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LATEN WE SAMEN ANTIBIOTICA EFFECTIEF HOUDEN

The "One Health" BELMAP report on trends in antimicrobial use and resistance

Pieter-Jan CEYSSENS

18/11/2021

federale overheidsdienst
VOLKSGEZONDHEID,
VEILIGHEID VAN DE VOEDSELKETEN
EN LEEFMILIEU

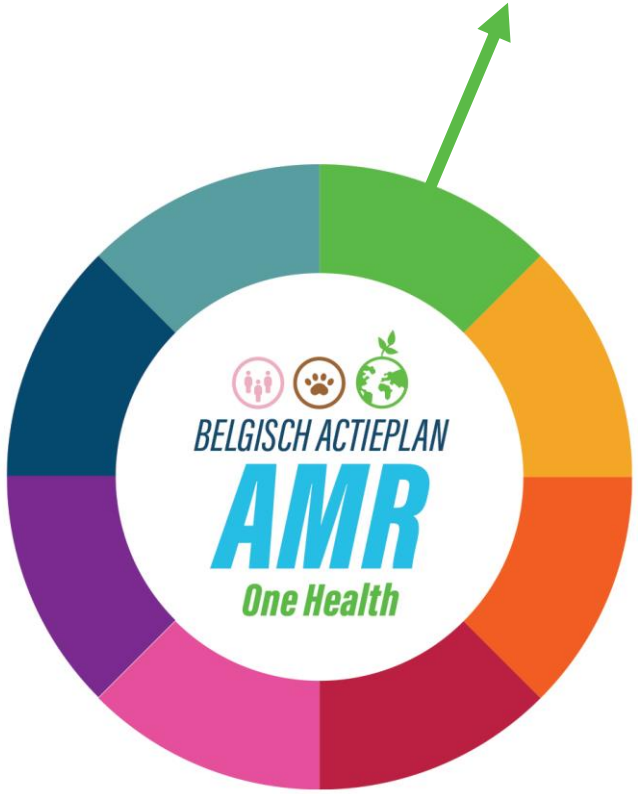
BAPCOC
Belgian Antibiotic Policy Coordination Commission

AMCRA
VERBETER GEZONDHEID, VERMINDER RESISTENTIE

sciensano

.be

Improving surveillance of use and resistance



- Develop **empirical guidelines** for therapy, with optimal clinical outcome for patient and animals

- Guidance of :
  - Stewardship programmes
  - Public Health Interventions
  - Infection Control policies
  - Novel antimicrobials and vaccines
  - Research priorities

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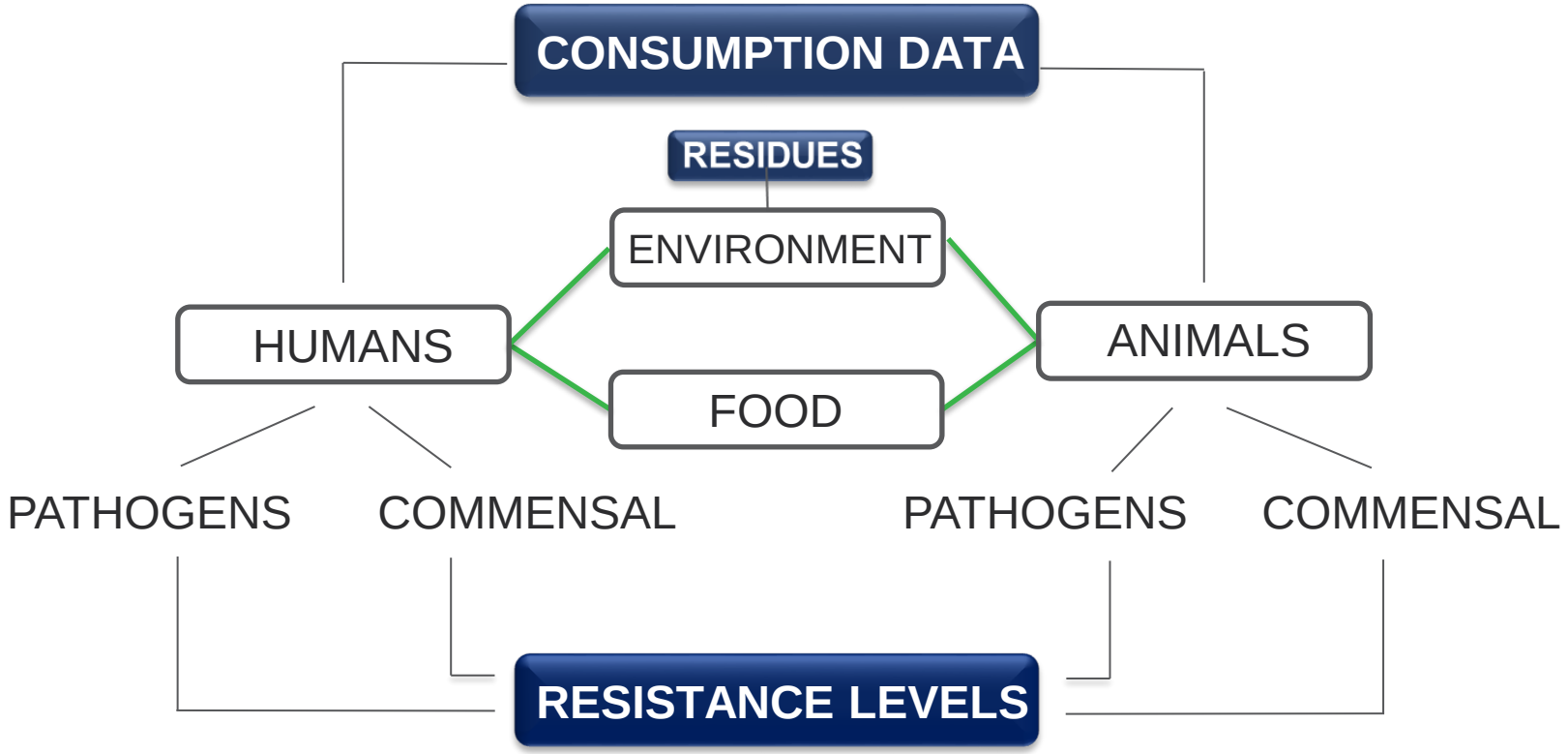
What can we measure ?



