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GLOBAL TUBERCULOSIS SCENARIO

- Tuberculosis remains a World-wide public health problem. World Health Organization declared TB a **Global Emergency** in 1993 in recognition of its growing influence as a public health problem.

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- Nearly two billion people of the global population are infected with Mycobacterium tuberculosis.
- More than eight million people develop active tuberculosis every year.
- Globally about two million people die with tuberculosis every year.
- More than 90% of global TB cases and deaths occur in the developing world.
- Seventy-Five percent of TB cases are in the most economically productive age group (15-54 years).

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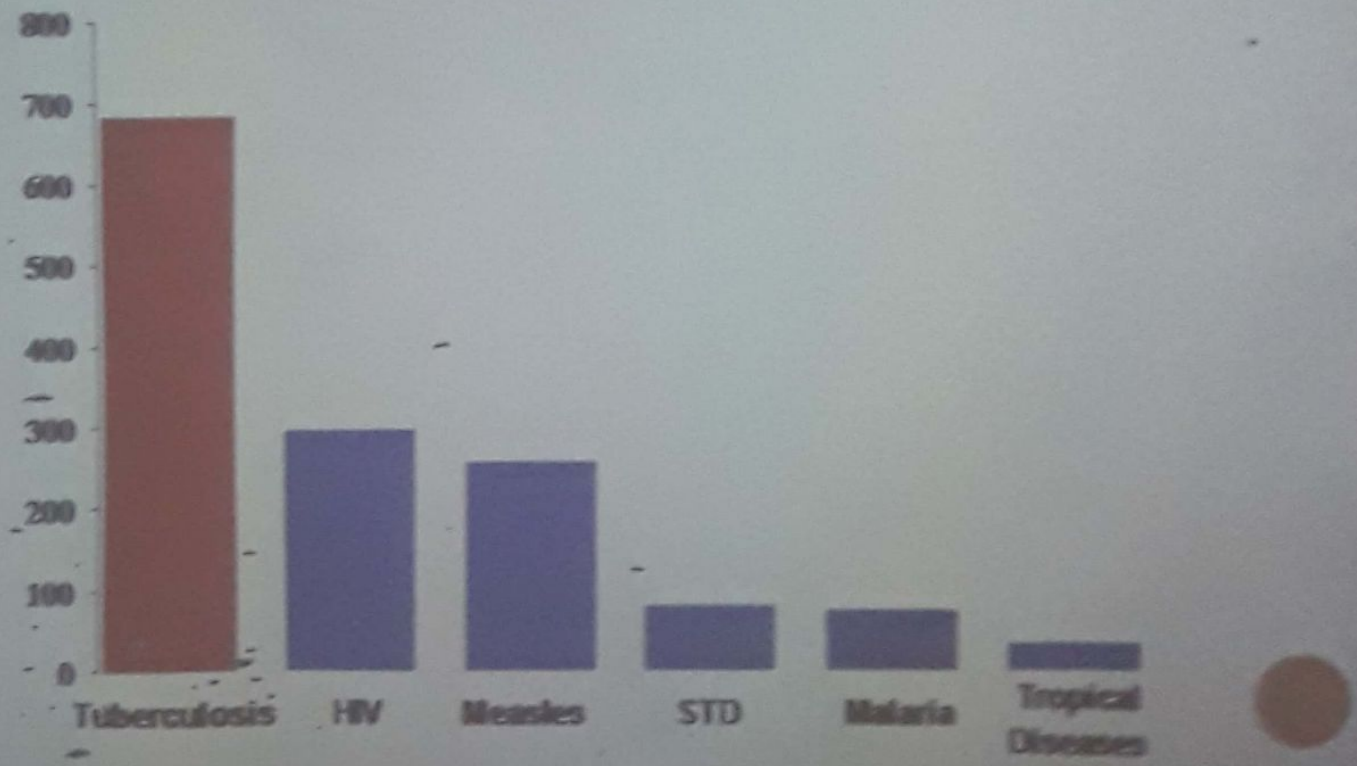
TB: THE LEADING SINGLE INFECTIOUS CAUSE OF DEATH IN SE ASIA



