

# **Eliminating Neglected Tropical Diseases in the South-East Asia Region**

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**World Health  
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Regional Office for South-East Asia

## About the WHO South-East Asia Region...

- Home to 25% of world's population and 45% of world's poor
- Six of 14 million deaths due to communicable diseases; an interplay by socioeconomic, ecological and behavioural factors
- At least half a billion people with poverty suffer from NTDs, e.g leprosy, lymphatic filariasis, yaws ,visceral leishmaniasis
- High economic and social costs
- Many NTDs are targetted for elimination

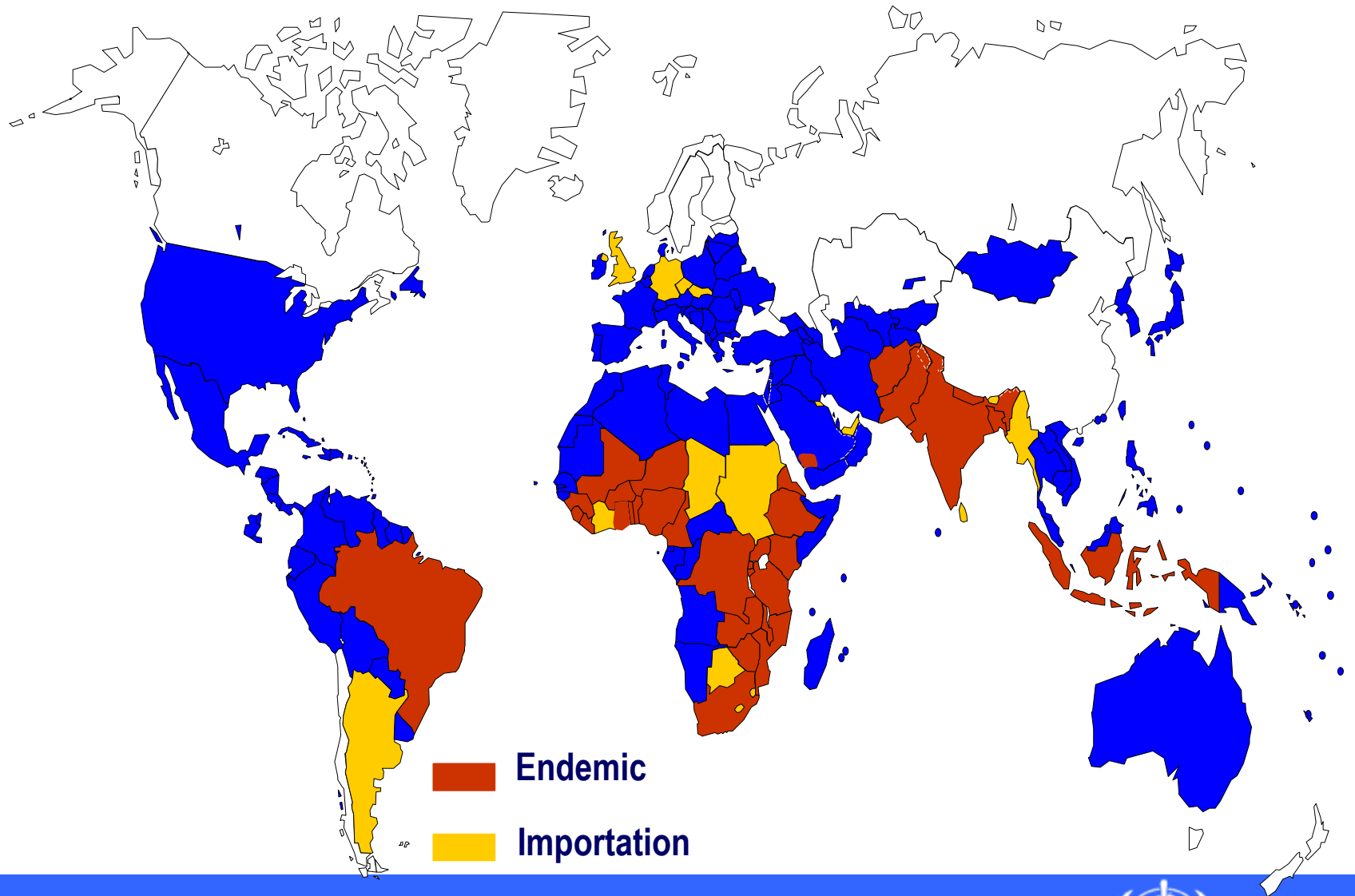
# Rationale for disease elimination/eradication