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FRAGMENTATION

BELMAP

ONE HEALTH REPORT ON ANTIBIOTIC USE AND RESISTANCE, 2011-2020

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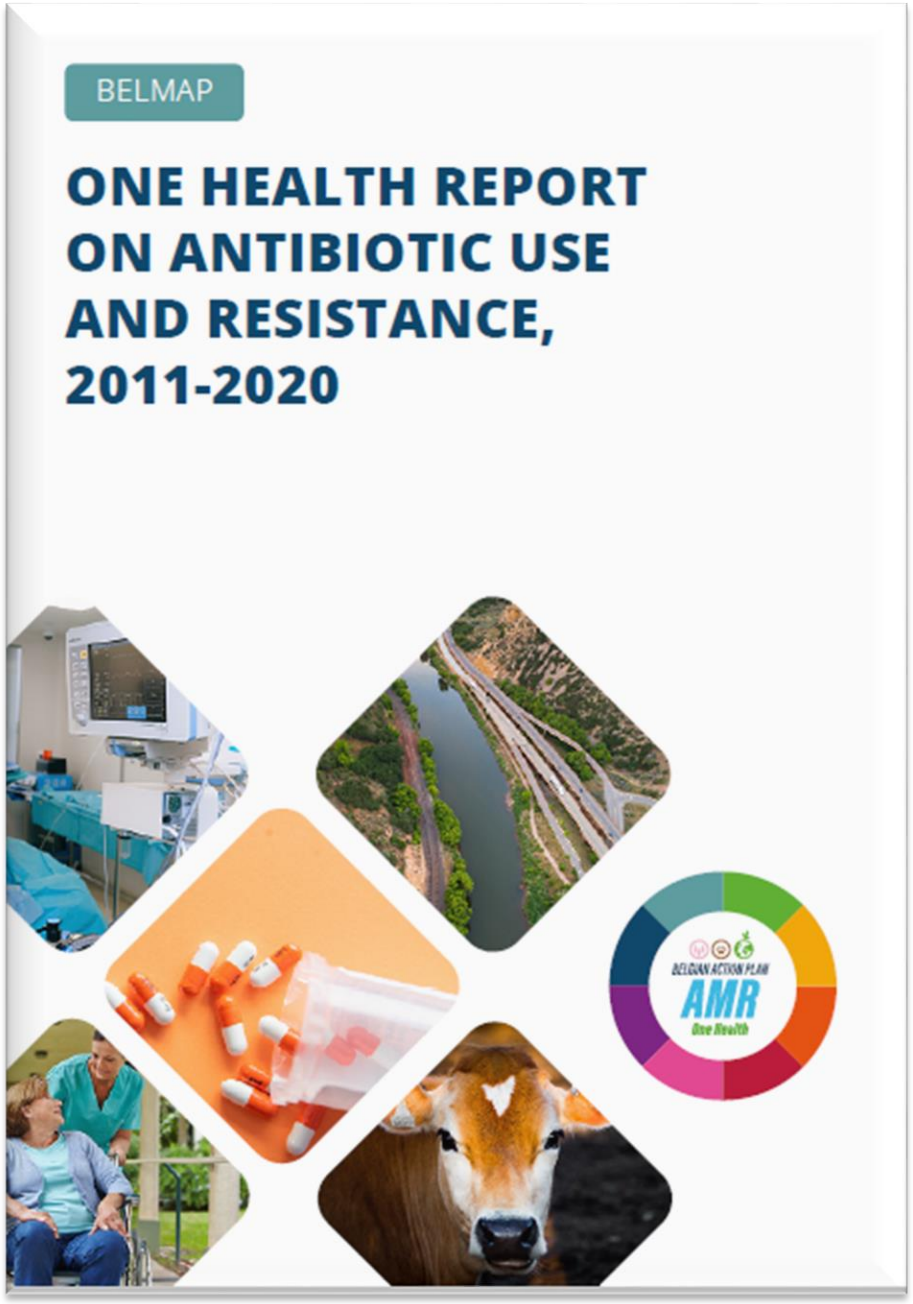
- **Executive Summary**
- **Antibiotic Consumption**
  - Community
  - Hospital
  - Veterinary sector
- **Antimicrobial Resistance**
  - Human pathogens
  - Zoonosis
  - Indicators from healthy animals
- **Residues in environmental samples**
- **Recommendations**



