



Veterinary
Medicines
Directorate

The Creation Of Sector Specific Targets In The United Kingdom

Presented by: Dr Fraser Broadfoot MRCVS
Date: 2nd July 2019


The UK population




Source: Defra Farming Statistics 2017; PFMA Pet Population 2018; British Equestrian Survey 2015


Key: one icon ~ 5,000,000 individuals (except for horses and rabbits)


Political Pressure


 Department of Health

 Department for Environment Food & Rural Affairs

UK Five Year Antimicrobial Resistance Strategy 2013 to 2018

 Northern Ireland Executive
www.northernireland.gov.uk

 Llywodraeth Cymru
Welsh Government

 The Scottish Government
Riaghaidh na h-Alba



"We have reached a critical point and must act now on a global scale to slow down antimicrobial resistance" – Professor Dame Sally Davies, UK Chief Medical Officer

"If we fail to act, we are looking at an almost unthinkable scenario where antibiotics no longer work and we are cast back into the dark ages of medicine" – David Cameron, former UK Prime Minister

O'Neill Review

- Commissioned July 2014
- Jointly supported by UK government and Wellcome trust
- Analyse the global problem of rising drug resistance and propose concrete actions to tackle
- Published in May 2016

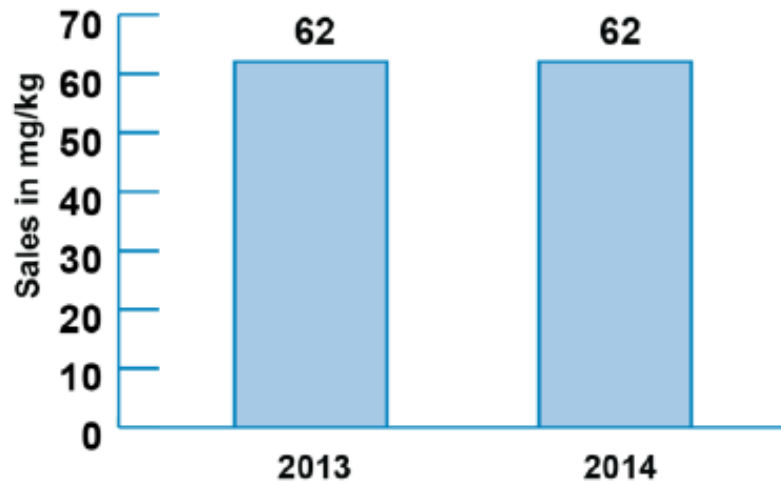


O'Neill Review – Target Suggestions

- “We see 50mg/kg as a broadly reasonable target for high income countries to aim for in the short term”
- “Consider whether antibiotic classes should be treated differently, and whether targets should be broken down by animal type e.g. poultry, cattle etc.”



Antibiotic Sales Data – Food Producing Animals

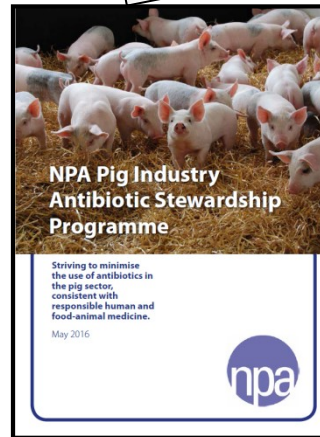
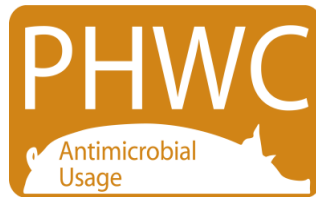


