

Burden and Social Factors Influencing HIV/AIDS and Tuberculosis in South Africa in the Context of BRICS



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Transforming global relations for a just world



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Chinese Academy of Social Science/HSRC Roundtable

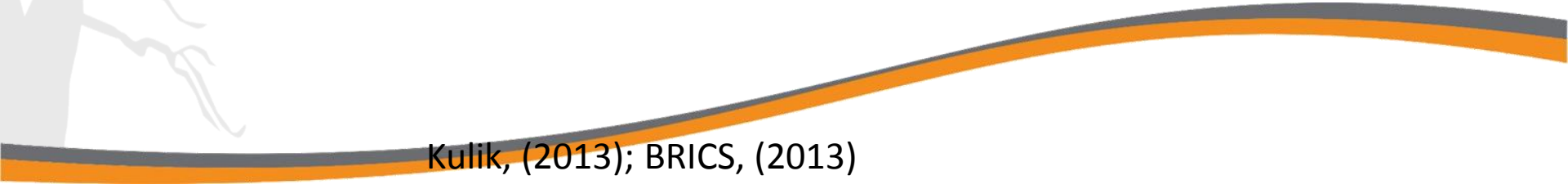
Theme: Social changes and inequality

Venue: Hall 1AB

Date & Time: 13 September 2015 from 16:00-17:30

Introduction



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- BRICS countries represent **almost half the world's population** and are threatened by HIV/AIDS and TB caused by social factors;
 - BRICS countries **committed to work together to address HIV/AIDS & TB** as part of development and health;
 - We analysed the **burden and social factors influencing HIV/AIDS and TB in South Africa** in the context of BRICS.
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Methods

- Conducted a **mixed method analysis** of the burden and social factors influencing HIV/AIDS & TB
- Used a **comparative case study design** to compare the burden and social factors influencing HIV/AIDS & TB in SA in the context of BRICS.
- Used **multiple sources of data** on a data abstraction template
- Themes used to analyse data:
 - *Burden of HIV/AIDS & TB*
 - *Social factors influencing HIV/AIDS & TB in SA and BRICS*
- Comparative **quantitative and qualitative content analysis** was used

Conceptual framework of the study



Burden of HIV/AIDS in South Africa

Trends in HIV prevalence in South Africa, 2002-2012

Age group	2002	2005	2008	2012
2-14	5.6	3.3	2.5	2.4
15-24	9.3	10.3	8.7	7.1
25+	15.5	15.6	16.8	19.9
15-49	15.6	16.2	16.9	18.8
2+	11.4	10.8	10.9	12.6