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- **Identification of actors**
- Integration of data
- Sector-specific, EU-based key indicators
- Trends analyses
- Some highlights
- Gap analysis

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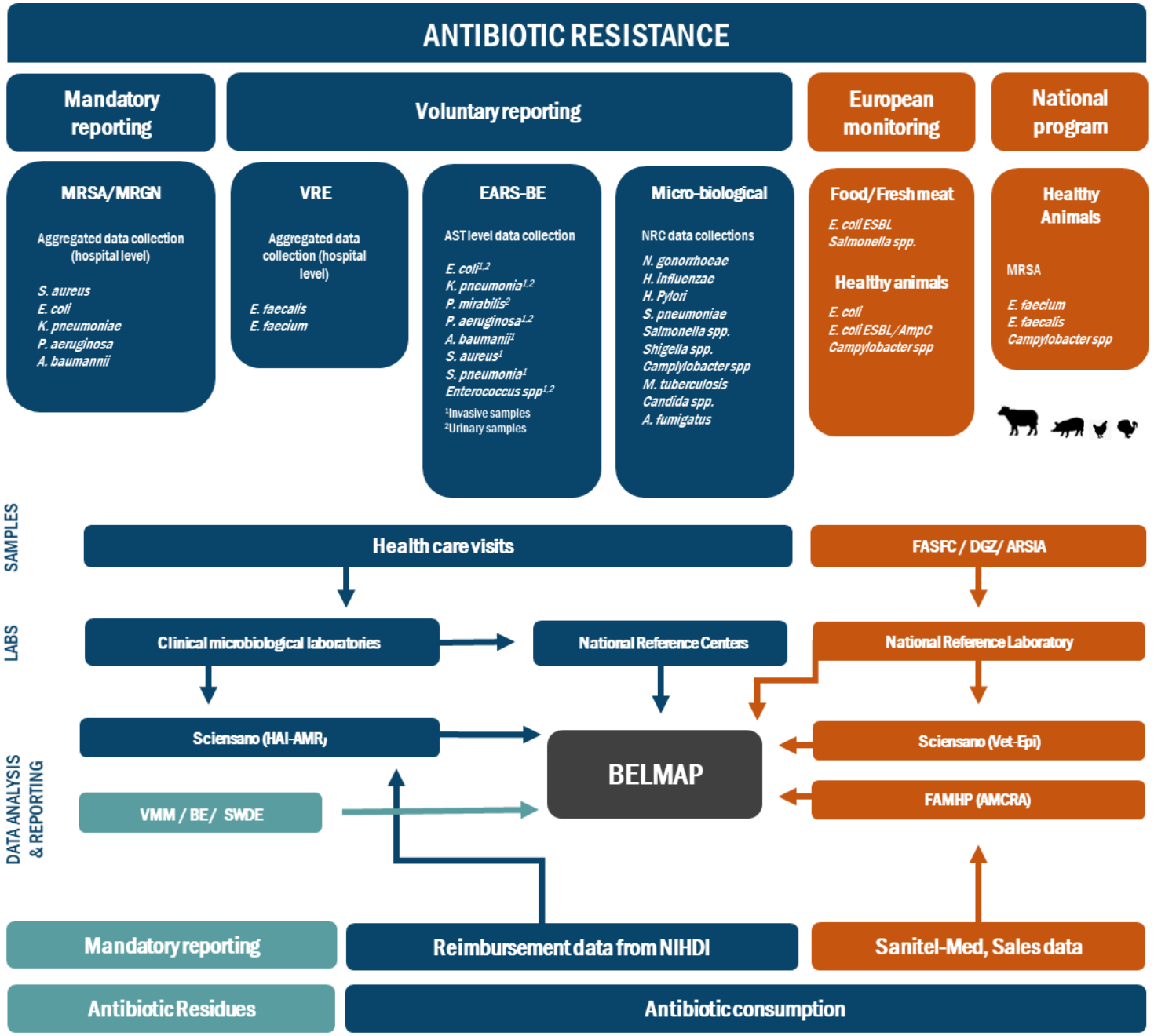

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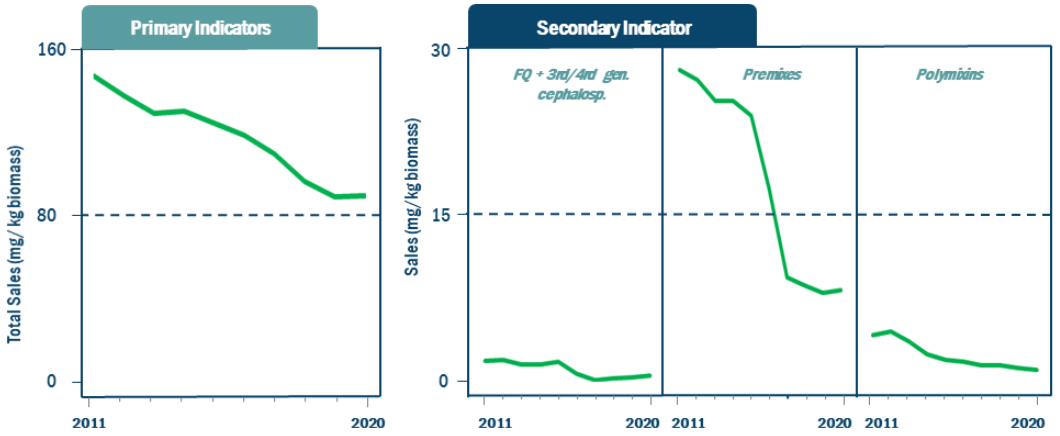
SCIENTIFIC OPINION