Industry Ownership

- **British Poultry Council Stewardship:**



- **Pig Sector:**

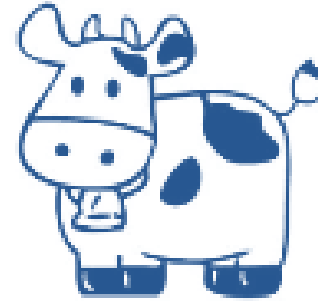


Defra key commitments in response to AMR review



Overall antibiotic reduction target

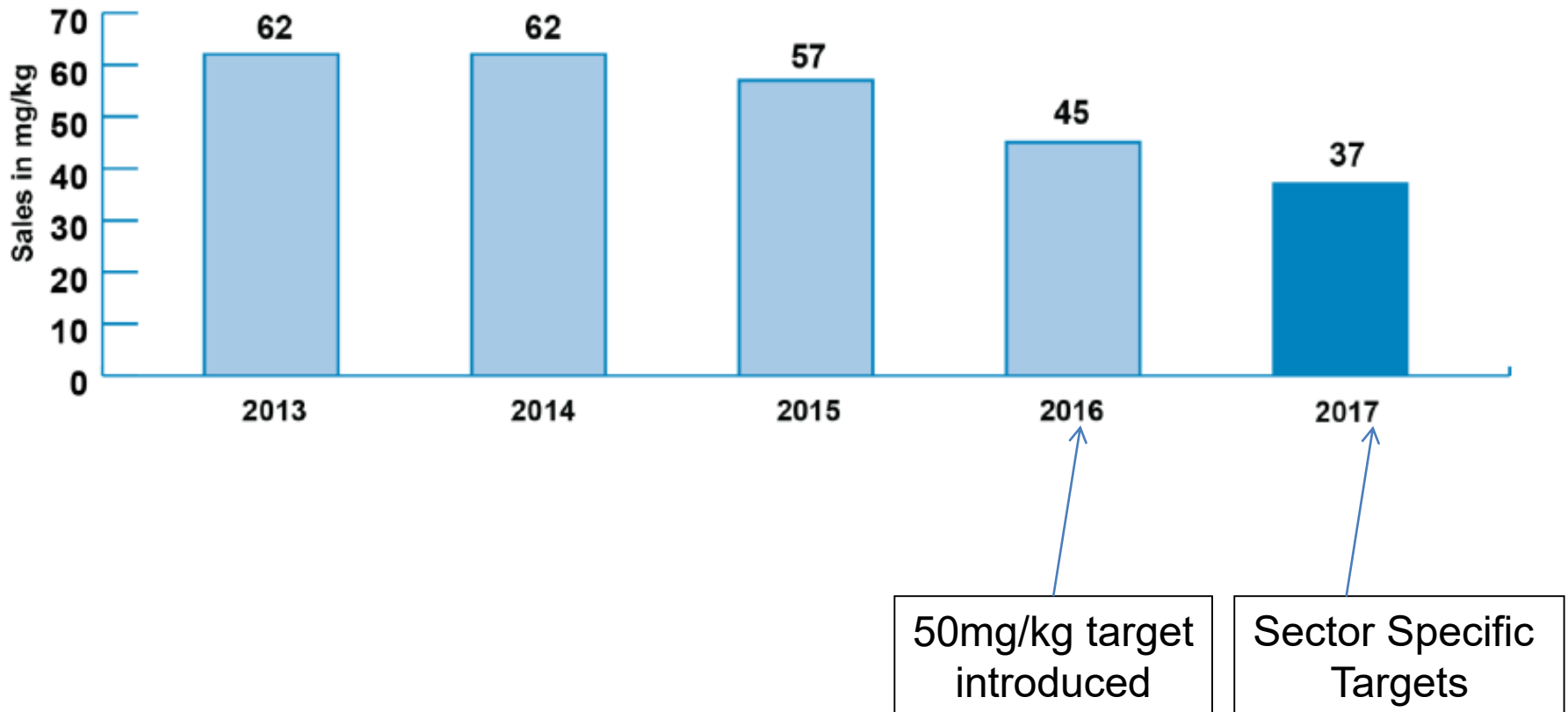
Overall target of 50 mg/kg across the animal sectors by 2018; a 20% reduction in 4 years



