Targets Task Force Report 2020: Summary

Responsible use of antibiotics in UK farming
Progress against 2020 targets
New targets 2021-2024

Antibiotic sales and use in the UK

- UK sales of antibiotics to treat farm animals have halved since 2014[1] (Figure 1)

- The UK retains a position of fifth-lowest sales of antibiotics for farm animals in Europe, the lowest among more commercially productive European countries[2]

- Highest Priority Critically Important Antibiotic (HP-CIA) sales for UK farm animals have also fallen 75% since 2014, and sales of colistin are virtually nil[1]

- Less than 30% of the UK's antibiotics are used to treat disease in farm animals[3], despite over a billion farm animals being reared and managed in the UK every year

- Levels of antibiotic resistance found through Government monitoring and surveillance are also stabilising and falling in response to reductions in use[1] (Figure 2)

Figure 1: Antibiotics sales for food producing animals in the UK 2014-2019 (Source: VMD[7])
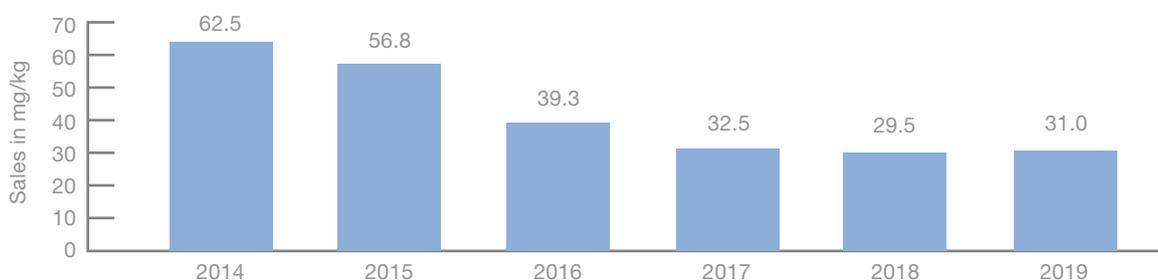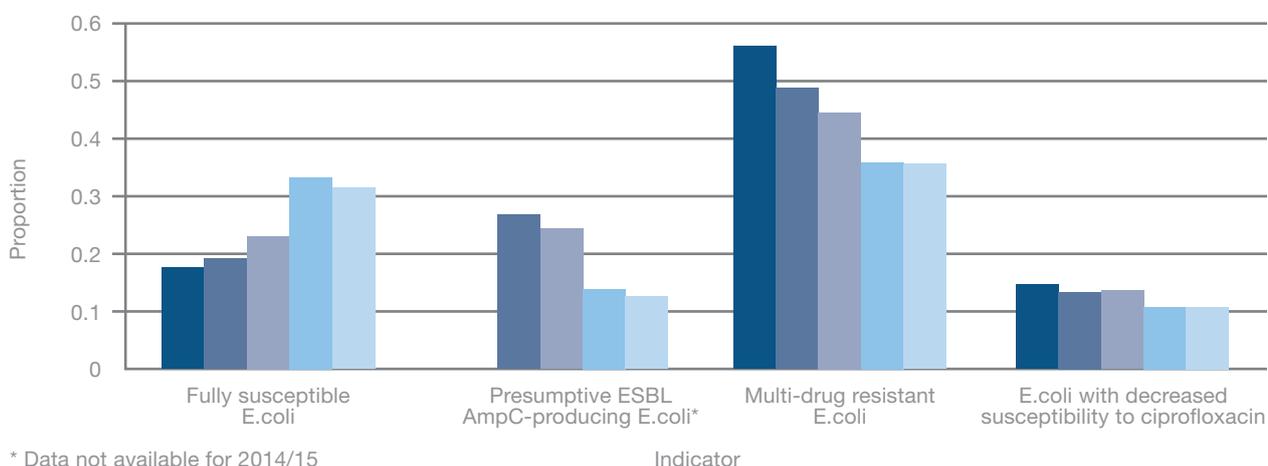