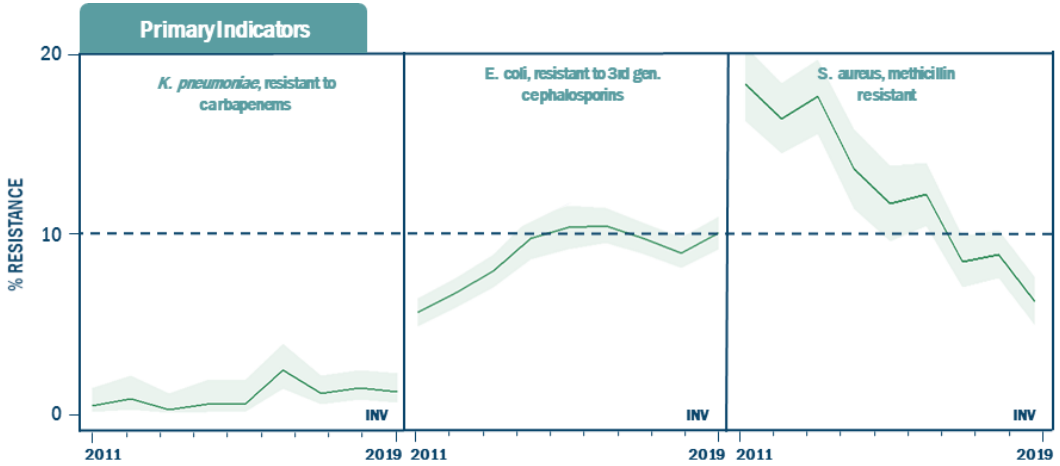
ADOPTED: 22 September 2017 (ECDC Advisory Forum), 14 September 2017 (EFSA BIOHAZ Panel), 6 September 2017 (EMA CVMP)

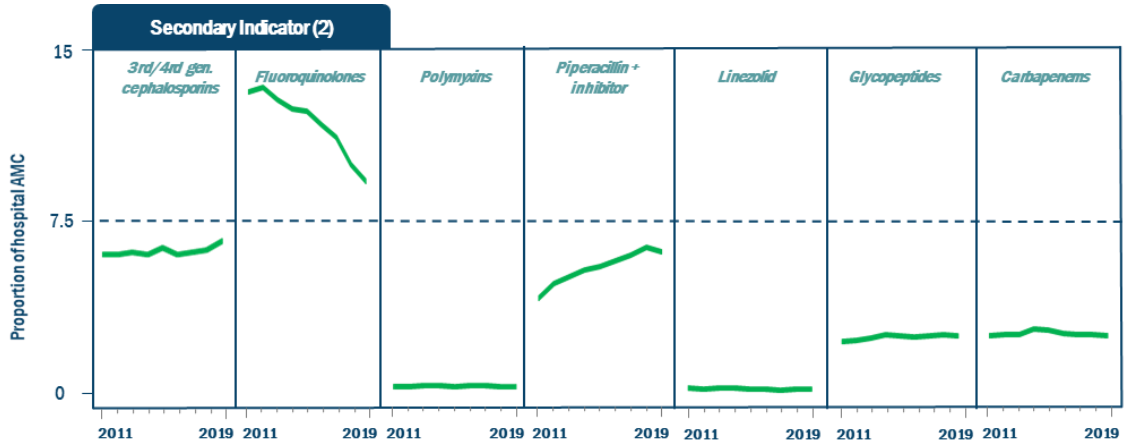
doi: 10.2903/j.efsa.2017.5017

ECDC, EFSA and EMA Joint Scientific Opinion on a list of outcome indicators as regards surveillance of antimicrobial resistance and antimicrobial consumption in humans and food-producing animals

ECDC, EFSA Panel on Biological Hazards (BIOHAZ) and
EMA Committee for Medicinal Products for Veterinary Use (CVMP)*