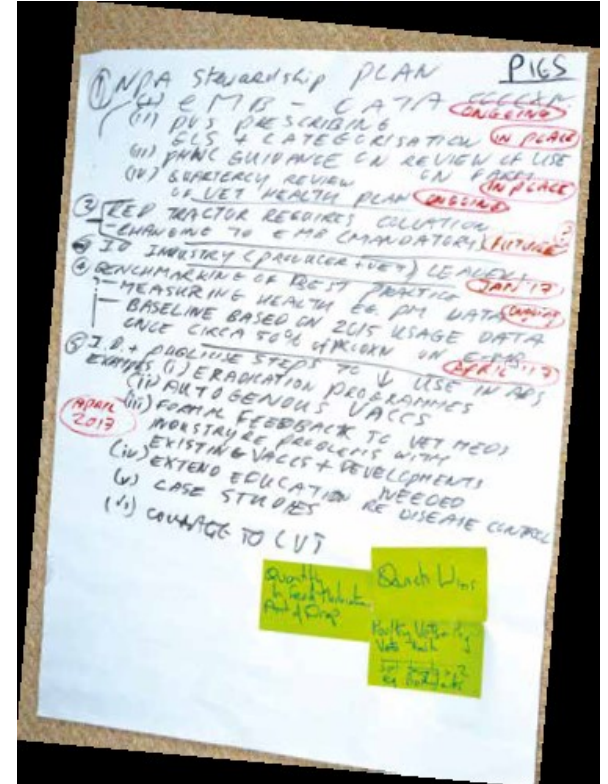
Sector specific targets

Evidence-based goals for each individual livestock species sector agreed by 2017.

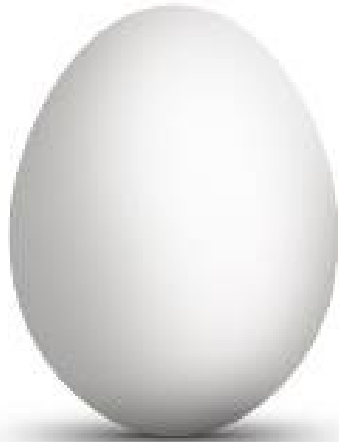
Antibiotic Sales Data – Food Producing Animals



