Session 2 Economic Benefits/Drivers of a “One Health” Approach: Why Should Anyone Invest?

For it’s added value!
Is there added value of ‘one health’?
‘One health’ approach to zoonoses: Improving the effectiveness of interventions?

Joint surveillance, preparedness and contingency planning to reduce time to control of zoonotic epidemics

1. e.g. national intersectoral task forces and regional networks
2. e.g. shared laboratories
3. e.g. response capacity of sectors
4. e.g. antibiotic resistance and cancer registries

Simultaneous assessment of zoonotic prevalences in animals and people

– e.g. epidemiologic links, evidence for cooperation

Improving the relevance of research and the effectiveness of interventions?

Estimating underreporting

Joint human and animal health services

Cleaveland et al., 2002, Bulletin WHO ; Schelling et al., 2007, EID
Global burden of zoonoses

Assessing DALYs!

Only very few global assessments

Lacking data; e.g. age-stratified incidences

Assistance of WHO in estimating DALYs of zoonoses

Monetary costs

Livestock sector

Health sector

Wildlife

Markets and macro economy

Rich, K.
Livestock mass vaccination against brucellosis in Mongolia

Benefits and Losses

- Intervention cost
- Total Health Benefits
- Public health benefits
- Private health benefits
- Household income loss
- Agricultural Benefits
- Total Societal Benefits

US$
Control interventions emerged as highly cost-effective from the ph sector perspective

<table>
<thead>
<tr>
<th>Condition</th>
<th>Location</th>
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<tbody>
<tr>
<td>Brucellosis</td>
<td>Mongolia</td>
</tr>
<tr>
<td>Alveolar and Cystic Echinococcosis</td>
<td>Tibet, Global (EC)</td>
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<tr>
<td>Rabies</td>
<td>Africa, Asia, Global</td>
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<tr>
<td>Tryp. brucei rhodesiense</td>
<td>South-East Uganda, Uganda</td>
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<tr>
<td>Cysticercosis</td>
<td>Cameron</td>
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Highly cost effective: < 25 US$ / averted DALY

Proposed cost-sharing scheme

Zinsstag et al., 2009, PNAS
Why invest in One Health?

Better preparedness and contingency plans
More efficient and effective surveillance systems for diseases
Equity: neglected zoonoses mainly affect the poor and there is overlap and co-morbidity of multiple zoonoses
More realistic control options in resource-poor countries
Sharing of logistics and costs for service provision
International working group to promote funding

Global fund for zoonoses control
   in analogy to the Global Fund to fight AIDS, TB and malaria

Financial mechanism; implementation by local actors; priorities of the countries
Steering committee, mixture of disease and financial experts – and health system and development professionals
Tied to the World Animal Health and Welfare Fund of OIE?
Review succesful PARC programme
Twinning programmes

Hotez et al., 200, PLOS NTD; Zinsstag et al., 2007, EID