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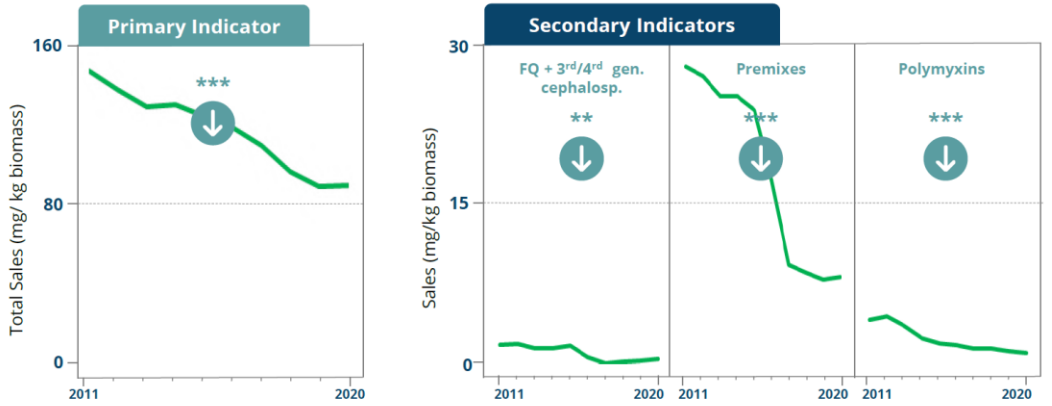