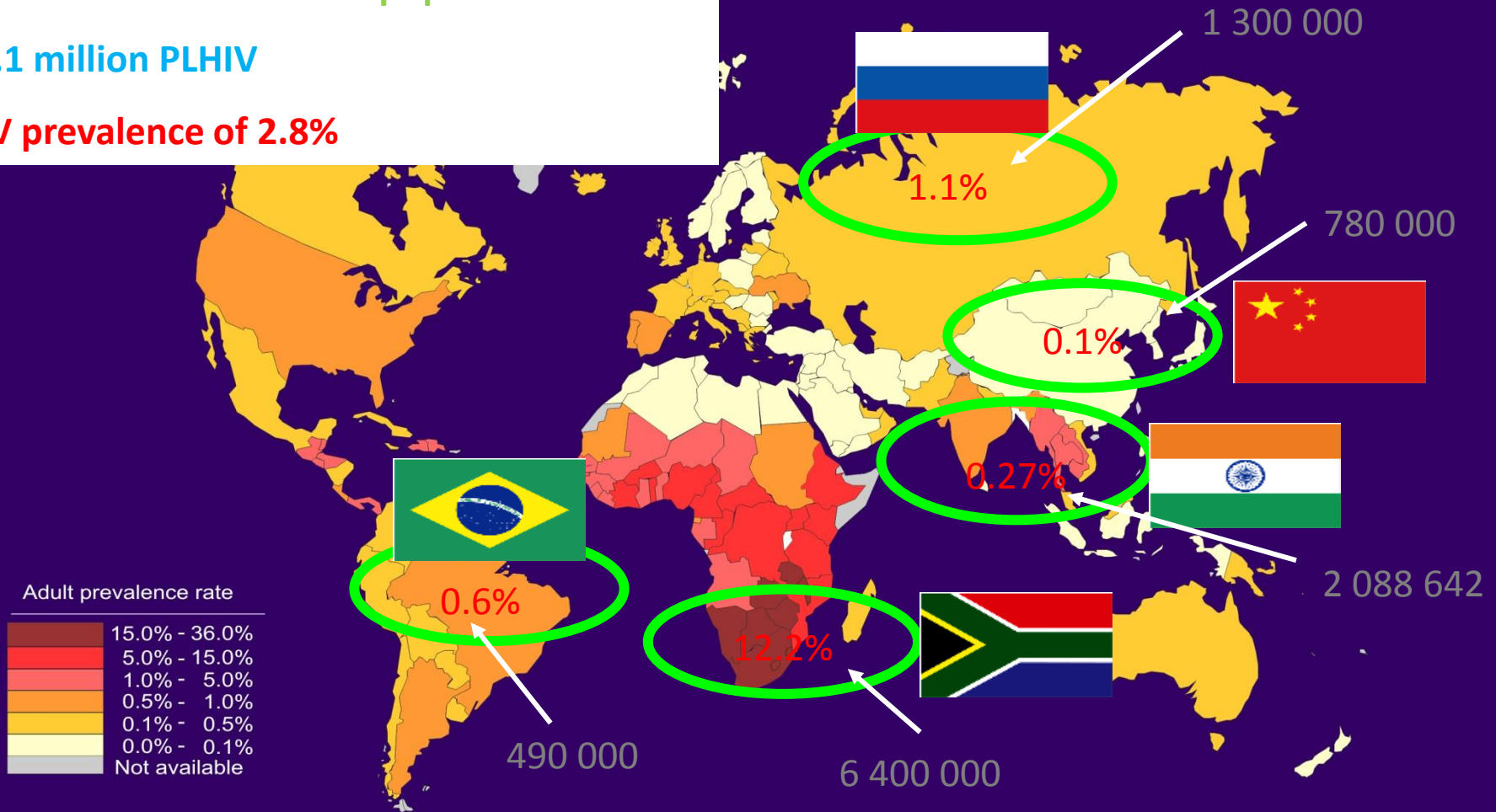
MDG2015 Target = 8.7%

Burden of HIV/AIDS in BRICS countries, 2012

BRICS has 42% of world's population

11.1 million PLHIV

HIV prevalence of 2.8%



Burden of HIV/AIDS in BRICS countries, 2013

Country	HIV prevalence %	# People Living with HIV	% contribution to burden in BRICS
Brazil	0.5%	490 000	4.4%
Russia	1.1%	1 300 000	11.8%
India	0.27%	2 088 642	18.9%
China	0.1%	780 000	7.1%
South Africa	12.2%	6 400 000	57.9%
Average/Total	2.8%	11 058 000	100%

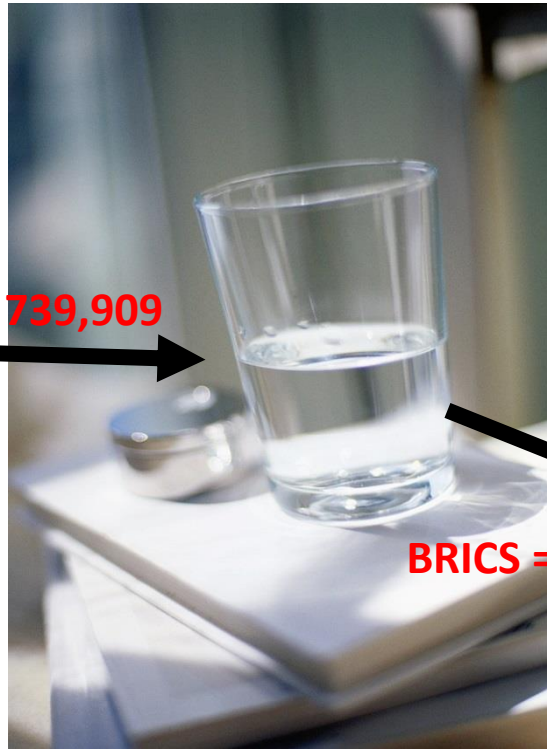
SA's contribution to the HIV burden in BRICS is significantly high