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HIGH BURDEN COUNTRIES
(GLOBAL TB REPORT)

- 1. India
- 2. China
- 3. South Africa
- 4. Indonesia
- **5. Pakistan**
- 6. Bangladesh
- 7. Philippines
- 8. Ethiopia
-
-
- 22. Afghanistan

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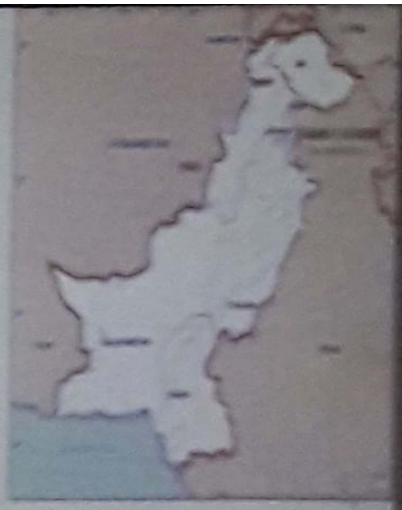
FACTS IN PAKISTANI CONTEXT



- Population (millions) estimated to 193
- Pakistan ranks 5th globally among the high tuberculosis burden countries.
- Contributes about 55% of tuberculosis burden in the EMRO.
- The incidence of ss+ve TB cases is 82/100,000/ year and for all types, 181/100,000.
- TB is responsible for 5.1 percent of the total national disease burden in Pakistan.

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TB Terminologies

History of drug intake	Sputum Smear result now	Type of patient
•Never taken TB drugs in past •Taken TB drugs for less than 1 month in past and never registered in TB-DOTS program	Smear positive Or Smear negative	New case
Taken full course of TB treatment in past and declared cured or treatment completed	Smear positive	Relapse
•New smear positive patient taken TB drugs for 5 months or more •Smear negative patient having taken TB drugs for 2 months or more	Remains Smear positive Becomes Smear positive	Treatment Failure
Patient registered in program and then interrupted for 2 or more consecutive months	Smear positive	Default
Initially ss+ve pt. on at least two occasions, (one at treatment completion), had,	Smear negative	Cured
•SS-ve pt. who received full course of treatment •SS+ve pt. who completed the treatment, but no smear done at treatment end.	- - - -	Treatment completed

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MANTOUX TEST

- Result after 72 hours
- Induration is measured
- > 10 mm --- Positive
- 6-9 mm --- Doubtful
- < 6 mm --- Negative

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PREVENTION OF TB

- BCG Vaccination

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CONTROL OF TB

Evolution of global TB strategies

1994	2006	2014
The DOTS Strategy	**The Stop TB Strategy**	**The End TB Strategy**
1. Government commitment	1. Pursue high-quality DOTS expansion and enhancement	1. Integrated, patient-centred TB care and prevention
2. Case detection through passive case finding	2. Address TB/HIV, MDR-TB and other challenges	2. Bold policies and supportive systems
3. Standardized chemotherapy to all sputum smear positive TB cases of under proper case management conditions	3. Contribute to health system strengthening	3. Intensified research and innovation
4. Establishment of a system of regular supply of anti-TB drugs	4. Engage all care providers	
5. Establishment of a monitoring system, for programme supervision and evaluation	5. Empower people with TB and communities	
	6. Enable and promote research	

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1. POLITICAL/ADMINISTRATIVE COMMITMENT

- Perception of TB as a priority problem with real solution
- Government acknowledges importance of disease
- Public commitment to National TB Program (NTP)
- Support for personnel, training, transportation, drugs

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2. Accurate Diagnosis=Sputum Microscopy

- Identification/cure of smear +ve cases is highest priority of TB control programs

Why?

Smear+ve highly infectious; may infect 10-15 contacts per year; more likely to die if untreated.

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3. ADEQUATE SUPPLY OF DRUGS

- Treatment requires regular doses of combination regimens for >6 months
- Identification of an adequate supply of appropriate drugs for patients prior to initiation of treatment essential
- If regimens incomplete, real chance of development of **drug-resistant strains** which are hard or impossible to cure.

