

Using a One Health approach to address the challenges presented by tuberculosis at the human-animal interface in Kajiado, Kenya

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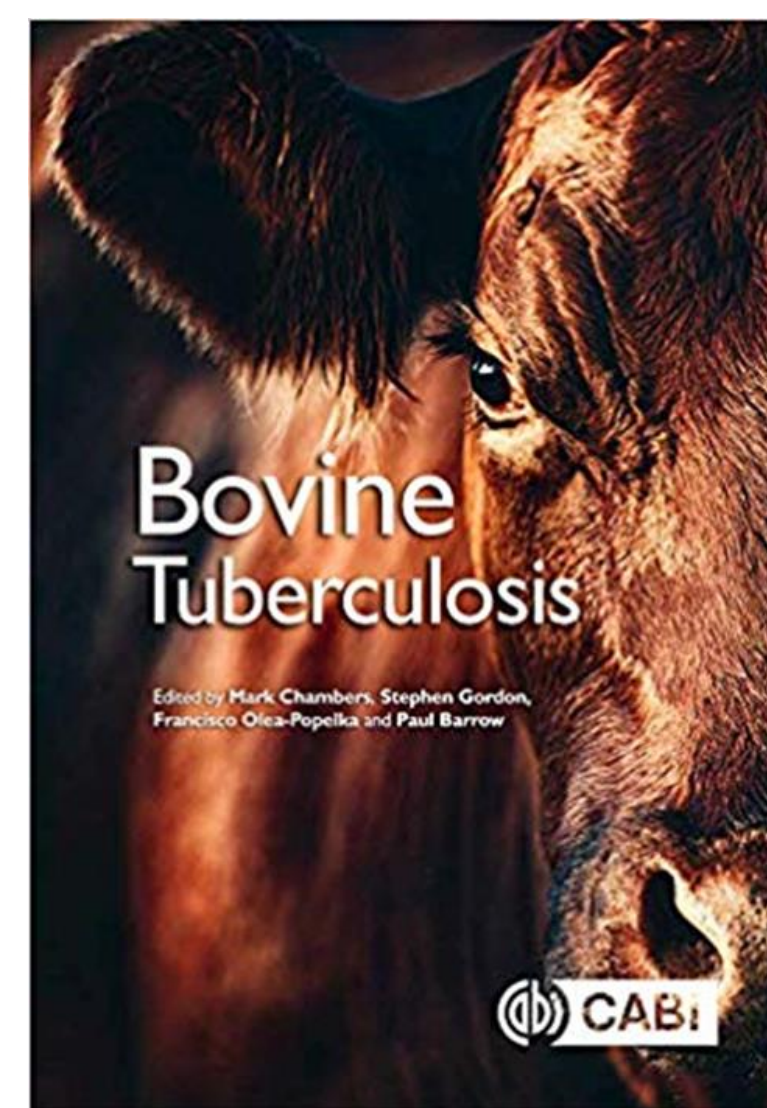
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BACKGROUND

Bovine Tuberculosis

- Infectious, chronic, progressive disease caused by *Mycobacterium bovis* (*M. bovis*)
- No overall, country-wide reports regarding bTB prevalence



While scarce surveillance exists, bTB is a largely neglected disease, with varying prevalence reports