RUMA Targets Taskforce



RUMA Targets Task Force

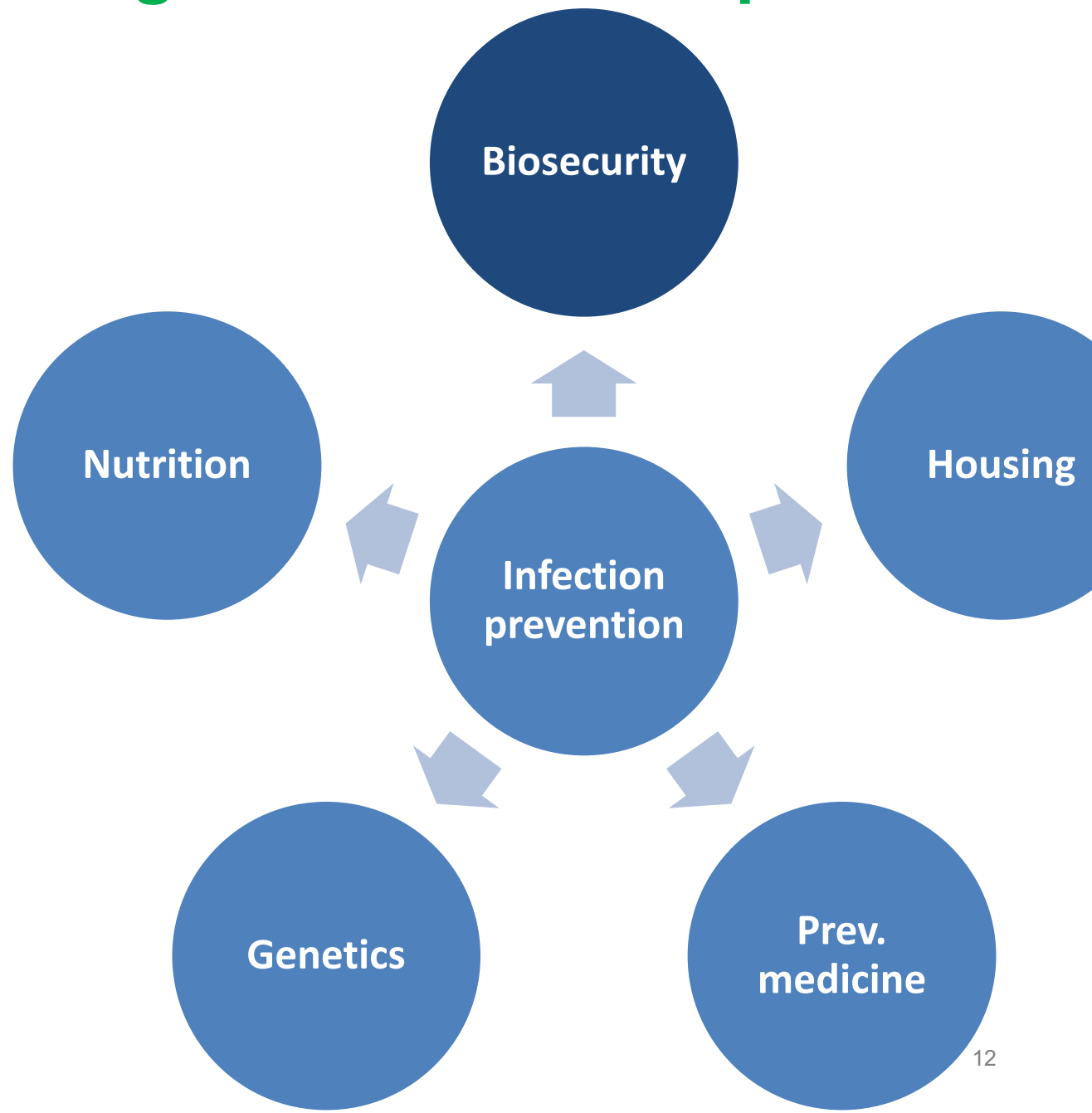


RUMA Targets Taskforce Report

Targets Task Force Report 2017

A report setting out the findings of the UK livestock industry's Targets Task Force. The intention to form the group was announced in May 2016 by the Responsible Use of Medicines in Agriculture (RUMA) Alliance, and it convened for the first time in December 2016 with the specific aim of delivering on the Government objective of identifying sector-specific targets for the reduction, refinement or replacement of antibiotics in food-producing animals.

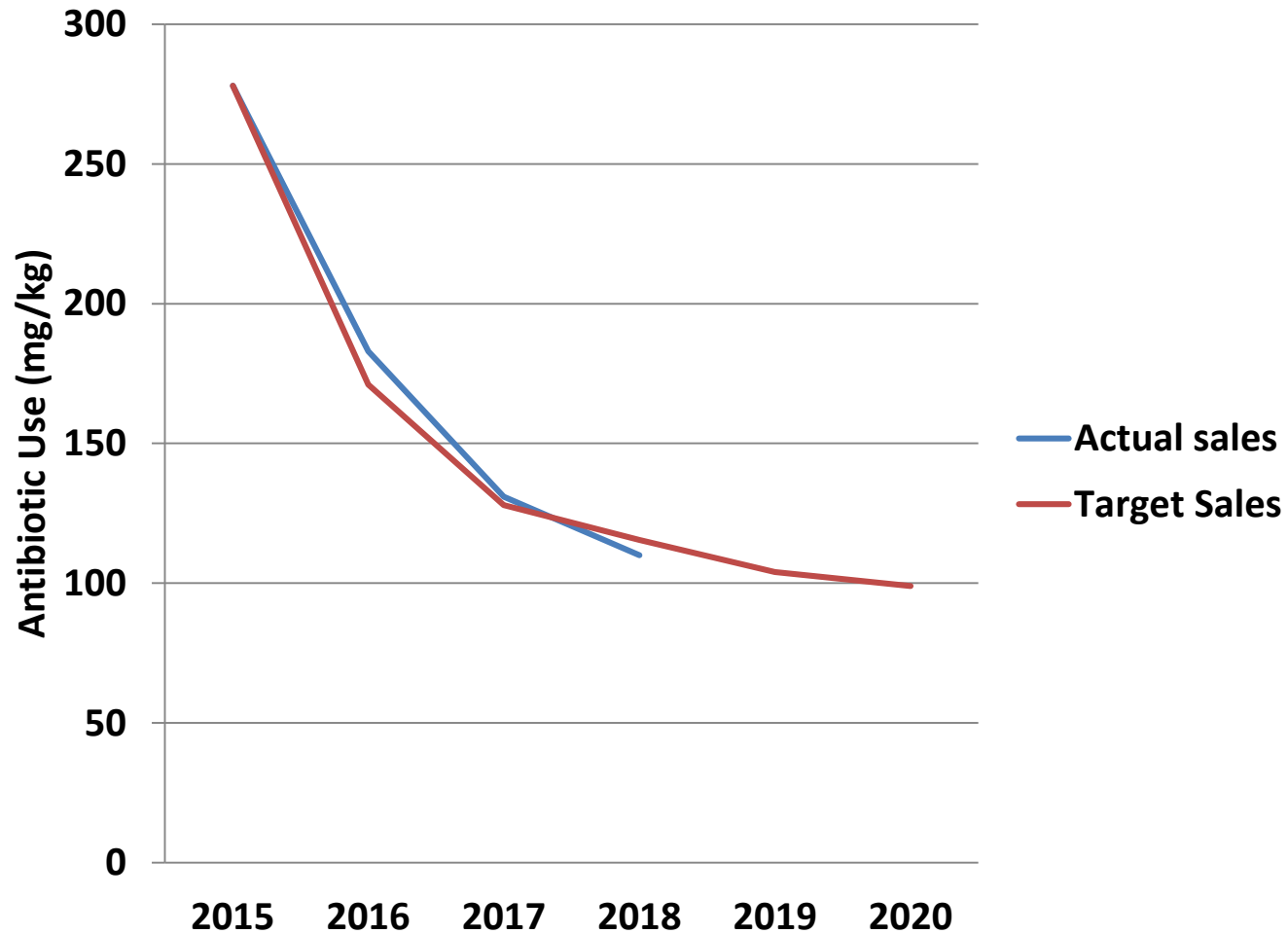
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Key Focus Areas

