



Antimicrobial Resistance Hub

Accessibility of antibiotics in low- income countries

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CGIAR AMR Hub mitigating agricultural associated AMR risks

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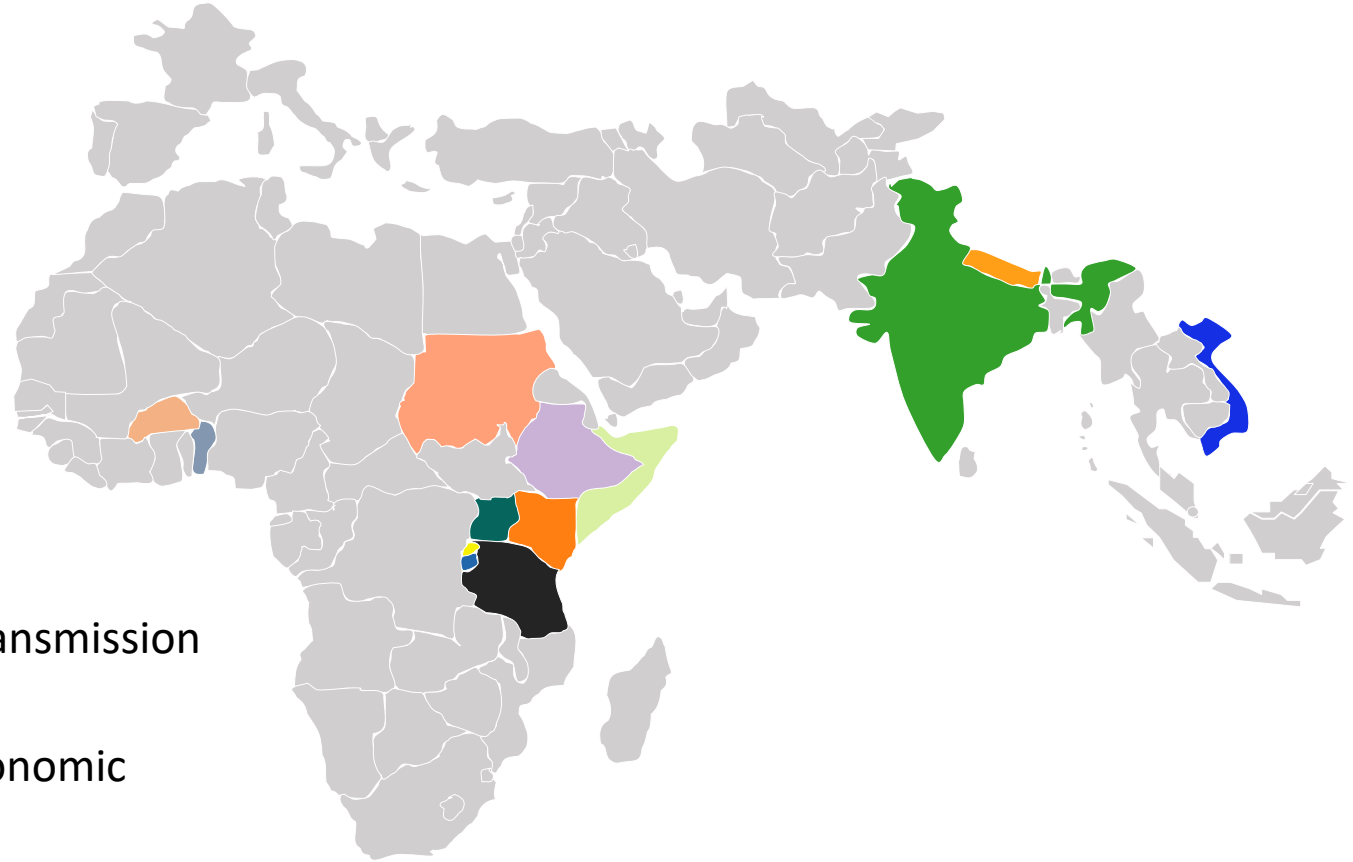


INTERNATIONAL CENTRE FOR
ANTIMICROBIAL RESISTANCE
SOLUTIONS



National partners
e.g. MAAIF in
Uganda

Global Project Activities



- AMU, drivers, KAP
- AMR Prevalence & Transmission (interfaces)
- Interventions incl. economic impact
- Cap. Building (lab capability and mentorship)

Other AMR projects

- AMU and AMR in crop production
- Fate and transport in water bodies
- AMR in wildlife and bushmeat

How do farmers access antibiotics?

- Why do farmers use antibiotics?
 - Therapeutic vs. Non-therapeutic (Prophylaxis, Metaphylaxis, Growth promotion)
- Factors affecting availability of antibiotics within a country
- Who makes the diagnosis and determines treatment?
 - Veterinary surgeons
 - Veterinary para-professionals (need to be supervised by a vet. surgeon)
 - Extension officers (training and assistance to farmers)
 - Farmer's influence and economy
 - Knowledge, attitudes and practices
- Where can farmers buy antibiotics?
- Who ultimately administers antibiotics?