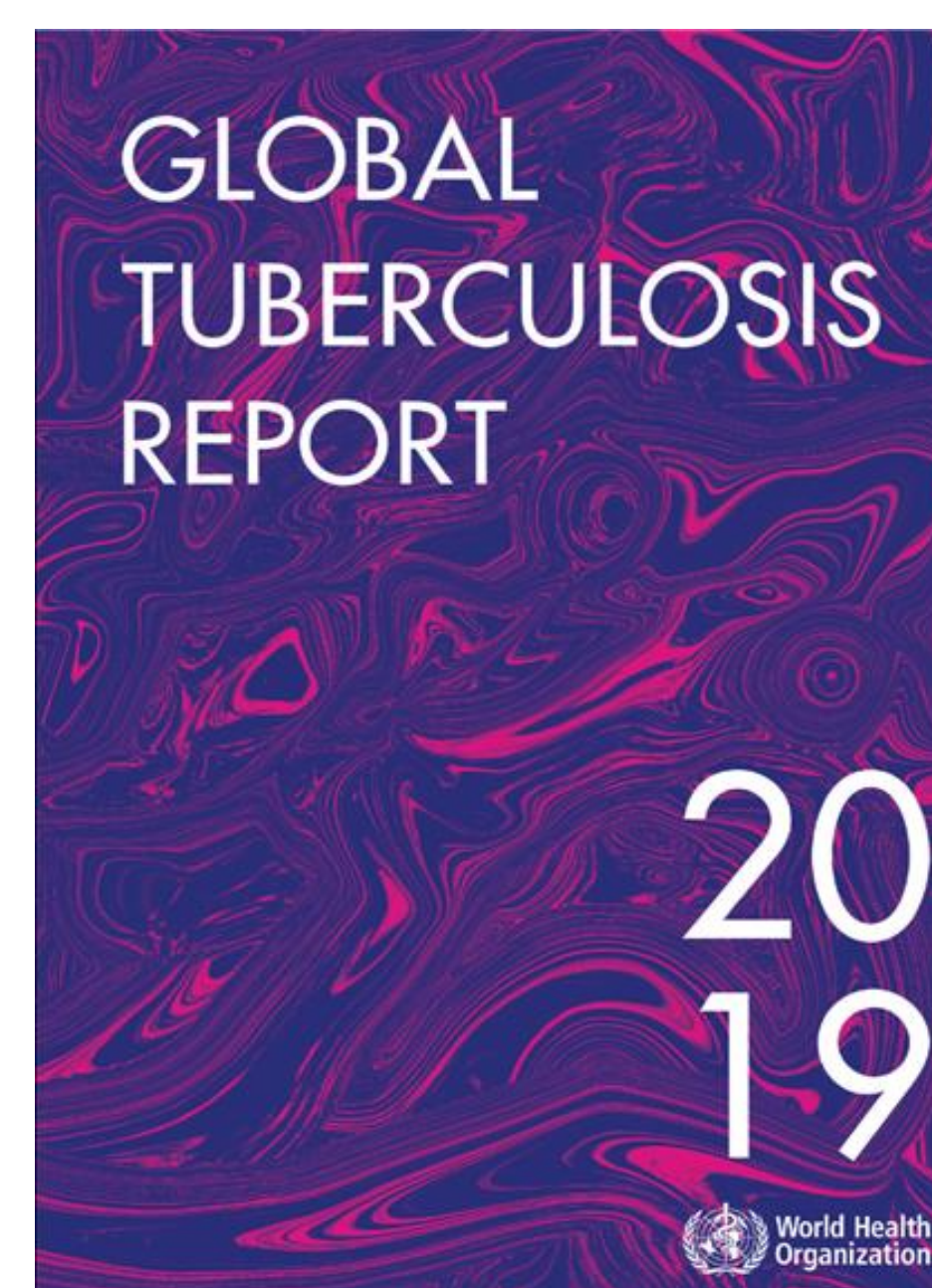
Human Tuberculosis

- Caused by *Mycobacterium tuberculosis* (*M. tb*)
- 10 million incident cases, 1.5 million deaths globally in 2018
- Fourth leading cause of mortality in Kenya

Kenya

ESTIMATES OF TB BURDEN, 2018 ¹	
	NUMBER (thousands)
Total TB incidence	150 (92-222)

Approximately half of TB cases are missed in Kenya



Zoonotic Tuberculosis

Risk factors for ZTB caused by *M. bovis* in humans:

- Consumption of raw or unpasteurized milk/milk products
- Consumption of meat with tuberculous lesions containing *M. bovis*
- Inhalation of aerosolized particles containing *M. bovis*



Lack of routine surveillance for ZTB in Kenya

OBJECTIVES

- To improve the knowledge, attitudes, and practices regarding the prevention, detection, and treatment of TB and ZTB in the Kajiado county in Kenya
- Create and increase awareness about TB/ZTB
- Enhance healthcare access, improve care support and treatment in the Maasai community

KEY STAKEHOLDERS



Kajiado County Quick Facts:

- 1.12 million people
- 80% Maasai (pastoralist)
- Average household=8
- Less than \$100 USD a year

Timpiyan Leseni

- ZTB survivor and Activist
- Founder of Talaku Community Based Organization



Talaku,

- Education/resources for TB/ZTB
- Responsible for 31% of diagnosed cases of TB



METHODS / APPROACHES

- Mapping health facilities and resources for TB/ZTB in rural Kajiado
- Knowledge Attitudes and Practices (KAP) survey design, implementation, and analysis
- Developing educational tools and materials specifically to address the TB/ZTB challenges in rural Kajiado
- Implementing public health and awareness campaigns
 - targeting veterinarians, farmers, nurses, physicians, community health workers/volunteers, people affected by TB/ZTB and their family members/caregivers.