- Focuses attention on a priority public health need
- Time-bound programme; saves considerable amount of money
- Can dramatically reduce burden of disease and deaths
- Benefits broad spectrum of public health

# World Health Assembly resolutions, 1947- 2010

- 1947 PAHO adopts proposal for eradication of *A.aegypti* from Americas
- 1954 Yaws eradication goal declared by WHO
- 1955 8<sup>th</sup> WHA adopts goal of malaria eradication
- 1958 11<sup>th</sup> WHA adopts goal of smallpox eradication
- 1986 39<sup>th</sup> WHA declares goal of guinea worm eradication
- 1988 41<sup>st</sup> WHA declares goal of global polio eradication by 2000
- 1991 44<sup>th</sup> WHA resolution on leprosy elimination by 2000
- 1997 50<sup>th</sup> WHA resolution on elimination of LF by 2020
- 2010 63<sup>rd</sup> WHA declares goal of measles eradication by 2015

# Smallpox: endemic in 31 countries, 1967



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# 1967-1978: implementation of a new evidence-based strategy

## ● Search:

- house to house
- market
- public gatherings/festivals



## ● Containment:

- isolate patient
- vaccinate household members/contacts
- vaccinate 30 neighbouring households
- ± vaccinate rest of village/ neighbouring villages



# Lessons from smallpox eradication for other programmes

- Smallpox eradication succeeded because of:
  - a strategy based on disease epidemiology
  - effective tool and technique to deliver it
  - strategy based on science, local culture determined the tactics
  - power of coalitions and team work
  - management flexibility and trust

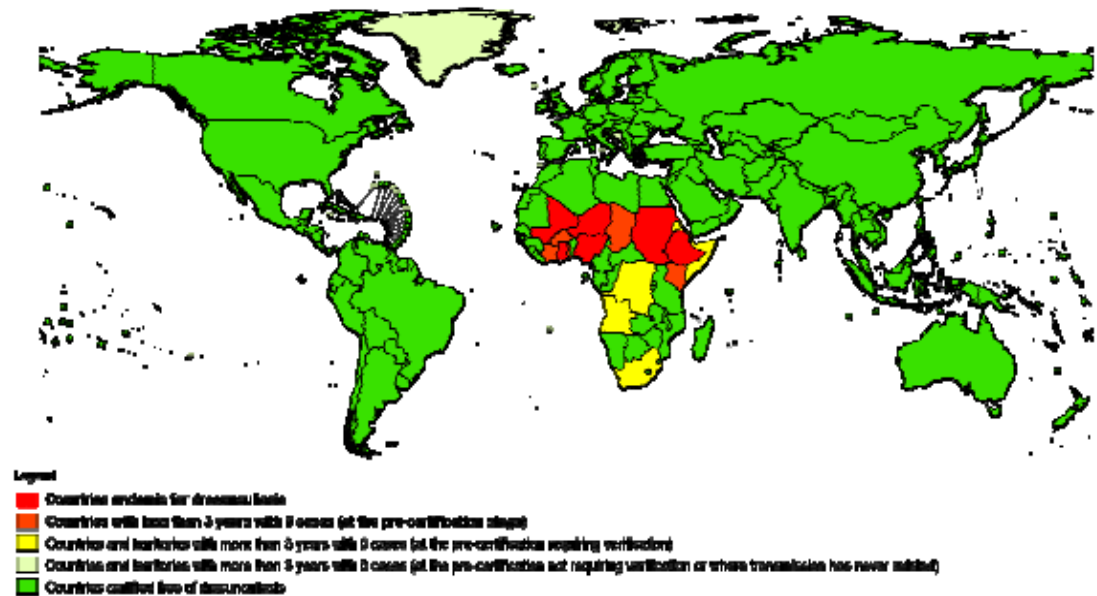
*Adapted from William Foege, New Delhi, July 31, 2009*