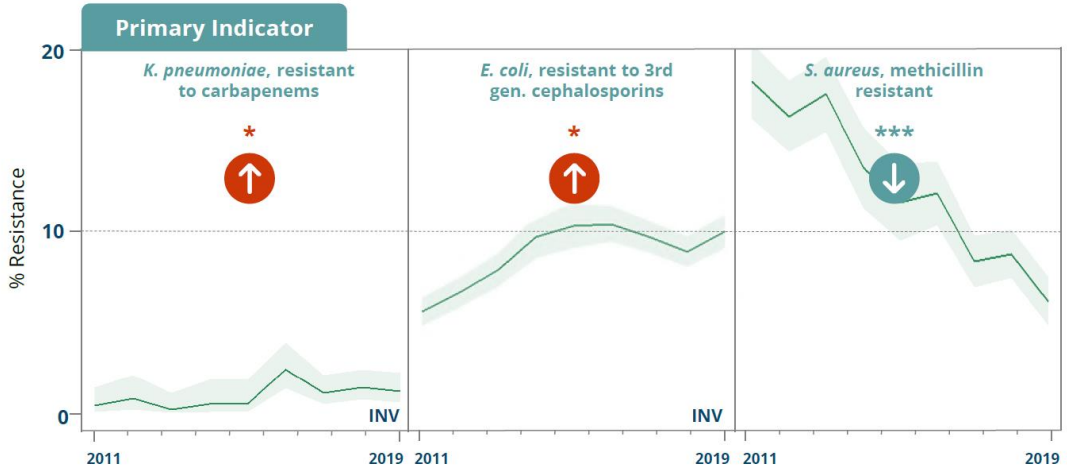

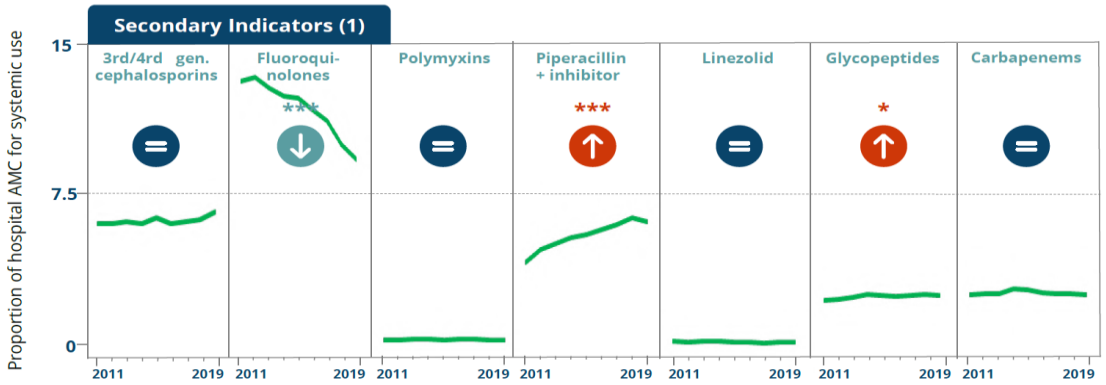

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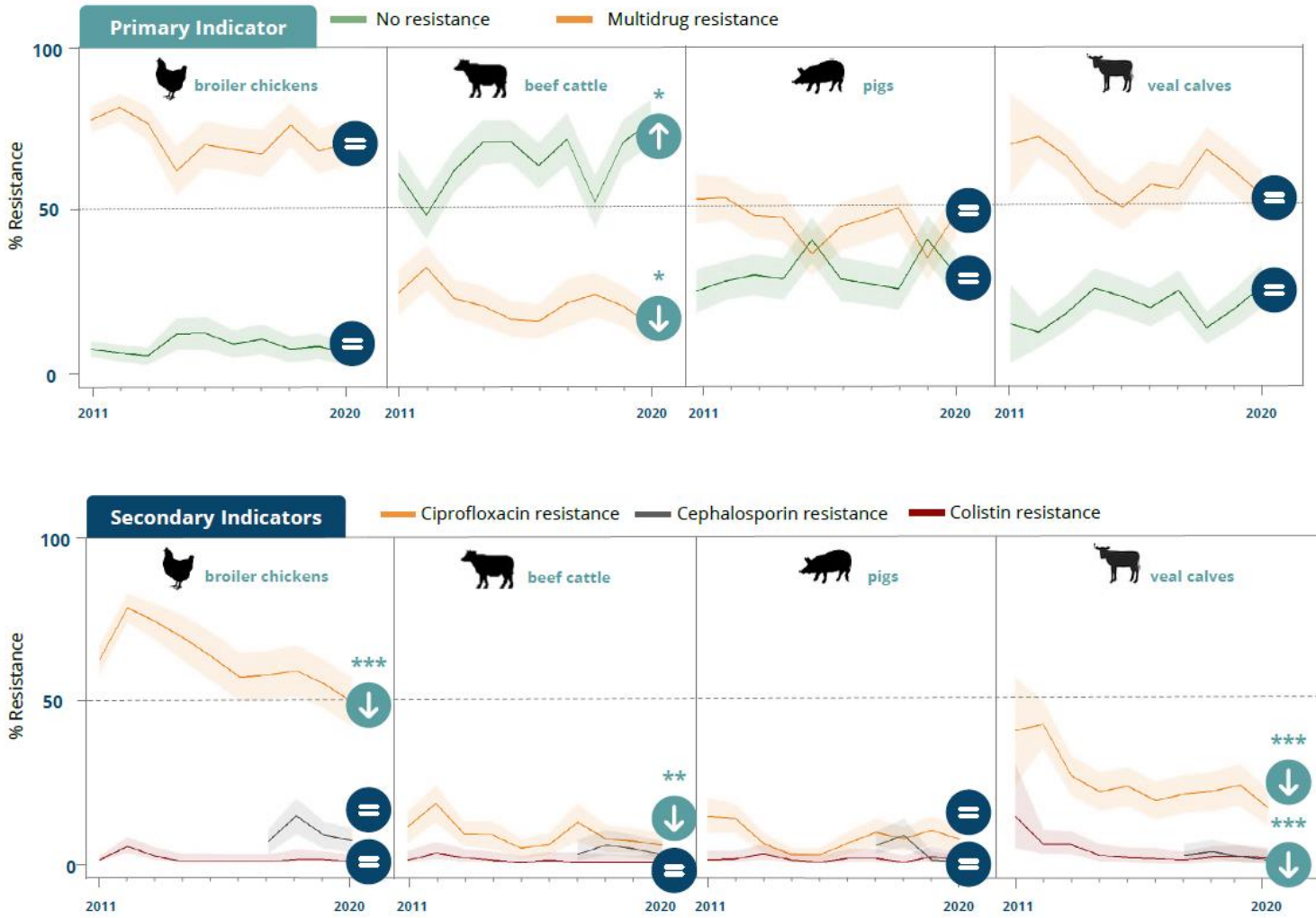
- **Some highlights (1)**
- Gap analysis



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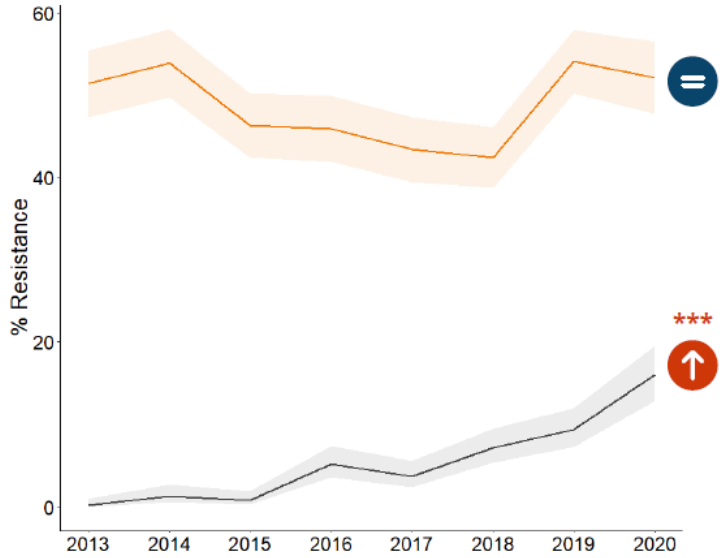
- **Some highlights (2)**
- Gap analysis

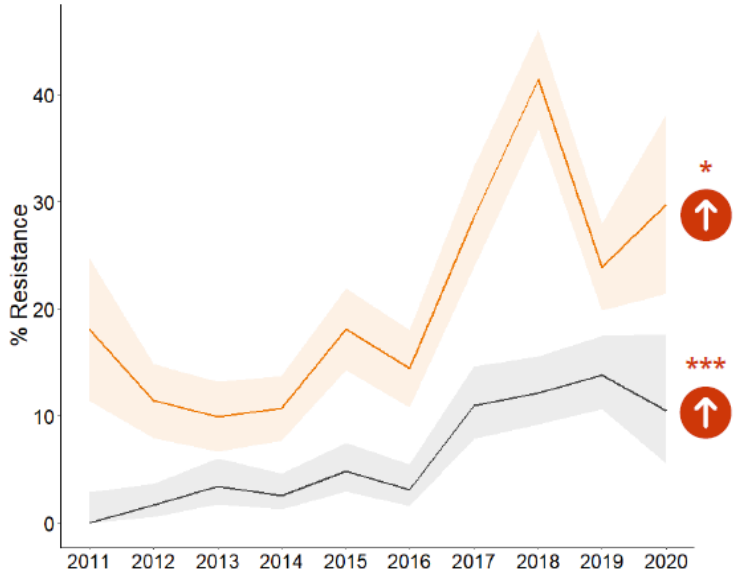
Neisseria gonorrhoeae



ciprofloxacin

macrolides

Shigella spp.