SOCIO-CULTURA-ECONOMIC FACTORS

Cultural

- Preferences for raw milk
- Housing



Social

- Stigma regarding TB diagnosis (Co-infection with HIV)
- Literacy



Economic

- Food Costs (20-50% cheaper raw)
- Costs of prevention, diagnosis/detection, and treatment of TB/bTB/ZTB



Medical

- Gaps in medical knowledge



ONE HEALTH RELEVANCE

- Prevention, diagnosis, and treatment/control of TB in humans and animals in Kenya will be improved
- Socio-cultural-economic factors playing a key role will be explored
- Community leaders, the public, local and national health institutions, scientists in academia, and communication specialists will participate in this project

10
PRIORITIES
FOR
ADDRESSING
ZOOONOTIC
TB

- IMPROVE THE SCIENTIFIC EVIDENCE BASE
1. Collect and report more complete and accurate data
 2. Improve diagnosis in people
 3. Address research gaps
- REDUCE TRANSMISSION AT THE ANIMAL-HUMAN INTERFACE
4. Ensure safer food
 5. Improve animal health
 6. Reduce the risk to people
- STRENGTHEN INTERSECTORAL AND COLLABORATIVE APPROACHES
7. Increase awareness, engagement and collaboration
 8. Develop policies and guidelines
 9. Implement joint interventions
 10. Advocate for investment

"Strengthen Intersectoral and Collaborative Approaches"



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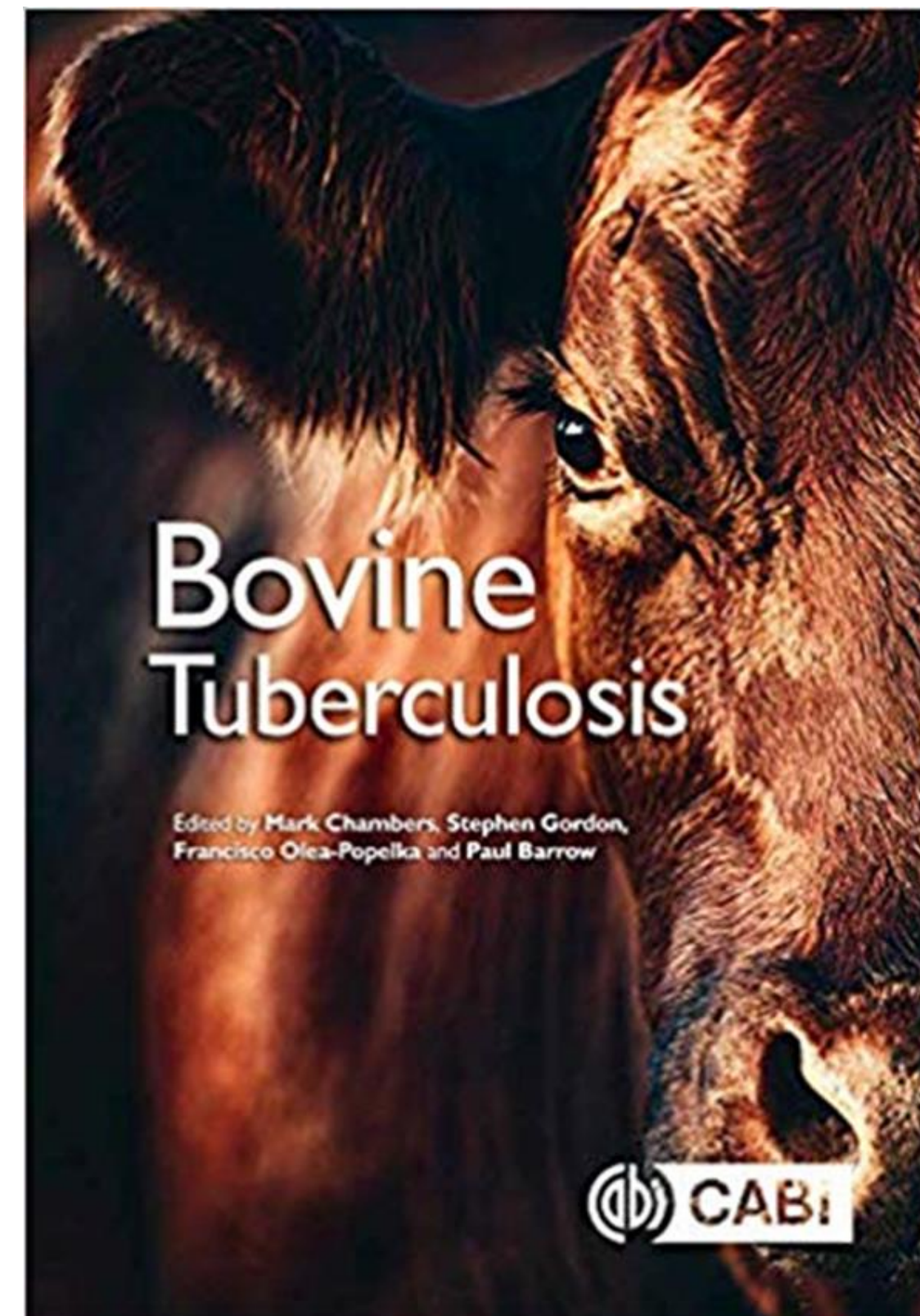
ACKNOWLEDGEMENTS