Figure 2: Examples of reductions in AMR discovered through harmonised surveillance
■ 2014/15, ■ 2015/16, ■ 2016/17, ■ 2017/18 and ■ 2018/19 (Source: VMD)

* Data not available for 2014/15

Achieving the 2017-2020 targets

- A key factor in these reductions has been the work of RUMA's Targets Task Force (TTF) which – in 2017 – identified 40 sector-specific targets for responsible stewardship of antibiotics to be achieved across nine different livestock sectors by 2020

- Over three-quarters of the targets have been or are on track to be achieved by the end of 2020, a significant achievement considering lack of data and baseline information at the start of the process

[1]Veterinary Medicines Directorate (2019). Veterinary Antimicrobial Resistance and Sales Surveillance 2019

[2]European Medicines Agency (2020). Sales of veterinary antimicrobial agents in 31 European countries in 2018: Trends 2010-2018

[3]HM Government (2019). UK One Health Report: antibiotic use and antibiotic resistance in animals and humans 2013-2017

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Progress against 2017-2020 targets

Table 1: Summary of progress against targets in each sector 2017-2020 (Source: RUMA)

KEY: ■ Data unavailable ■ Achieved early ■ On track to being achieved (data for 2020 due in 2021)
■ Not yet achieved (data for 2020 due in 2021)

SPECIES AND TARGET	STATUS
Beef	
Reduce to 10 mg/kg overall use	Data unavailable

SPECIES AND TARGET	STATUS
Dairy	
Reduce to 21.5 mg/kg overall use	Data unavailable
10% fall in intramammary lactating cow tube sales	Achieved (2019 sales data)
20% fall in intramammary dry cow tube sales	Achieved (2019 sales data)
Increase sealant tube sales from 0.5 to 0.7 courses/cow	2018: 0.5 courses/cow; 2021 data due 2022
Halve sales of highest priority intramammary tubes	Achieved (2018 & 2019 sales data)

SPECIES AND TARGET	STATUS
Dairy & Beef	
Halve sales of highest priority injectable products	Achieved (2019 sales data)
Annual increase in vaccine sales for respiratory disease	Uptake static 2019; 2020 data due 2021
Monitor health & welfare metrics	Measures reported in 2020 industry report
Develop standardised antibiotic usage metrics	Dairy metrics published 2018; Beef 2019
Development of centralised database	Database developed, live 2021
Farmer and vet training	Widespread training continuing to take place
Disseminate responsible use messages	Strong communication throughout media & knowledge exchange initiatives

SPECIES AND TARGET	STATUS
Sheep	
Reduce overall use by 10%	Data unavailable
Halve use of highest priority antibiotics	Data unavailable
Co-ordinate collection of antibiotic use data	Metrics published 2019/centralised database live 2021
Reduce lameness (including 5% yearly rise in footrot vaccine sales)	Vaccine sales 2019 up 1% on 2018; 2020 data due 2021
Reduce abortion (including 5% yearly rise in enzootic abortion vaccine sales)	Vaccine sales 2019 up 1% on 2018; 2020 data due 2021
Reduce antibiotic use in neonatal lambs by 10% yearly	Achieved targeted 34% reduction 2016-2020
Plan to tackle vet and farmer behaviour	Communications ongoing – communications campaigns on 'Plan Prevent Protect'

SPECIES AND TARGET	STATUS
Pigs	
Reduce overall use to 99 mg/kg by 2020	Data due 2021, 104mg/kg reported Q1&2 2020 (usage data)
Highest priority antibiotic use stays below specified levels	Achieved (2019 sales data)