# Guinea worm disease eradication, India

- National Guineaworm disease programme in 1983
- 40,000 Guinea worm cases annually in 12,840 endemic villages across 89 districts of 6 States
- The last case was reported in July 1996 in Jodhpur district of Rajasthan
- The country was certified as disease free on February 15, 2000

Countries certified free of dracunculiasis as of 2009



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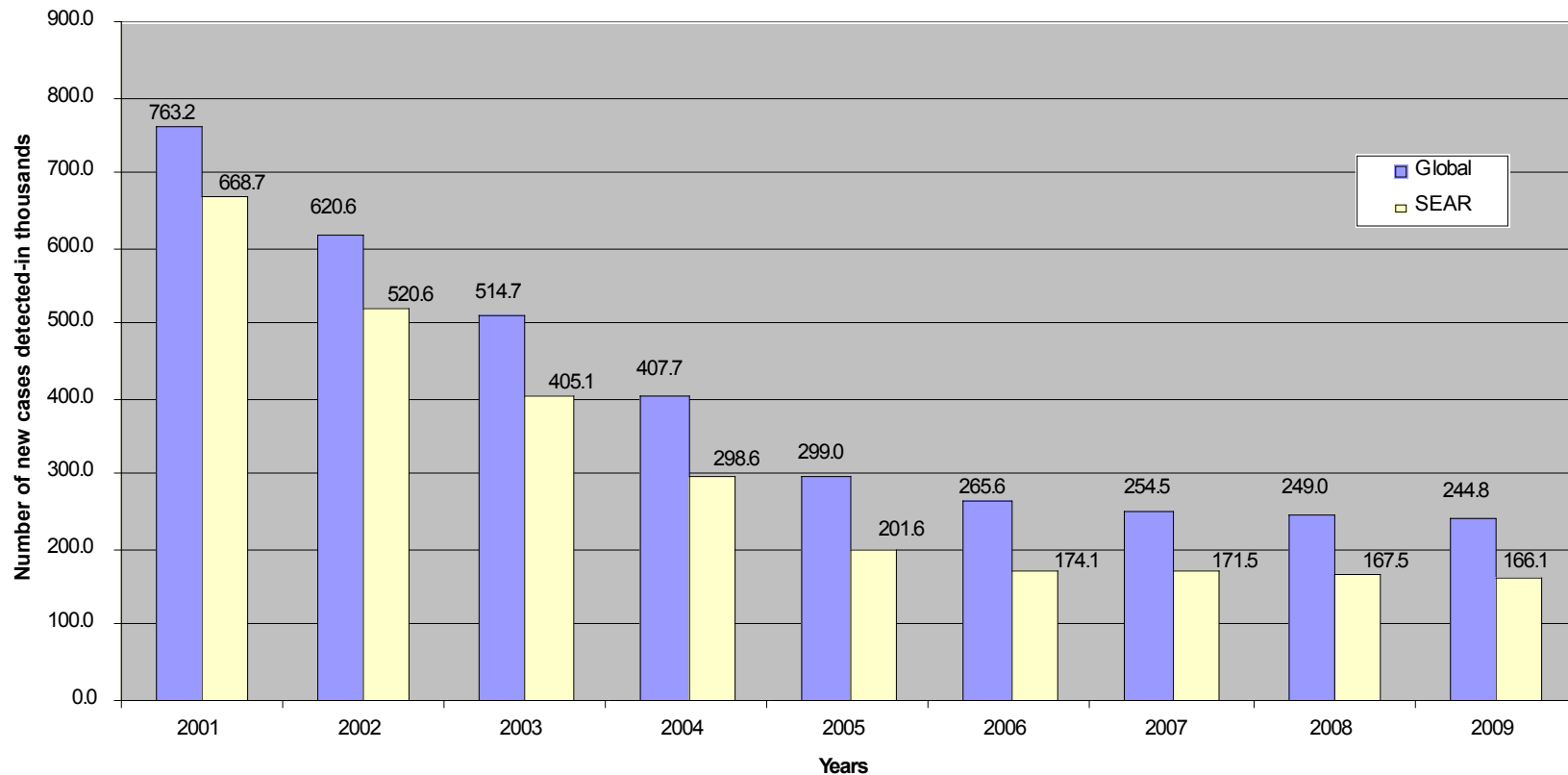
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# Leprosy and the impact of MDT