HIV incidence & AIDS-related deaths in BRICS, 2012

HIV Incidence (Number of new infections in 2012)

Brazil = 36,000
Russia = 70,453
India = 116,456
China = 48,000
S. Africa = **469,000**

BRICS = 739,909



AIDS related deaths

Brazil = 11,500
Russia = 125,557
India = 147,729
China = 28,000
S. Africa = **280,000**

BRICS = 592,786

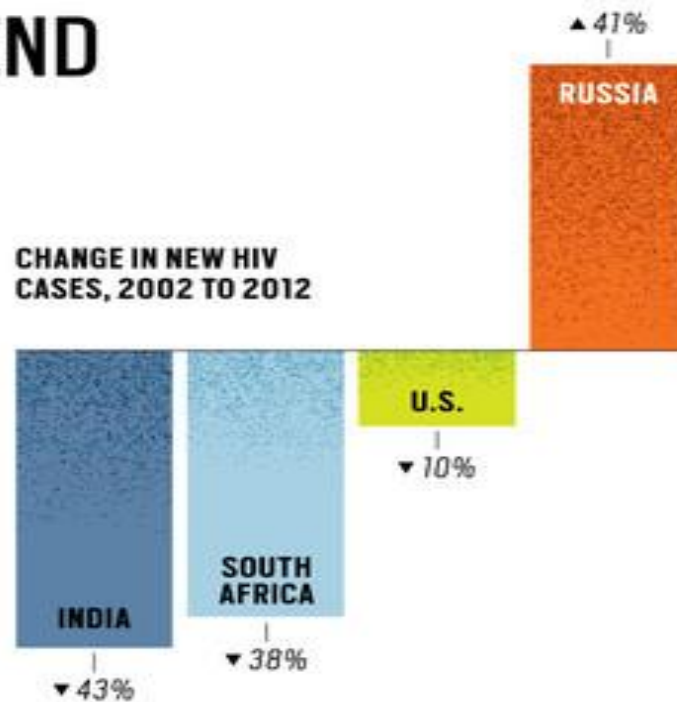
SA's contribution to new HIV infections (63.4%) and deaths (47.2%) in BRICS is significantly high

What is the latest global trends in new HIV infections?

DEADLY TREND

While many countries with large numbers of people living with HIV have fewer new cases each year, Russia's epidemic is expanding.

CHANGE IN NEW HIV CASES, 2002 TO 2012



NUMBER OF PEOPLE LIVING WITH HIV, IN MILLIONS

1	SOUTH AFRICA	6.1
2	NIGERIA	3.4
3	INDIA	2.1
4	KENYA	1.6
-	MOZAMBIQUE	1.6
6	TANZANIA	1.5
-	UGANDA	1.5
8	ZIMBABWE	1.4
9	RUSSIA	1.3
10	MALAWI	1.1
-	U.S.	1.1
-	ZAMBIA	1.1
















Sources: CDC, Russian Federal AIDS Center, UNAIDS

Bloomberg
Markets

Has India and South Africa turned the corner?

Analysis of HIV/AIDS epidemics in BRICS



Countries	HIV Incidence	AIDS Deaths	HIV Prevalence	Comment
Brazil				Epidemic has stabilized at 0.6% and concentrated ...
Russia				One of the world's fastest-growing HIV epidemics ...
India				Largest burden of HIV in Asia & third largest in the world...
China				Prevalence remains low (0.058%), but the epidemic is severe in some areas...
South Africa				17% of the global burden of HIV with the largest # of PLHIV

Key:

Expanding Trend



Declining Trend



No change

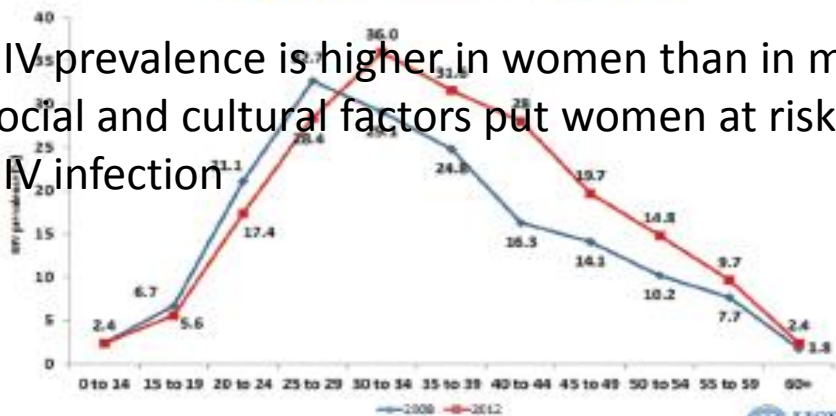


Risk factors for HIV/AIDS in South Africa



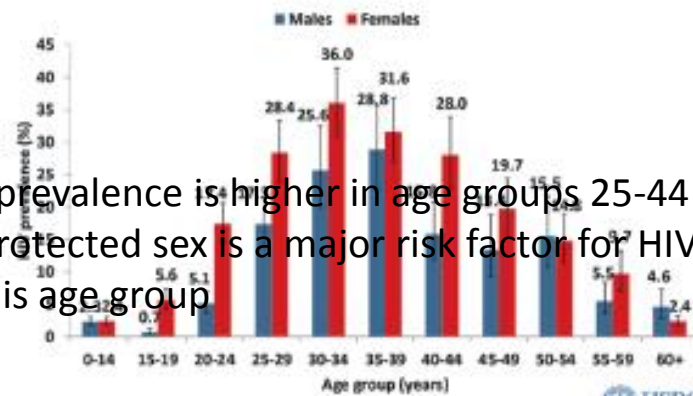
- Most HIV infections occur during unprotected heterosexual intercourse
- **Early sexual debut**; (10.7%) of those aged 15-24 years reported having had sex for the first time before the age of 15 years.
- 19.9% of respondents aged 15-19 years were involved in **age-disparate relationships**.
- 12.6% of respondents aged 15+ years reported having **more than one sexual partner** in the last 12 months :
- 36.2% of those aged 15+ who were sexually active during the previous 12 months had **used a condom at last sex act**.

HIV prevalence among females, South Africa 2008-2012



HIV prevalence is higher in women than in men. Social and cultural factors put women at risk of HIV infection

HIV prevalence by age and sex, South Africa, 2012



HIV prevalence is higher in age groups 25-44. Unprotected sex is a major risk factor for HIV. In this age group

Burden of TB in SA

TB incidence, prevalence rate (per 100,000) and DOTS coverage (%), 2010-2013

Indicator	2010	2011	2012	2013
TB incidence rate per 100,000	981	993	1,003	860
TB prevalence rate per 100,000	795	768	857	715
DOTS coverage (%)	100	100	100	100

MDG2015 Target = < 253

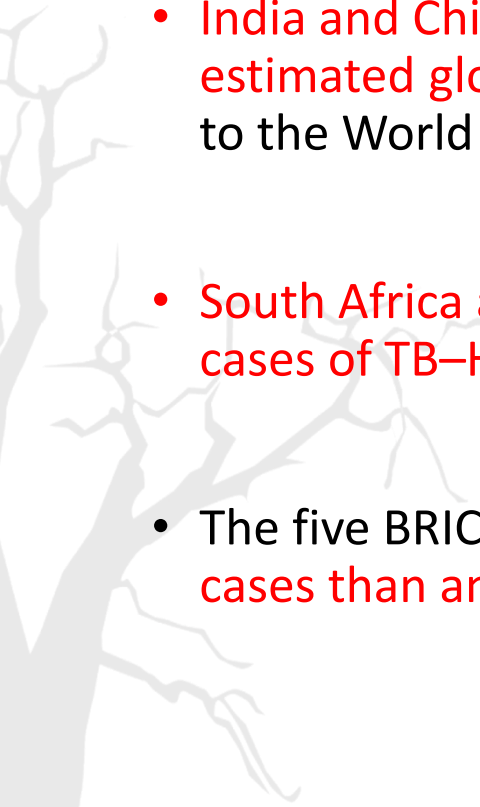
- South Africa has the **sixth highest incidence of TB** in the world, with an estimated 349,582 (1% of population) new cases or **860/100,000** (2013).
- TB prevalence has **decreased steadily** from 2010 to 2013
- TB prevalence rate was 530,000 in 2012. This was higher than
- TB is the leading cause of death in South Africa.
- TB mortality has declined to **76/100,000** (2013)

