

The Norwegian National Strategy Against Antibiotic Resistance

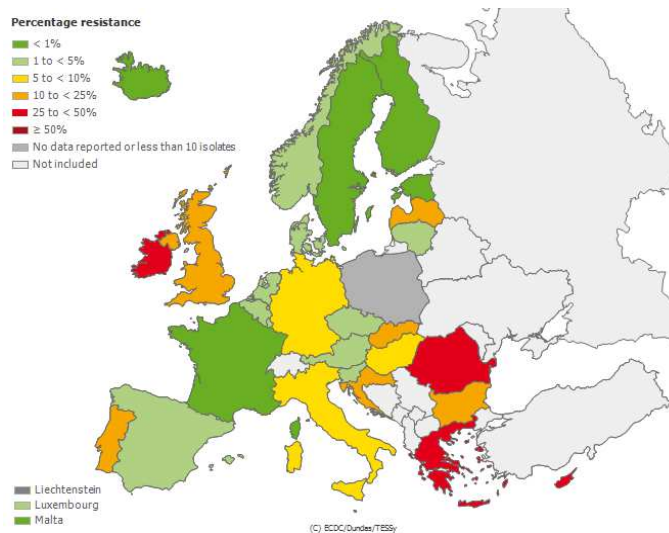
GUNNAR SKOV SIMONSEN, MD PHD

UNIV. HOSP. OF NORTH NORWAY / UIT – ARCTIC UNIV. OF NORWAY

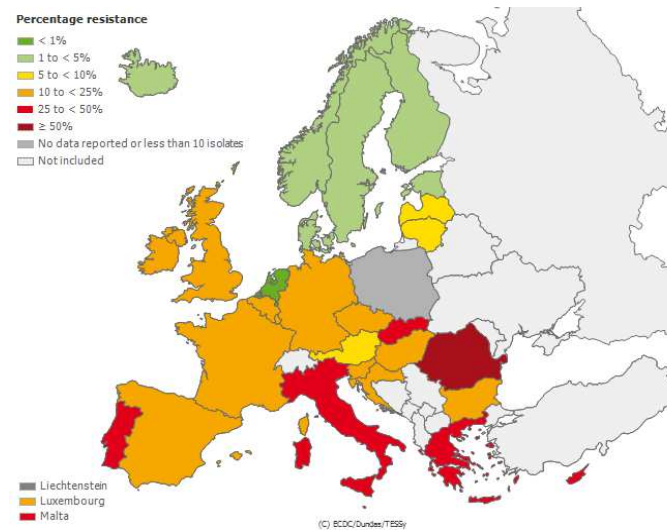
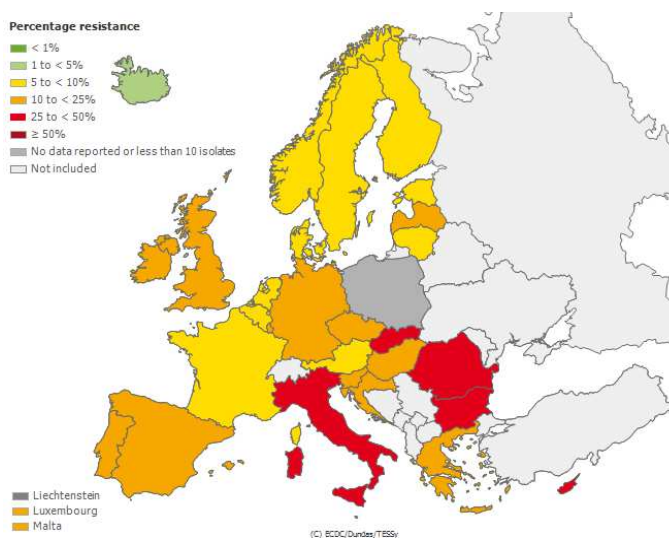




