



# PARIS

**FAST-TRACK CITIES 2024**

13-15 October 2024 | Maison de la Mutualité, Paris

## Islands of Elimination: Scaling Up Urban TB Responses

Nombulelo Princess Magula







# Leprosy

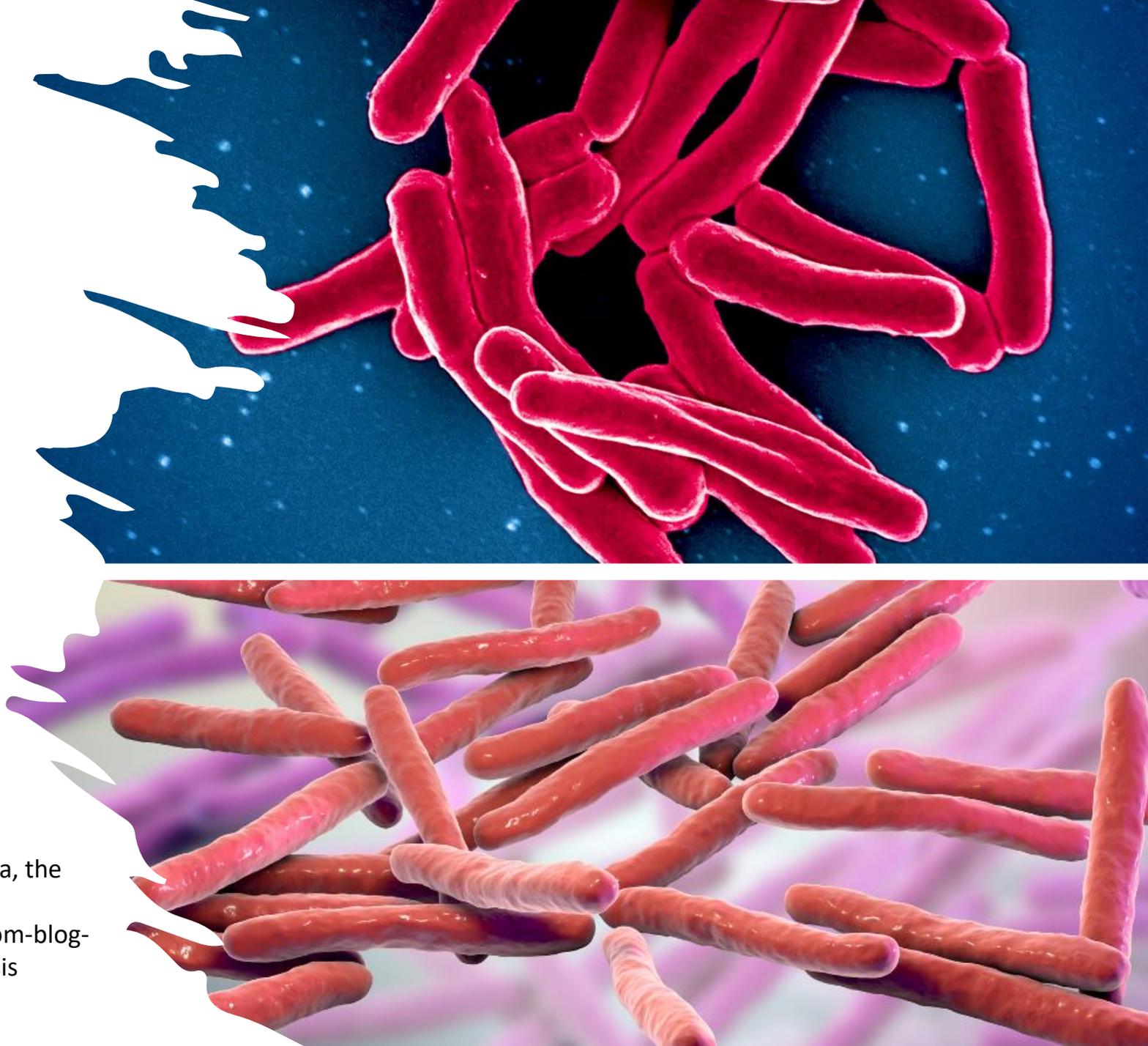
- In the 19th Century, Robben Island became a leper colony.
- Lepers were moved to the Colony on a voluntary basis,
- After the Leprosy Repression Act in May 1882, they were forced to live on the island, with no option of return.

# Leprosy and Tuberculosis

- Key Message 1

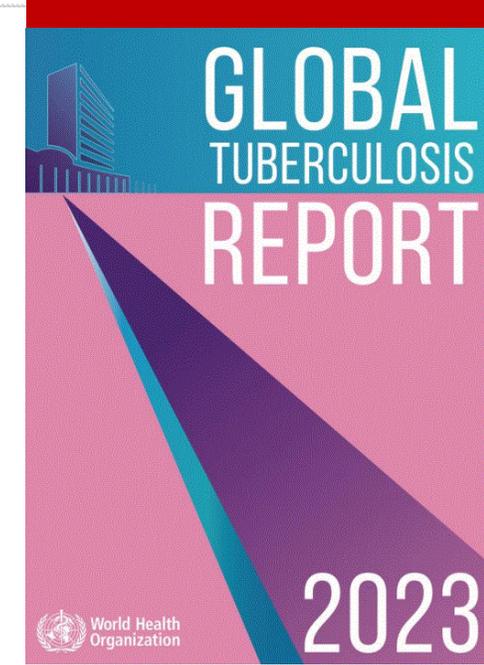
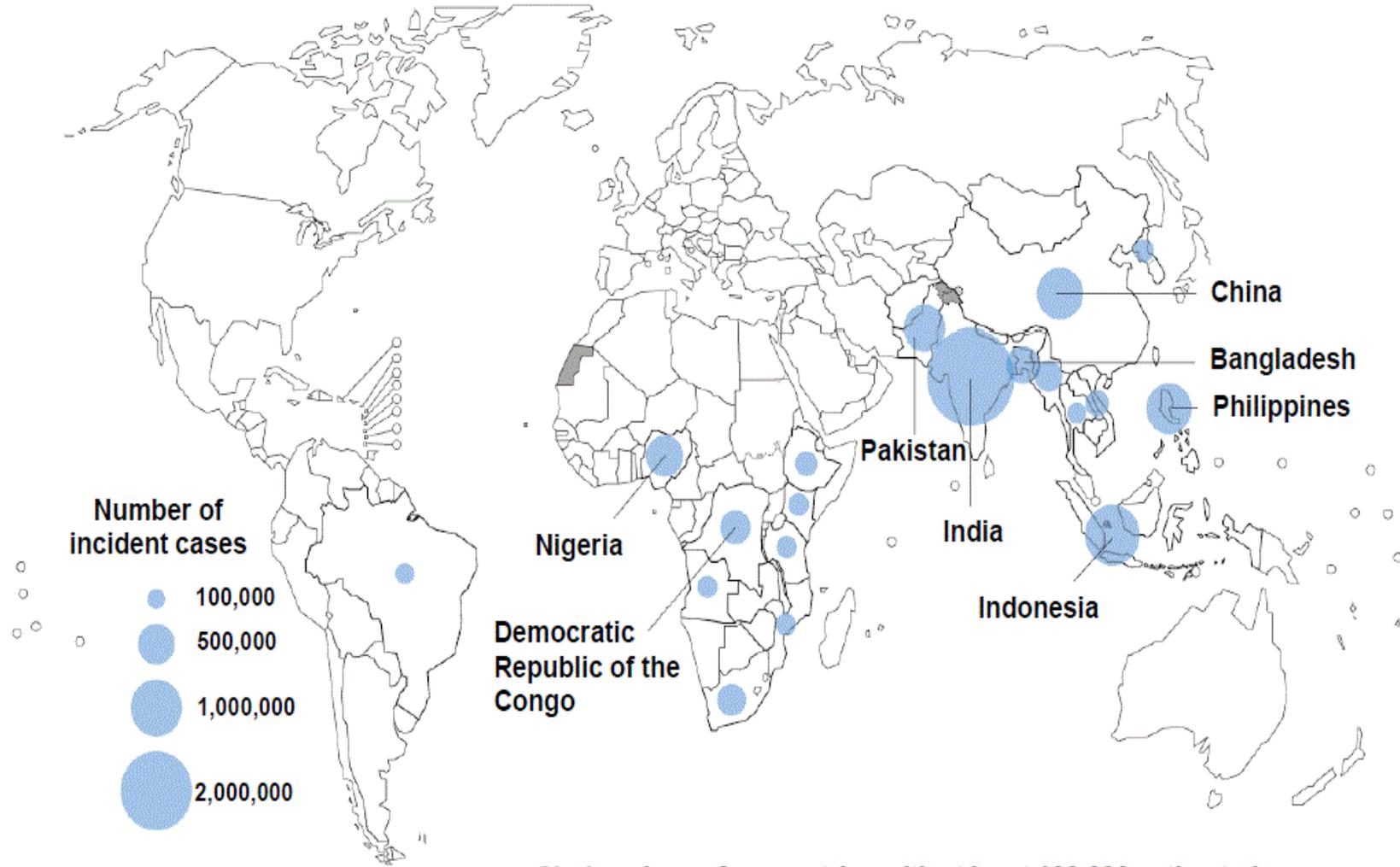
## Stigma and Discrimination