**Fig: Trends of new case detection of leprosy, Globally and in South East Asia Region  
2001 - 2009**

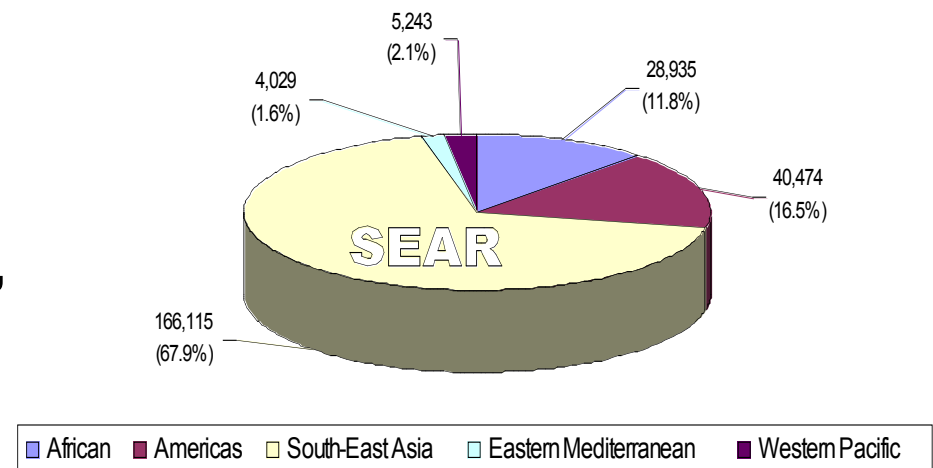


Data source: Weekly Epidemiological Record, No. 35; Vol.85; 27 August 2010

# Some lessons from Leprosy elimination program...

- Intensified and well organized program; MDT proved an effective intervention
- Strong political commitment, and from partners
- Un-interrupted and free MDT supply

Fig. 4: Number of new leprosy cases detected, by WHO Region during 2009



Data source: Weekly Epidemiological

Record, No. 35; Vol.85; 27 August 2010

# The challenges ahead

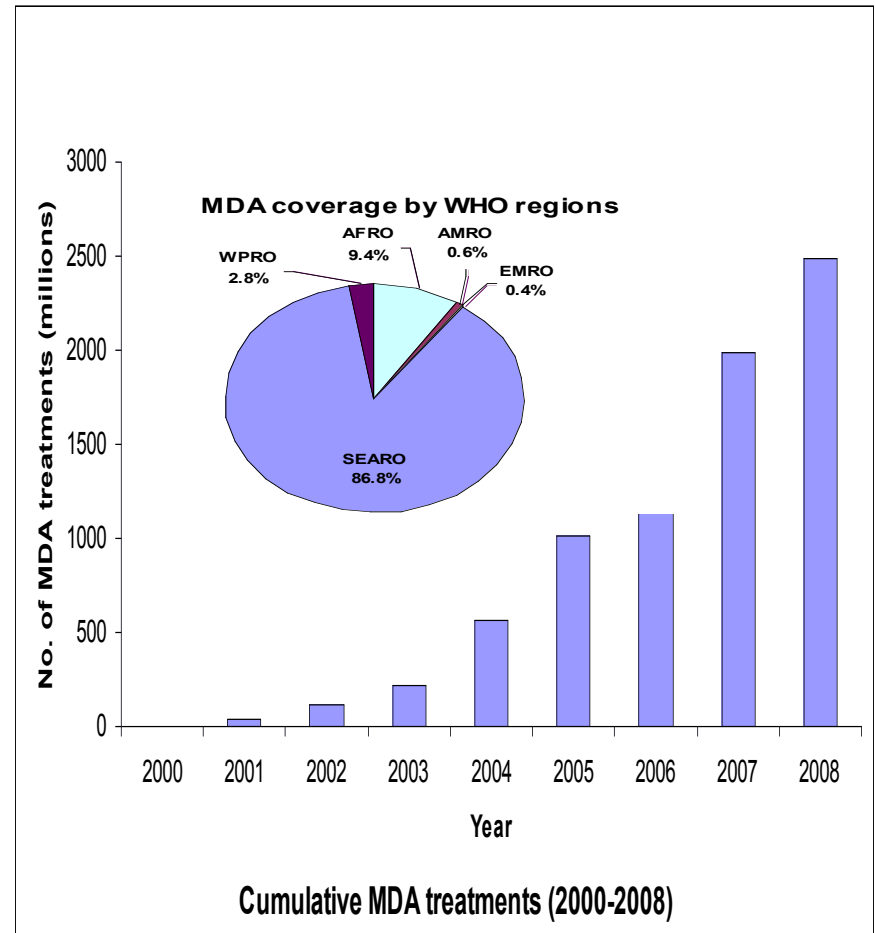
- Sustaining gains from leprosy elimination
- Enhanced Global Strategy for further reducing disease burden due to Leprosy (2011-2015)
- Issues:
  - sustained funding and MDT drug donation
  - disability prevention & addressing social stigma, human right issues