- Overall reduction: tailored to individual sector
- Reduction in HP-CIAs
- Reduction in prophylaxis
- Preventative medicine
 - *Husbandry, biosecurity, herd health planning*
- Data collection and benchmarking
- Training and knowledge exchange – vets and farmers
- Monitoring health and welfare

Pig Sector – Targets Versus Actual



Incorporated into new UK strategy



HM Government

Tackling antimicrobial resistance 2019–2024

The UK's five-year national action plan

Published 24 January 2019



How is the UK sheep industry tackling the targets?

Fiona Lovatt BVSc PhD DSHP FHEA DipECSRHM MRCVS

 @FlockHealth





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Challenges for the UK sheep industry

1. Complacency as sector is extensive & grass-based with a low numerical usage
2. Low veterinary involvement on sheep farms with most medicines & vaccines sold through merchants
3. Lots of small separate farms using local general vet practices
4. Difficult to collect on-farm data – paper records often filled in retrospectively
5. Most farms are mixed beef & sheep with commonly used antibiotics used for both species



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Targets

Agreed the issue was not so much HOW MUCH antibiotic we use but HOW WE USE them.

Important not to simply concentrate on numerical targets so decided to concentrate on Hot Spots

- Agreed to reduce use of all antibiotics by 10%
- To cut the use of high-priority critically important antibiotics by 50% with any use as a last resort supported by sensitivity profiles