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Bovine TB – Human TB- Zoonotic TB

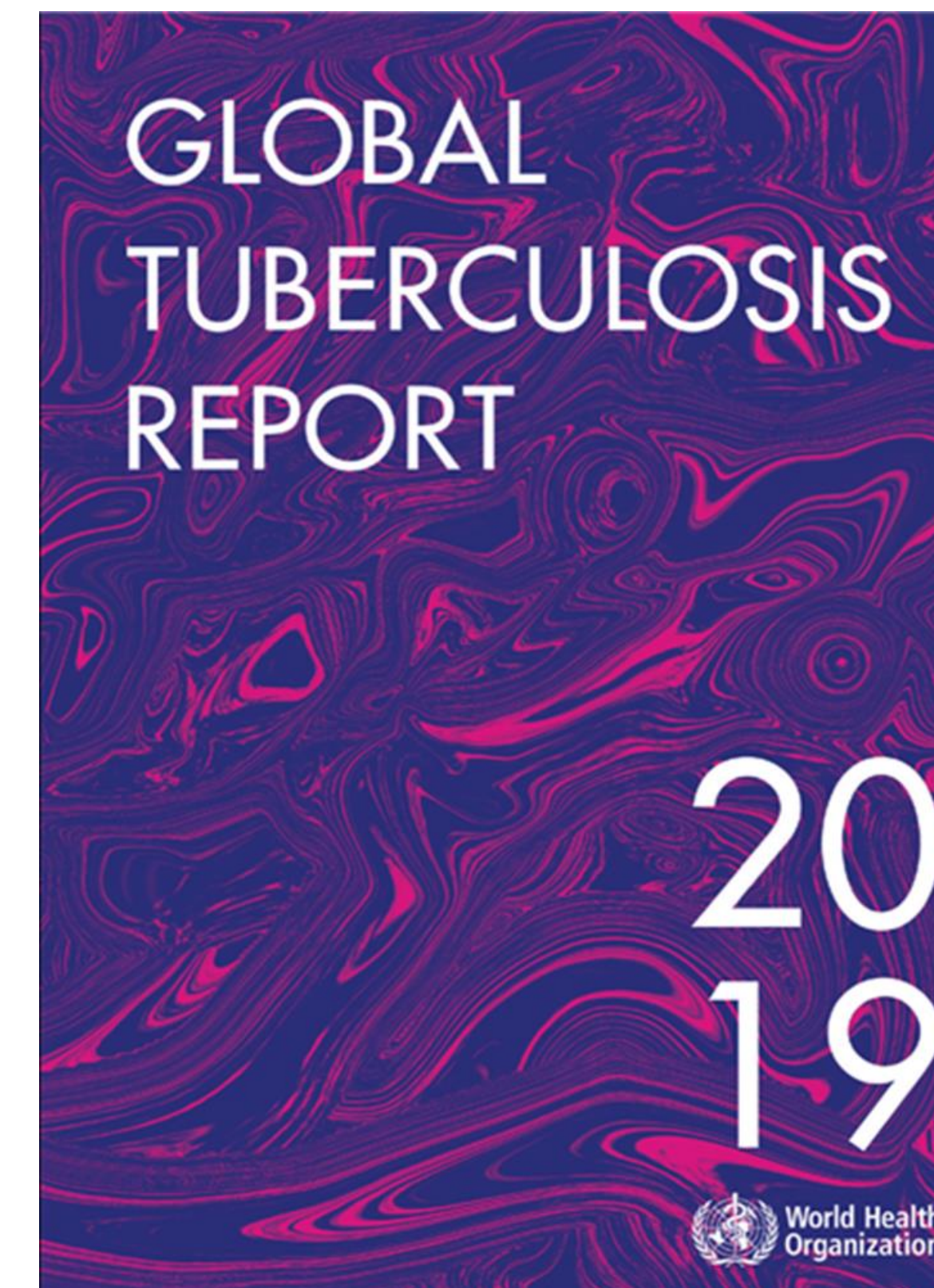
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Zoonotic Tuberculosis

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“Strengthen Intersectoral and Collaborative Approaches”



10 PRIORITIES FOR ADDRESSING ZONOTIC TB

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