# Lymphatic filariasis

- 50% of the 120 million infected people globally are in the region.
- 9 out of 11 countries endemic for LF
- The elimination strategy: mass drug administration (MDA) or preventive chemotherapy (PCT) with DEC and albendazole

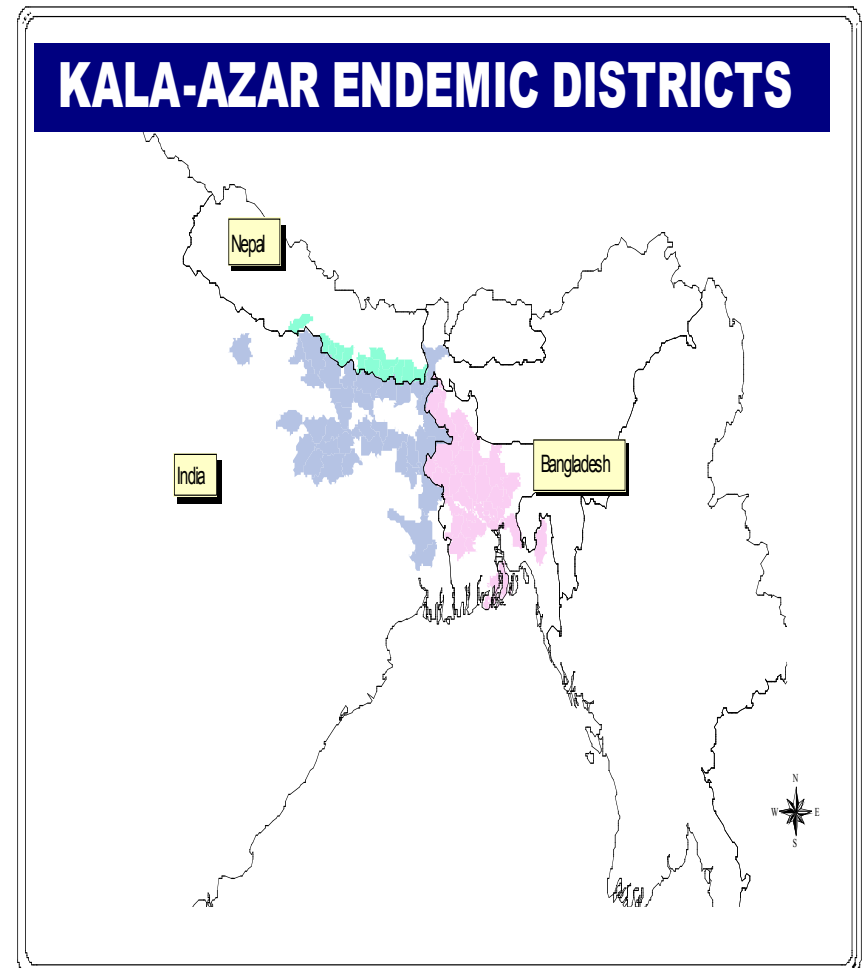
# Progress in LF elimination

- MDA coverage doubled from 2008 to 2009
- More than 85% of the global MDA now occurs in the SEA Region alone
- Maldives, Sri Lanka & Thailand achieved LF elimination
- In India, 77% of the endemic districts (192 of 250) have microfilaria rate of less than 1%