Neonatal lambs – routine use

Colibacillosis & joint ill

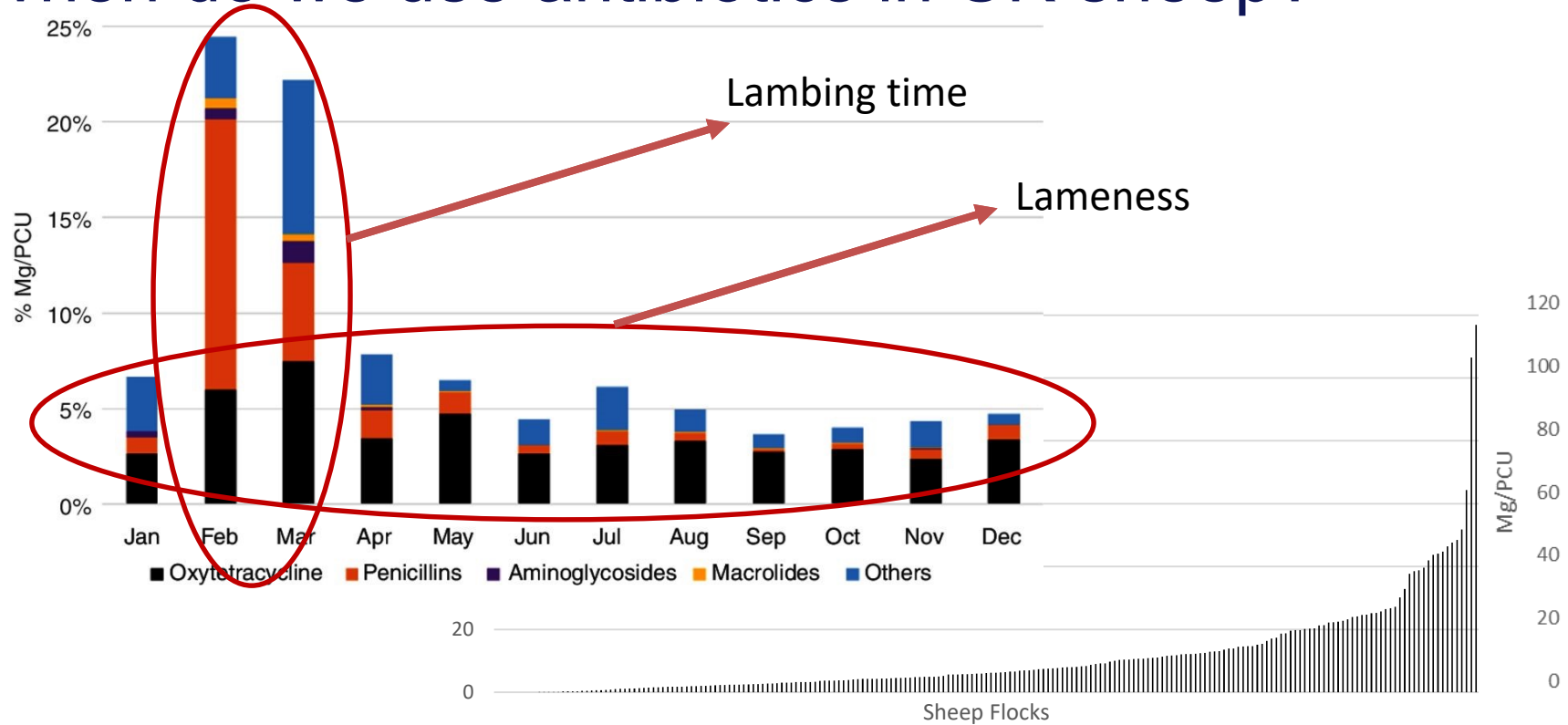


Control of enzootic abortion



Treatment & control of foot rot & CODD

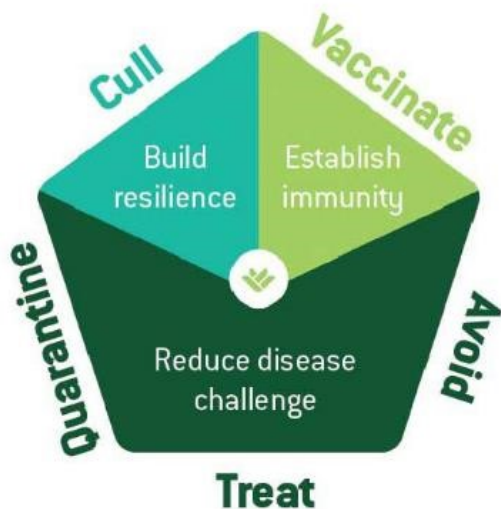
When do we use antibiotics in UK sheep?



Peers Davies, John G Remnant, Martin J Green, Emily Gascoigne, Nick Gibbon, Robert Hyde, Jack R Porteous, Kiera Schubert, Fiona Lovatt and Alexander Corbishley 'Quantitative Analysis of Antibiotic Use in British Sheep Flocks' 2017 181: 511 originally published online October 19, *Veterinary Record* 2017 doi: 0.1136/vr.104501

Farmer communication really important - lameness

"You're telling us to avoid using antibiotics so I try to avoid jabbing lame ewes – except the really bad cases"



It is totally appropriate to use antibiotics to treat clinically affected sheep – ie those lame with a bacterial condition

The challenge is to prevent sheep becoming lame in the first place

#Plan #Prevent #Protect

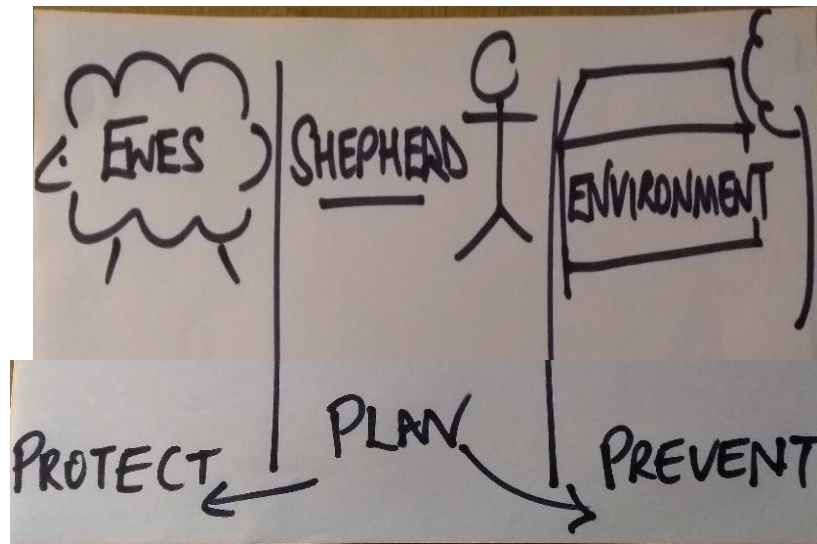
Farmer communication really important – neonatal lambs