SPECIES AND TARGET	STATUS
Salmon	
100% usage data captured for Scottish salmon	Achieved (2017-2019)
Overall use maintained at 5 mg/kg or less	Data due in 2021; use at low (but fluctuating) levels
No highest priority antibiotics used routinely	Achieved (2017-2019 usage data)
Atlantic salmon vaccinated before seawater phase	Achieved (2017-2019)
Autogenous vaccine development	Achieved (2017-2019)

SPECIES AND TARGET	STATUS
Trout	
90% usage data captured for trout	Achieved (2018-2019)
Overall use maintained at 20 mg/kg or less	Achieved (2017-2019 usage data)
No highest priority antibiotics used routinely	Achieved (2017-2019 usage data)
Compliance with Code of Good Practice	Achieved (2017-2019)
Vaccines used for seagrown trout	Achieved (2017-2019)
Vaccines promoted in freshwater farms	Achieved (2017-2019)
Autogenous vaccine development	Working closely with vaccine developers

SPECIES AND TARGET	STATUS
Gamebirds	
Halve total tonnes of antibiotics used	Data due 2021, achieved 52% in 2018 (2019: 49%)
Reduce highest priority antibiotic use by 25%	Data due 2021, achieved 27% in 2018 (2019: 10%)

SPECIES AND TARGET	STATUS
Laying Hens	
Maintain <1% birds medicated/day	Achieved (2016-2019 usage data)
Maintain <0.05% HP-CIA days medicated	Achieved (2016-2019 usage data)

SPECIES AND TARGET	STATUS
Poultry meat	
Reduce overall use in broilers to 25 mg/kg or less	Achieved (2015-2019 usage data)
Reduce overall use turkeys to 50 mg/kg or less	Achieved (2017-2019 usage data)

What's next?

- Over the past three years, experience, technical developments, data, and behavioural and microbiological research have fundamentally changed our understanding of antibiotic use and resistance; these findings have informed new targets to run from 2021 to 2024

- The sectors can be split into three groups in terms of starting position:

  o Those for which usage levels remain largely unknown or unproven due to lack of meaningful data. This includes the populous and diverse ruminant sectors of Beef cattle, Dairy cattle, Calves and Sheep

  o Those which are still on their downward trajectory but are making strong progress on reducing use. This group includes Pigs and Gamebirds

  o Those which have already achieved low levels of use, that have good data, and are mostly facing challenges from biosecurity or disease control amid shifting external environmental and market forces. This group includes Salmon, Trout, Laying hens and Poultry meat sectors

- The UK farming industry starts this new period in a strong position - but there's lots of work ahead...

The TTF 'team' that worked to identify and develop the following new targets were:

