced for over 50 years. The indicators of effective implementation are:

- TB rates among adults and children compared with global targets
- Successful treatment completion

- Progressive decline in the latent infection rate among school-age children
- Decrease in TB contact indices
- Number of latently infected people receiving six months isoniazid treatment (first-line anti-TB medication in prevention and treatment).



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2030 NDP

NSP HIV, AIDS, TB and STI 2017 – 2022: Objectives (1)

- Reduce TB incidence by at least 30%, from 834/100,000 population in 2015 to less than 584/100,000 by 2022
- Implement the 90-90-90 strategy for TB
- To increase access to health services by key and vulnerable populations
- Increase engagement of key and vulnerable populations in the development and implementation of social and health support activities
- Implement social and behaviour change programmes to address key drivers of the epidemics and build social cohesion

NSP HIV, AIDS, TB and STI 2017 – 2022: Objectives (2)

- Scale up access to social protection for people at risk of and those living with HIV and TB
- Address the physical structural impediments for optimal prevention and treatment of HIV, TB and STIs
- Implement and scale up a package of harm reduction interventions to address the harmful use of alcohol and drugs
- Reduce stigma and discrimination among people living with HIV or TB by half by 2022

NSP HIV, AIDS, TB and STI 2017 – 2022: Objectives (3)

- Facilitate access to justice and redress for people living with and vulnerable to HIV and TB
- Optimise routinely collected strategic health information for data utilisation
- Develop the national surveillance system to generate periodic estimates of HIV, TB and STI
- Strengthen strategic research activities to create validated evidence for innovation

National TB Strategic Plan 2017 - 2021

	Baseline	Target
GOAL	2016	2021
To reduce estimated TB incidence and mortality (vs 2015)		
Estimated reduction in TB deaths (HIV-uninfected)*	7%	43%
Estimated reduction in TB deaths (HIV-infected)*	7%	43%
Estimated reduction in TB incidence*	4%	26%

National TB Strategic Plan 2017 - 2021

	Baseline	Target
	2016	2021
NTP Interventions		
Facility-based TB screening		
Proportion of PLWHIV in care screened for TB	20%	100%
Proportion of clinic attendees screened for chronic cough	0%	>90%
Active TB case-finding among select key populations		
Proportion of household contacts screened for TB	0%	>90%
Proportion of informal settlements screened for TB	0%	>90%
Scale up short-course MDR-TB treatment		
Proportion of eligible patients with rifampicin-resistant or MDR-TB treated with the short-course MDR-TB regimen	0%	>90%
Proportion of rifampicin-resistant or MDR-TB patients treated with the short-course MDR-TB regimen that successfully complete treatment	0%	>70%
Reduce initial loss to follow up for DS-TB and DR-TB Cases		
Proportion of patients with confirmed DS-TB and DR-TB not started on treatment within 1 month oftest result	30%	<5%
Scale up 3HP for all household contacts and PLWHIV		
Proportion of household contacts<5 years started on 3HP	0%	>90%
Proportion of eligible PLWHIV on ART started on 3HP	0%	>90%

National TB Strategic Plan 2017 - 2021

	Baseline	Target
	2016	2021
Cross-cutting Interventions		
Establish TB information system to improve patient management &health service delivery		
Proportion of patients with a unique identifier recorded in data systems	0%	100%
Proportion of provinces with an integrated TB information system	0%	>90%
Scale up quality improvement to support successful implementation of NTP interventions		
Proportion of facilities implementing the QI programme	0%	>90%