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4. DIRECTLY OBSERVED TREATMENT

- Why? Many patients don't take medicines regularly, even if excellent health education provided
- Who? All patients... impossible to predict which patient will take medicine (1/3 not adherent)
- What? Observer watches and helps patient swallow tablets
- Where? Anywhere! (home, clinic, work, school, etc)
- Who does it? LHW, community liaisons, teachers, Imams, family members.

Direct observation ensures treatment for entire course with the right drugs, in the right doses, at the right intervals.

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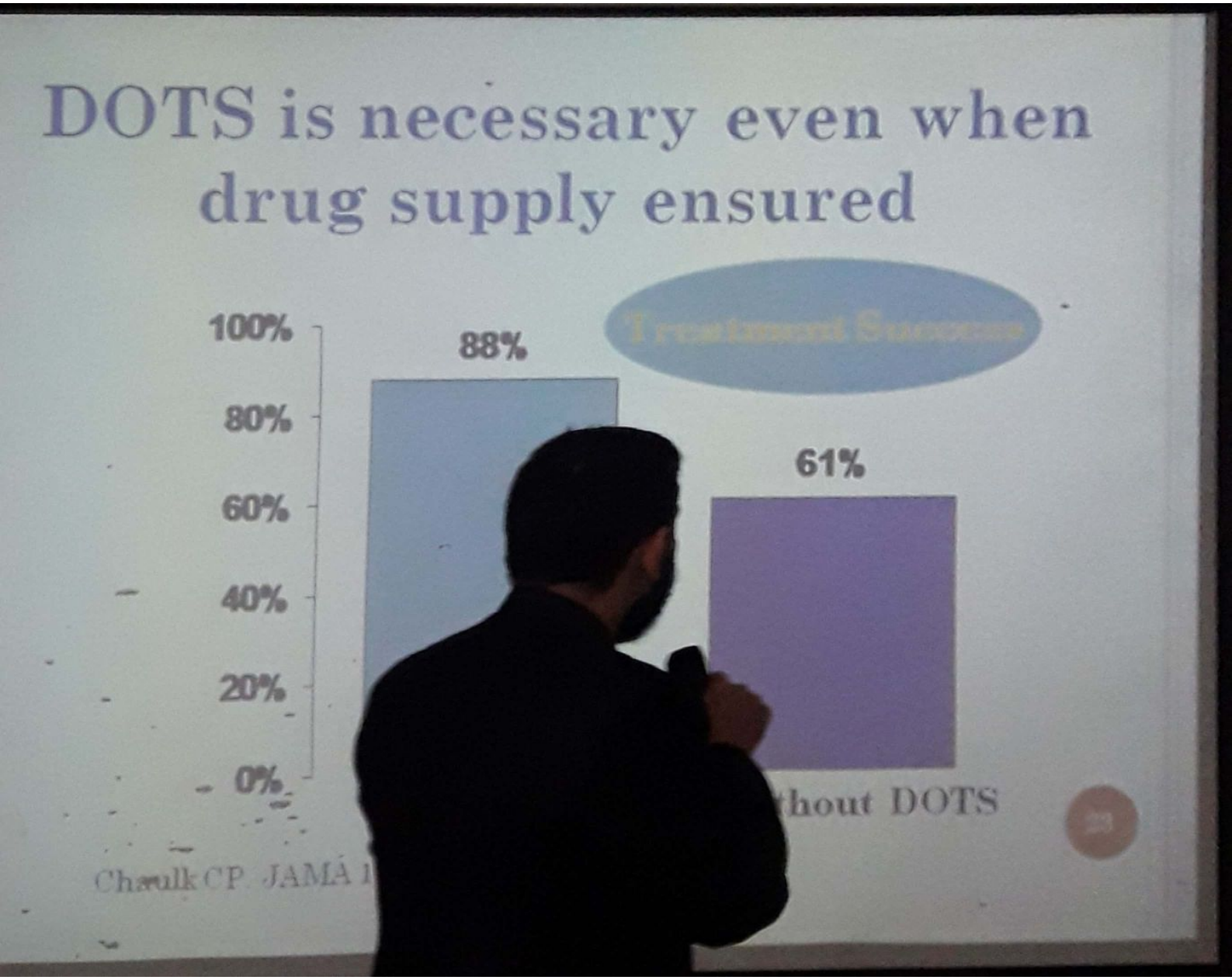