Antibiotic supply chain

- Antibiotics are typically imported by a national procurement agency, private, NGOs
 - dependent on global availability
 - local import regulations (very complex -> shortcuts)
- Within country: regional differences impacts availability e.g. rural vs. urban
- Price influences availability
- Illegal entry of drugs including smuggled products

Quality of antibiotics

- WHO noted 17% of antibiotics in LMICs are substandard or counterfeit
 - Complex regulations, poor communication between governing bodies, weak enforcement, corruption → infiltration of poor quality drugs
 - Manufacturers produce lower quality products for less regulated markets
 - insufficient capacity to assess drug quality
- Lack of proper transportation, storage and enforcement of regulation → affects drug quality, e.g. no cold storage
- Complex distribution chain → no infrastructure to do recalls
- No compensation of retailers for expired drugs
 - continued sales

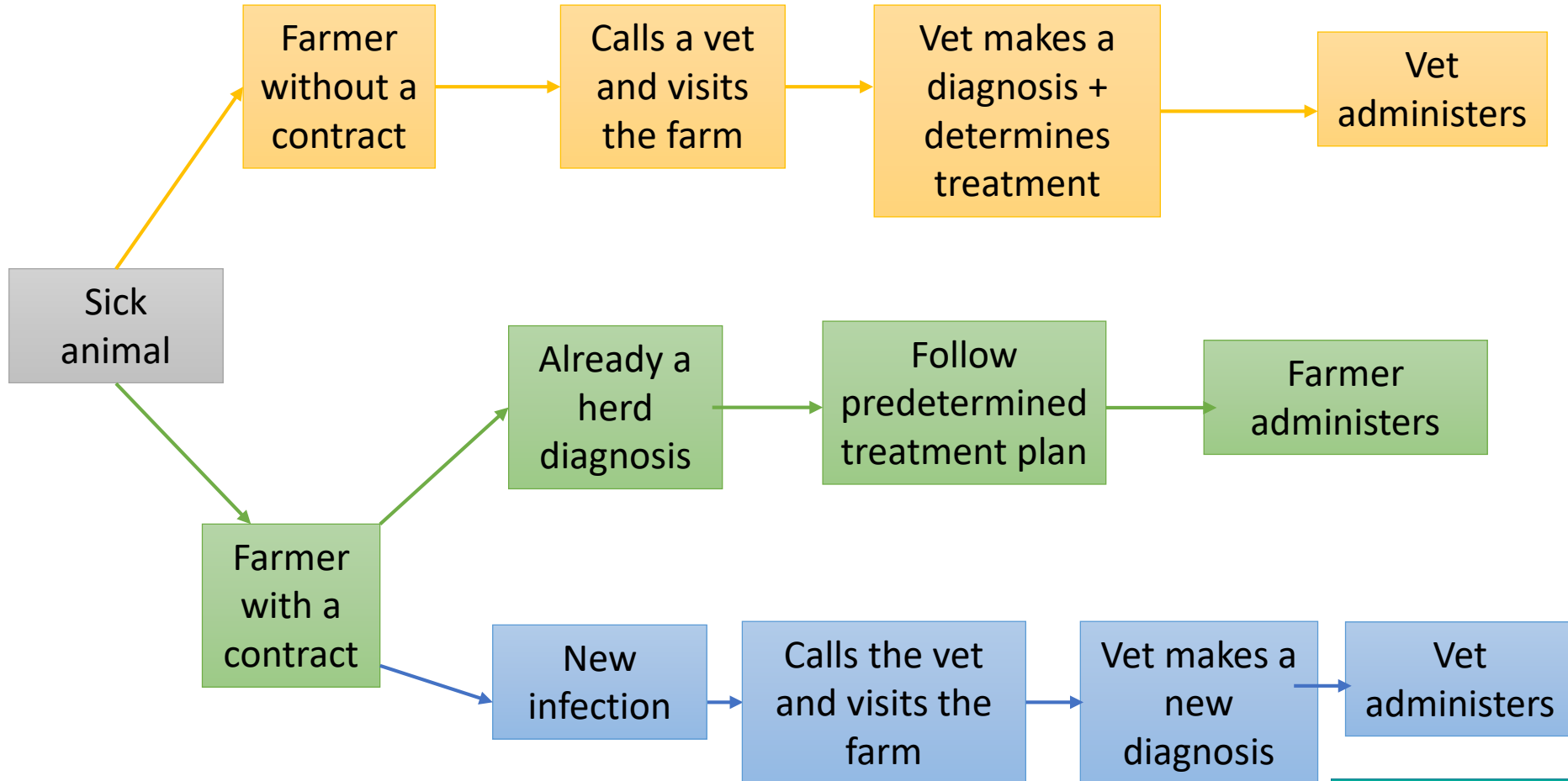
How are farms animals treated?

- Two scenarios



What happens if an animal is sick?

Danish model



Where do farmers buy their antibiotics?

- Formal sector: Regulated by policies
 - Pharmacy – typically sell human drugs
 - Drug store – typically sell vet drugs
 - Agrovet – one stop agricultural shop
 - Animal health practitioners (Vets/EO)
- Informal sector: Unregulated
 - Local kiosk/store-Human & vet drugs
 - Open markets – Human and vet drugs
 - Pharmaceutical reps visiting farms
 - Other farmers
 - Unqualified practitioners



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