High risk and vulnerable populations

Risk Groups	Size of Risk Group		TB Estimates in Risk Group				NNS†	Number of Cases (2014)‡	Overall Contribution to Epidemic#
	Risk Group (% of Pop)	Size of Risk Group (Number)	Prevalence of TB per 100 000*	Relative Risk of TB **	Incidence of TB per 100 000*	% of Pop Accepting Screening*			
General population	100%	54 000 000	696	1.0	834	60%	144	450 360	100%
Children under 5 years	10.6%	5 719 329	511	0.7	407	60%	196	23 278	5%
Elderly††	5.5%	2 971 887	190	0.3	262	60%	526	7 786	2%
Refugees and migrants††	2.7%	1 450 000	1084	1.6	1084	44%	92	15 718	3%
Health workers	0.4%	231 111	1470	2.1	1133	85%	68	2618	1%
Miners	0.9%	510 000	1056	1.5	3000	100%	95	15 300	3%
HIV infected	10.2%	5 510 000	4500	6.5	6517	78%	22	359 087	80%
Diabetics††	4.2%	2 292 920	2760	4.0	2760	77%	36	63 285	14%
Pregnant women	2.3%	1 250 782	3300	4.7	1125	28%	144	13 587	3%
Prisoners	0.3%	159 563	300	7.6	2300	100%	19	8456	1.9%
Informal settlements	6.1%	3 306 697	2703	3.6	1500	60%	37	162 689	36%
Clinic Attendees††	45.0%	24 300 000	6398	9.2	8500	89%	16	413 100	92%
Household contacts	1.7%	1261 800	3500	5.0	1300**	95%	20	63 090	14%

The 90 -90- 90 Strategy

Department of Health adopted the TB 90-90-90 targets for 2020

The strategy seeks to:

Screen at least 90% of vulnerable communities	**Test at least 90%** of those eligible	**Initiate at least 90%** of those tested positive for TB on treatment	**Successfully treat at least 90%** of those started on treatment

Finding missing TB patients Strategy

Category	P:N ratio
Total	1.75
Male	1.89
Female	1.70
15-24 years	2.91
25-34 years	1.61
35-44 years	1.55
45-54 years	1.66
55-64 years	1.63
≥65 years	2.88

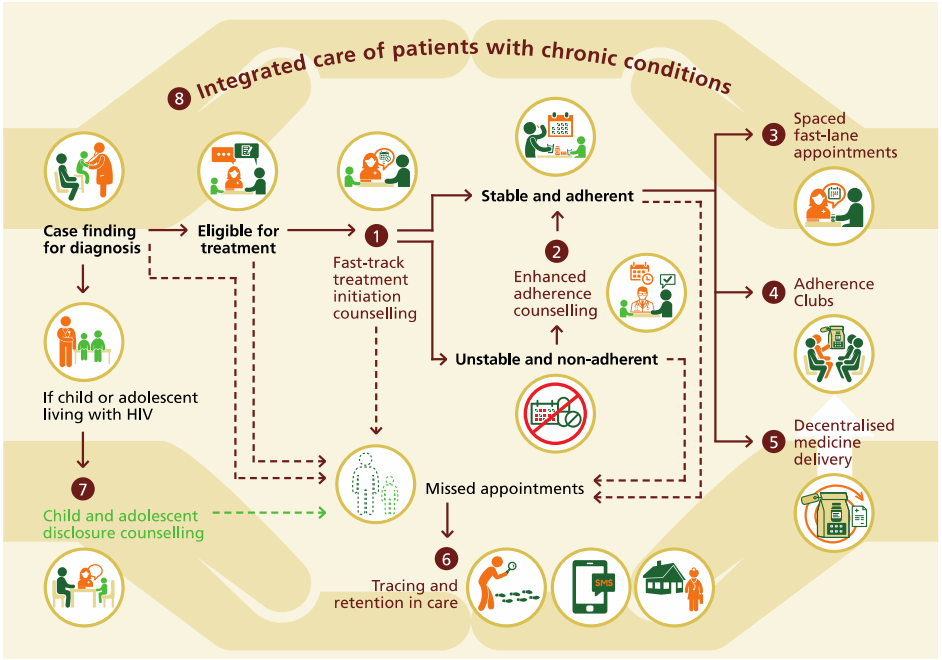
- Estimated cases in 2018 - 390 000
- Notified cases in 2018 - 235 652
- Estimated missing TB patients in 2018, based on the estimated annual notifications 390 000 - 235 652 = 154 348
- Cases missed in both males and females
- Larger gap in males than in females
- Cases missed in all age groups
- Largest gaps in young people 15-24 years & in older people ≥65 years

Contact Investigation Strategy

Obtain HH Contacts in line lists from facility → CHW conduct home visits → Screening of HH contacts, collection of sputum → Complete the list form, provide feedback and deliver specimen in facility → Track patients with positive results and refer to facility