MDG2015 Target = < 134,000

MDG2015 Target of < 147/100,000 has been Achieved

Burden of TB in BRICS



- The five **BRICS countries** account for **46% of all incident cases** of tuberculosis and **40% of all tuberculosis-related mortality**.
 - **India and China** alone accounted for **26% and 12% of total cases of the estimated global burden of TB** and a similar proportion of all cases notified to the World Health Organization (WHO).
 - **South Africa** accounts for **30%** of the estimated global number of **incident cases of TB–HIV co-infection**.
 - The five BRICS countries have a similarity: they **each harbour more TB cases than any other country or territory in their respective region**.
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Social factors influencing TB in SA and in BRICS



Poor, crowded & poorly ventilated settings



Half a million women and over 65,000 children die of TB each year; 10 million "TB" orphans

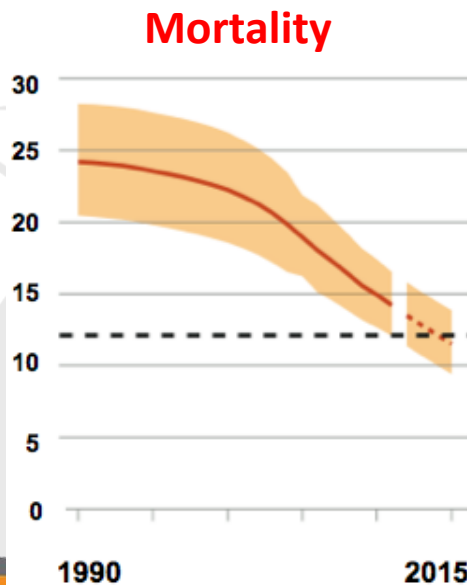
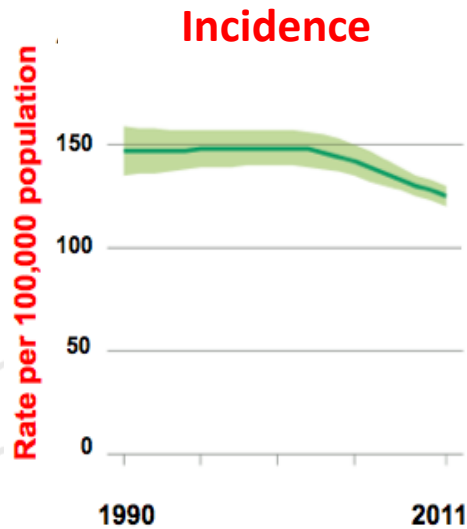


Migrants, prisoners, minorities, refugees face risks, discrimination & barriers to care



TB linked to HIV infection, malnutrition, alcohol, drug and tobacco use, diabetes

Progress in TB response in BRICS



- ✓ 51 million patients cured, 1995-2011
- ✓ 20 million lives saved since 1995
- ✓ 2015 MDG and other international targets on track
- ✓ BUT, TB incidence declining far too slowly, 1/3 of cases not in the system, MDR-TB un-tackled etc.



Challenge: Most used tools for TB control are old and not conducive to elimination in BRICS