Image credit: By NIAID - Mycobacterium Tuberculosis Bacteria, the Cause of TB, CC BY 2.0  
<https://synexagroup.com/blog-articles/https-synexagroup-com-blog-articles-mycobacterium-leprae-the-lazy-cousin-to-tuberculosis>



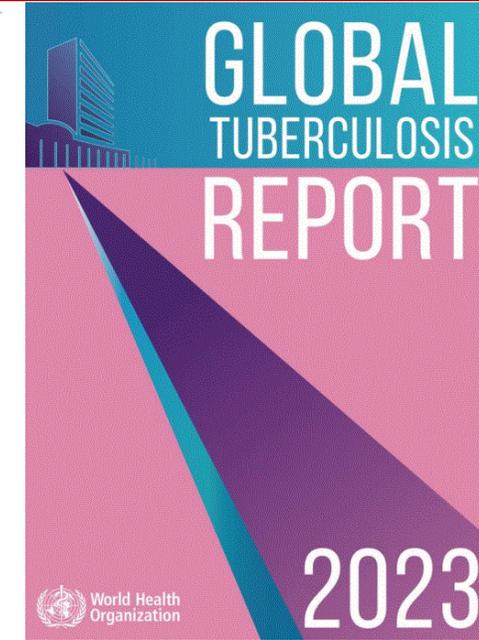
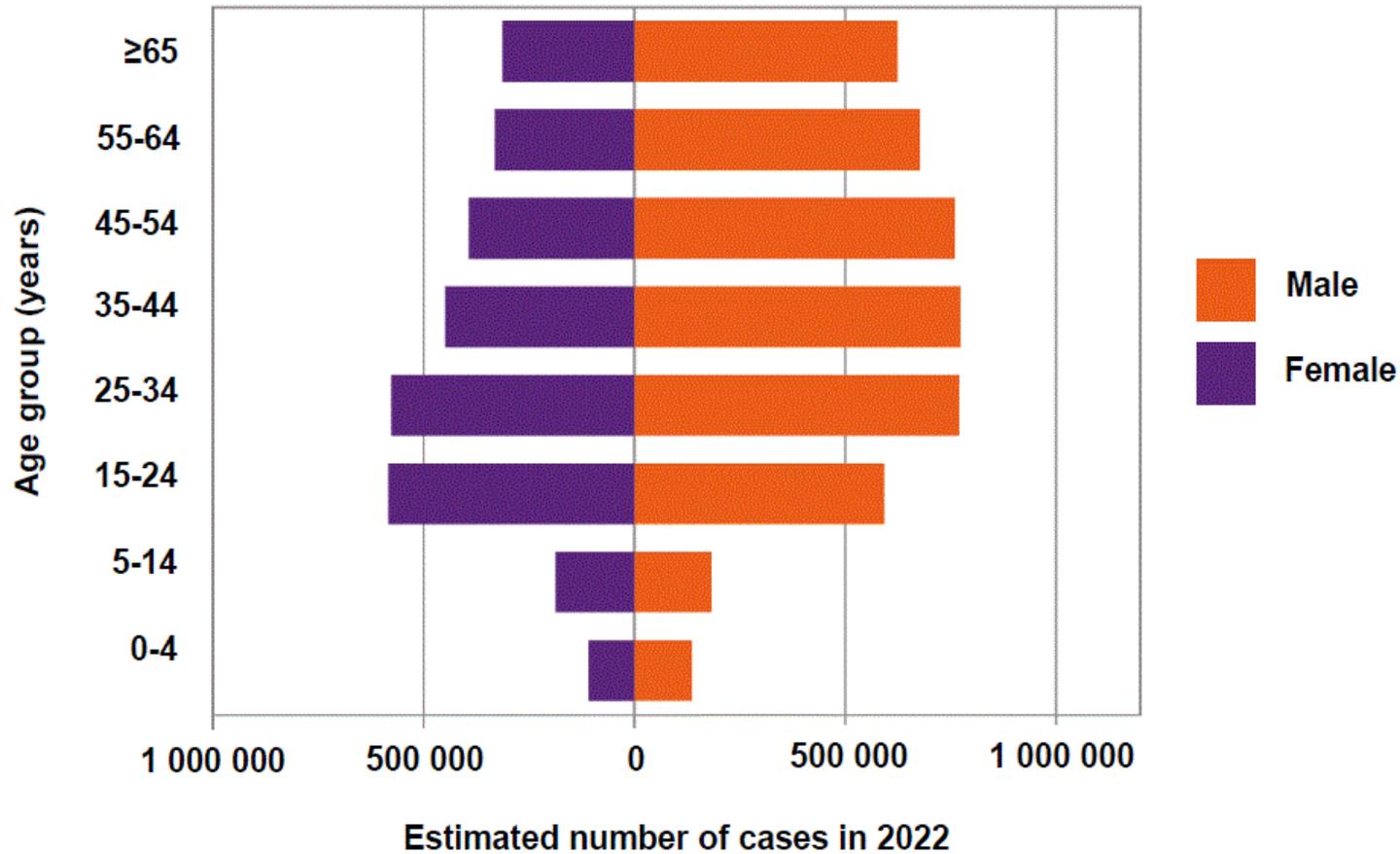
# 8 countries, 68% of global cases in 2022