# Visceral leishmaniasis: a unique opportunity for elimination ...

- New cases in 2010:  
India (25,113 cases),  
Bangladesh (2763) & Nepal (418)
- A life- threatening NTD;  
mostly women and children
- A disease of the poorest of  
the poor, living in border  
areas
- Amenable to elimination only  
in SEA Region



# Factors favouring elimination...

- Unique epidemiology: man is the only reservoir; confined to limited area; only one vector (Phlebotomus argentipes)
- Technology: rapid diagnostic kit (rk39); effective & relatively safe oral drug (Miltefosine); effective vector control measures
- Political commitment: MOU signed by Health Ministers of the 3 countries
- History shows the way



# Commitment from the governments of Bangladesh, India & Nepal

- MoU signed on May 18, 2005, Geneva between India, Bangladesh and Nepal for Elimination of Kala-azar from South East Asia Region by 2015.

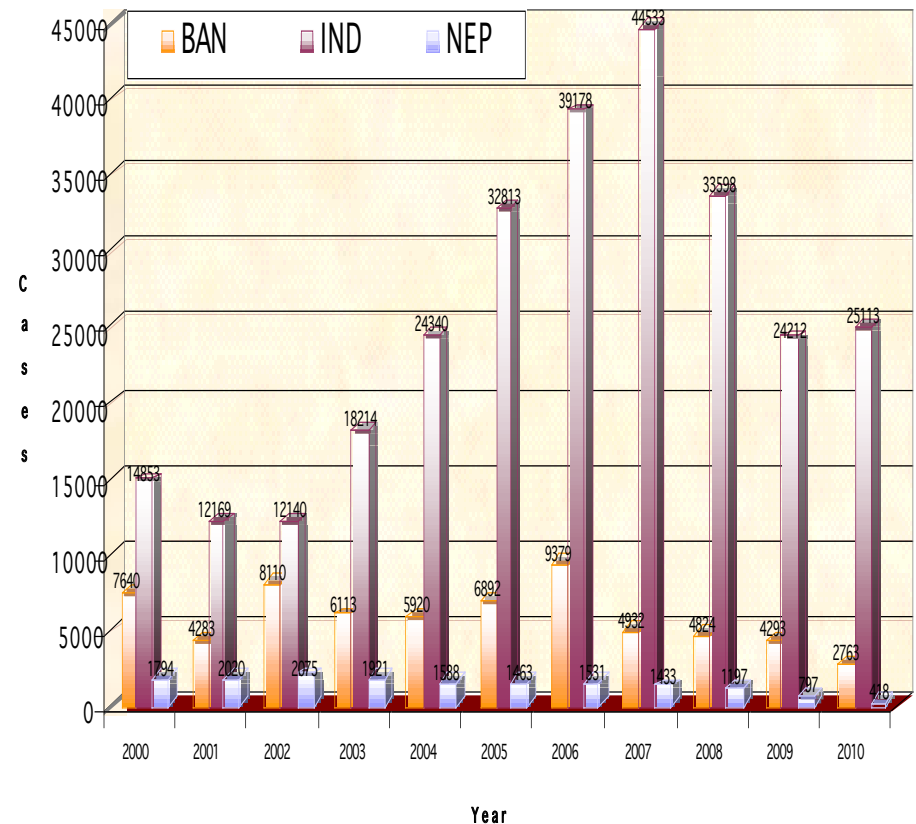


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# Strategy adopted...