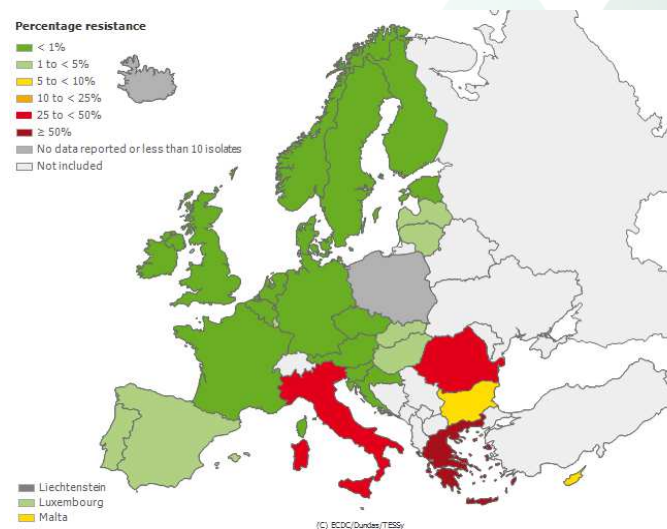
VRE



Ec - ESBL



MRSA

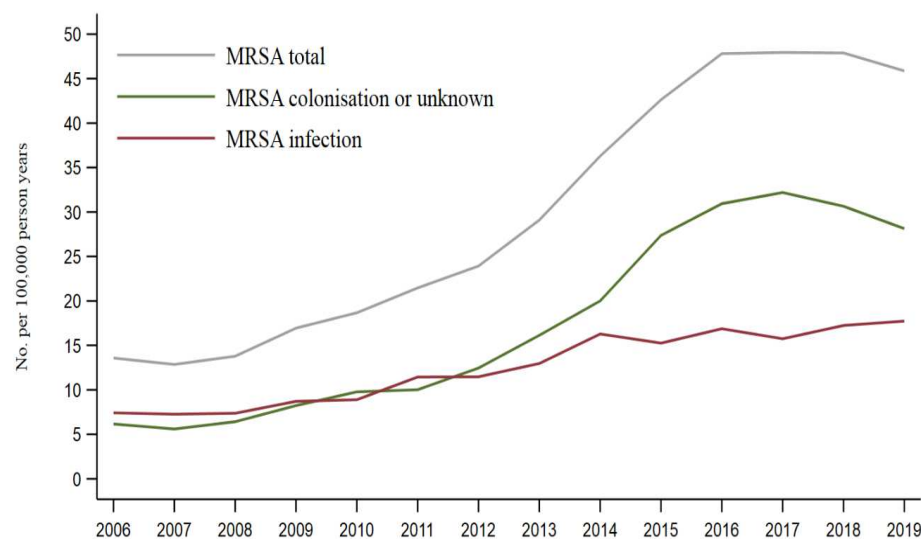
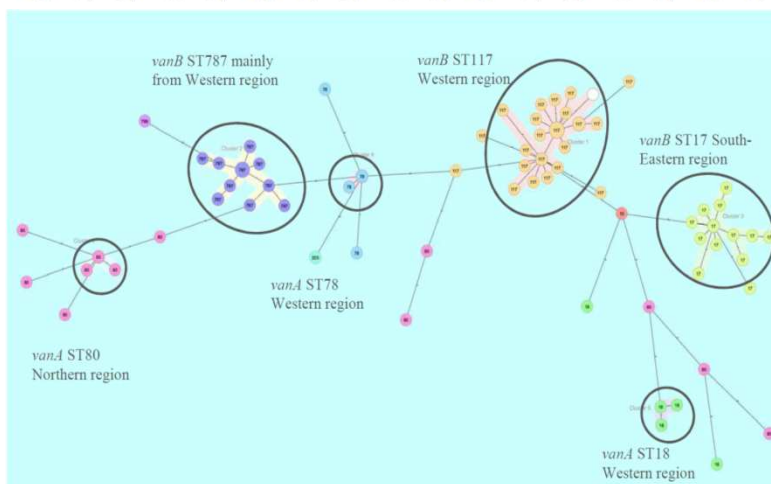
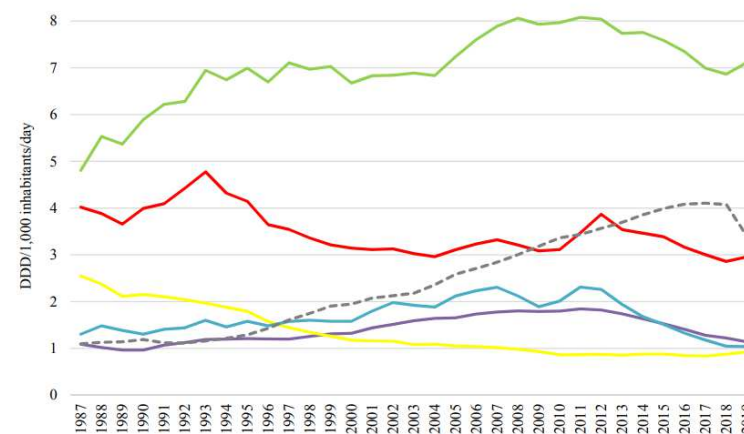
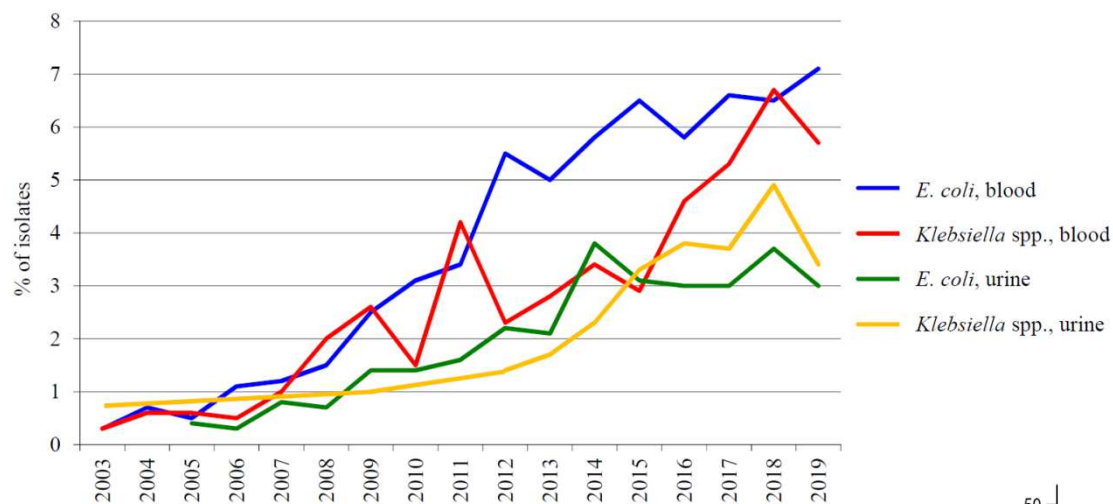


