



Local knowledge and perception of zoonotic hydatidosis in High Atlas (Morocco)

Focus Groups Discussions

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A collaboration between the Disease Control Unit – ITM (Belgium) and the Parasitology and Parasitic Diseases Unit - IAV of Rabat (Morocco)

Haouz Province – High Atlas - Morocco

- Territory: plain and mountains belts
- Population mostly Berber (amazigh)
- Rural population (96%)
- Livestock breeding (sheep) and agriculture
- Informal slaughter practices (Aïd el-Kebir)
- Uncontrolled dumping



Echinococcosis



Factors contributing to the high risk (Morocco)

■ Sociocultural factors

- low public awareness of hydatid diseases
- Customs and traditions
- Adoption of dogs for security without veterinary control



■ Socio-economical factors

- Lack of hygiene
- small, ill-equipped and unsupervised slaughter-houses ("Tueries")
- Professions at risk (butchers, shepherders, farmers)



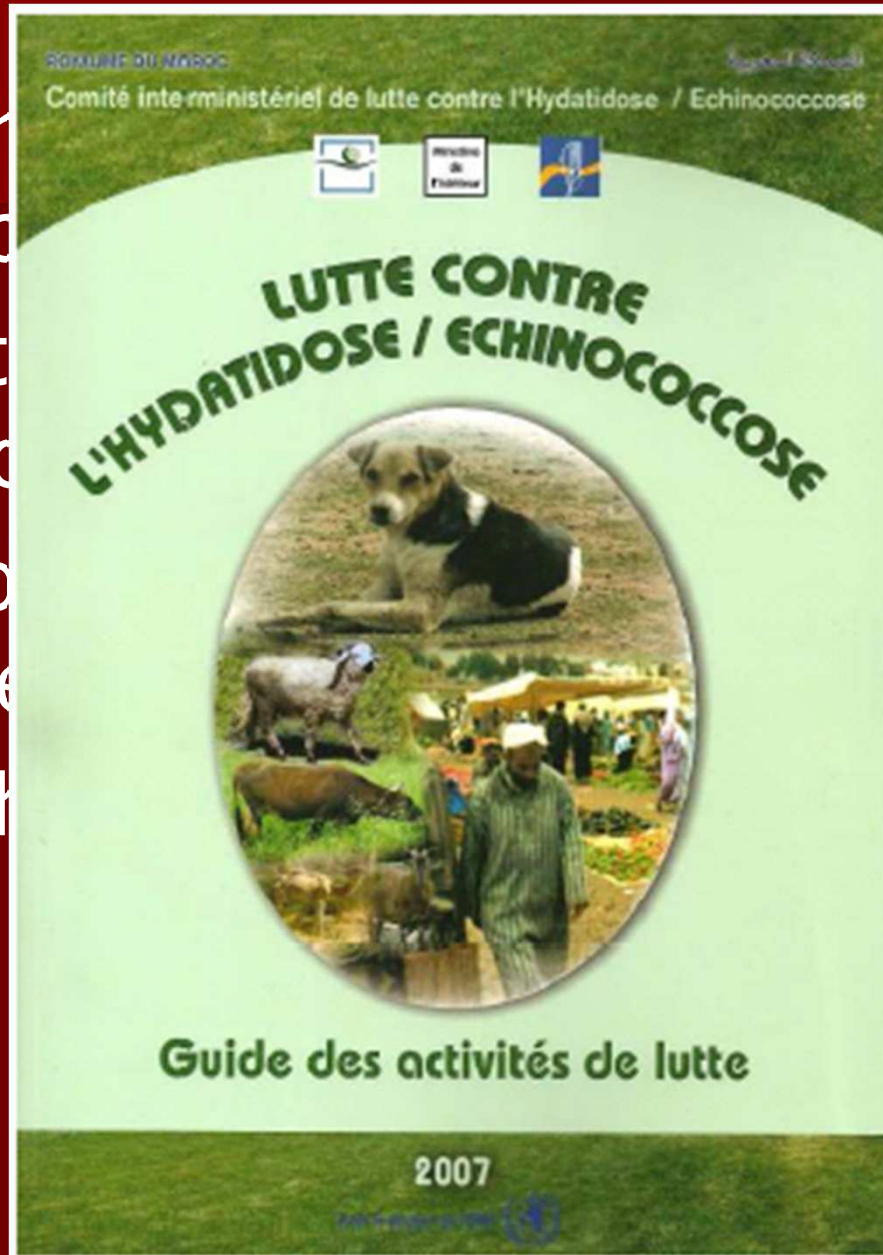
■ Environmental factors

- high population of stray dogs
- Sheep breeding predominantly extensive



Still a Public Health problem

- 1919: First case in Marrakech
=> still a public health problem in this location
- 2007: Coordinated National Committee
=> CH



increase in

in health in this

Ministry

case ...