- Early diagnosis and complete treatment
- Integrated Vector Control (IRS, LLIN)
- Effective Disease Surveillance
- Social mobilization and partnership
- Operational research

Kala-azar Cases in WHO SEA Region, 2000-2010



Source: Country reports. 2010

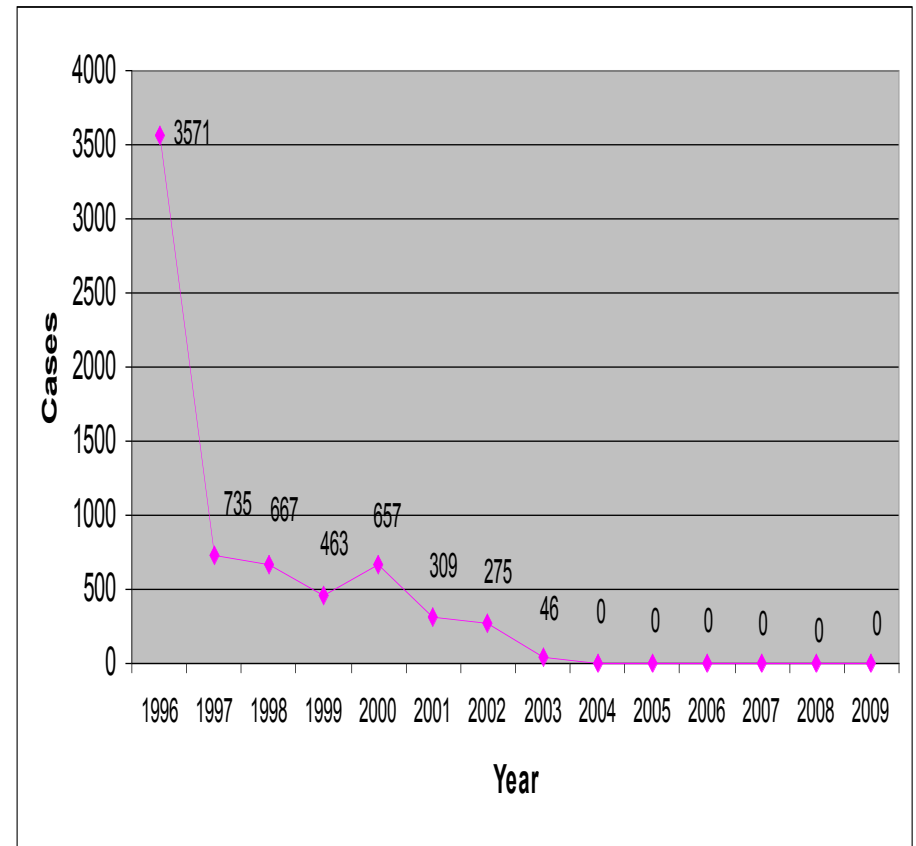
# Yaws: a disease of the poorest of the poor

- A non-venereal treponematosi s affecting skin in early stage and bones at late stages
- Prevalent primarily among poor tribal populations; 50% of new cases are children <15 years
- Treatment with a single dose of intramuscular injection of benzathine penicillin



# Yaws eradication strategy, India

- Transmission: human to human through close contact; *Treponema pertenue* is agent
- Strategy: active search & treatment of cases and close family contacts with single dose of benzathine penicillin; community mobilization
- India achieved elimination
- Indonesia & Timor Leste to follow



# The challenges still remain

- Many challenges to Region's endeavor to eliminate NTDs:
  - sustaining political commitment and resources
  - ensuring uninterrupted supply of drugs
  - reaching the underserved and hard to reach
  - fostering partnership across countries, communities and with partners
  - countering stigma and discrimination
- WHO is promoting integrated approach, assisting endemic countries technically and in mobilizing resources both from partners and the governments within the Region.

# In conclusion...

History shows that disease eradication and elimination is possible!

- **Targets for elimination**
  - Lymphatic filariasis by 2020
  - Leishmaniasis by 2015
  - Yaws by 2015
  
- **What is needed**
  - Sustained political commitment
  - Ensured resources
  - Partnerships
  
- **Expected Benefits of eliminating NTDs**
  - Significant improvement lives of the poor and neglected population
  - Increased productivity and economic growth
  - Reduced poverty



**Thank you!**



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