- **Cattle group chair:** Mark Jelley, Northamptonshire beef farmer and NFU Livestock Board member
- **Beef:** Mark Jelley; Dr Elizabeth Berry, cattle vet and British Cattle Veterinary Association Council member
- **Dairy:** Graham Young, Lancashire dairy farmer and NFU Dairy Board Vice-Chairman; Dr Elizabeth Berry, cattle vet and BCVA Council member
- **Calves:** Hannah Dyke, Yorkshire calf rearer; Richard Cooper, specialist cattle vet with Evidence Group
- **Sheep:** Charles Sercombe, Leicestershire sheep farmer; Dr Fiona Lovatt, specialist sheep vet representing the Sheep Veterinary Society
- **Pigs:** Richard Lister, Yorkshire pig farmer and Chairman of the National Pig Association; Richard Pearson, pig vet and Senior Vice President of Pig Veterinary Society; and members of the Pig Health and Welfare Council Antimicrobial Use subgroup
- **Salmon:** Dr Iain Berrill, Head of Technical, Scottish Salmon Producers Organisation; SSPO Prescribing Vets group
- **Trout:** Oliver Robinson, Chief Executive Officer of British Trout Association; Dr Peter Scott, fish vet and Director of BTA
- **Gamebirds:** Paul Jeavons, Worcestershire game farmer and Chairman of the Game Farmers' Association Health and Welfare Committee; Will Ingham and Isy Manning, poultry vets with Poultry Health Services
- **Laying hens:** Paul McMullin, Consultant Veterinarian to the British Egg Industry Council
- **Poultry Meat:** Thomas Wornham, Hertfordshire poultry producer; Daniel Parker, poultry vet and Veterinary Adviser to the British Poultry Council
- **Observers:** Fraser Broadfoot, Veterinary Research Officer, Veterinary Medicines Directorate; Paul Cook, Head of Microbiological Risk Assessment, Food Standards Agency
- **Support:** Derek Armstrong, Lead Veterinary Science Expert, AHDB; Clive Brown, Head of Beef & Lamb Knowledge Exchange, AHDB; Dr Georgina Crayford, Technical Manager, Red Tractor Assurance; Dr Mandy Nevel, Head of Animal Health and Welfare, AHDB; Dr Grace O Gorman, Technical Policy Manager, NOAH; James Russell, President, British Veterinary Association; Dr Mary Vickers, LIP Product Manager (Data & Technology), AHDB
- **Chairing and Organisation:** Gwyn Jones, Chair of Targets Task Force, RUMA; Catherine McLaughlin, Chair, RUMA; Chris Lloyd, Secretary General, RUMA; Amy Jackson, Communications Officer, RUMA
- **With additional thanks to:** Jules Dare, Mike Kirby, Kathryn Rowland, Gareth Hateley, members of the Cattle Stewardship Group and researchers from Universities of Bristol, Edinburgh, Liverpool, Nottingham and the Royal Agricultural University.

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Summary of 2021-2024 targets and indicators of progress for each sector (Source: RUMA)

MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Dairy, Beef, Calves and Sheep Targets	
Calculation, benchmarking and central upload of data	Data from 95% of UK dairy herds captured by 2024
	Data from 50% of UK calf rearing units captured by 2024
	Data from 8,000 (10% of total) UK beef herds captured by 2024
	Data from 8,000 (10% of total) UK sheep flocks captured by 2024
Farm Vet Champions (FVCs) network	2,800 FVCs in 900 veterinary practices across UK by 2024 or 50% of farm vets at 50% of farm vet practices if total numbers change
Training uptake among vets	Specify appropriate training within Farm Vet Champion plan
Medicines best practice training uptake among farmers	Reduced training non-compliances in Red Tractor Dairy
	Training becomes requirement in Beef/Lamb farm assurance
Medicines best practice training uptake among students	All vet school and agriculture college/university courses include medicines best practice content by 2024
Farmer & vet herd/flock health plans	Reduced non-compliances annually in Dairy & Beef farm assurance for development of annual health/medicines plan
	Increased health planning on sheep farms tracked through FVCs
Impact of Bovine Viral Diarrhoea	Reduced non-compliances for BVD control in Red Tractor Dairy
	Calves sourced from farms eradicating BVD, or screened
Dairy, Beef, Calves and Sheep Indicators of Progress	
Antibiotic use (centralised data)	15% mg/kg fall in dairy herds by 2024; baseline 2020/21
	25% mg/kg fall in calf rearing units by 2024; baseline 2020/21
Number of calves treated	7.5 fewer treated/100 calves by 2024; baseline 2020/21
Sales of lactating cow tubes in dairy	Annual reduction in 3-yr rolling average; baseline of 0.69 DCD_{Vet}
Sales of dry cow tubes in dairy	Annual reduction in 3-yr rolling average; baseline of 0.59 DCD_{Vet}
Oral antibiotic sales for lambs	Annual reduction of 10% in doses/year; baseline 7.45 million
Highest priority antibiotic use (from centralised data)	Reduction in dairy mg/kg by 2024; baseline 2020/2021
	Establish baseline for calves from 2020/2021 data, then review
	Ensure does not rise in sheep above 0.05% of total sheep use
Highest priority antibiotic sales	Reduction in cattle injectables by 2024; baseline 0.26 mg/kg
	Reduction in dairy intramammary tubes for dairy cows by 2024; baseline 0.03 DCD_{Vet}
Mortality rates	Mortality falls in beef & dairy cows; baseline 2020
	Calf mortality falls 1%/year 2020-2024; baseline 2018
	Increase in lamb survivability from various indicators
Health and welfare metrics	Fall in dairy lameness and mastitis from various 2019 indicators
	Fall in beef respiratory disease from various 2019 indicators
	Increased annual uptake of vaccines in sheep, baseline 2019