87% in 30 high TB burden countries



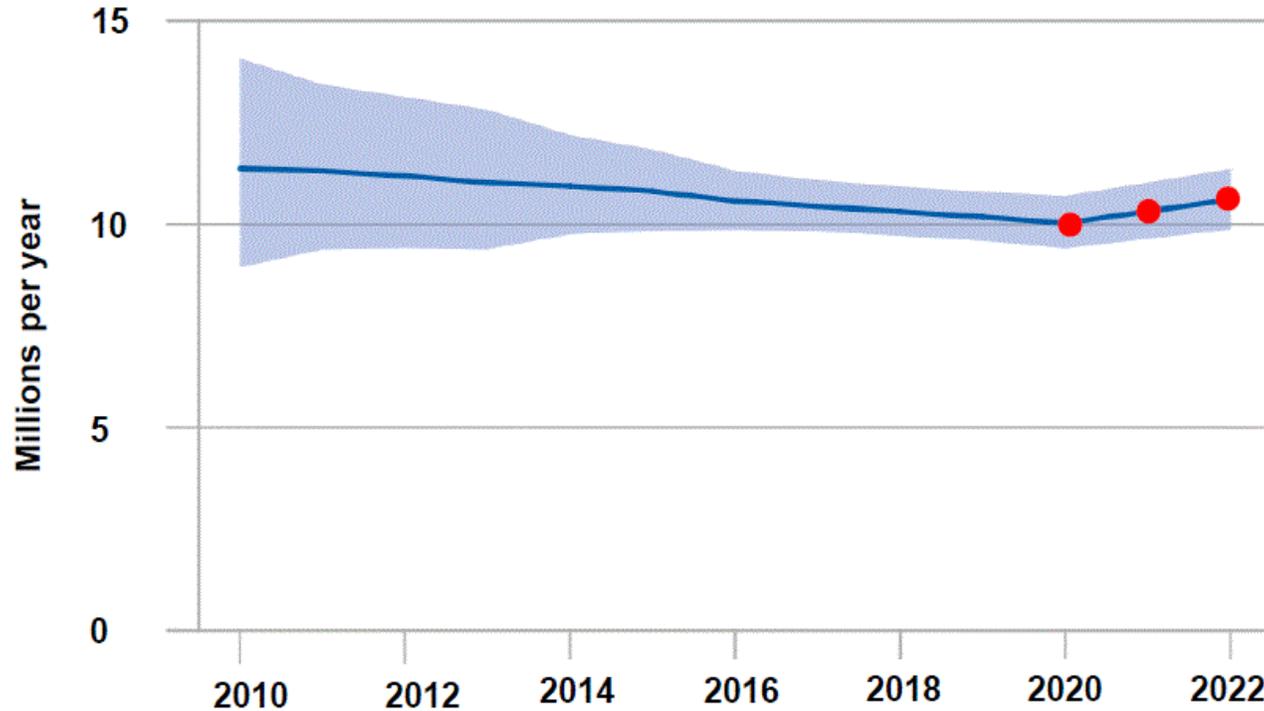
# Distribution by age and sex

5.8 million men (55%), 3.5 million women (33%), 1.3 million children (12%)

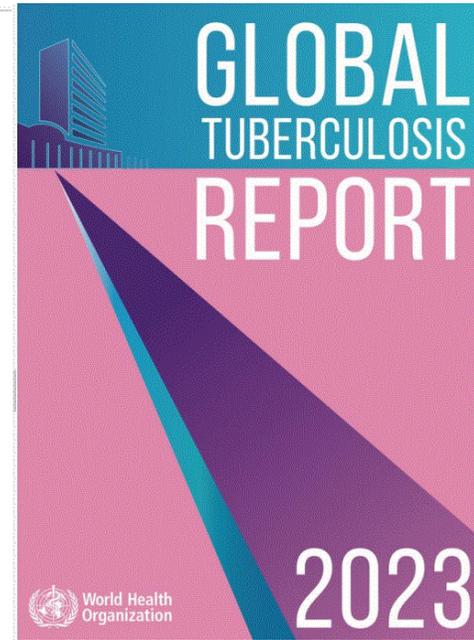


# Globally, TB incidence continued to increase

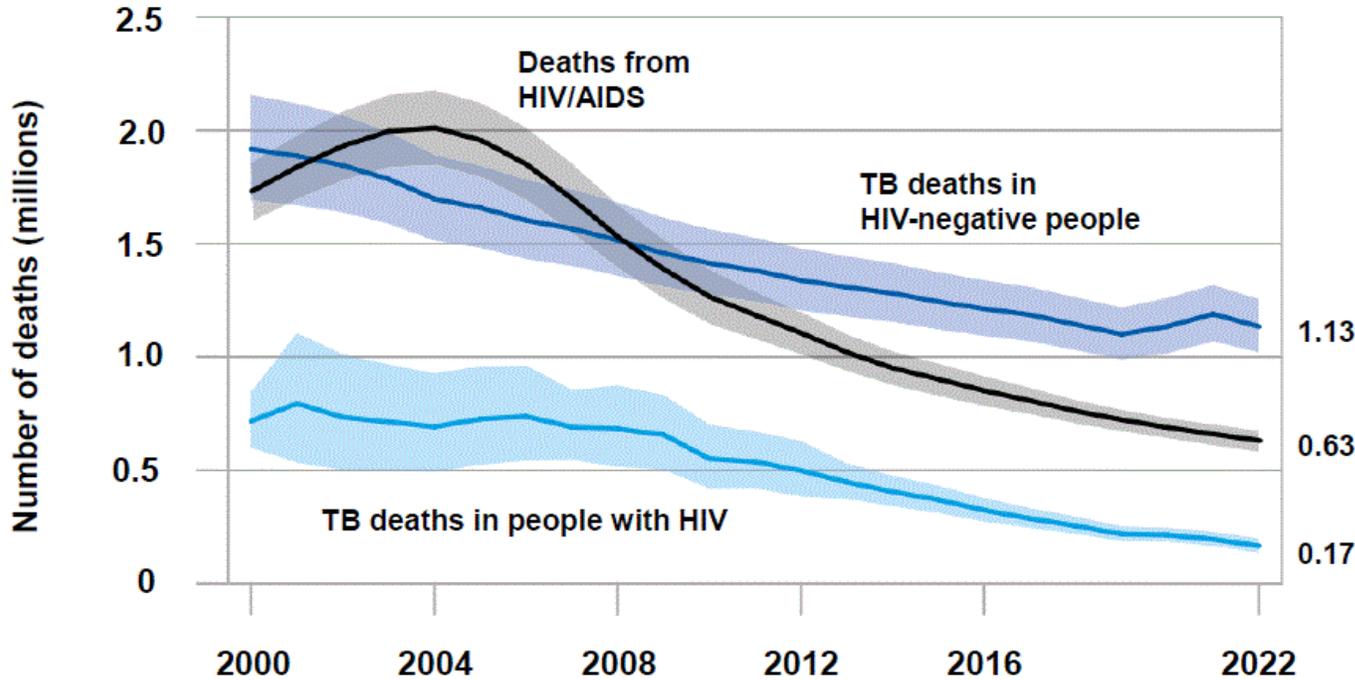
Best estimate of 10.6 million in 2022,  
up from 10.3 million in 2021 and 10.0 million in 2020



Shaded area shows 95% uncertainty interval

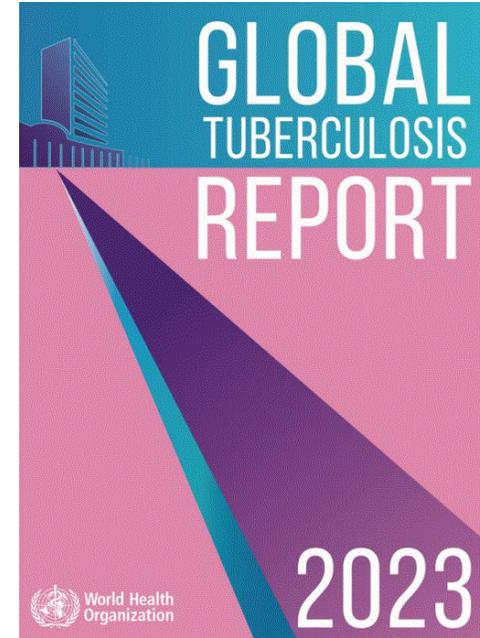


# TB more badly impacted than HIV



Deaths from TB in 2022 almost double those from HIV/AIDS, which continued to fall

