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www.worldwaterweek.org

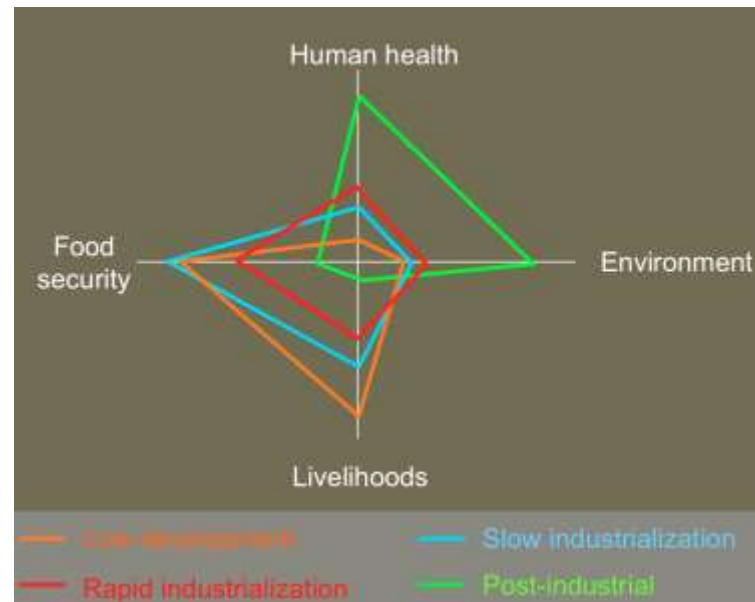
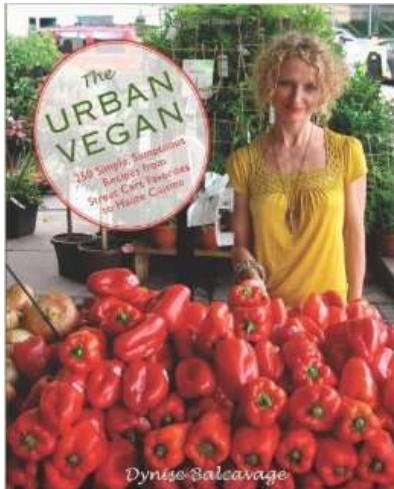
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Antimicrobial resistance: linkages between improved nutrition, livestock, humans and water



Professor Ulf Magnusson
Department of Clinical Sciences/ SLU Global
Swedish University of Agricultural Sciences, SLU

Very different perspectives on livestock



Magnusson 2016-08-29

SOFA, 2090

“Hidden hunger” and animal source foods

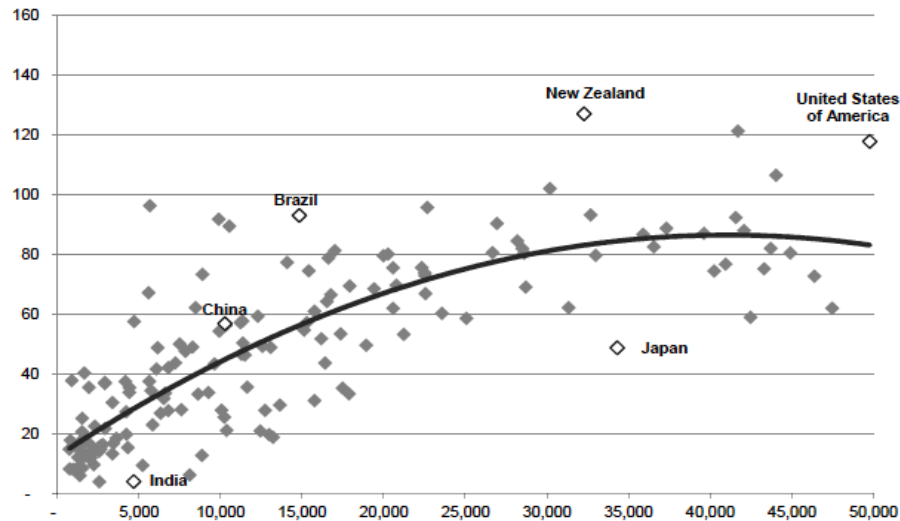
- Extremely asymmetric consumption of animal source foods
- 2 billion people are suffering from micronutrient deficiency (“hidden hunger”)
- 161 million children are stunted



Animal source foods are very rich in the essential micronutrients

Increased demand and production

- Particularly poultry and pigs
- Largest expansion in East and South East Asia
- Increased incomes and urbanization are important drivers



Source: Adapted from FAO (2009a). Based on data from FAOSTAT (FAO, 2015a) for per capita meat consumption and the World Bank for per capita GDP. Note: GDP per capita (horizontal axis) is measured at purchasing power parity (PPP) in constant 2011 US dollar. Per capita meat consumption (vertical axis) is measured in kg/capita/year.

