

A decorative graphic consisting of a horizontal line with a gradient from light green to white. On the left side, there is a black left square bracket. On the right side, there is a yellow right square bracket.

TB as a consequence of the failure of health systems

Case studies from Sudan with a special focus on the perspectives of different stakeholders

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[Sudan – basic geopolitical data]

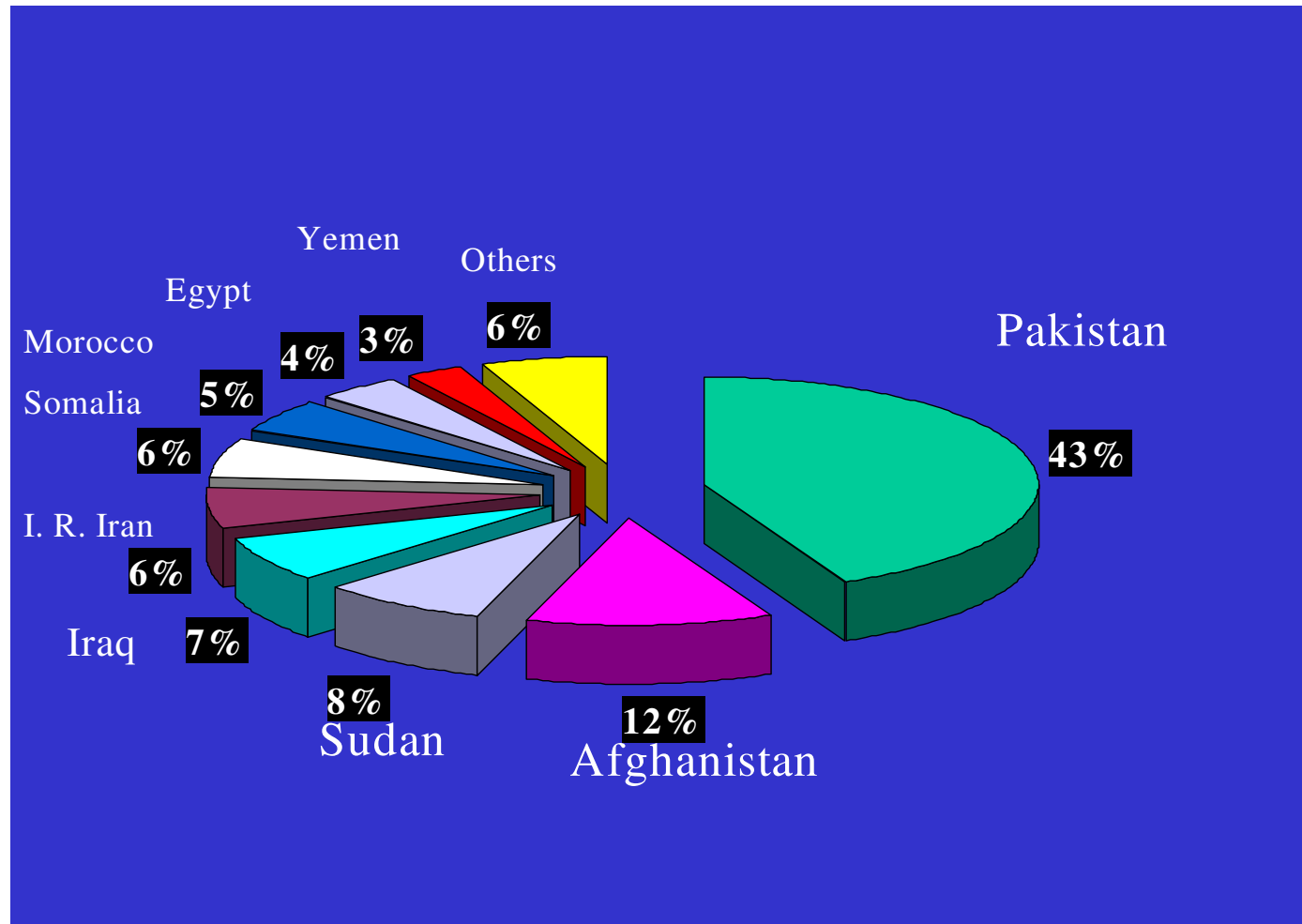
Surface Area about 2.5 million km²

Population size 32 million

Size of the population North Sudan
about 28 million

Bordered by 8 countries

Relative TB Burden in the EMR (2000)