Kp - CRE

EARS-Net 2019



Toolbox in place - Surveillance of AMR and antibiotic usage





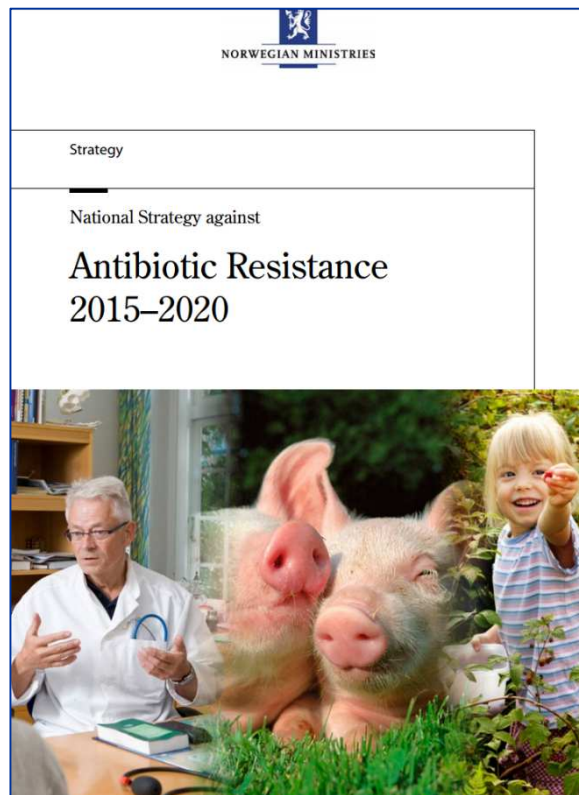
Guiding principles for the strategy

- Intersectoral approach
- Engagement across society
- Accountability
- Transparency
- Specific targets
- Stakeholder involvement





National Strategy against AMR 2015 - 2020



Overarching goals for the period 2015–2020

1. Reduce the total use of antibiotics.
2. More appropriate use of antibiotics.
3. Improved knowledge of what drives the development and spread of antibiotic resistance.
4. Be a driver in international and normative work to improve access, responsible use, and development of new antibiotics, vaccines and better diagnostic tools.



Sector specific targets



Norwegian Ministry
of Health and Care Services

Health:

1. Antibiotic use in the total inhabitants will be reduced by 30 percent, measured in DDD⁶/1000 inhabitants/day, as compared with 2012.
2. Norway will be one of the three European countries that uses the least antibiotics in humans, measured in DDD/1000 inhabitants/day.
3. Prescription of antibiotics will be reduced from an average today of 450 prescriptions per 1000 inhabitants per year to 250 prescriptions per 1000 inhabitants per year.
4. Prescription of antibiotics for respiratory infections will be reduced by 20 percent, measured in DDD/1000 inhabitants/day, compared to 2012.
5. Studies will be carried out on the burden of disease as a consequence of antibiotic resistance, as a consequence of possibly too little antibiotic use, and the effect of infection control measures.



Norwegian Ministry
of Agriculture and Food

Food producing animals and household pets:

1. Mapping of resevoirs of antibiotic resistant bacteria will be carried out in the most relevant animal populations and plants important to food safety.
2. LA-MRSA will not be established in the Norwegian pig population.
3. ESBL in the Norwegian poultry-production will be reduced to a minimum.
4. The use of antibiotics in terrestrial animals used for food production will be reduced by at least 10 percent compared with 2013.
5. The use of antibiotics in household pets will be reduced by at least 30 percent compared with 2013.
6. Narasin and other coccidiostats with antibacterial properties will be phased out of chicken production, as long as this does not adversely affect animal health and well-being, and does not result in increased use of antibiotics for treatment of infections.



Norwegian Ministry of Trade,
Industry and Fisheries

Fish:

7. Total antibiotic use in fish farming in 2020 will be at the same or lower levels than for the period 2004-2014, measured in total kilograms of antibiotics.