Intensified livestock production

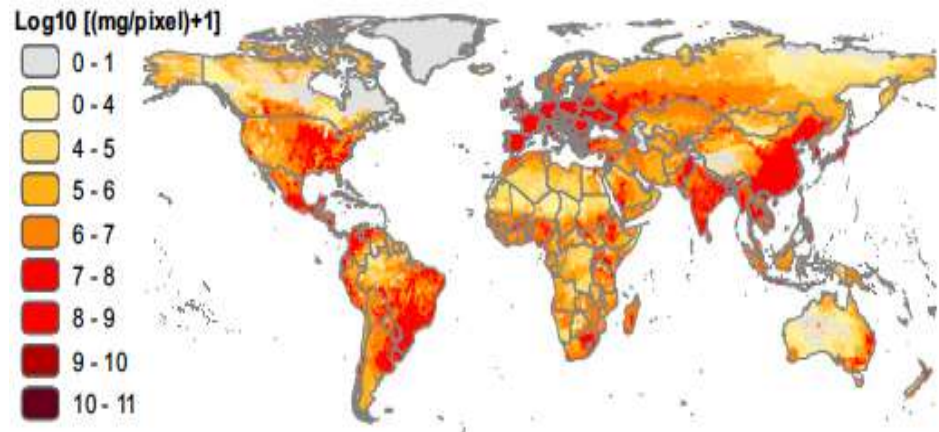
- Intensification – economically beneficial , better use of natural resources
- Often extensive use (abuse) of antimicrobials to protect against diseases and production losses
- Contributes to AMR



The use of Antimicrobials

- Global estimate : more than 50% are used in the livestock sector
- Sweden: about 15% are used in the livestock sector (SVA, 2013)
- Global data are weak and incomplete!

Global use of antimicrobials in livestock, *Van Boeckel et al, 2015*



The spread of AMR

- To humans
 - Directly “animal workers”
 - Food borne, wet markets
- To the environment/water
 - From factories
 - From manure/waste water



In pig urban farming in Phnom Penh: in almost half o the farms, the manure was just dumped, often in water (Ström et al., 2016)

Reducing Antimicrobial use is possible

- Swedish livestock sector has “walked the talk”
- Successful cooperation between farmers, animal health service, researchers, and policy level.

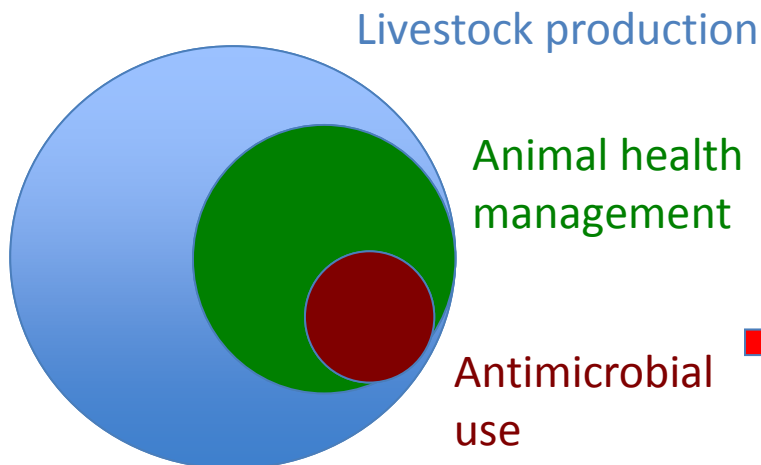
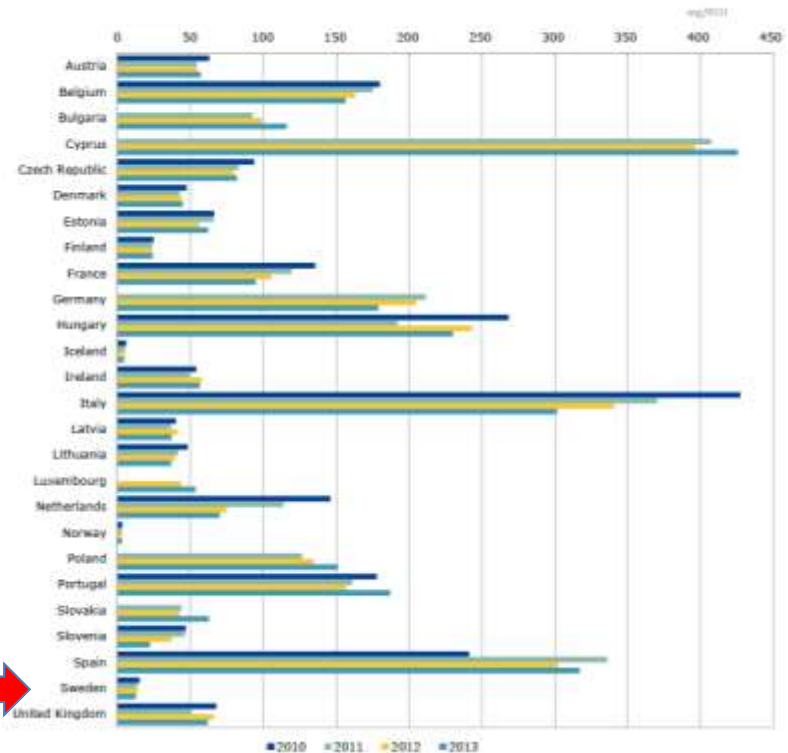


Figure 55. Total sales of veterinary antimicrobial agents for food-producing species, including horses, in mg/PCU, during 2010 to 2013, for 26 EU/EEA countries¹⁻⁴



Upcoming...

- More about the water/environment nexus...
- The good practices....
- The governance challenges.....
- Awareness in the livestock sector.....
- Joint forward action.....

Thanks for your attention!!