Good Practice Guidelines

“In no flock, is it be appropriate for all lambs to be treated routinely from the start of a new lambing season”

What factors are important to Lambing Success?



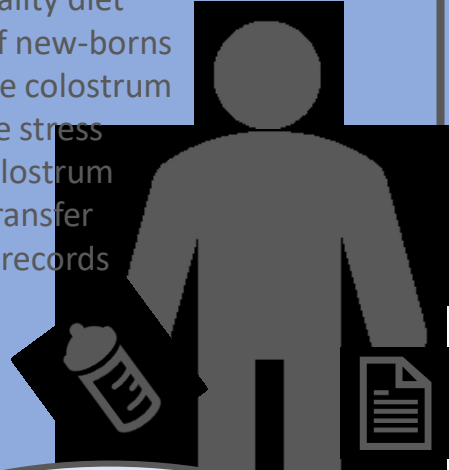
#Plan #Prevent #Protect

Fit &
Well Fed



Plan

- ✓ Analyse forage & arrange quality diet
 - ✓ Sort care of new-borns
 - Maximise colostrum
 - Minimise stress
- Monitor colostrum quality & transfer
Keep good records



Prevent



- ✓ Sufficient shelter outside
- ✓ Clean, dry, draught-free inside
- ✓ Plenty of fresh bedding
- ✓ Turn-out as soon as possible
- ✓ Good hygiene
- ✓ Clean & disinfect equipment

Colostrum
Quality Quantity
Timing



Lambing Success

Hygienic
Appropriate

Enzootic Abortion of Ewes - the most common sheep abortion in UK

Caused by *Chlamydia abortus*

35% of all ovine abortions 2012-2018; GB Sheep Disease Surveillance



Plan

- ✓ Source replacements from accredited flocks if available
- ✓ Source from as few flocks as possible
- ✓ Do not mix pregnant ewes
- ✓ Keep purchased ewes separate from home flock until after first lambing



Do NOT plan to use

antibiotics – this is only acceptable in the face of an outbreak or following a confirmed laboratory EAE diagnosis in the immediately preceding year.



#everylambcounts

#planpreventprotect

#EAE

#responsibleuse #vaccineswork



Prevent

- ✓ Isolate all aborting ewes
- ✓ Remove all aborted material & send samples for laboratory diagnosis
- ✓ Confirm diagnosis by blood-sampling aborted or empty ewes post lambing
- ✓ Clean, disinfect, remove & destroy abortion-contaminated bedding
- ✓ Do not foster ewe lambs onto ewes that aborted or had dead lambs
- ✓ Do not allow pregnant women access to the lambing shed



Protect

Vaccination

- ✓ Recommended for all flocks that purchase replacements or have sheep neighbours
- ✓ Give by 4 weeks before tupping
- ✓ Most ewes only need single dose to last their time in the flock
- ✓ Keep cool & use as directed

Remember that once EAE has been introduced to a flock, there are ewes that are programmed to abort. Subsequent vaccination will not immediately prevent every abortion. However, even if started after an outbreak, vaccination is still the most cost effective EAE control measure

Community communications through collaboration

The UK Sheep Industry (led by SHAWG) was short-listed for an Antibiotic Guardian Award 2018 in the category of Community Communications

We feel we are 'winning hearts & minds'

Traditionally the UK sheep industry has been a low user of antibiotics - and so there was concern both farmers and vets might be complacent and unwilling to reduce usage levels.

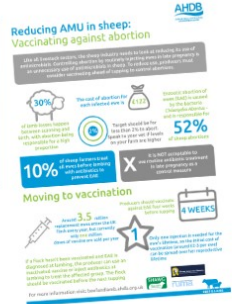
Under the leadership of the Sheep Health and Welfare Group, leading sheep veterinary and sheep farming organisations have come together to communicate simple, coordinated messages.