Shaded areas show 95% uncertainty intervals



# In 2022, TB remained the second leading cause of death from an infectious disease, after COVID-19

Estimated number of **TB** deaths among HIV-negative people\*

**1.13 million**  
(95% UI: 1.02–1.26)

Officially reported number of deaths from **COVID-19**

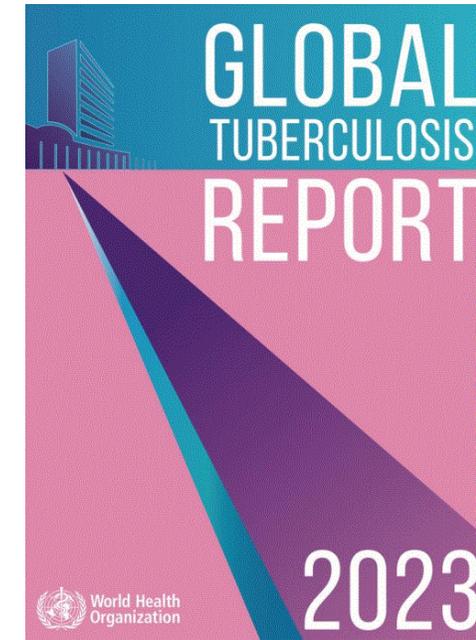
**1.24 million**

Estimated number of deaths from **HIV/AIDS**

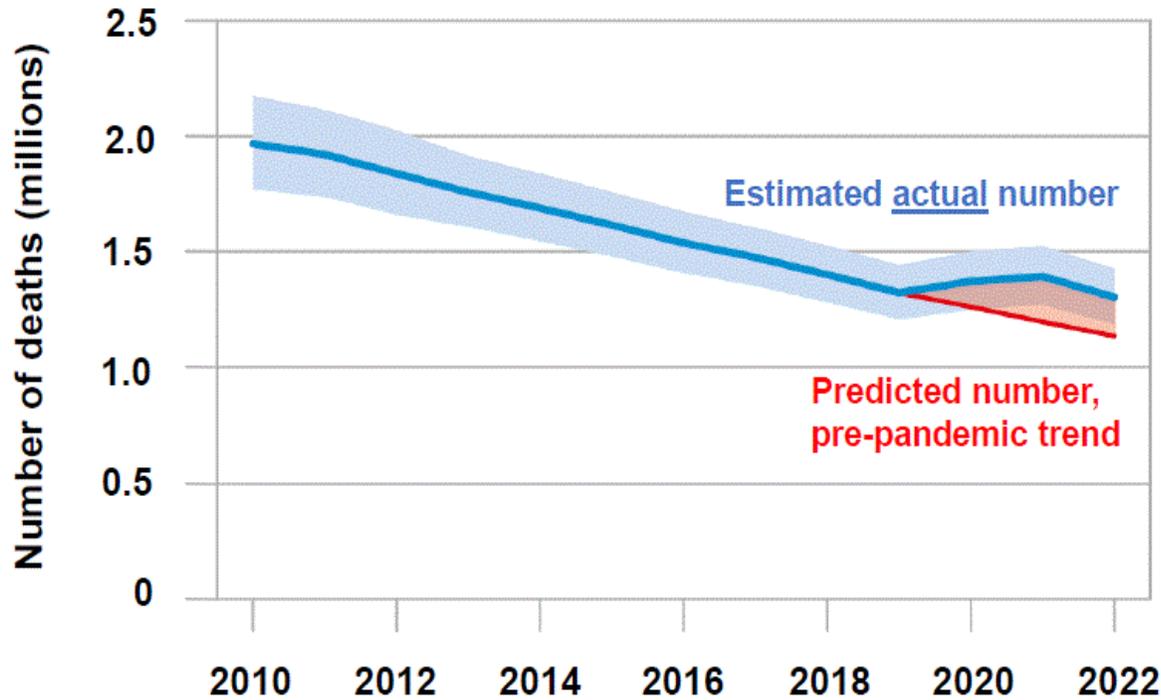
**0.63 million**  
(95% UI: 0.58–0.67)

\*Deaths from TB among people with HIV officially classified as deaths from HIV/AIDS

Sources: Coronavirus (COVID-19) dashboard. Geneva: World Health Organization; 2022 (<https://covid19.who.int/>)  
AIDS info. Geneva: UNAIDS; 2023. (<https://aidsinfo.unaids.org/>).



# COVID-related disruptions resulted in about **half a million** excess deaths from TB

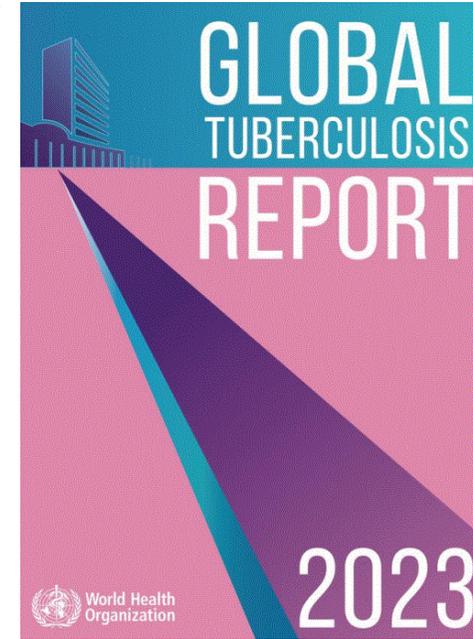


**Shaded area** between **solid blue** and **red lines**: excess deaths in 2020, 2021, 2022

Blue shaded area shows 95% uncertainty interval

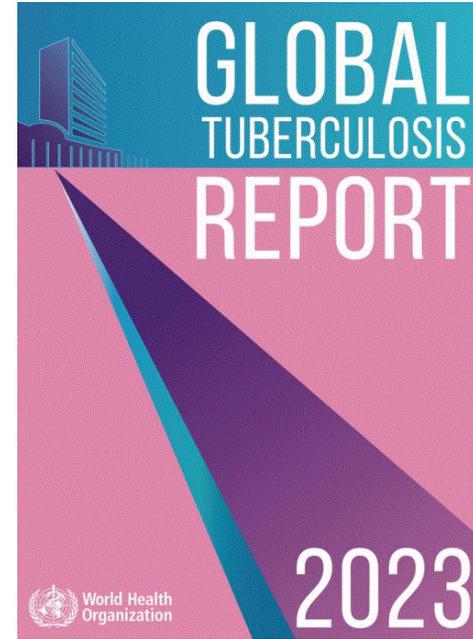
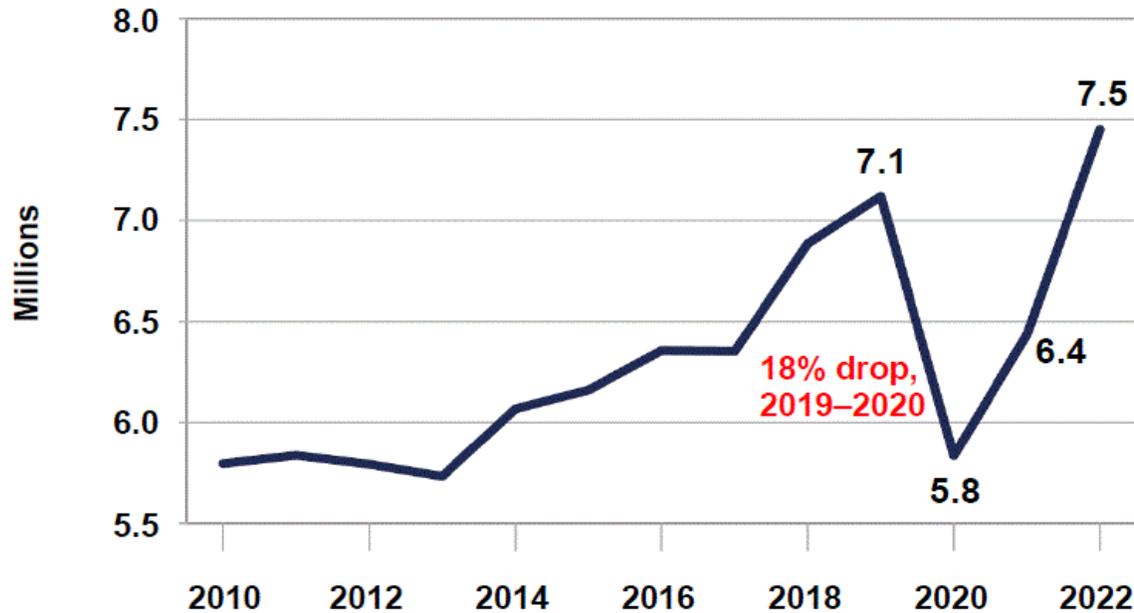
[https://cdn.who.int/media/docs/default-source/hq-tuberculosis/global-tuberculosis-report-2023/globaltbreport2023\\_slideset.pdf?sfvrsn=93c3b816\\_6](https://cdn.who.int/media/docs/default-source/hq-tuberculosis/global-tuberculosis-report-2023/globaltbreport2023_slideset.pdf?sfvrsn=93c3b816_6)