ciprofloxacin

3rd gen. cephalosporins

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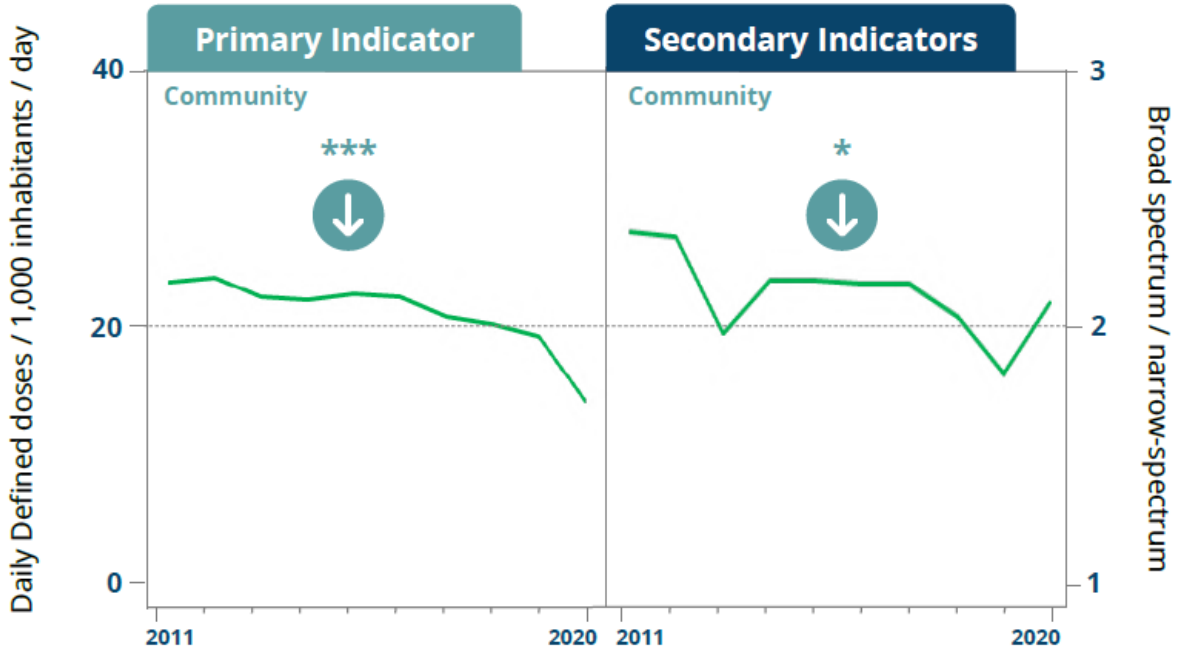
- **Some highlights (3)**
- Gap analysis



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- **Gap analysis (2021)**

- **AMR in the community and the environment**
- **AMR in animal pathogens**
- **Improving molecular surveillance**
- **Creation of a national platform for rapid reporting** – Broader than AMR! Real-time detection of new variants and outbreaks (hospitals/food poisonings/etc.)

Genomics-based surveillance of infectious diseases

BELGISCH ACTIEPLAN AMR One Health

180k€/y for genetic analyses of MDROs

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Using surveillance data for policy

Quantifying / estimating risks
Cost-benefit analysis

- Mindful of overly simplistic statements : what is really the consequence of antibiotic use in hospitals/agriculture/ veterinary medicine ?
- Understand AMR gene dynamics in order to make informed policy decisions (agriculture – environment – people)