[TB burden (Source:WHO Stop TB 2006)]

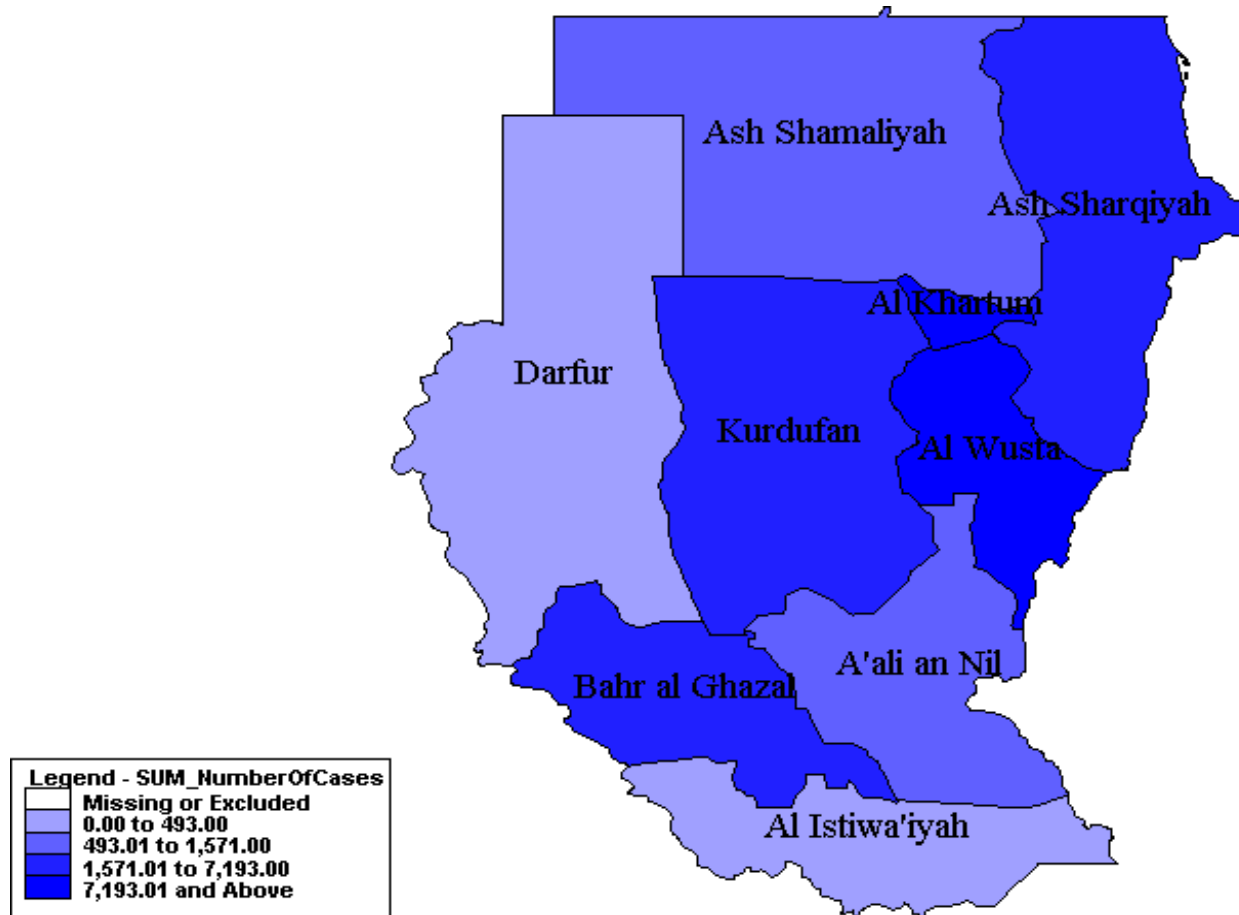
- Estimated incidence (all cases/100K pop/yr): 242
- Trend in incidence (%/yr, 2005-2006): 2.1
- Estimated incidence (ss+/100k/yr): 108
- Prevalence (all cases/100.000 pop/yr): 419
- Mortality (deaths/100.000 pop/yr): 68
- Of new TB cases, % HIV+: 4.6
- Of new TB cases, %MDR-TB: 9.8