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5. Systematic Monitoring/Accountability

- Recording system is simple to use, essential, integrated component of DOTS enabling
  - Monitoring of patient outcomes
  - Evaluation of program performance
  - Analysis of epidemiologic data

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DRUG RESISTANCE

- Primary/Pre-Treatment
- Secondary/Acquired
- MDR-TB
- XDR-TB

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DOTS-PLUS

- DOTS-Plus is a case-management strategy designed to manage MDR-TB using 2nd line drugs within the DOTS strategy and in resource-limited countries

DOTS-Plus means DOTS first

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Global TB control targets

MDGS

SDGS

2015: 50% reduction in TB prevalence and death rates by 2015

2015: Goal 6: Combat HIV/AIDS, malaria and other diseases

Target 8: to have halted by 2015 and begun to reverse the incidence…

Indicator 23: prevalence and deaths associated with TB

Indicator 24: proportion of TB cases detected and cured under DOTS

UN Millennium Development Go

2005: World Health Assembly:

To detect at least 70% of infectious TB cases

To treat successfully at least 85% of detected cases

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Pakistan wins US award for combating tuberculosis

By APP

Published: March 19, 2016

203SHARES

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As a result of concerted efforts, Pakistan has one of the highest rates of success in TB treatment across the world. PHOTO: AFP/FILE

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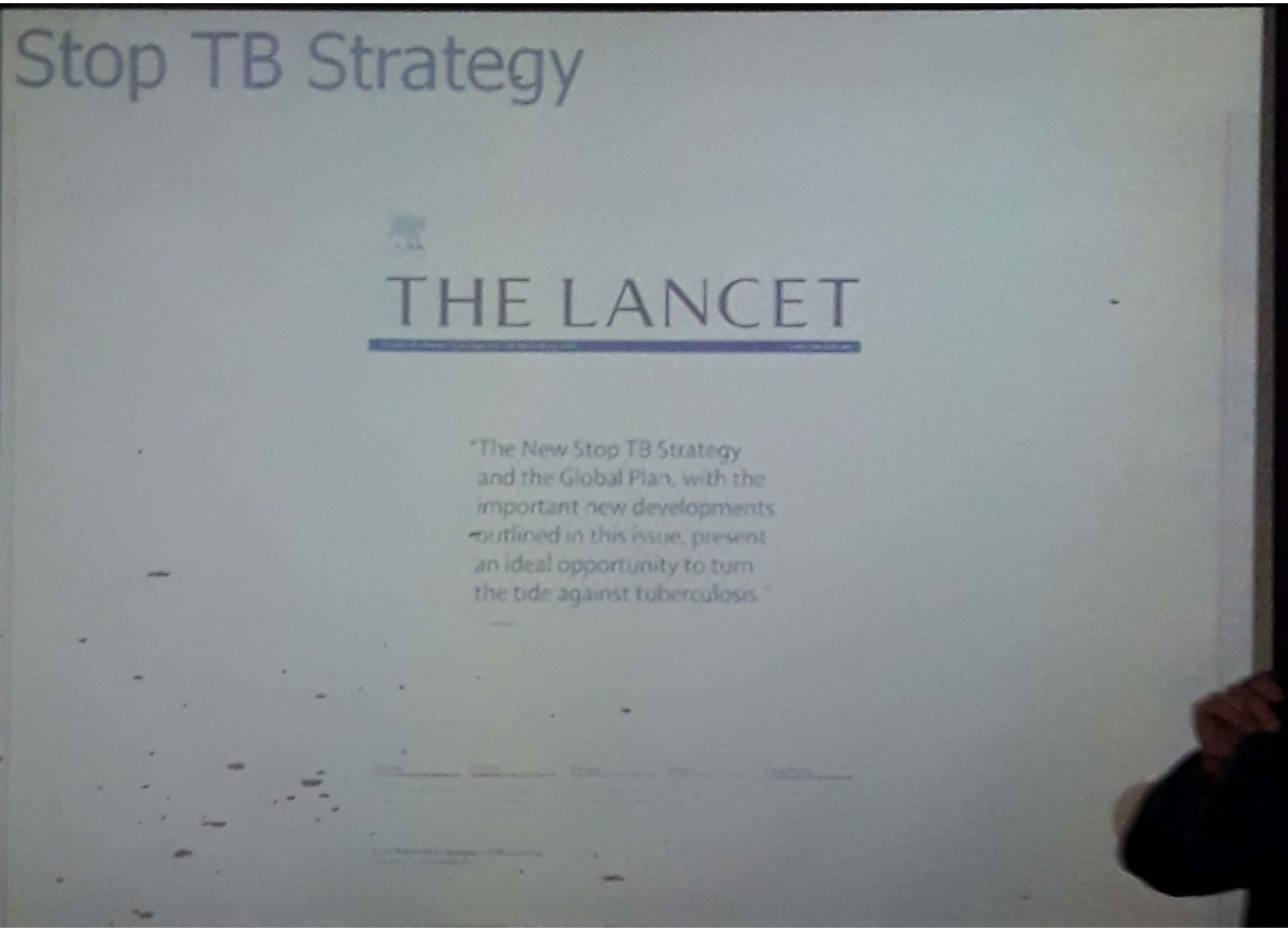
Stop TB Strategy