Briefings and case studies have been published in national farming media such as Farmers Weekly and NSA Sheep Farmer magazines and letters in leading veterinary journals, Veterinary Record and Veterinary Times



Events on farm with vets and producers



Best practice infographics

Social media



Webinars with vets and producers



Our community is UK sheep farmers and vets who are jointly responsible for some 32 million sheep - rams, ewes and the lambs born each year



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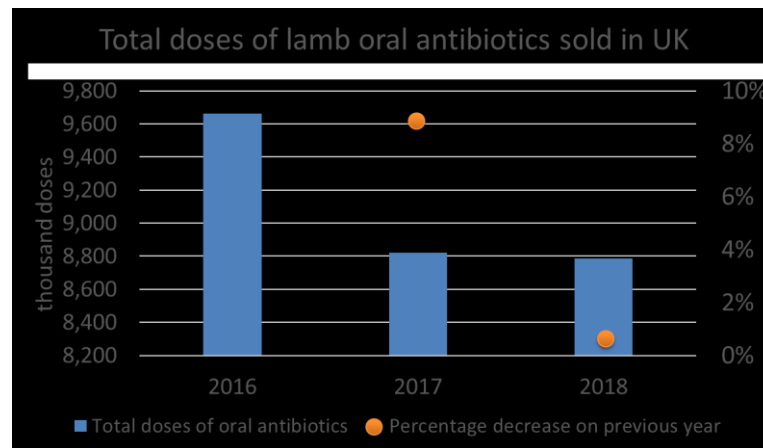
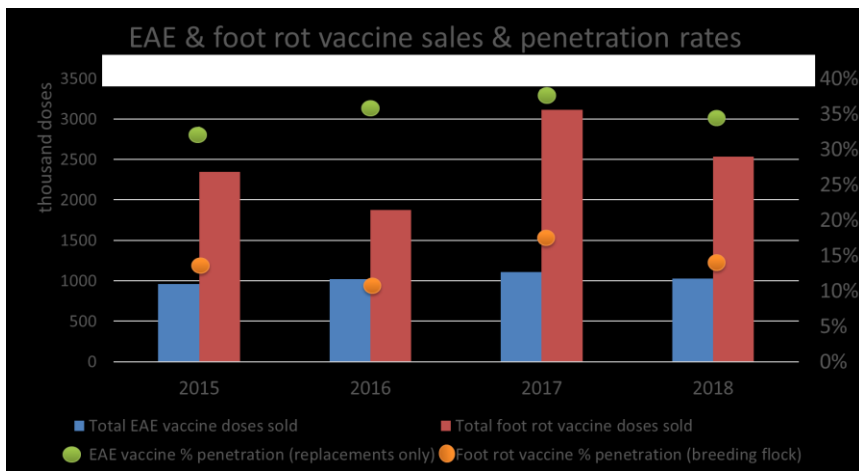
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Targets

Our biggest continuing challenge is the **numerical targets** – ie collection and collation of quality robust data to demonstrate progress

We have tried to use

Vaccine sales data & Oral antibiotic sales data





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Targets

Our biggest continuing challenge is the **numerical targets** – ie collection and collation of quality robust data to demonstrate progress

- Metrics document
- Data collation via development of eMB

Calculation of metrics for benchmarking antibiotic use on sheep farms

... Group (as a sub group of the Sheep Health and Welfare ... stakeholders and academics to develop a core set ... on UK sheep farms. The purpose of the ... to provide a national ... in this

Farm Benchmarking

1. Core Sheep Metric – Total mass of antibiotic per unit of sheep weight (mg/kg)

This metric is calculated as

$$\frac{\text{Total mass antibiotic (mg)}}{[20 \times \text{total numbers of lambs (a+b)}] + [75 \times \text{number of ewes (c)}] \text{ (kg)}}$$

Total mass of antibiotic relates to the total amount used in the whole flock in the year. It is recommended that the following five pieces of data are collected from the farm so that the weight component can be both calculated and interpreted.

The record... which should be based... which year will overlap with the... of ewes tupped and number of lambs produced... sheep production years.



Sheep electronic
Medicine Book



With thanks to RUMA, NOAH & MSD Animal Health