- Screening conducted by community health workers at patient's homes, collect sputum and deliver at facility for recording and transportation to laboratory
- Other household contacts come directly to the health facility for screening
- Piloting use of a contact slip for those contacts who are not available for screening at home during the day and unable to visit local facility for screening

Integrated Patient-Centred Care



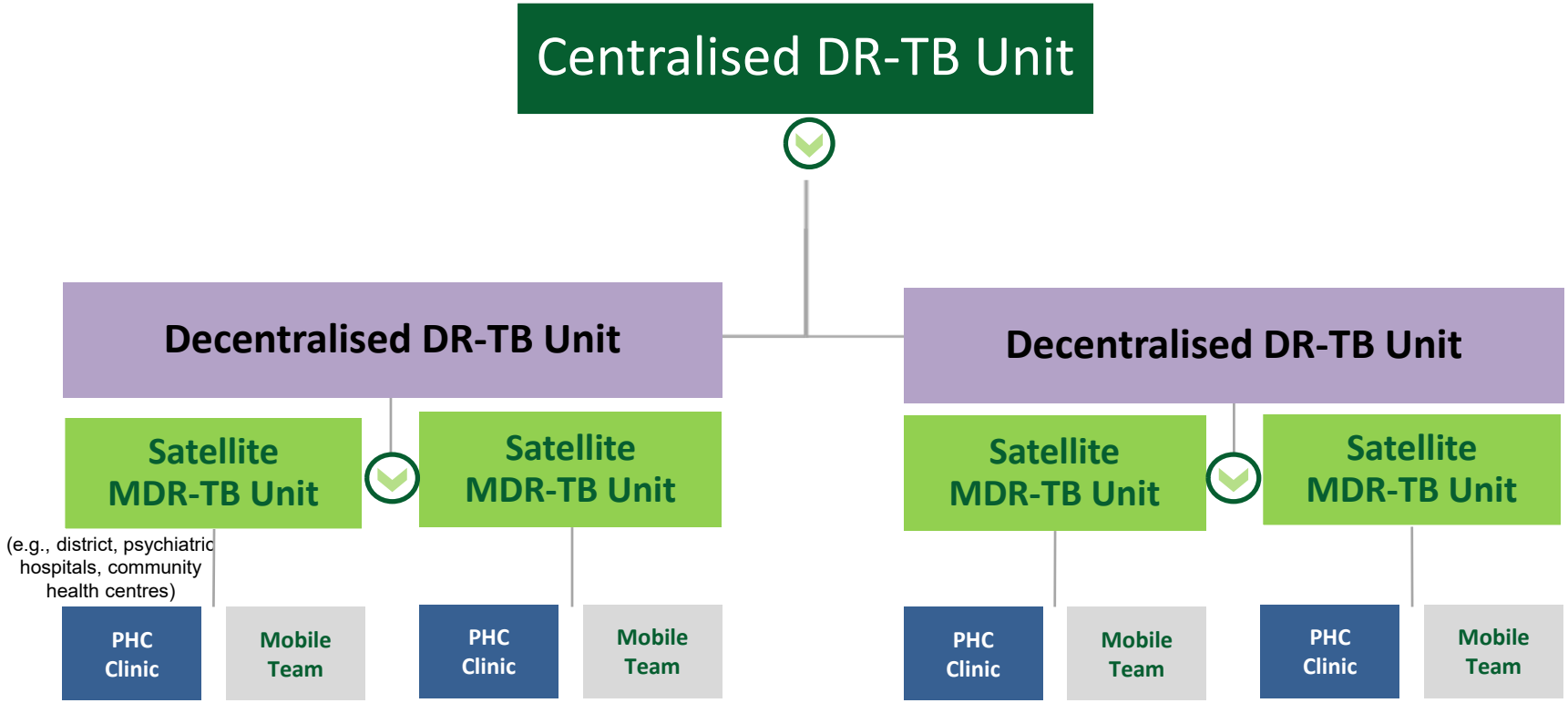
- Decentralized, home- or community-based models of TB care (DS-TB and DR-TB)
  - Centralised Chronic Medicine Dispensing and Delivery
  - Multi Month Dispensing
- Social support for TB patients
- Psychosocial support
- Digital health tools for treatment adherence
- Palliative care
- Integrated patient management for co-morbidities

Social Protection Schemes

- To address the social drivers of TB disease
- Linkages with broader social protection programs