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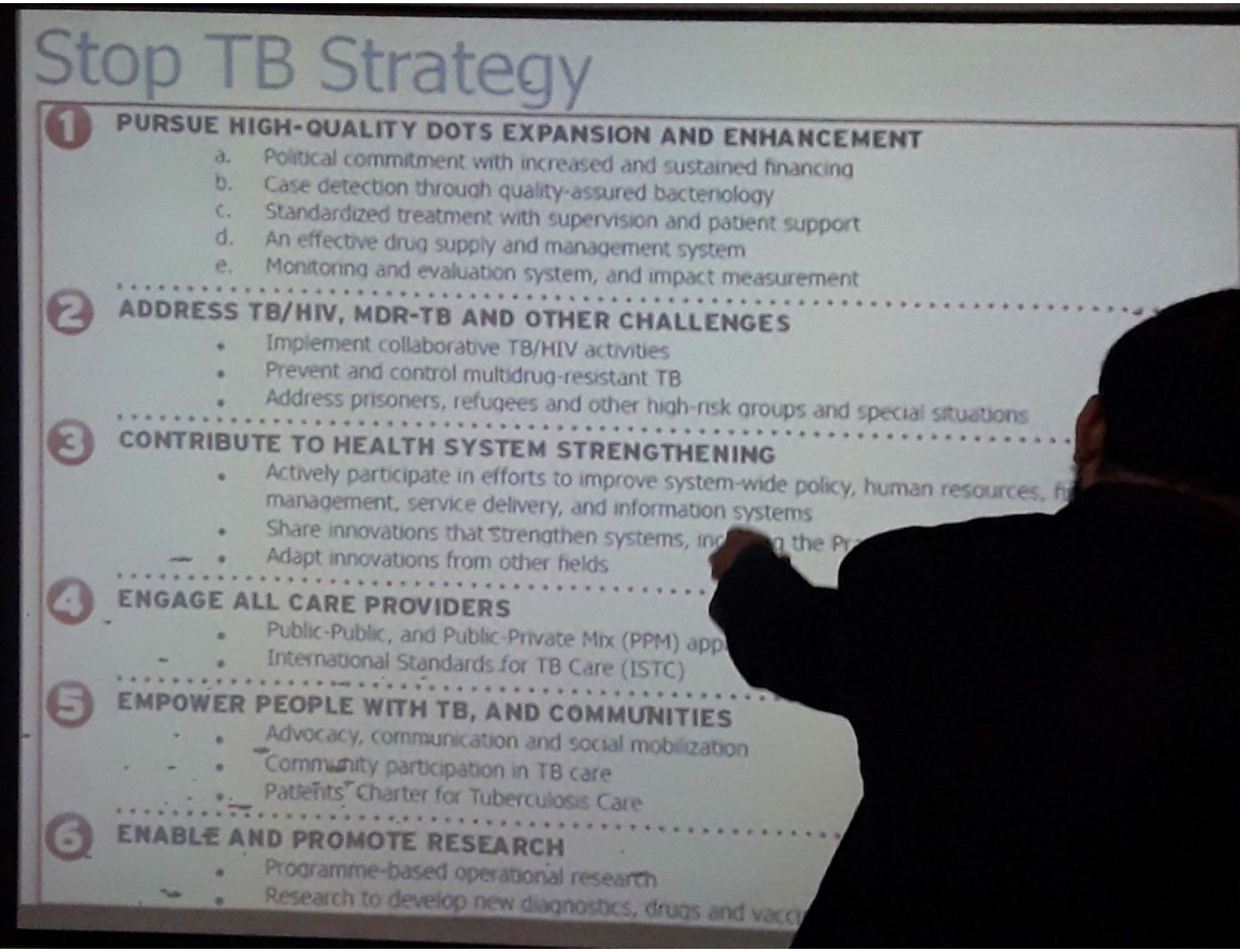