Prophylaxis

- Current control measures (used but ineffective):
 - a) preventing dogs from eating raw viscera
 - b) registering and treating dogs
 - c) promoting fundamental preventive measures through health education programs
 - d) eliminating stray dogs

Objectives of the study

- General objective:

Identify the reason why hydatidosis control fails

- Specific objectives: To assess

- People's knowledge and understanding
- People's perception of the disease and its control
- role of the dog in the society

Focus Group Discussion (FGD)



“obtain in-depth information on **concepts**,
perceptions and **ideas** of a group”

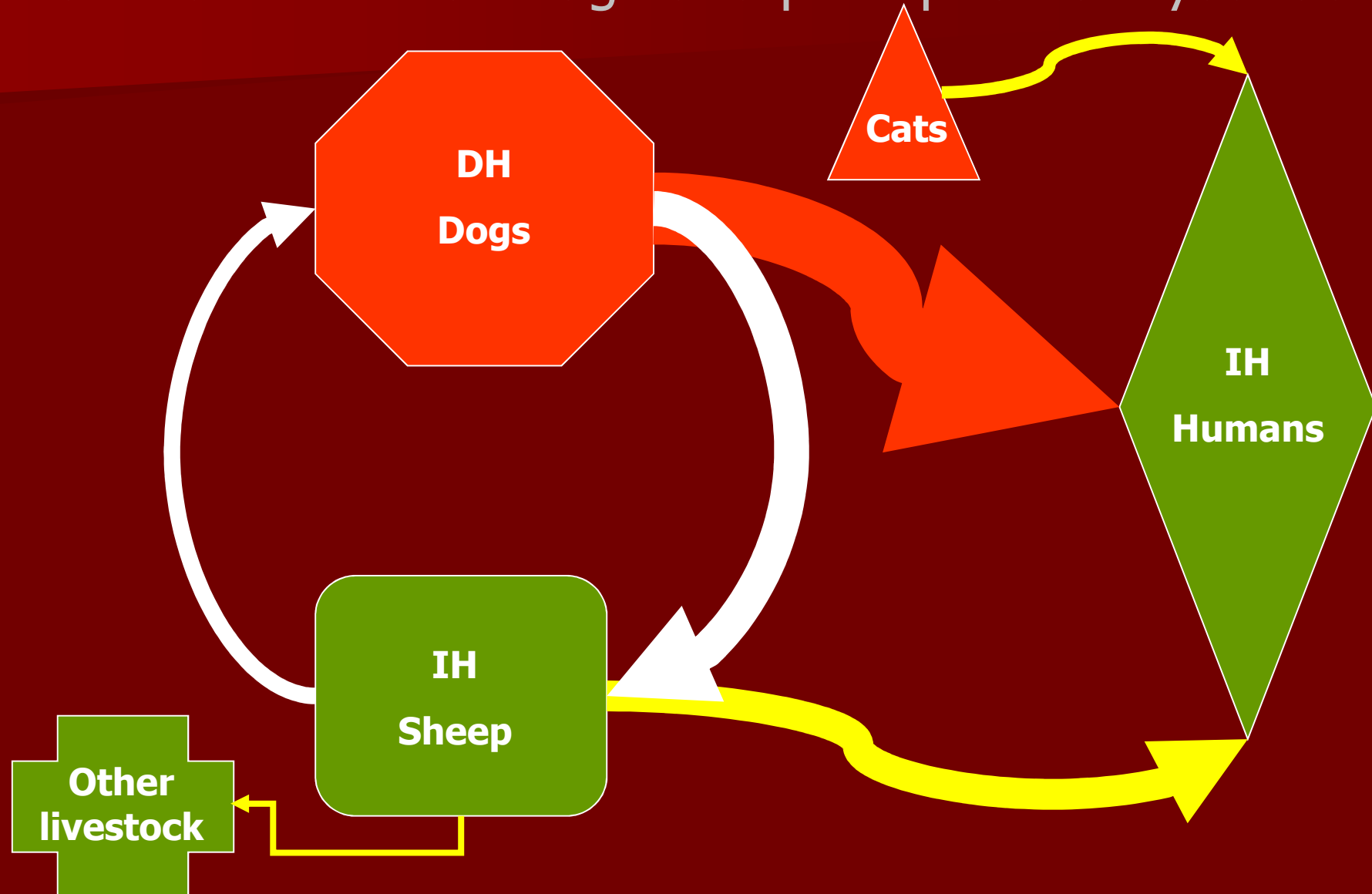
FGD Data

- 10 villages (rural zones)
 - 8 FGD with men (livestock owners)
 - 2 FGD with butchers
 - 8 FGD with women (wives)
 - 2 FGD with girls students
- **Open group discussion**
of approximately 5 - 13 persons
- Guided by a **facilitator** (trained) **of the same FG gender and same language**
- Materials: **Video recordings** => transcript and translate from Arabic to French
- **N-Vivo 8**: Qualitative data analysis (QDA) computer software package
- **Discussion guide:**
 - male discussions => sheep keeping and informal slaughter practices
 - women => role in hygiene and cleaning of carcasses
 - butchers => economical consequences of the presence of EC cysts