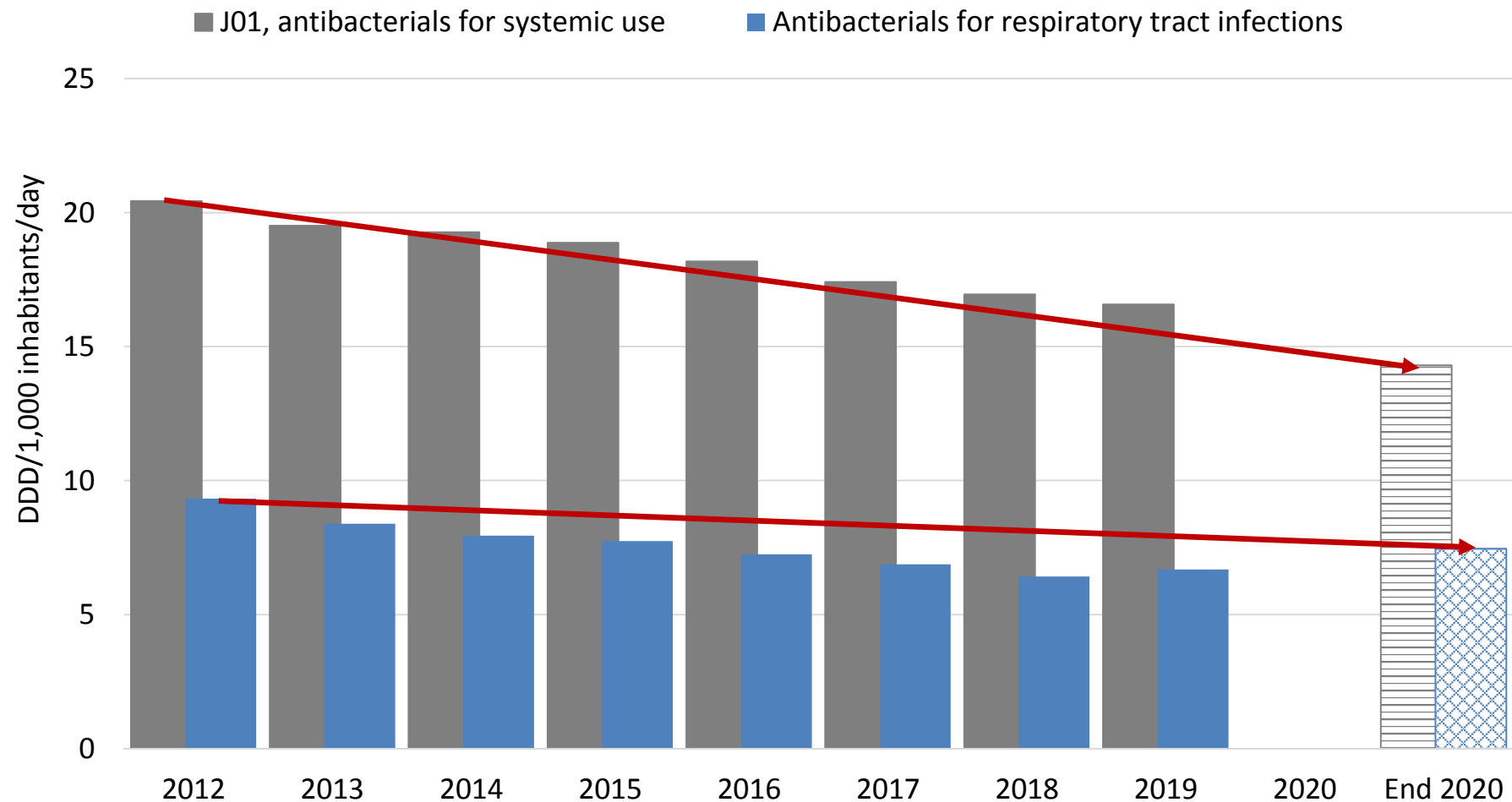
Norwegian Ministry
of Climate and Environment

Climate and environment:

1. Mapping of antibiotic resistant bacteria will be carried out in representative environments and selected organisms in animals, water and soil with varying degrees of exposure to antibiotics.
2. Studies will be initiated to explore the effect in nature of other drivers of resistance, including disinfectants, biocides and heavy metals.