Grant Types	Maximum Amount Payable
• Child Support Grant	R 400.00
• Care Dependency Grant	R 1 690.00
• Foster Care Grant	R 960.00
• Old Age Grant	R 1 690.00/ 1710.00 (>75)
• Disability Grant	R 1 690.00
• War Veterans Grant	R 1 710.00
• Grant-in-Aid	R 400.00
• Social Relief of Distress	

Management of DR-TB in the Public Sector (1)



Community:
DOTS Supporters and Caregivers

Management of DR-TB in the Public Sector (2)

*In order to **successfully decentralise** care **without compromising the quality** of care patients receive, several **essential elements** had to be ensured:*

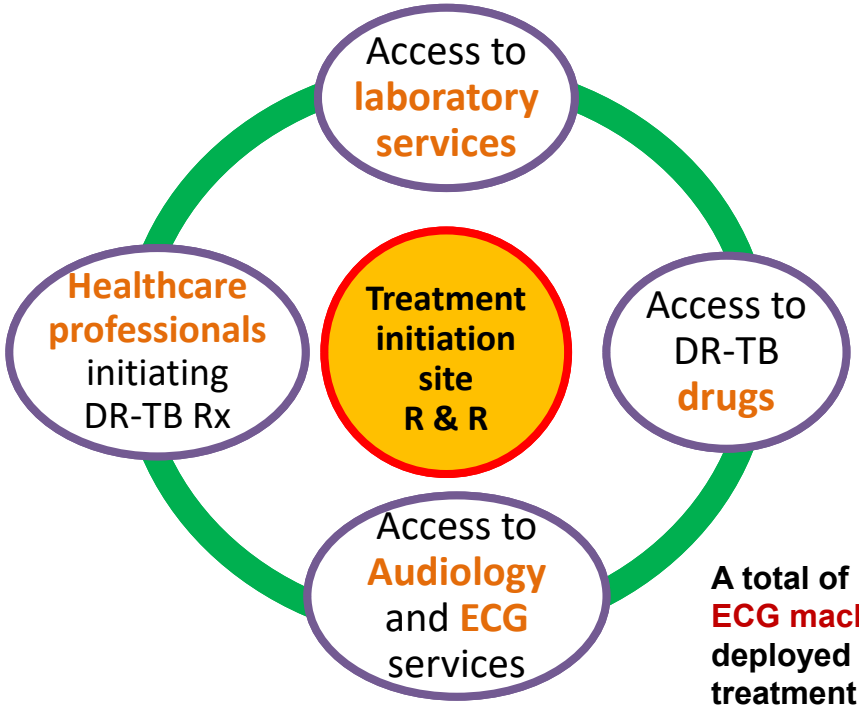
Models of care

In-patient model of care
(facility-based)

Ambulatory model of care
(Facility based)

Outreach model of care
(Facility or community based)

***Objective**: Treat MDR-TB patients closer to home*



A total of 130 ECG machines deployed to treatment sites

Overall flow diagram for RR-TB patients in South Africa

Xpert or LPA reported as rifampicin resistant

Send sample for "DR-TB Reflex DST Testing" (includes smear, culture, first & second line LPA & phenotypic DST)

History of previous treatment with 2nd line drugs > 1/12
Complicated EPTB
(meningitis, osteoarticular, pericarditis, abdominal)
Contact with XDR or pre-XDR
Younger than 6 years
Extensive disease on CXR
Both INH mutations (*inhA and KatG)* on LPA

None of these

One or more of these

Hb ≥ 8g/dL at diagnosis or following transfusion

No

Start individualised LONG COURSE

Yes

Hospitalise

Start SHORT COURSE
BDQ-LZD-LFX-CFZ-hdINH-Z-E

Review LPA and phenotypic DST results

INH susceptible on LPA and phenotypic

Reduce INH to normal dose (300mg daily in adults) and continue SHORT COURSE

Both INH mutations

Switch to LONG COURSE

Resistance to FLQ, injectable, BDQ, LZD or CFZ

Switch to LONG COURSE

Only one INH mutation (not both) and both FLQ and injectable susceptible

Continue SHORT COURSE

LPA inconclusive

Send repeat specimen and continue SHORT COURSE
Consider switch to LONG COURSE if no clinical improvement

Standard initial longer regimen is:
BDQ, LFX, LZD, TRD and CFZ

If FLQ resistance: replace LFX with DLM and another group C drug

If age < 6 yrs: to receive individualized injectable—free regimen, including new drugs where possible. Duration dependent on site and severity of disease.

