



One Health Collaboration to combat Antimicrobial resistance

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**World Health
Organization**

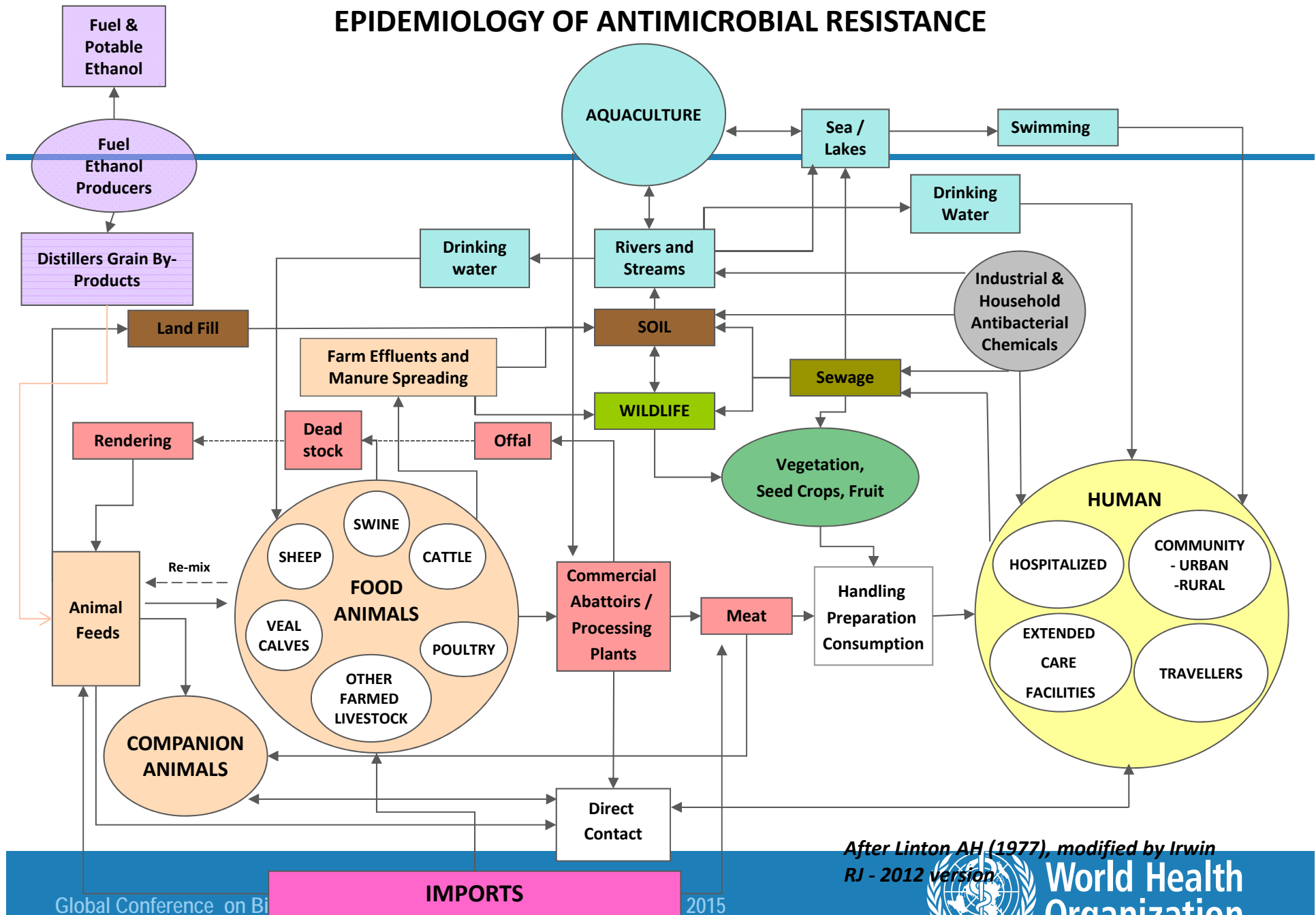
Antimicrobial Resistance

Why a "One Health " Approach?