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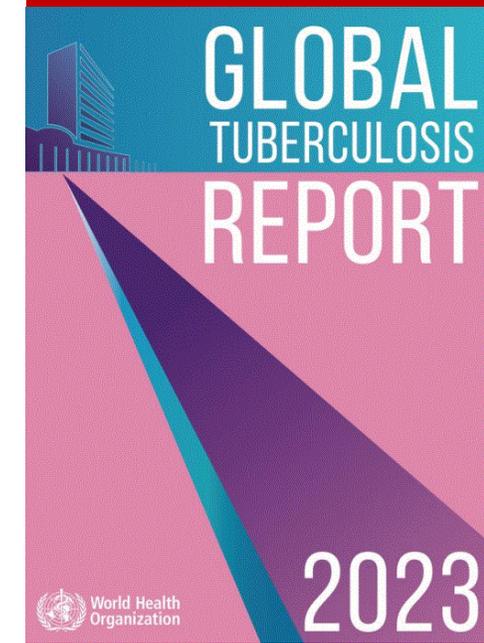
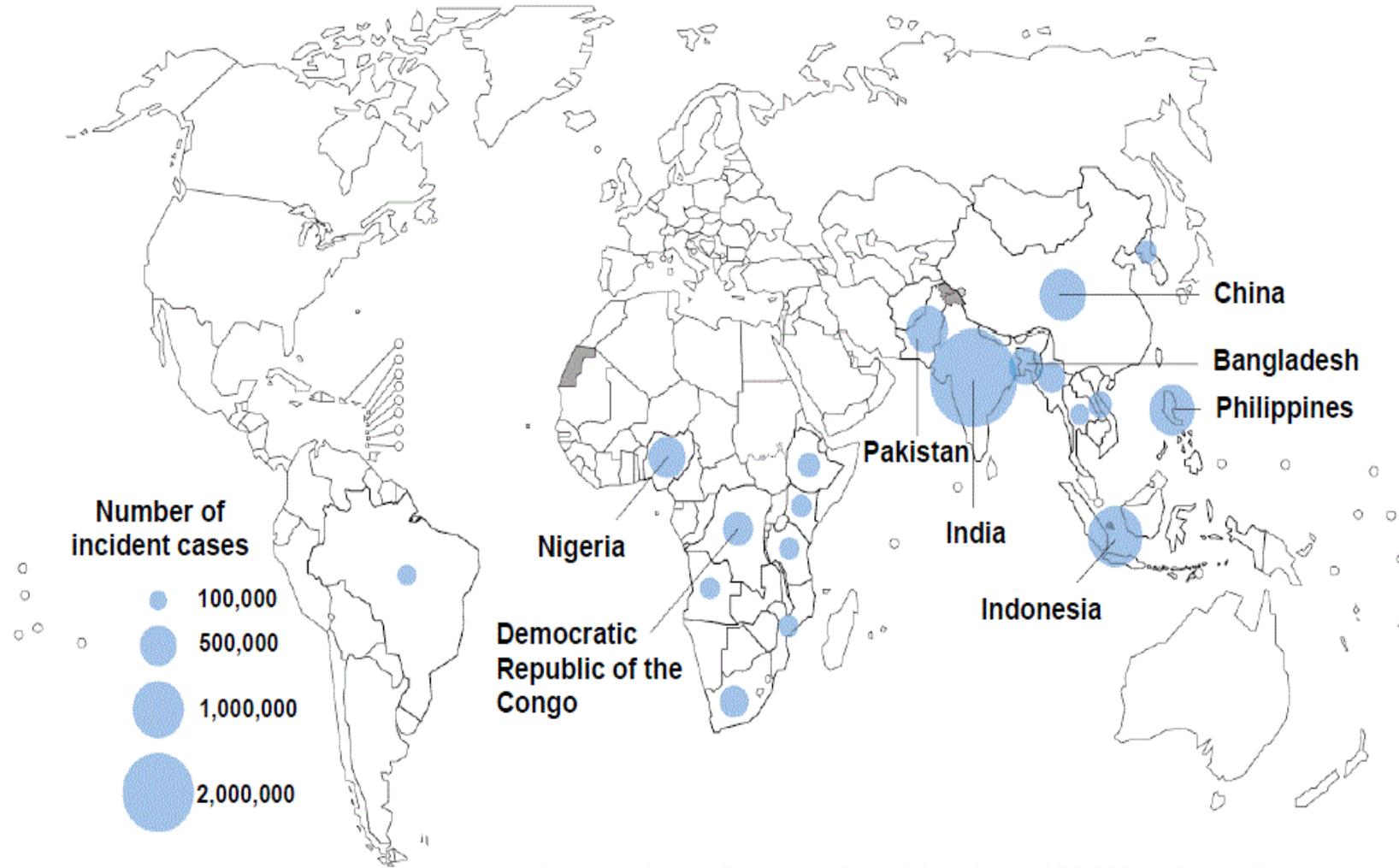
# Global recovery in reported number of people newly diagnosed with TB

7.5 million in 2022: highest number since WHO started global TB monitoring in mid-1990s