Surveillance and DOTS implementation (WHO Stop TB 2006)

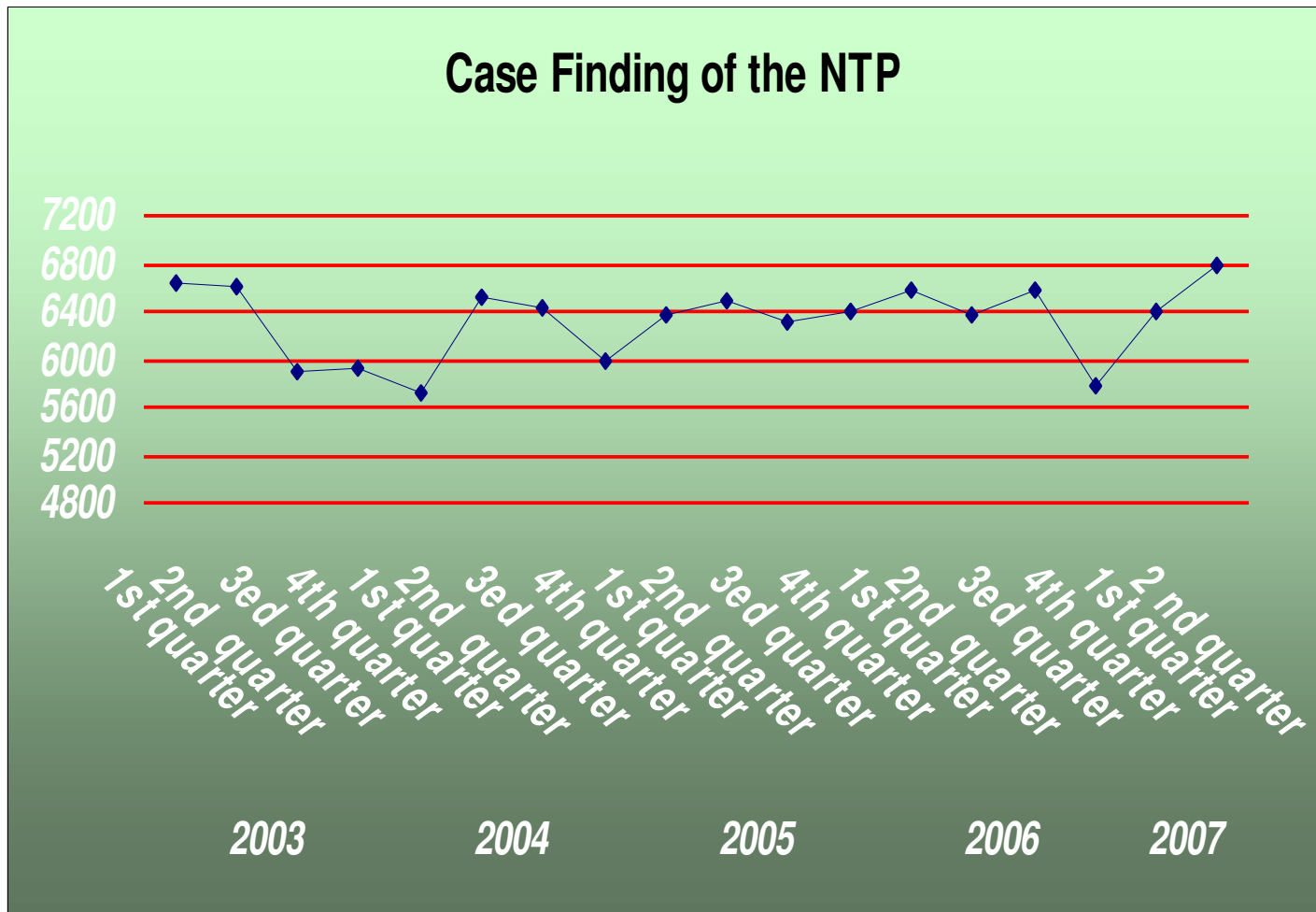
- Number notified (all forms): 29 019
- Number notified (smear positive): 12 194
- Notification rate (new and relapse/100k/yr): 77
- Notification rate (new ss+/100k pop/yr): 32
- Case detection rate (new and relapse %): 30
- DOTS Coverage (%): 91
- DOTS Treatment success (2005 cohort, %): 82