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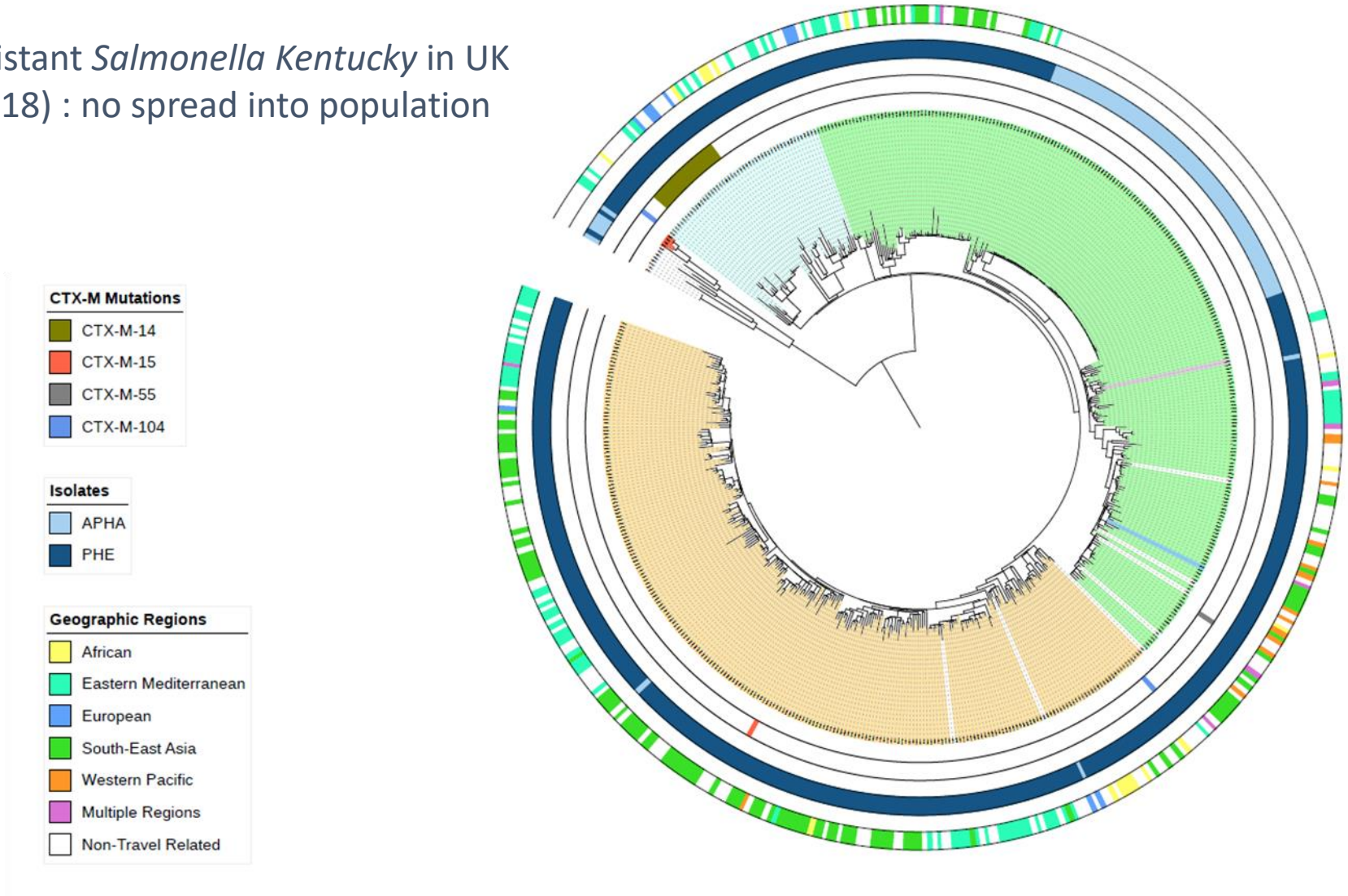
Drug-resistant *Salmonella Kentucky* in UK (2013-2018) : no spread into population



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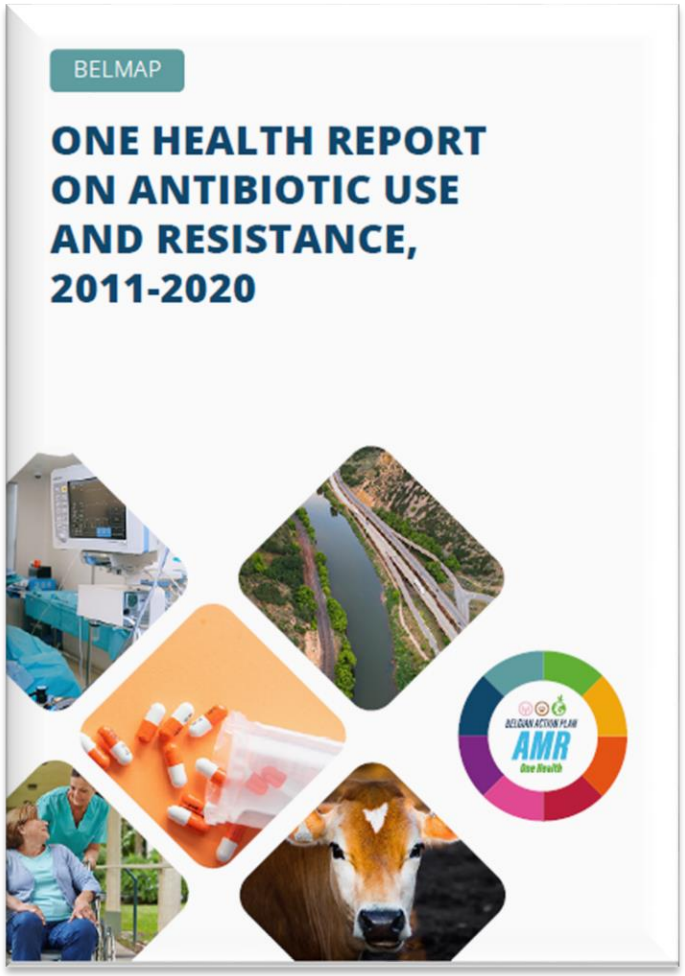
Conclusions

- The first ‘BELMAP’ report will be published by the end of the year
- Integration of use & resistance data from human, animal, food & residue data from the environment
- Harmonized key indicators to link with international trends
- Key gaps identified for improvements, i.e. AMR in the community and environment, and genomics-based surveillance
- Approx. publication date: December 20th, 2021



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Thank you for your attention !

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