If RR-TB meningitis: longer individualized regimen, including DLM, PZA, AND [HDINH OR ETO]

Resistance to BDQ, LZD, or CFZ: discuss with NCAC

If Hb < 8 g/dL and not in hospital: replace LZD with one or 2 group C drugs, including DLM

Legend:
Hb: Haemoglobin
BDQ: Bedaquiline
LZD: Linezolid
CFZ: Clofazimine
hdINH: High does isoniazid
Z: Pyrazinamide
E: Ethambuthol
LPA: Line Probe Assay
DST: Drug Susceptibility Test
INH: Isoniazid
FLQ: Fluoroquinolone
ETO: Ethionamide
DLM: Delamanid
TRD: Terizidone

Childhood TB

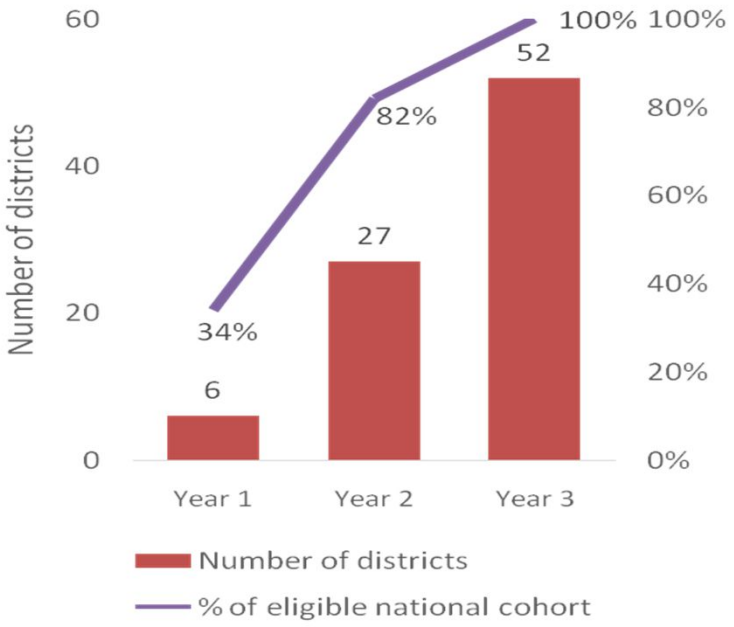
- Strengthen management of TB in children and adolescents
- Integrated management of childhood Illnesses and children living with HIV
- Provinces transitioning from old to new medicines for treatment
- Social mobilisation activities targeting children and adolescents

Fixed dose combination	
3FDC (Co Afaris)	R 75mg, H 50mg, Z 150mg
2FDC (Afaris)	R 75mg, H 50mg

LTBI Treatment

- Options for treatment currently for PLHIV, HH Contacts <5yrs irrespective of HIV status, People living with Silicosis
  - Isoniazid for 6 months
  - Isoniazid for 12 months
- 3HP introduced
  - High dose INH and Rifapentine for 3 months
- Rifampicin and Isoniazid for children
  - Using new child friendly formulations
  - For 3 months