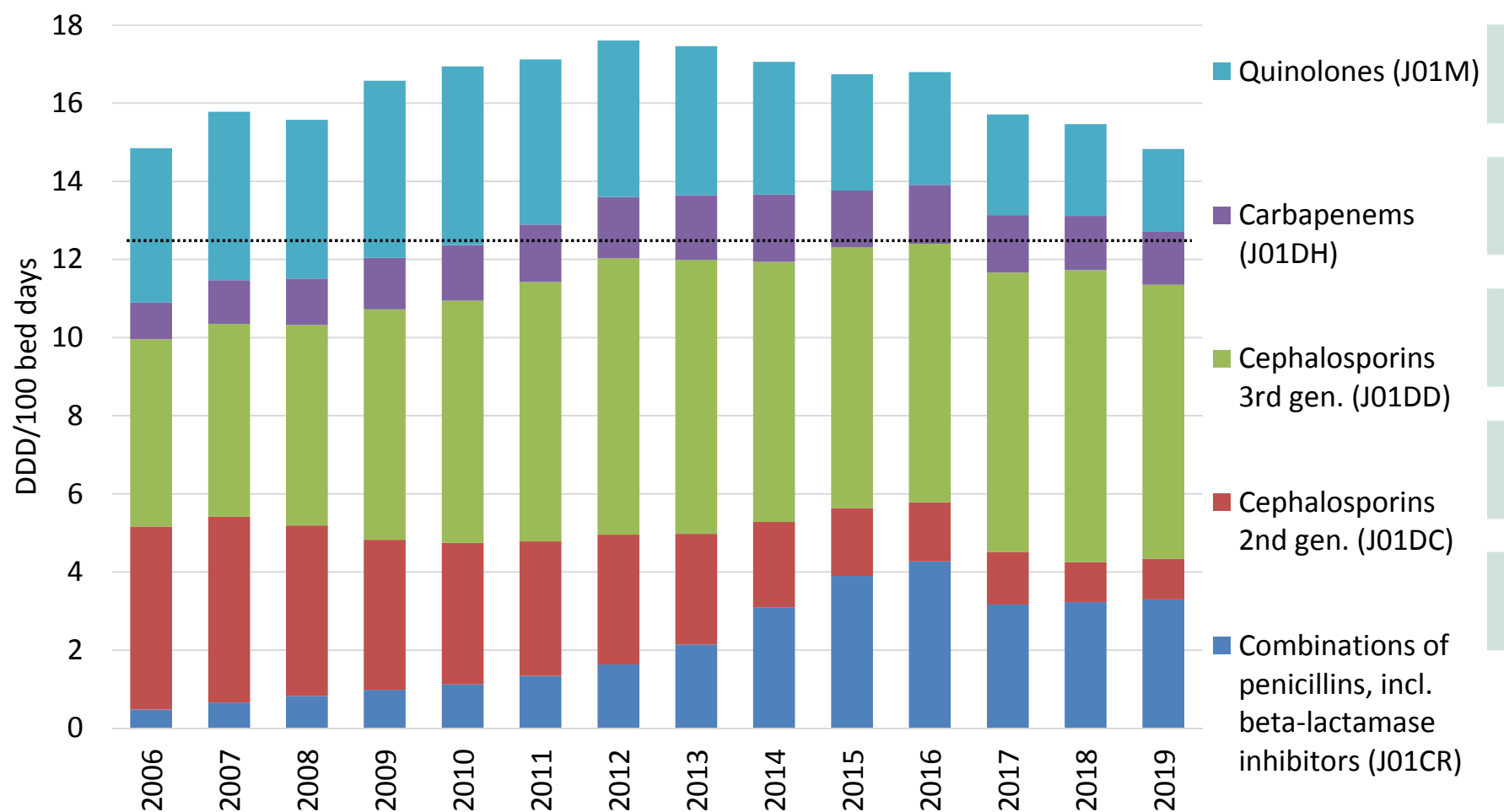


30 % reduction in total AB usage in humans 2012 – 2020



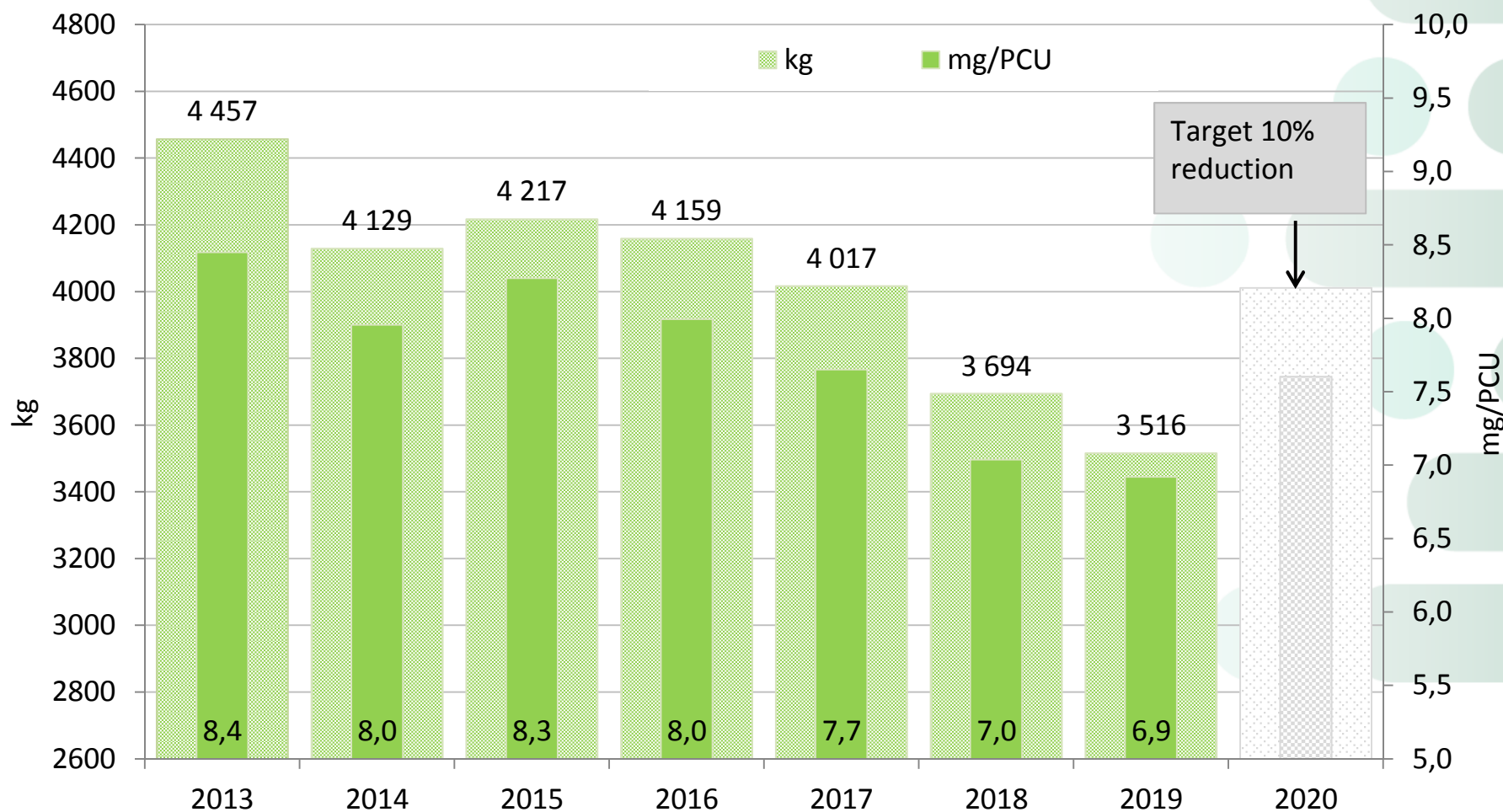


30 % reduction in broad-spectrum AB in hospitals 2012 - 2020



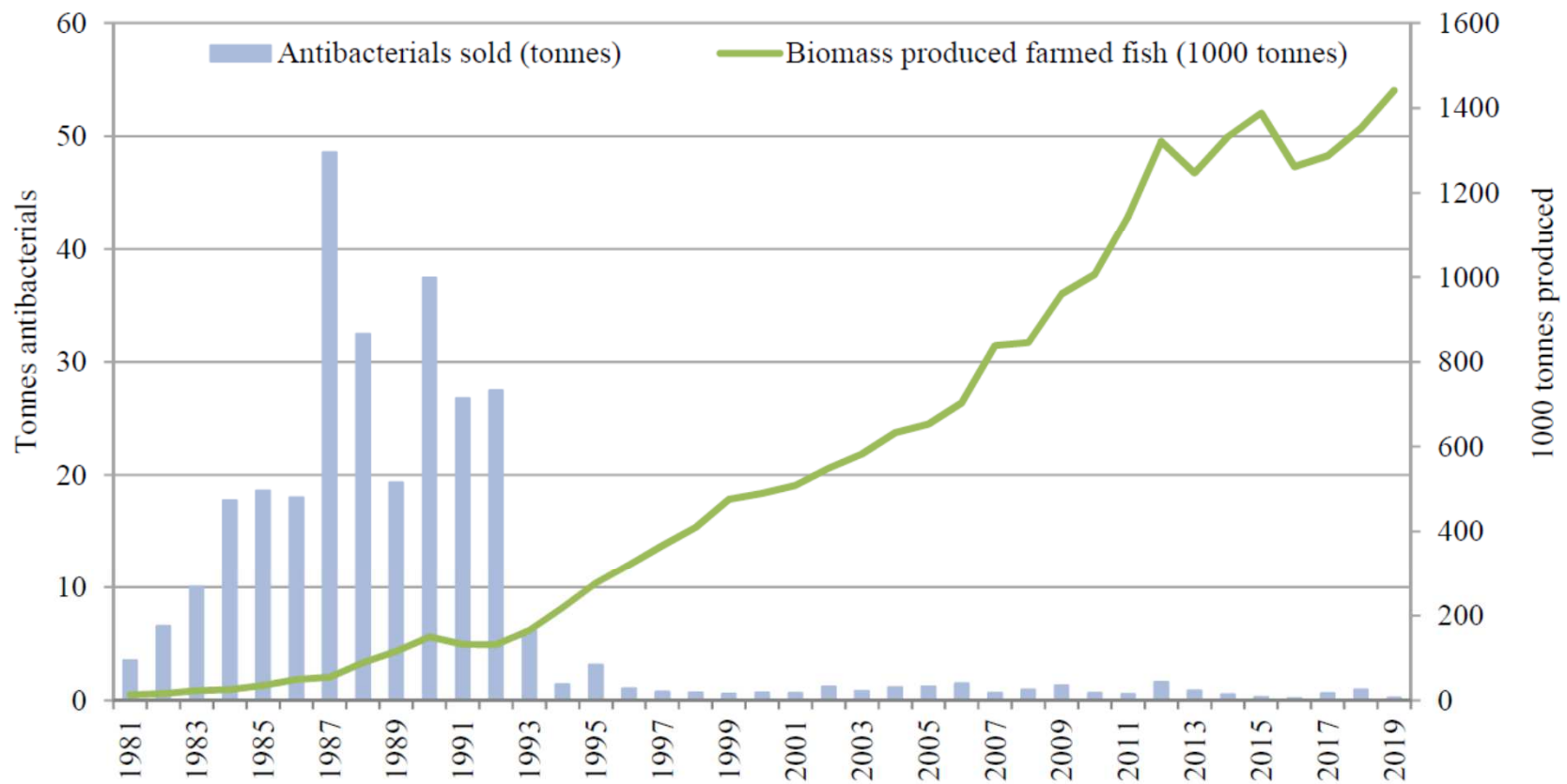


10 % reduction in production animals 2013 - 2020



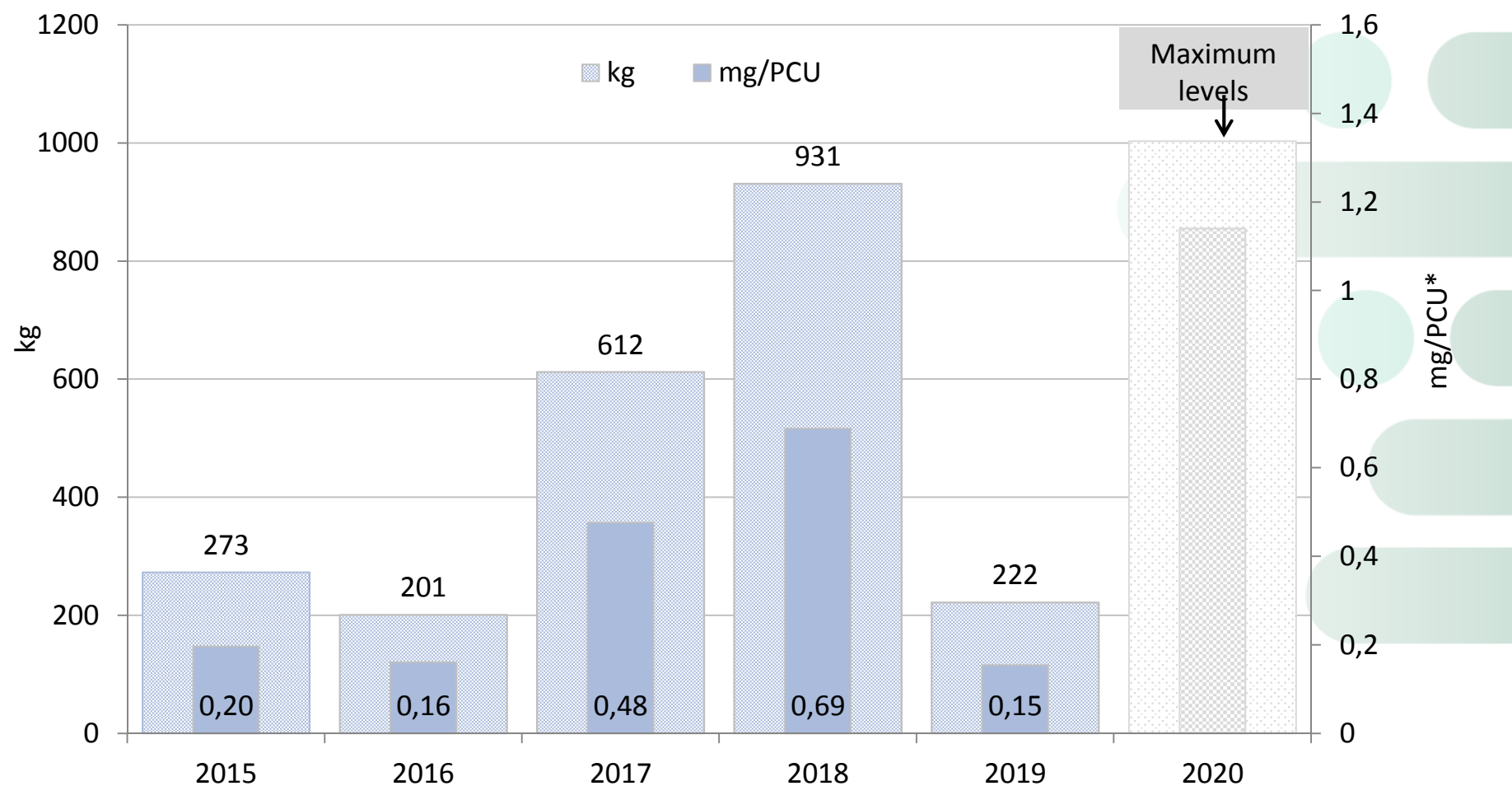


Historic usage of antibiotics in Norwegian aquaculture