# 8 countries, 68% of global cases in 2022

87% in 30 high TB burden countries



## Key Message 2

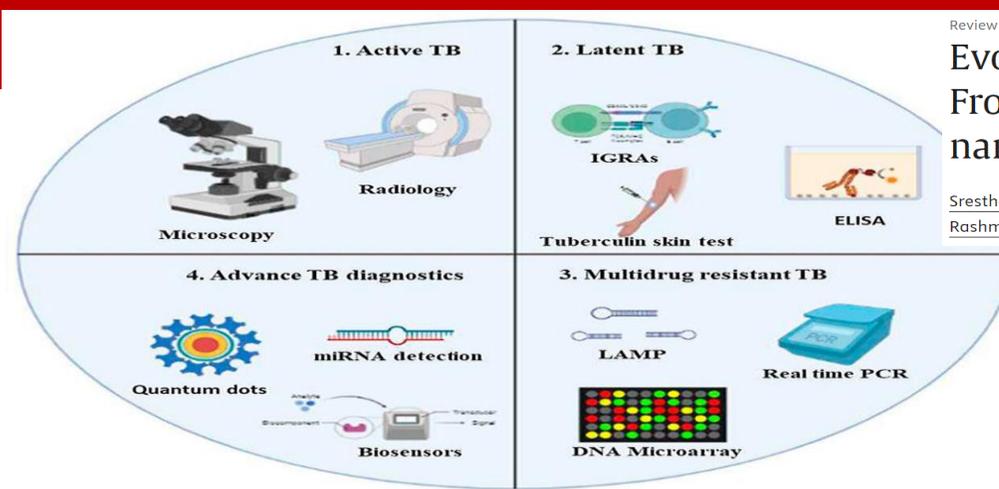
TB knows no borders

# Tuberculosis Treatment back in the day

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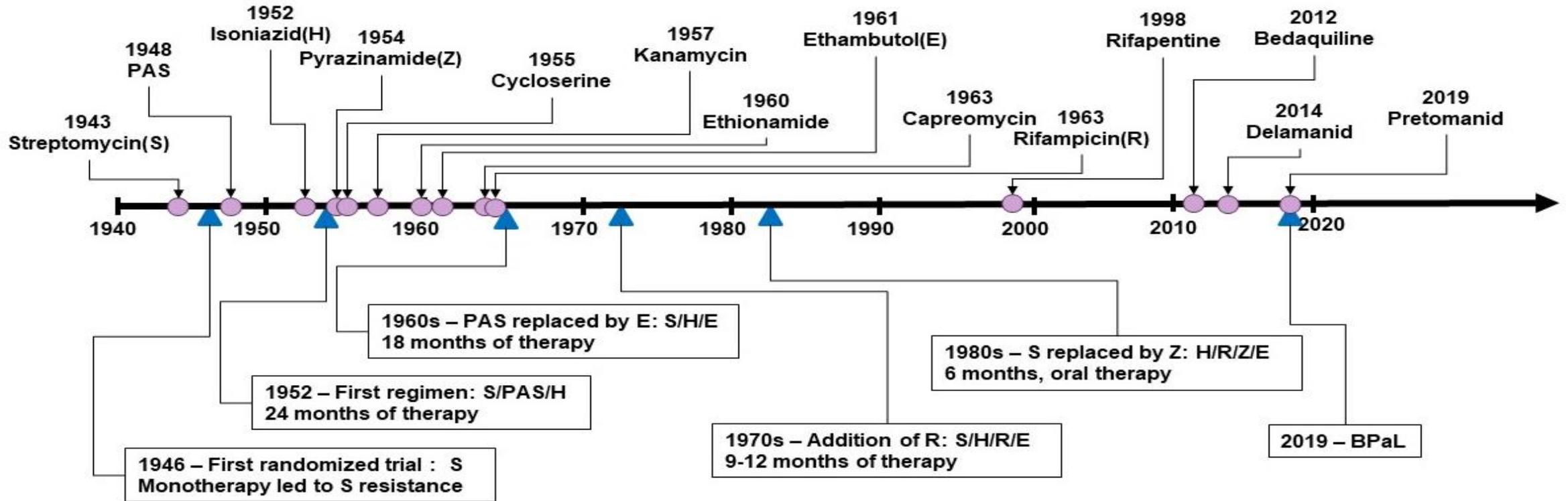
- Children with tuberculosis sleep outside at Springfield House Open Air School in London in 1932.
- Like sanatoriums, these schools offered TB sufferers a place to receive the top treatment of the day: fresh air and sunshine.





## Evolution of TB Therapy

Time to adoption has been too long



<https://www.tballiance.org/content/drugs-regimens-transforming-tb-drug-development>

# Extrapulmonary tuberculosis in the setting of HIV hyperendemicity at a tertiary hospital in Durban, South Africa

S Gounden<sup>a\*</sup> , R Perumal<sup>b</sup> and NP Magula<sup>a</sup> 



## Retrospective chart review: TB diagnosis n=188

Study period	EPTB	EPTB + HIV	ART naïve	CD4 cell count	Race (Black)	Unemployed
Jan-Mar 2016	n = 80 (43%)	71/80 (88%)	34/71 (47%)	68 (IQR 32-165)	76/80 (96%)	57/80 (71%)

Extra-Pulmonary TB (1 or more of the following, with or without Pulmonary TB):  
 Lymph node, Pleura, Bone, Abdomen, Millitary pattern on Chest Xray, Pericardium, Meninges, Blood or Bone Marrow

We are armed with everything Biomedical

# What to know about TB to stop TB

TB contacts who began TB preventative therapy (TPT)

PLHIV initiated on TB Preventative Therapy

Percentage of PLHIV initiated on TB Preventative Therapy

TB clients newly diagnosed and notified

New cases did not start on treatment.

TB loss to follow-up

TB success rate



# What to know about TB to stop TB

 <b>A Person with Latent TB Infection (LTBI)</b>	 <b>A Person with TB Disease</b>
Has a small amount of TB bacteria in his/her body that are alive but inactive	Has a large amount of active TB bacteria in his/her body
Has no symptoms	Has symptoms that may include: <ul style="list-style-type: none"> <li>• A bad cough that lasts 3 weeks or longer</li> <li>• Pain in the chest</li> <li>• Coughing up blood or sputum</li> <li>• Weakness or fatigue</li> <li>• Weight loss</li> <li>• No appetite</li> <li>• Chills</li> <li>• Fever</li> <li>• Sweating at night</li> </ul>
Cannot spread TB bacteria to others	May spread TB bacteria to others
Usually has a positive TB skin test or TB blood test indicating TB infection	Usually has a positive TB skin test or TB blood test indicating TB infection
Has a normal chest x-ray and negative AFB sputum smears	May have an abnormal chest x-ray, or positive sputum smear or culture
Should consider treatment for LTBI to prevent TB disease	Needs treatment for TB disease



**Cough**  
*(lasting longer than 3 weeks)*



**Coughing up blood or sputum**  
*(phlegm from inside the lungs)*



**Chest pain**



**Fever**



**Night sweats**



**Chills**



**Loss of appetite**



**Weakness or fatigue**



**Weight loss**



- **August 2014** – Fast-Track Cities partnership conceptualized between UNAIDS, IAPAC, UN-Habitat & City of Paris
- **December 2014** – Fast-Track Cities initiative launched in the City of Paris, together with the *Paris Declaration on Fast-Track Cities Ending the AIDS Epidemic*

# Context-specific Responses

# Bamako, eThekweni, Kigali, Libreville and Nairobi County



Solidarity

Sharing best practices

Community Participatory  
Research: Empowering  
eThekweni District Municipality's  
Response to HIV, TB, and STIs  
Through the District AIDS Council

Presented by: **Thabisile Mfeka,**  
**Deputy Head: Mayoral Affairs,**  
**eThekweni Municipality, South**  
**Africa**





## Commission

### **IAPAC–Lancet HIV Commission on the future of urban HIV responses**

José M Zuniga, Corey Prachniak, Nicoletta Policek, Nombulelo Magula, Anisha Gandhi, Jane Anderson, Dázon Dixon Diallo, Viviane Dias Lima, Sindhu Ravishankar, Shrikala Acharya, Angeli Achrekar, Monsurat Adeleke, Élodie Aïna, Solange Baptiste, Geoffrey Barrow, Josip Begovac, Elizabeth Bukusi, Amanda Castel, Erika Castellanos, Jorge Cestou, Gertrude Chirambo, Jeffrey Crowley, Nikos Dedes, Lucica Ditiu, Meg Doherty, Chris Duncombe, Adriana Durán, Donna Futterman, Shannon Hader, Chyrol Kounkeu, Fran Lawless, Jeffrey V Lazarus, Sabine Lex, Carlos Lobos, Kenneth Mayer, Maria Mejia, H Rodrigo Moheno, Antonella d'Arminio Monforte, Mónica Morán-Arribas, Daniel Nagel, Robert Ndugwa, Carol Ngunu, Midnight Poonkasetwattana, Maria Prins, Amara Quesada, Olga Rudnieva, Simon Ruth, Jorge Saavedra, Lance Toma, Lucy Wanjiku Njenga, Brian Williams