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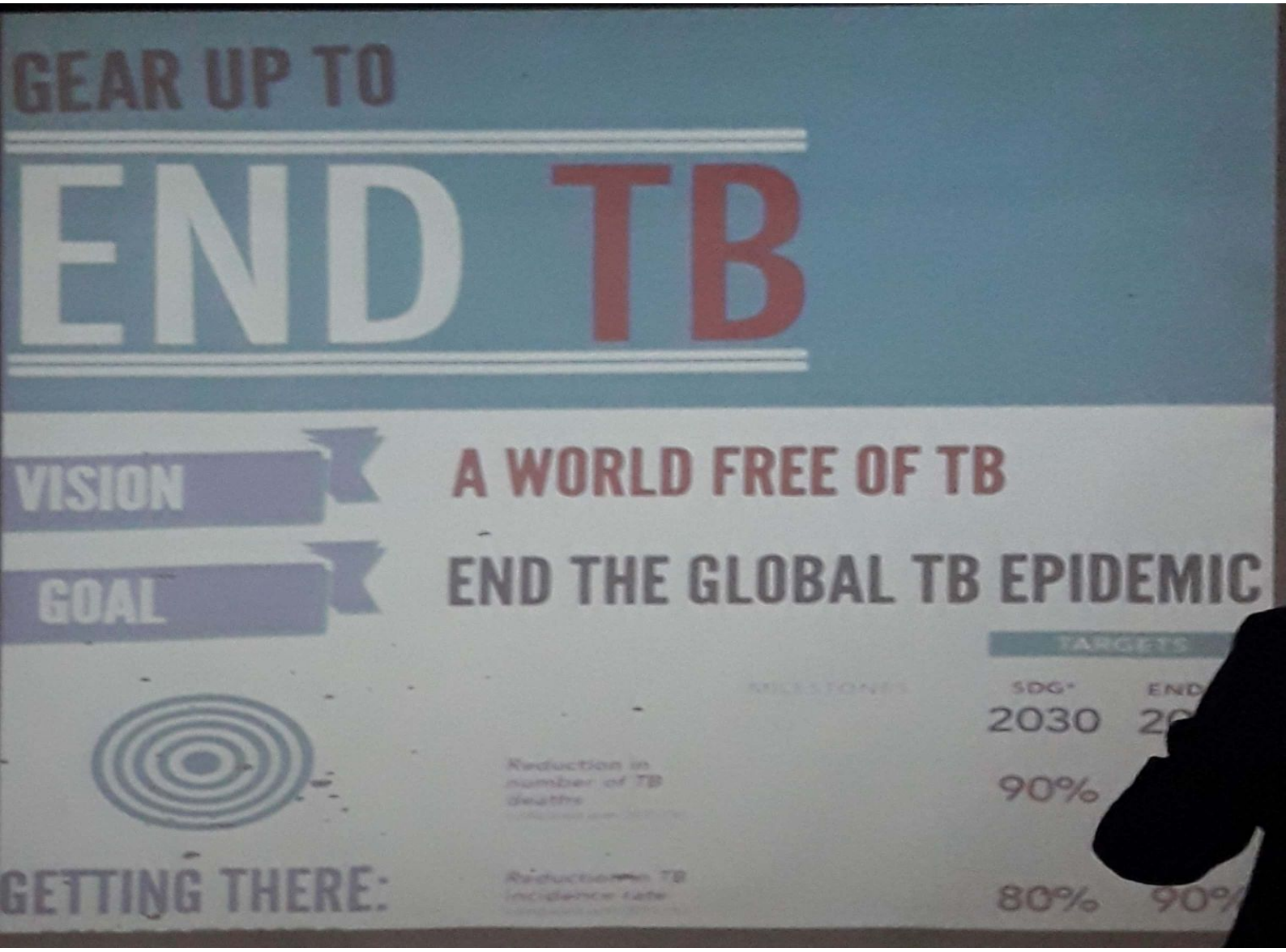