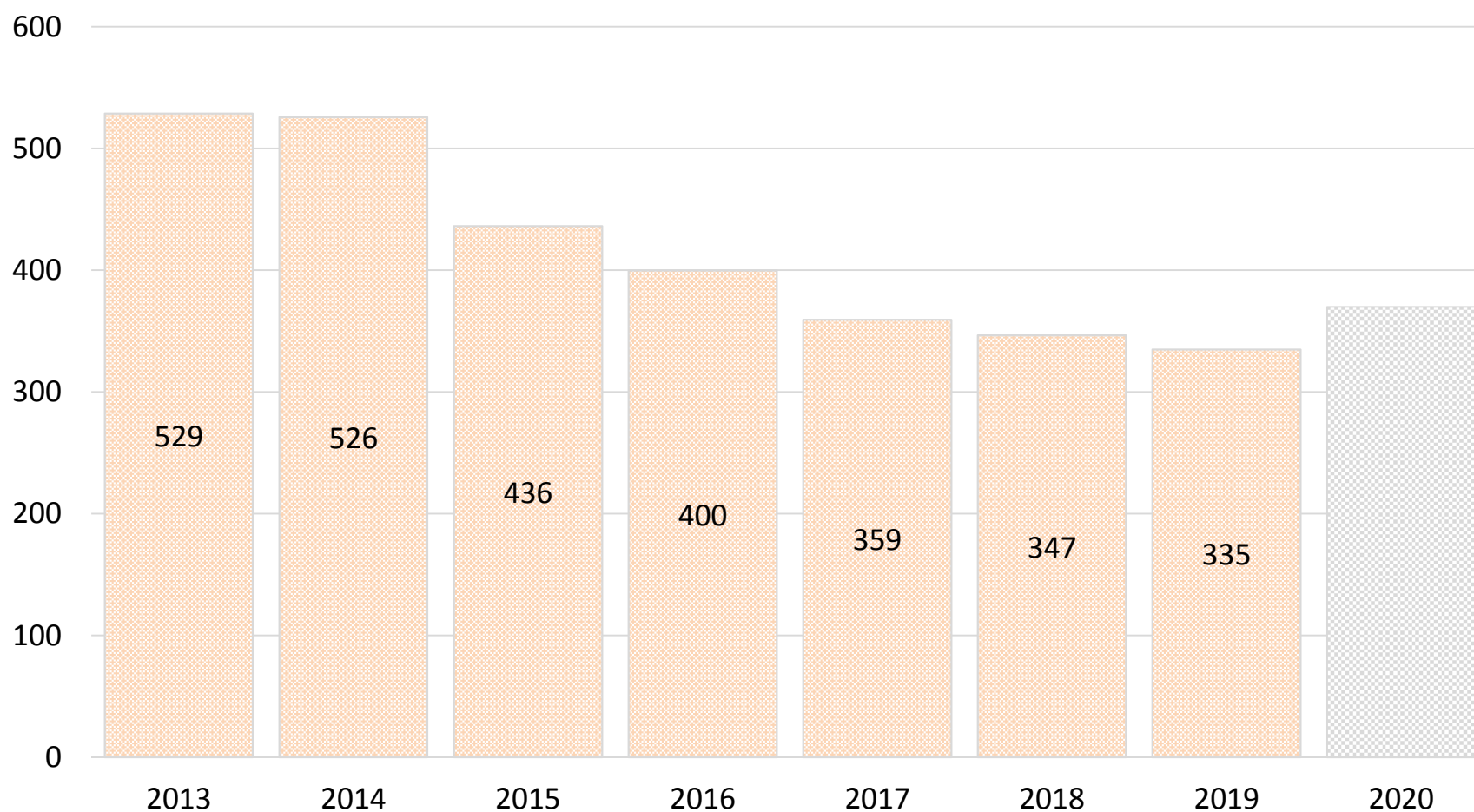


Antibiotic usage in aquaculture below 2004 – 2014 average





30% reduction in sports and companion animals 2013 – 2020





AMR in the environment – The unknown unknowns

Rapport 11 - 2017

Antimicrobial resistance in the Norwegian environment - red fox as an indicator



Veterinærinstituttet
Norwegian Veterinary Institute