*The Lancet HIV*

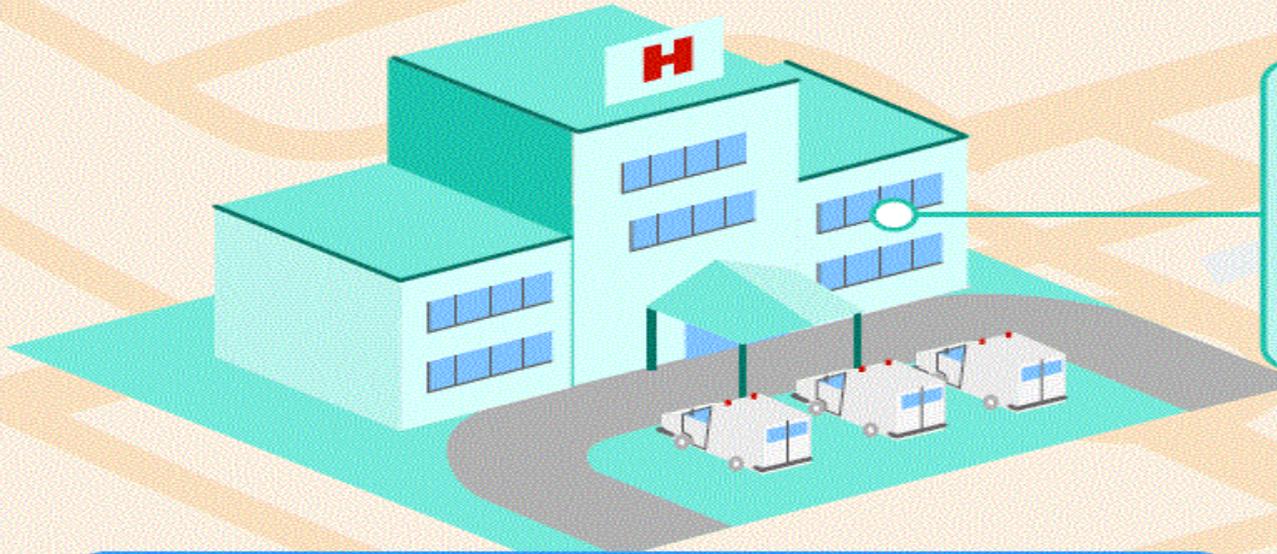
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# Creating an enabling environment for ending urban HIV epidemics

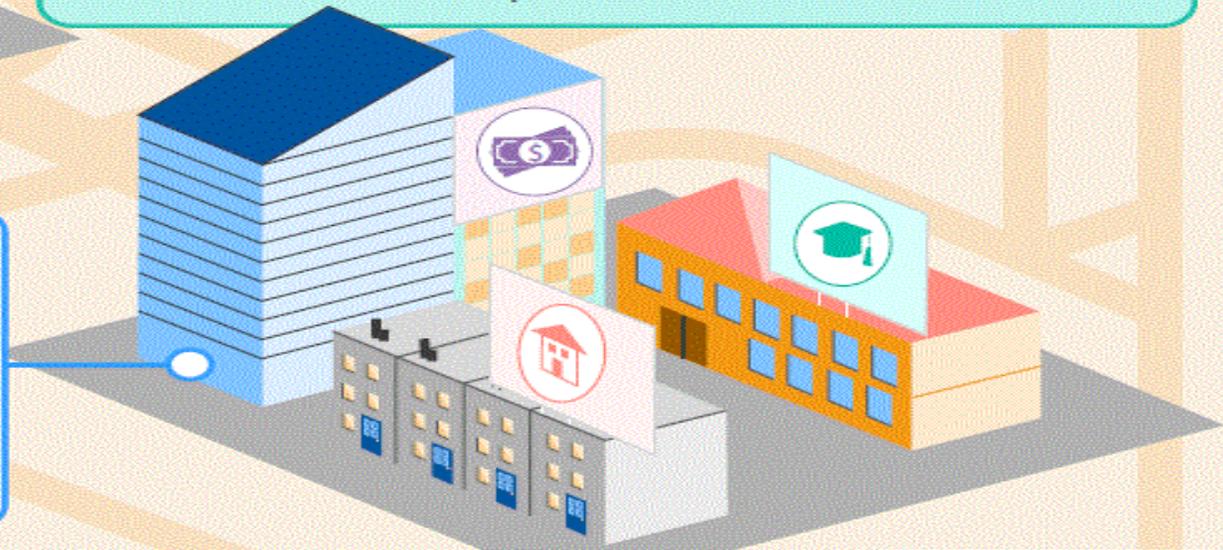
**Centring equity in urban HIV responses** is critical to addressing disparities in health-care access and outcomes. Doing so improves individual and community health outcomes and strengthens public health systems by fostering inclusivity and resilience.



**Realising the right to health in urban settings** ensures that all residents have access to essential health services. It can reduce health inequities, improve overall individual and community wellbeing, and contribute to the sustainable development of cities.



**Addressing urban social determinants of health** is essential to achieving health equity and individual quality of life. Doing so can facilitate equitable health outcomes and reduce disparities related to housing, education, and economic opportunity.



# Key enablers for ending urban HIV epidemics

## Recommendations for centring equity in urban HIV responses

- Prioritise involvement of communities in decision making
- Allocate resources for communities and populations disproportionately affected by HIV
- Advocate equitable health resource distribution
- Implement culturally competent and inclusive health-care and social support services
- Develop and enforce policies to eliminate HIV-specific and intersectional stigma



## Recommendations for realising the right to health in urban settings

- Advocate for and enforce the right to health in urban public-health policy frameworks
- Guarantee universal access to affordable, inclusive, high-quality HIV and health services
- Empower marginalised populations vulnerable to HIV to assert their right to health
- Implement policies that address income inequality
- Establish monitoring mechanisms to track progress

## Recommendations for addressing urban social determinants of health

- » Deploy cross-sectoral approaches to address housing, education, and employment
- » Improve access to quality education and employment opportunities with living wages
- » Strengthen social safety-net programmes to address socioeconomic disparities
- » Invest in programmes to promote social cohesion and community engagement in health



