

**INFECTIOUS DISEASES & ZOOONOSES, HEALTH
COMMUNICATION, AND FOOD SECURITY &
SAFETY:
PREVENTION OF HUMAN CASES OF BOVINE TUBERCULOSIS
AND BRUCELLOSIS IN ASELLA, ETHIOPIA**

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**FIELD EXPERIENCE
PRESENTATION**

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 - Brucellosis in Ethiopia
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 - ❖ Narratives
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Background

Background

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- Bovine Tuberculosis is endemic in Ethiopia (Wondewosen et al., 2010; AHRI) (*unpublished*)
- Studies on Brucellosis prevalence in Ethiopia are sparse
- The two diseases are of high public health concern (Cosivi et al., 1998)
- Milk is a staple drink in Ethiopia (Warburton-Lee, 2005)
- LoA between FAO and Armaeur Hansen Research Institute



General Objective

General Objective



To apply health communication strategies to promote food security and safety while preventing human cases of two major zoonotic diseases (Bovine TB and Brucellosis) in Asella, Ethiopia.



Zoonoses and their Public Health Impact

Zoonoses and its public health impact

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Zoonoses or zoonotic diseases

- =75% emerging diseases (Spickler, Roth, Galyon, & Lofstedt, 2010)
- 85% of the burden suffered by the poor (ILRI, 2002)
- Examples: Anthrax, BTB, Brucellosis, Rabies, Tape worms (Epilepsy), Ascariidiosis,...



Bovine Tuberculosis in Ethiopia

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Bovine TB

- 10-15% human TB (Wondewosen et al., 2010)
- Risk factors for human population
 - physical contact,
 - aerosol,
 - alimentary habits,
 - immune status,
 - Importation of improved-breed animals.

Bovine Tuberculosis in Ethiopia (Cont'd)

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- Prevalence

- In peri-urban areas: up to 50% in intensive dairy production (Dinka & Duressa, 2011)
- In milk shades: (i.e. smallholder milk farms)
 - can reach 3.4% in other smallholder farms (Dinka & Duressa, 2011)
 - ✦ Asella zone about 1% (Tschopp et al. 2012)
 - 9% of the reactors in Asella zone (1%) are due to *M. tuberculosis* (Tschopp et al. *unpublished*)

Brucellosis in Ethiopia

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Brucellosis

- *National Prevalence: 10-15% (Dinka & Chala, 2009)*
- *Prevalence in Asella zone : 1.5-2% (Tschopp et al. 2012)*
- *Risk factors for human pop.:*
 - ✦ physical contact,
 - ✦ food habits,
 - ✦ immune status,
 - ✦ Importation of improved-breed animals.



Health Communication

Health Communication

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- Objectives (by the end of 2012):
 - ▶ to effectively promote BTB/Brucellosis awareness and perceptions among 30% of project stakeholders
 - ▶ to achieve that at least 25% of the target groups clearly recognize BTB/Brucellosis risk factors and prevention measures
 - ▶ to have at least 90% of the target groups report adoption of BTB/Brucellosis-related healthy behaviors

Communication Strategies

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Increasing BTB/Brucellosis awareness, perceptions, and promoting related-healthy behaviors among milk cooperative members

Specific activities:

- ▶ Social marketing
- ▶ Educational interventions (Use of posters and narratives)

Theories & Models

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- **Health Belief Model**

1. Perceived seriousness
2. Perceived susceptibility
3. Perceived benefits
4. Perceived cues-to-action
5. Perceived self-efficacy
6. Perceived Barriers

- **Socio-Ecological Model**

1. The intrapersonal level
2. The interpersonal level
3. The organizational level
4. The community level
5. The society/Policy level

Narratives and Effective Health Communication

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- Forms of storytelling
- A Powerful influence on the world vision (Wright, Spark, and Ohair, 2008)
- Narratives are also used to communicate experience



Narratives and Effective Health Communication

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- Narratives can be used to create, recreate, and sustain cultural beliefs about health issues
- Stories told before a community is a way of conveying advice in a non-didactic fashion



Narratives and Effective Health Communication (Cont'd)

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- People tell their stories about their personal experiences and what type of thoughts and behaviors helped them to cope.





My Field Experience Products

Three posters and messages

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Application of K-State Education

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- One communication package developed for the prevention of human cases of BTB and Brucellosis; five public meetings held for social mobilization
 - MC 740 Mass Communication/Health Communication; DMP 753 Zoonoses and Preventive Medicine; DMP 815 Multidisciplinary Thought & Writing; DMP 860 Pathogenic Mechanisms; KIN 818 Social & Behavioral Foundations of Public Health

Application of K-State Education

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- Review processes of country project documents
 - DMP 816 Trade and Agricultural Health; DMP 753 Zoonoses and Preventive Medicine; DMP 815 Multidisciplinary Thought and Writing.
- Review of two rabies prevention projects for Addis Ababa
 - DMP 753 Zoonoses and Preventive Medicine; DMP 815 Multidisciplinary Thought and Writing; MC 740 Mass Communication/Health Communication

Application of K-State Education

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- Designing reference documents for the promotion of the Community-Based Animal Health practice in Southern Sudan (Ministry of Animal Resources and Fisheries)
 - DMP 753 Zoonose and Preventive Medicine; DMP 815 Multidisciplinary Thought and Writing; DMP 816 Trade and Agricultural Health; FDSCI 730 A Multidisciplinary Overview of Food Security & Safety

Application of K-State Education

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- Participating in the FAO SFE 5th Management Meeting (Renewed Commitment to Ending Hunger in the Horn of Africa)
 - FDSCI 730 A Multidisciplinary Overview of Food Security & Safety; DMP 815 Multidisciplinary Thought and Writing; DMP 816 Trade and Agricultural Health; MC 740 Mass Communication/Health Communication
- Two work sessions with the Armaeur Hansen Research Institute (AHRI)
 - DMP 855 Disease Surveillance & Risk Assessment; DMP 754 Introduction to Epidemiology; DMP 753 Zoonoses & Preventive Medicine; DMP 815 Multidisciplinary Thought & Writing; MC 740 Mass Communication/Health Communication

Application of K-State Education

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- Wrote two mission reports and held two debriefing sessions
 - DMP 815 Multidisciplinary Thought and Writing; DMP 816 Trade and Agricultural Health; DMP 754 Introduction to Epidemiology; DMP 860 Pathogenic Mechanisms; DMP 850 Immunology of Domestic Animals; DMP 753 Zoonoses and Preventive Medicine; MC 740 Mass Communication/Health Communication; KIN 818 Social & Behavioral Fundament of Public Health;

Application of K-State Education

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- Completed three interviews (FAO, ILRI, and IFPRI)

DMP 815 Multidisciplinary Thought and Writing; DMP 816 Trade and Agricultural Health; DMP 754 Introduction to Epidemiology; DMP 860 Pathogenic Mechanisms; DMP 850 Immunology of Domestic Animals; DMP 753 Zoonoses and Preventive Medicine; MC 740 Mass Communication/Health Communication; HMD 720 Administration of Health Care Organizations; FDSCI 730 A Multidisciplinary Overview of Food Safety and Security; KIN 818 Social & Behavioral Fundament of Public Health

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Thank You!!!