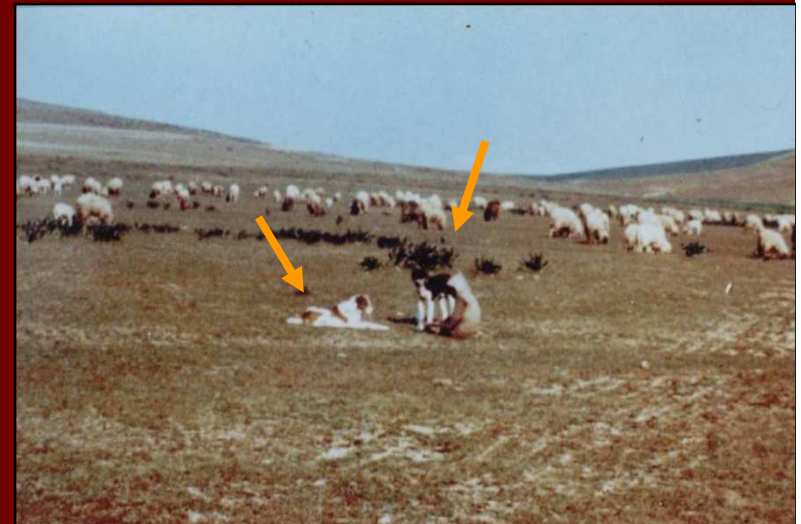
Results

- Communities' knowledge and perception of hydatidosis

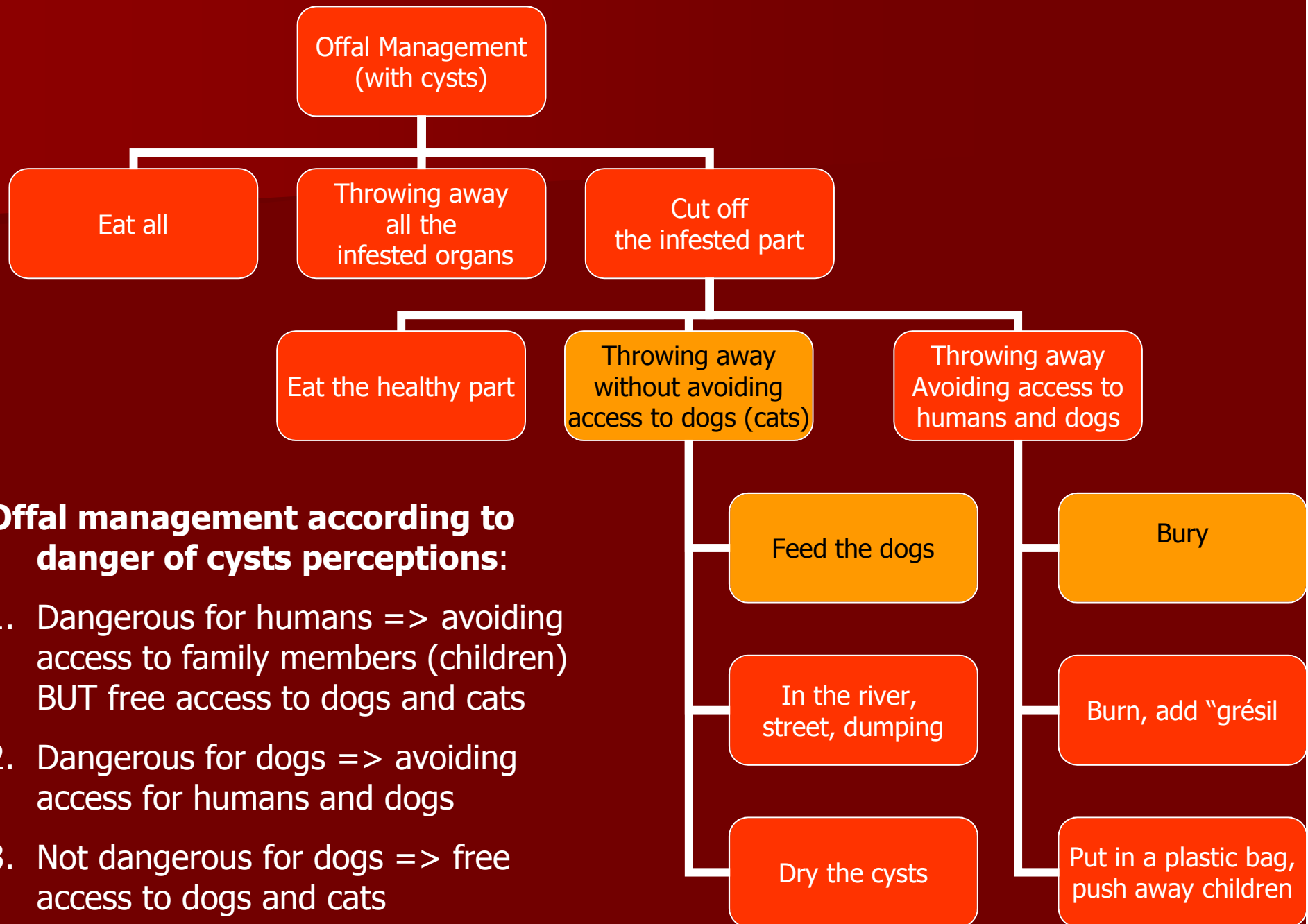


■ Role of the dog

- Ownership for herding, security and hunting
- Different statue of dogs => Different behaviours
- Perceive most as damaging “dangerous, hard to educate, bad, wild” + “Impure animal” (Koran)
- Main threats from dogs: Transmit diseases
 - dog’s hair, bites, saliva
 - Abundance and proximity of dogs
 - Attacked herd and people
 - Eating everything, everywhere



■ Risk behaviours



■ Communities' knowledge and perception of its control

Rank	Control measures: AGAINST		Control measures : FOR	Main obstacles
1.	Replace sheep by goat		Kill stray dogs	Right to live
2.	Kill all dogs		Kill all dogs	Some dogs have a role (useful)
3.	Stop feeding dogs with sheep cysts	↔	Stop feeding dogs with sheep cysts	Cysts can be found anywhere
4.	Feeding dogs yourself	←	Feeding dogs yourself	Impossible to educate a dog
5.	No more own dogs		Prevention	Not mentioned
6.	No more throwing away carcass	↘	No more own dogs	Dogs always reappear
7.	Bury wasted offal	←	Bury wasted offal	Dogs have a strong nose
8.	Kill stray dogs	↘	Replace sheep by goat	Disadvantages of goat herding
9.	Avoid dogs access to slaughterhouses	↘	No more throwing away carcass	Too much effort, money
10.	Burn infested offal	←	Burn infested offal	Negligence of consequences

Conclusion and recommendations

- When people perceive well the threat of the disease, they implement the right control behaviour
- BUT no clear awareness of the whole cycle and where threats come from
 - => more accurate education of the communities (face to face, same language)
- Ambiguous dog's ownership: Threats and dependencies = main obstacle to control measures
 - => more coordinate vet's actions between Ministries
- FGD methodology: cost-effectiveness + avoid bias (subjectivity, choice of themes,...)
 - => Triangulation

Intersectoral collaboration: a realistic way

Thank you for your “qualitative”
attention