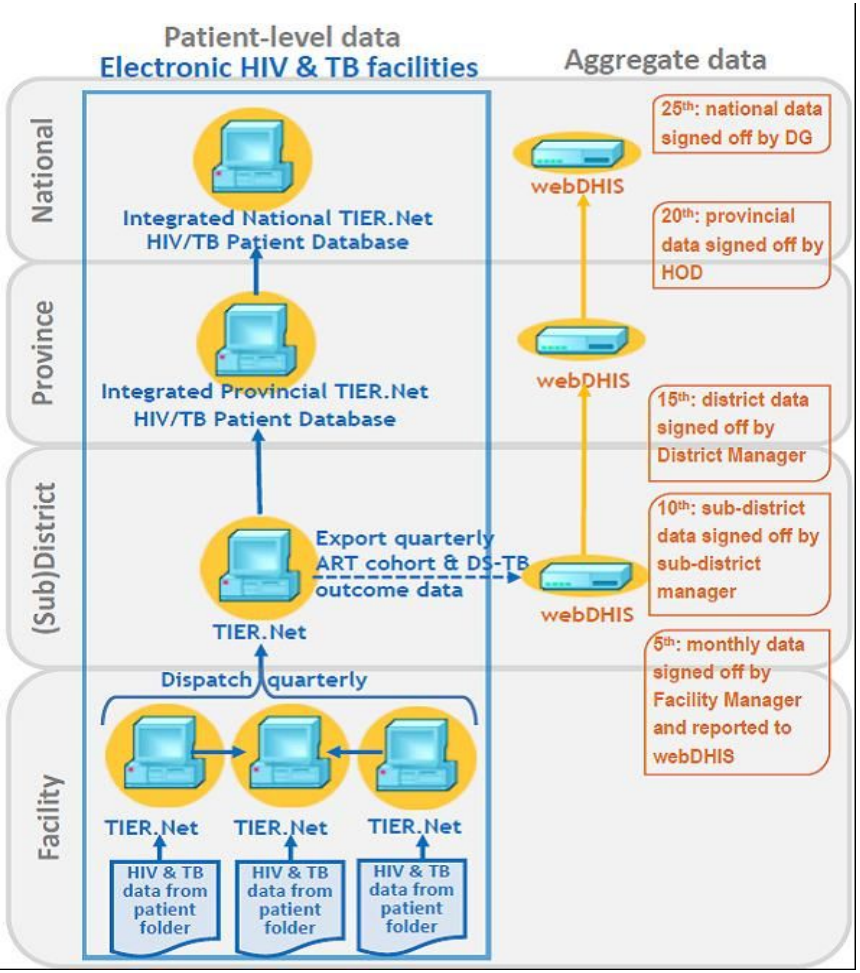
3HP Scale up plan



TB Infection Prevention and Control

- Generally poorly implemented in health facilities despite
  - Training of healthcare workers and IPC/ QA managers
  - Availability of guidelines and tools
  - National Core Standards for Health Establishments
  - Specifications for respirator masks on tender
  - Building standards for Hospitals treating DS and DR-TB

National TB Monitoring, Evaluation & Surveillance System



VITAL REGISTRATION SYSTEM

1. Birth registration system
2. Death registration system
3. Causes of deaths and Mortality report (STATSSA)

NOTIFIABLE MEDICAL CONDITIONS

All medical professionals in both private and public sector are required to notify TB

1. Paper based system
2. Mobile application

TB Quality Improvement

- The QI methodology was identified as a strategy to address the leakages along the TB care Cascade from 2017 to 2018
- Four provinces with high burden of TB disease were selected for implementation – KZN, GP, EC and WC.
- High burden districts, sub districts and facilities were identified based on the burden of DS/ DR-TB and HIV
- Implementation in 20 districts (GF and USAID supported)

Summary (1)

- Finding people with TB disease
  - Chest x-ray screening – portable, mobile, fixed
  - Universal testing of high-risk groups - Xpert
  - Contact management – extending beyond household
  - Point of care tests - uLAM
- Linkage to treatment
  - Patient education
  - Tracking missed appointments
  - Tracing
- Retention in treatment and care
  - Adherence counseling
  - Decentralised model of care (DMOC)
  - Centralised Chronic Medicines Dispensing and Delivery (CCMDD)

Summary (2)

- Prevention
  - Infection Control
  - Treatment of latent TB infection to prevent development of disease
  - Addressing socio economic drivers and psycho-social factors
- Community and civil society engagement
  - Social mobilization
  - Stigma mitigation
  - Addressing human rights
  - Social Behavioral Change communication
- Strengthen TB Information system
- Develop and maintain TB surveillance system
- Scale up use of mHealth technologies
- Pharmacovigilance


thank you
danke
рахмат
謝謝
ngiyabonga
teşekkür ederim
gracias
Баярлалаа
спасибо
faafetai lava
mersi
barka
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tack
dank je
misaotra
matondo
paldies
grazzi
vinaka
спасибі
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dankie
dhanyavad
хвала
asante
manana
obrigada
enkosi
bedankt
dziękuję
hvala
mochchakkeram
djiere dieuf
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merci