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MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Pig Targets	
Persistently High Users (PHUs)	Introduce a programme in 2021 supporting PHUs to reduce use
Pig Health metrics	Monitor effects of reduced antibiotic use annually
Plan for weaner management	Identify/launch best-practice weaner management before 2022
Shift from in-feed medication	Ensure Government post-Brexit plans support switch to in-water
e-Medicine Book (eMB) data	Maintain/increase on-time submission of data to eMB annually
Medicines training uptake	Review gaps and increase opportunities for uptake, baseline 2020
Pig Indicators of Progress	
Antibiotic use (from eMB)	30% reduction in total use by 2024, baseline 2020
Highest priority antibiotic use (from eMB)	Use equal to or lower than 2019 baselines
Antimicrobial resistance surveillance	Monitor current data; aim for reduction on 2020 baselines

MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Salmon Targets	
Highest priority antibiotic use	Only prescribed as last resort after sensitivity testing
Vaccination of Atlantic salmon	All Atlantic salmon vaccinated before seawater phase
Use of autogenous vaccines	To be developed in absence of licensed vaccines
Prescribing Vets' group input	Quarterly meetings, antibiotic stewardship a standard item
Compliance with Code of Good Practice	All producers compliant with Code of Good Practice
Collection/collation of data	100% collection and reporting of antibiotic use
Salmon Indicators of Progress	
Antibiotic use (from usage data)	Aim for maximum 5 mg/kg annually
Metric for % fish treated	Develop new metric to indicate the % of fish treated annually

MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Trout Targets	
Stewardship of antibiotics	No preventative use; no highest priority antibiotics used routinely; pathogen surveillance through 'bug bank' initiative
Vaccine uptake	Vaccination in freshwater phase to be increased, baseline 2020
Promotion of best practice	All members compliant with quality standards
Trout Indicators of Progress	
Antibiotic use (from usage data)	Maintain usage below 20 mg/kg
Metric for % fish treated	Develop new metric to indicate the % of fish treated annually

MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Gamebird Targets	
Discussion with vets	Every rearer to calculate use and discuss with their vet
Improve husbandry	Monitor uptake of new British Game Alliance Game Farm Audits
Increase education	Enhance existing learning tools
Medicated feed stewardship	Work with Game Feed Trade Association to steward sales
Monitor welfare effects	Ensure antibiotic reductions are safe and sustainable
Research into damaging diseases	Promote research into ways to reduce disease pressures
Gamebird Indicators of Progress	
Antibiotic use (from usage data)	Reduce use by 40%, baseline 2019 of 10.4 tonnes
Highest priority antibiotic use (from usage data)	Reduce use by 19% to 47kg, baseline 2019 of 58 kg

MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Laying Hens Indicators of Progress	
Antibiotic use (usage data)	Maintain bird days treated below 1%
HP-CIA use (usage data)	Fluoroquinolone days medicated remains below 0.05%

MEASUREMENT METRIC	TARGET/INDICATOR OF PROGRESS
Poultry Meat Indicators of Progress	
Antibiotic use (usage data)	Use remains < 25mg/kg PCU in broiler production; reviewed 2021
	Use remains < 50mg/kg PCU in turkey production; reviewed 2021

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RESPONSIBLE USE OF MEDICINES IN AGRICULTURE ALLIANCE

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