Rapport 6 - 2018

Antibiotic resistance in terrestrial wild mammal species in Norway - roe deer and wild reindeer as indicators species



Veterinærinstituttet
Norwegian Veterinary Institute



Prevalence of Antibiotic Resistance Marker Genes (ARMG) in Selected Environments in Norway - Reindeer
M-909|2017

December 2017



Nr. 19-2018

Kartlegging av antibiotikaresistente bakterier i marine skjell
– Antibiotikaresistens i økologisk miljø

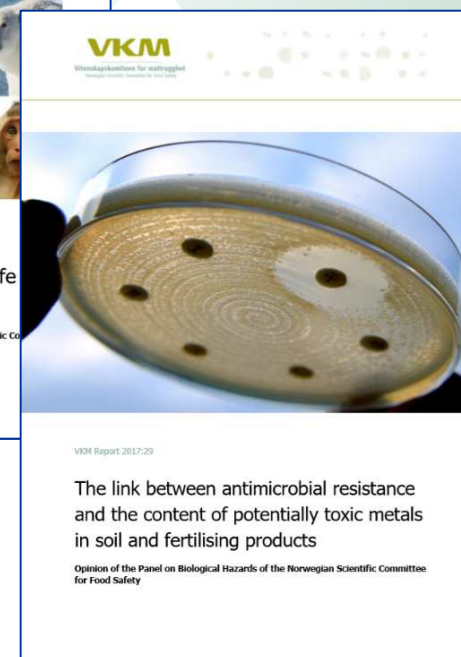
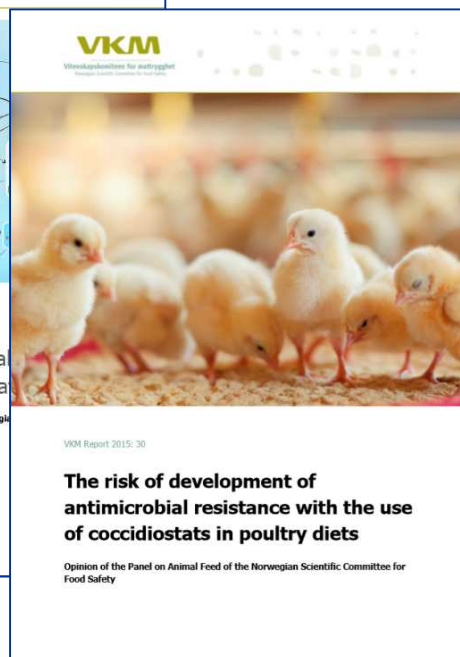
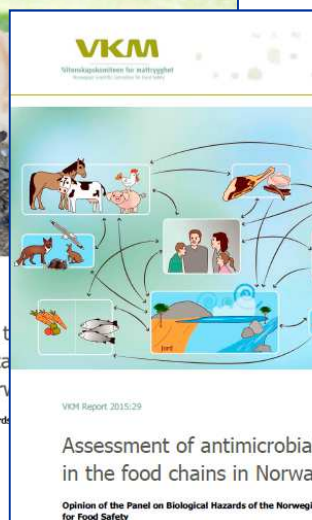
Cecilie Smith Svanevik, Dorte Hjeltnes Grevstott, Lena Skår Sørensen, Bjørn Tore Lunstad og Monica Sanden



www.vetinst.no



Risk assessment – What does it all mean?





Thank you for your attention!