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VISION	A world free of tuberculosis – zero deaths, disease and suffering due to tuberculosis
GOAL	End the global tuberculosis epidemic
MILESTONES FOR 2025	75% reduction in tuberculosis deaths (compared with 2015) 50% reduction in tuberculosis incidence rate (less than 55 tuberculosis cases per 100 000 population) – No affected families facing catastrophic costs due to tuberculosis
TARGETS FOR 2035	95% reduction in tuberculosis deaths (compared with 2015) 90% reduction in tuberculosis incidence rate (less than 10 tuberculosis cases per 100 000 population) – No affected families facing catastrophic costs due to tuberculosis

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

PILLARS AND COMPONENTS

1. INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION

A. Early diagnosis of tuberculosis including universal drug-susceptibility testing, and systematic screening of contacts and high-risk groups
B. Treatment of all people with tuberculosis including drug-resistant tuberculosis, and patient support
C. Collaborative tuberculosis/HIV activities, and management of comorbidities
D. Preventive treatment of persons at high risk, and vaccination against tuberculosis

2. BOLD POLICIES AND SUPPORTIVE SYSTEMS

A. Political commitment with adequate resources for tuberculosis care and prevention
B. Engagement of communities, civil society organizations, and public and private care providers
C. Universal health coverage policy, and regulatory frameworks for case notification, vital registration, quality and rational use of medicines, and infection control
D. Social protection, poverty alleviation and actions on other determinants of tuberculosis

3. INTENSIFIED RESEARCH AND INNOVATION

A. Discovery, development and rapid uptake of new tools, interventions and strategies
B. Research to optimize implementation and impact, and promote innovations