Illustrations by Pete Baker







## Study Instruments/Training 40 CHWS for 4000 community members



## IMPACT BP CBPMs



CBPMs



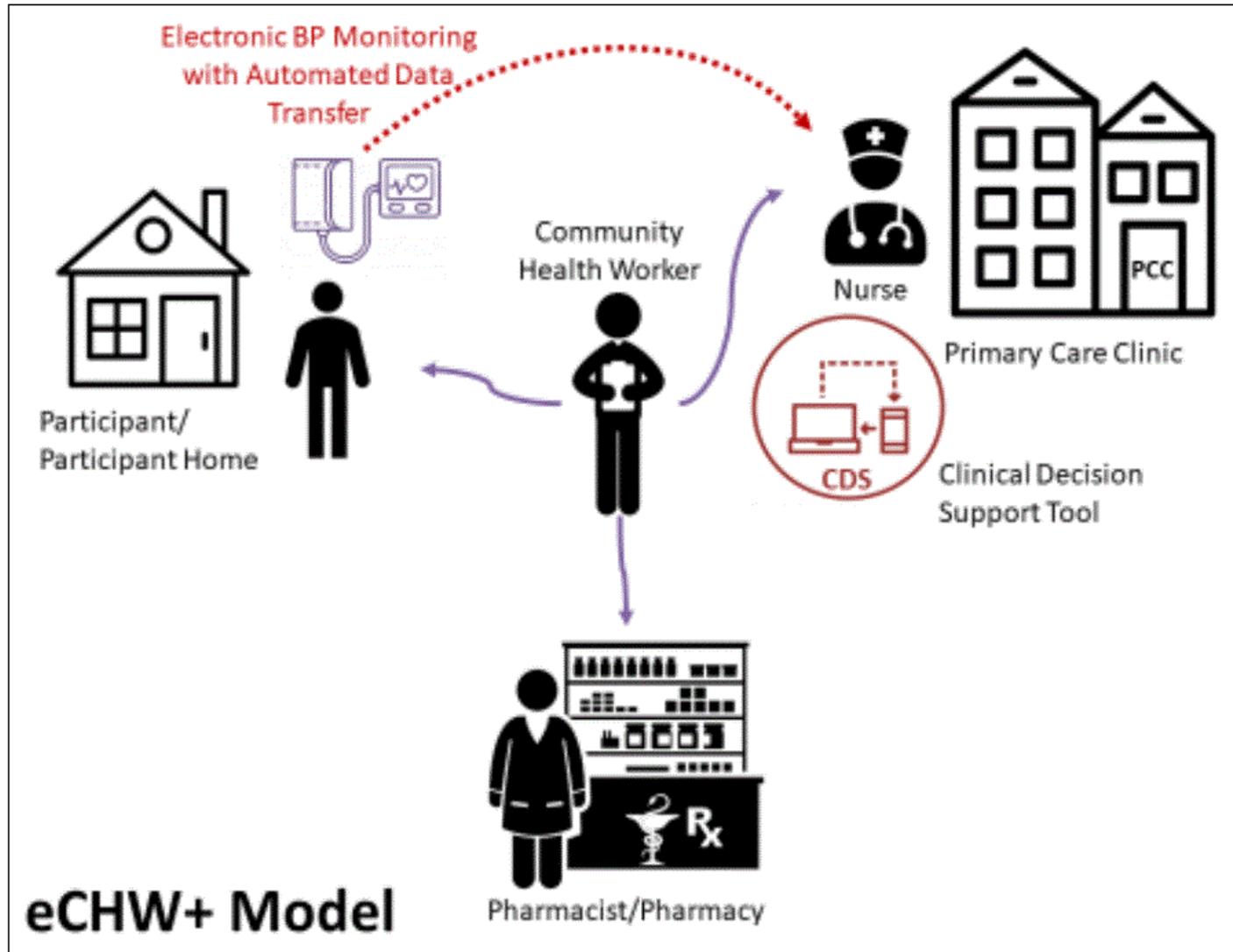
Nursing Assistants



Professional Nurses



# Intervention 2 : eCHW+ Care Model



## Results: CHW Screening

**Mean level of agreement** between  
CHW and Health Professional Risk Scores = **96.8%**

- 97.4% in Bangladesh
- 94% in Guatemala
- 96.9% in Mexico
- **99% in South Africa**

Source: Gaziano, et al. *Lancet Global Health* 2015

# Clinical Governance – Improving quality of care!



# Integrated Screening



## Tool 2: Screening tool for Integrated health promotion, disease prevention and management

Surname:	Name:	Age:	ID No:
Contact number(s): /			
Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> LGBTQI			
Physical Address:			
Race: <input type="checkbox"/> Black African <input type="checkbox"/> Coloured <input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Indian <input type="checkbox"/> Mixed			

### 1. Anthropometry

Measure and record the following:

Weight:	<input type="text"/> kg	height:	<input type="text"/> cm	BMI:	<input type="text"/>	Creatinine	<input type="text"/>
Abdominal girth:	<input type="text"/> cm	Lactate	<input type="text"/>	Cholesterol	<input type="text"/>	eGFR	<input type="text"/>
1 <sup>st</sup> BP:	SBP <input type="text"/>	DBP <input type="text"/>	mmHg BP:	2 <sup>nd</sup> SBP <input type="text"/>	DBP <input type="text"/>	mmHg	
<b>If SBP &gt; 140 and/or DBP is &gt; 90, REPEAT BP after 5 minutes of rest</b>							
HGT:	<input type="text"/> mmol/l	HbA <sub>1c</sub> :	<input type="text"/> mmol/l				

### 2. Physical Activity

Do you engage in any form of physical activity / exercise? If yes, how often? (Please circle):	Y	N
a) Daily (<30 min / >30min)		
b) 2x per week (<30 min / >30 min)		
c) 4x per week (<30 min / >30 min)		
d) 6x per week (<30 min / >30min)		
If No exercise, advise on starting an exercise routine or increasing the frequency according to ability		

### 3. Diet

Do you eat vegetables? If yes, how often? (Please circle):	Y	N
a) Daily		
b) 2x per week		
c) 4x per week		
Do you eat fruits? If yes, how often? (Please circle):	Y	N
a) Daily		
b) 2x per week		
c) 4x per week		
Do you eat fish? If yes, how often? (Please circle):	Y	N
a) Daily		
b) 2 x per week		



7. Have you been examined/tested for the following:				
Covid-19				
Seasonal Influenza				
Pulmonary Tuberculosis				
Pneumonia (Pneumococcal Vaccination)				
Breast lumps				
Cervical cancer/Pap Smear				
Hepatitis B				
Hepatitis C				
Human Papilloma Virus				
Protein Specific Antigen				

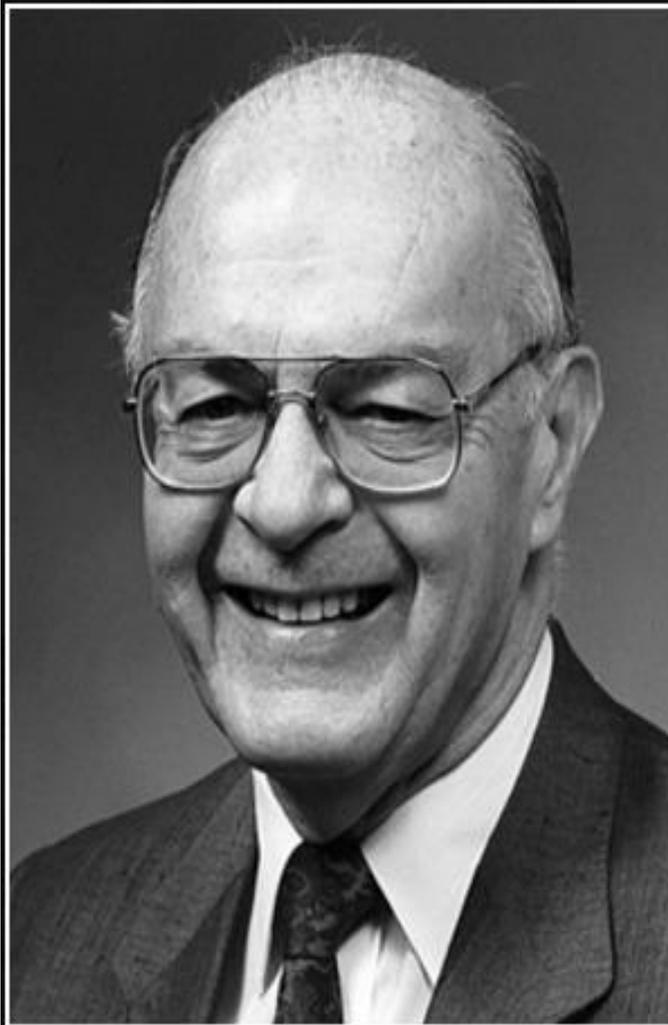
# Funding Strategies



If it is true that a chain is only as strong as its weakest link, isn't it also true a society is only as healthy as its sickest citizen and only as wealthy as its most deprived?

— *Maya Angelou* —

AZ QUOTES



You teach what you know, but you  
reproduce what you are.

— *Howard G. Hendricks* —

AZ QUOTES