DIAGNOSTIC



Sputum smear microscopy

Discovered **1882**

VACCINE



BCG

Developed **1920s**

TREATMENT



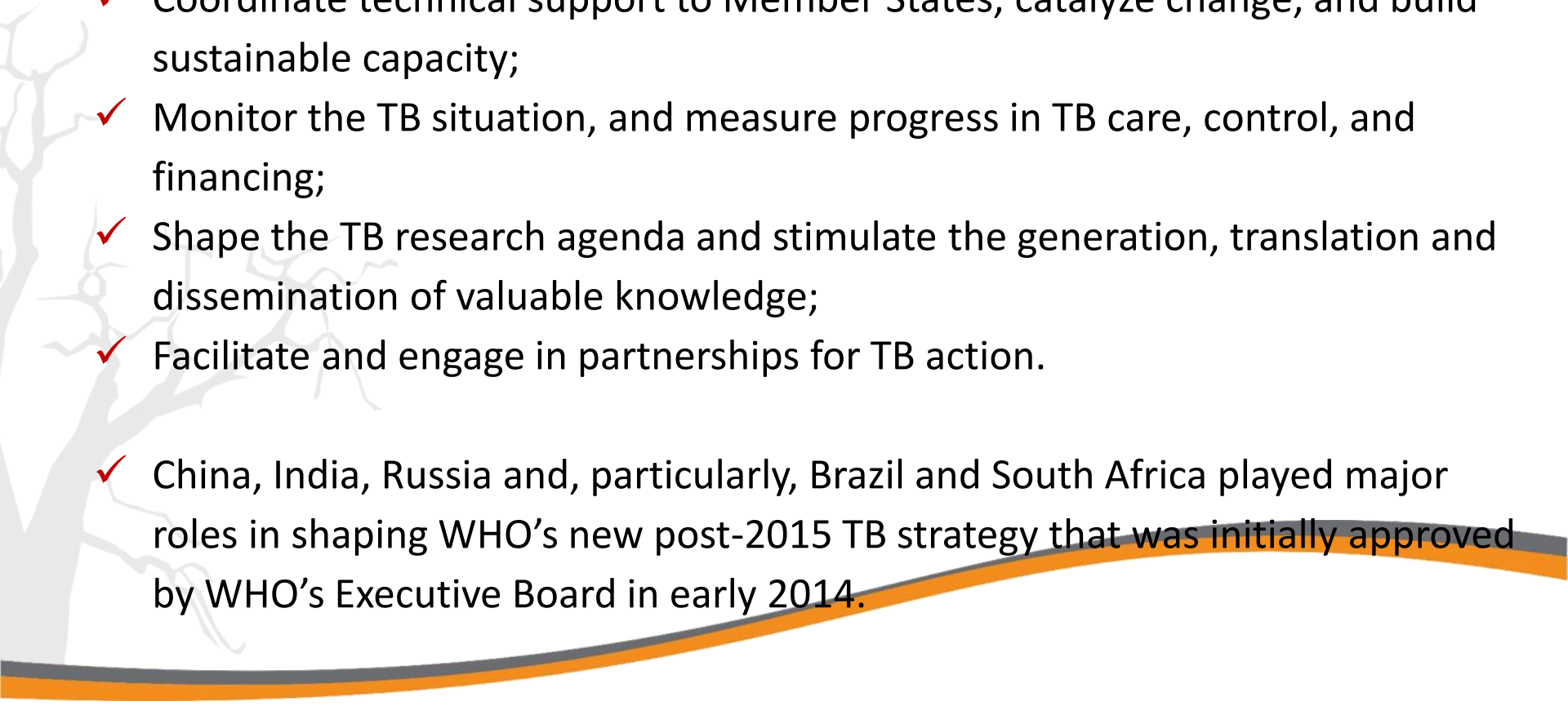
1st-line TB drugs

Discovered **1943-1970**



What BRICS committed to do on TB



- ✓ Provide leadership on TB;
 - ✓ Develop policies, strategies and standards for TB prevention, care and control;
 - ✓ Coordinate technical support to Member States, catalyze change, and build sustainable capacity;
 - ✓ Monitor the TB situation, and measure progress in TB care, control, and financing;
 - ✓ Shape the TB research agenda and stimulate the generation, translation and dissemination of valuable knowledge;
 - ✓ Facilitate and engage in partnerships for TB action.
- ✓ China, India, Russia and, particularly, Brazil and South Africa played major roles in shaping WHO's new post-2015 TB strategy that was initially approved by WHO's Executive Board in early 2014.
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Conclusions



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- The five BRICS countries have **produced innovative solutions and strategies for responding to HIV/AIDS**. These have led to **decreased mortality and morbidity from HIV/AIDS**.
 - BRICS countries have a huge TB burden and the elimination of TB in BRICS is far off – it's a pipedream!
 - Despite these challenges, the five BRICS countries made progress in TB control and treatment. They have high levels of political commitment, domestic resources, capacities and good levels of collaboration between all relevant stakeholders .
 - BRICS countries provide models of care and are working together to strengthen efforts that may well be instrumental in setting and achieving future global TB targets.
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