- Antibiotics are used in many settings
 - Clinical medicine, communities, animal husbandry / aquaculture, horticulture
- Same classes of antimicrobial agents are used in different sectors
- Any use will select for resistance
- Resistant bacteria and resistant genes do not recognize geographic or ecologic borders



EPIDEMIOLOGY OF ANTIMICROBIAL RESISTANCE



After Linton AH (1977), modified by Irwin RJ - 2012 version



World Health Organization

Antimicrobial Resistance

Need for Global Collaboration

- ❑ Antimicrobial resistance is a global problem that requires a global approach
 - Extensive movement of people, animals, and foods around the world
 - Antimicrobial resistance in any country is of global threat
- ❑ To better understand the problem and effectively address it, we need
 - Global surveillance to detect the emergence and spread of resistant bacteria and genes associated with resistance
 - International data sharing and harmonization
 - International cooperation to limit global spread



WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance - AGISAR

- Technical support to WHO Member countries on:

Tackling foodborne AMR through integrated surveillance in line with the "One Health" approach



- Monitoring Usage in Animals and Humans
- Surveillance of AMR in animals, food and humans.
- Data analysis/integration to support policy

WHO and AMR and the Food Chain:

Promoting multisectoral approach for AMR surveillance

- WHO-Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR)
 - Country pilot projects (FAO, OIE collaboration)
 - *WHO List of Critically Important Antimicrobials for Human Medicine*
 - Technical support to WHO Member States for setting up a national program for integrated surveillance of AMR (Brazil 2013, Mexico 2014)
- Global Foodborne Infections Network (GFN)
 - Training courses
 - External Quality Assurance Systems (EQAS)
 - Focused research projects
 - Tools and protocols



FAO, OIE, WHO Unite in the Fight against Antimicrobial Resistance

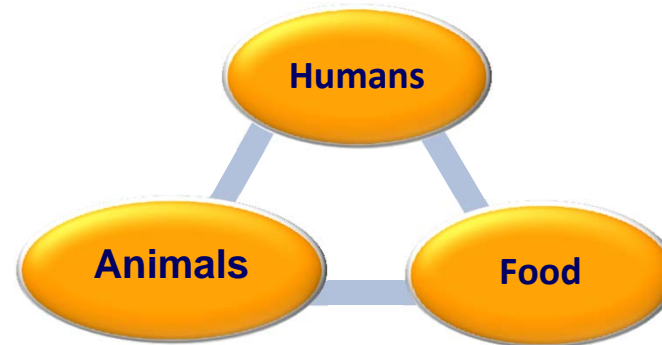
- *Joint FAO/OIE/WHO Expert meetings
 - Non-Human Antimicrobial Usage and Antimicrobial Resistance, 2003* and 2004*
 - Antimicrobial Use in Aquaculture & Antimicrobial Resistance, 2006*
 - Critically Important Antimicrobials, 2008
- FAO and OIE participate in WHO Advisory bodies on AMR (STAG and AGISAR) and have been key partners in the development of the WHO Global action Plan
- FAO and WHO in OIE Ad Hoc Group on Antimicrobial Resistance
- AMR has been selected as a priority topic for the Tripartite
- AMR Technical focal points have been nominated in each organization. They meet annually to agree on priority actions to be implemented jointly or in collaboration
- FAO, WHO and WHO will work in close collaboration in the implementation of the GAP



WHA resolution on AMR, the GAP and "One Health"

WHO recommend to apply the "One Health" concept in developing national plans on AMR

- "Meeting the recommendations of the WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR) for antimicrobial susceptibility testing of food borne pathogens (annex 4), and the standards published in the OIE terrestrial and aquatic animal codes (ref) and FAO/WHO Code of Practice to Minimize and Contain Antimicrobial Resistance."



- "Work with FAO and OIE, under the tripartite collaboration, to support integrated surveillance and reporting of antimicrobial resistance across human and animal health and agriculture"

Take home message..

- Antimicrobial resistance is a complex global problem that requires a multi-sectoral , "One Health" approach
- WHO, FAO, OIE and other high level fora (G7, GHSA) have prioritized addressing antimicrobial resistance
- For the first time, the governing bodies of FAO, WHO and OIE have adopted resolutions on AMR in the same year, and all three resolutions have stressed the importance of the "One Health "collaboration to combat AMR
- **The momentum is high....so are expectations!**





Thank you