The End TB Strategy : http://www.who.int/tb/strategy/end-tb/en/

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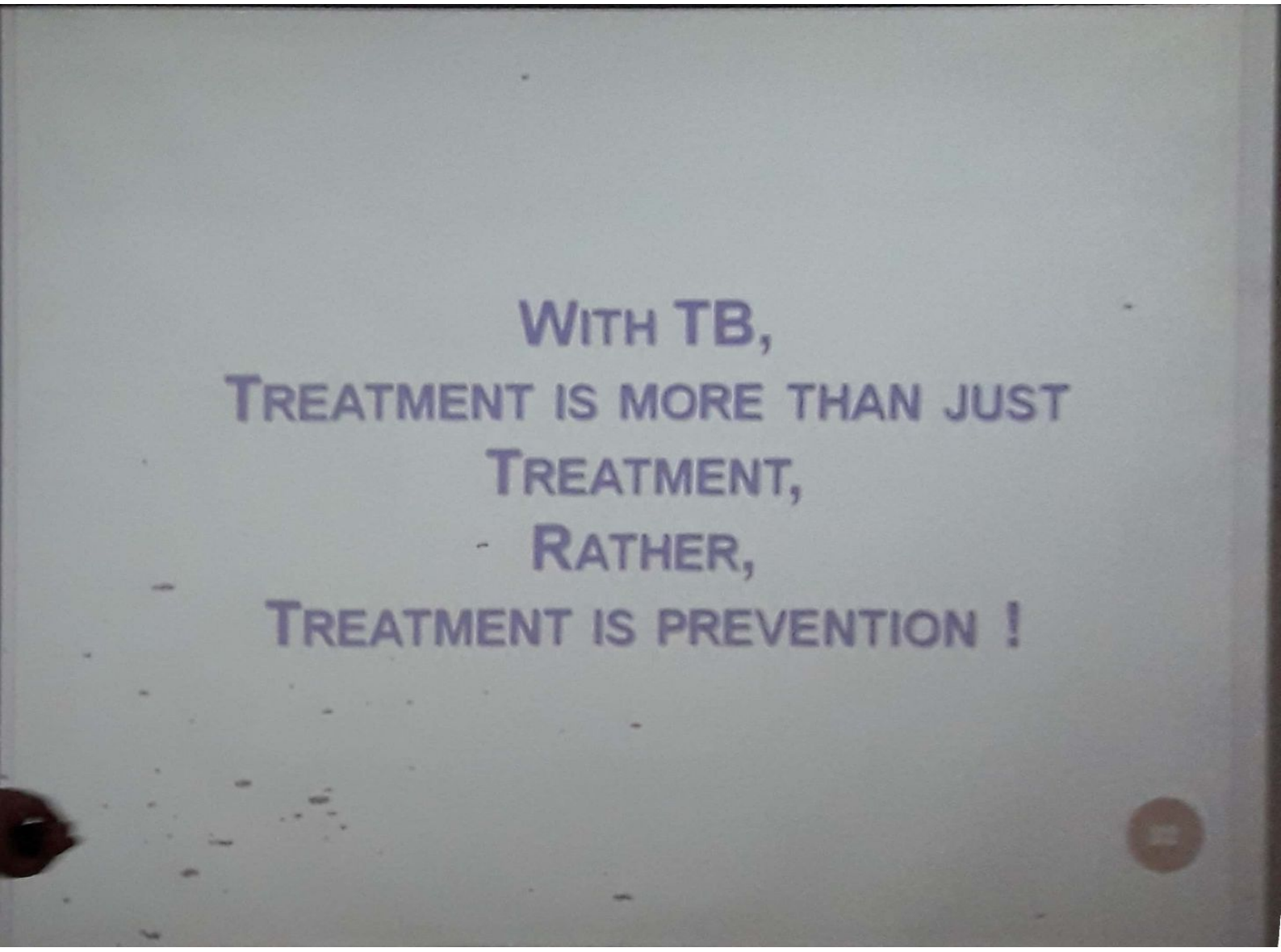

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SPUTUM MONITORING, NEW PATIENTS

Months of treatment

1	2	3	4	5	6
[=========	========]	[----------	----------	----------	----------]
	• (sm +)	• if sm +, obtain culture, DST		• if sm +, obtain culture, DST[a]	• if sm +, obtain culture, DST[a]

Key:

[========] Intensive phase of treatment (HRZE)

[----------] Continuation phase (HR)

• Sputum smear examination

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SPUTUM MONITORING, PREVIOUSLY TREATED PATIENTS ON FIRST LINE DRUGS

Months of treatment							
1	2	3	4	5	6	7	8
[========	========	========]	[----------	----------	----------	----------	----------]
		• if sm +, obtain culture, DST		• if sm +, obtain culture, DST			• if sm +, obtain culture, DST

Key:

[========] Intensive phase: 2 months of HRZES followed by 1 month of HRZE

[----------] Continuation phase with 5 months of HRE

• Sputum smear examination

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SCENARIO

- If a lactating mother is diagnosed as a PTB patient, can she breast feed her child???

yes, but face mask nd all other protocols & tk Tx nd chils should not get BCG vaccne & INH prophylax

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