Distribution of cases by region

(Source: SNTP 2003)



Passive case finding (Source:SNAP 2008)



The status quo of the Sudanese health system

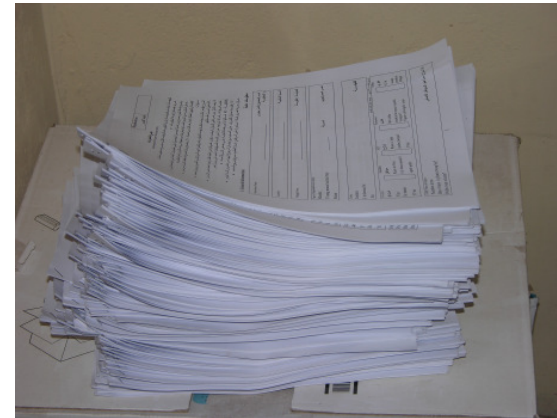
- Limited/no public salaries for health workers
- Limited/no supplies of drugs
- No public budget for recurrent costs
- Inadequately trained health workers
- Poor infrastructure at health facilities
- Limited standardization of services

Key questions:

- What are the factors that lead to increasing prevalence of TB in Sudan?
- What can be done to reduce TB incidence in the parts of the country that are most threatened by the disease?

Lack of data...

- No vital registration system
- Unreliable population census
- Quality of existing data (reports etc.)?
- Quality of surveys?



Political situation

- War and displacement as major reason for high incidence of various infectious diseases
- Ongoing conflict in Darfur
- Tribal conflicts in South Sudan
- Mined areas (e.g. Nuba mountains)



Lack of managerial capacity and human resources

- Few public health doctors
- Peripherel MoH lacks managerial capacity
- Brain drain
- No regular salaries, low staff motivation



Logistical constraints...

- Challenge of logistics (e.g. regular drug) supply in inaccessible areas
- Damaged roads
- Dependence on air cargo



Ministry of Health

- Infrastructure
- Lack of coherent policy for North and South Sudan
- Technical equipment (lab, sputum microscopy)
- Epidemiological data



International donors

- Value for money
- Portfolio of partners including broad variety of stakeholders
- Public/private partnerships



Refugees and IDPs

- High risk population for TB
- Access to services
- Continuation of treatment
- Higher risk for dual infection (HIV and TB)



Informal medical market

- No accurate data
- Risk of multiresistant TB
- Problem in both towns and remote areas
- Exclude or embrace?



Summary

Factors contributing to high TB prevalence

- Ongoing conflict and displacement
- Human resource problems in the health sector
- Logistical constraints
- Increasing dual burden of HIV and TB

Efforts to reduce TB incidence should include:

- Improvement in case finding, reporting and quality control
- Higher accessibility of smear microscopy and TB treatment at the peripheral level