

'The Dutch Model'

(of controlling antibiotic use in animals)

"Farmers and veterinarians together to tackle antimicrobial resistances"



Rens van Dobbenburgh
Brussels, 23.10 2015



Federation of
Veterinarians of Europe

Livestock Density in the NL

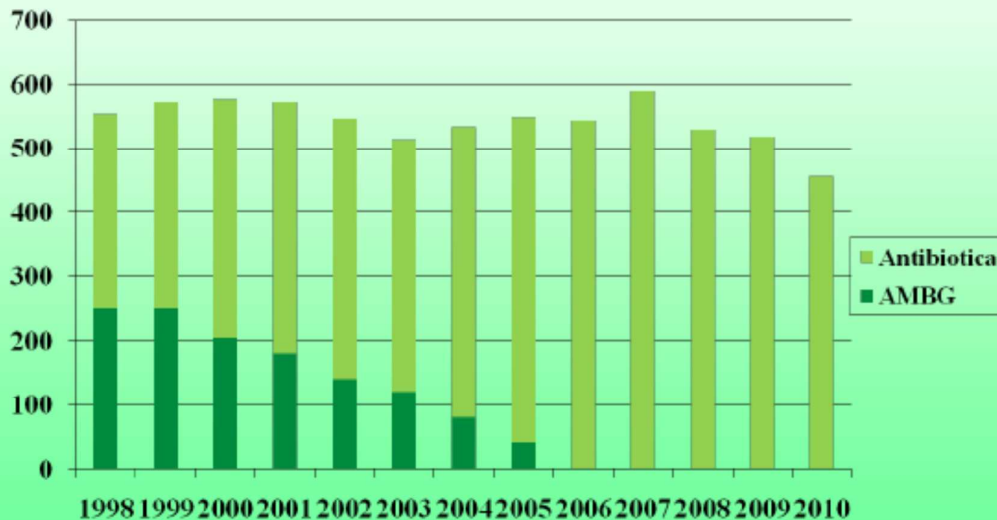


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Federation of Veterinarians of Europe

Veterinair gebruik antimicrobiële stoffen totaal



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Antibiotics in Dutch society

- Antibiotics in animals, a public issue
- The national parliament discusses
- Television, internet, papers
- Animals Rights party
- Strong activity AW organisations
- Social acceptance intensive husbandry
- Human doctors do pretty well with ab



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Dutch vets and farmers realized more and more

- **AMR is a hot topic and will not disappear from the agenda**
- **AMR goes (much) faster than developing new ab products**
- **Defending that ab use in animals does not contribute to AMR is a lost battle**
- **Veterinarians and farmers should be part of the solution**
- **NL should act (although AMR is a global issue)**



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National Health Council

Antibiotics in livestock and resistant bacteria in humans





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Problems according to National Health Council

- **ESBL**
- **MRSA**
- **Vancomycin resistant Enterococcus**

- **Beta lactam antibiotics (penicillin, amoxycillin, ampicillin, cephalosporins, carbapenems)**



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Government requires compared to 2009

- **Minus 20% ultimo 2011**
- **Minus 50% ultimo 2013**
- **Minus 70% ultimo 2015**

(Kilograms unspecified)

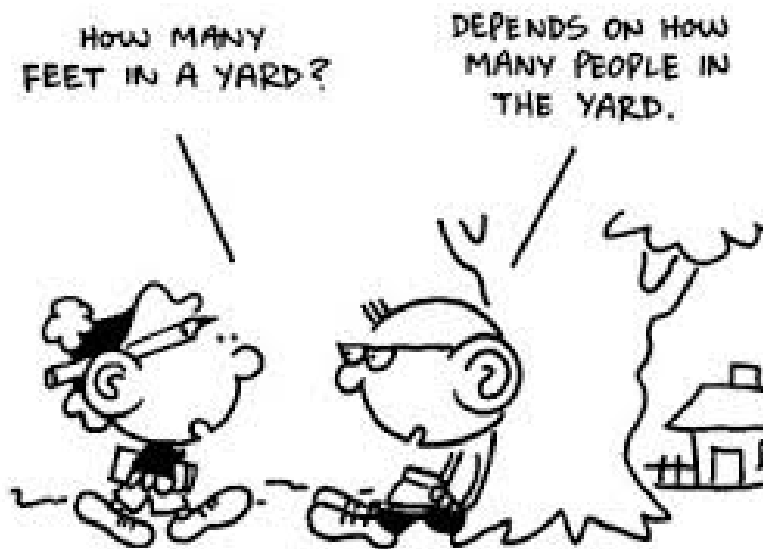
But how?????





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Only if you measure you can be sure!

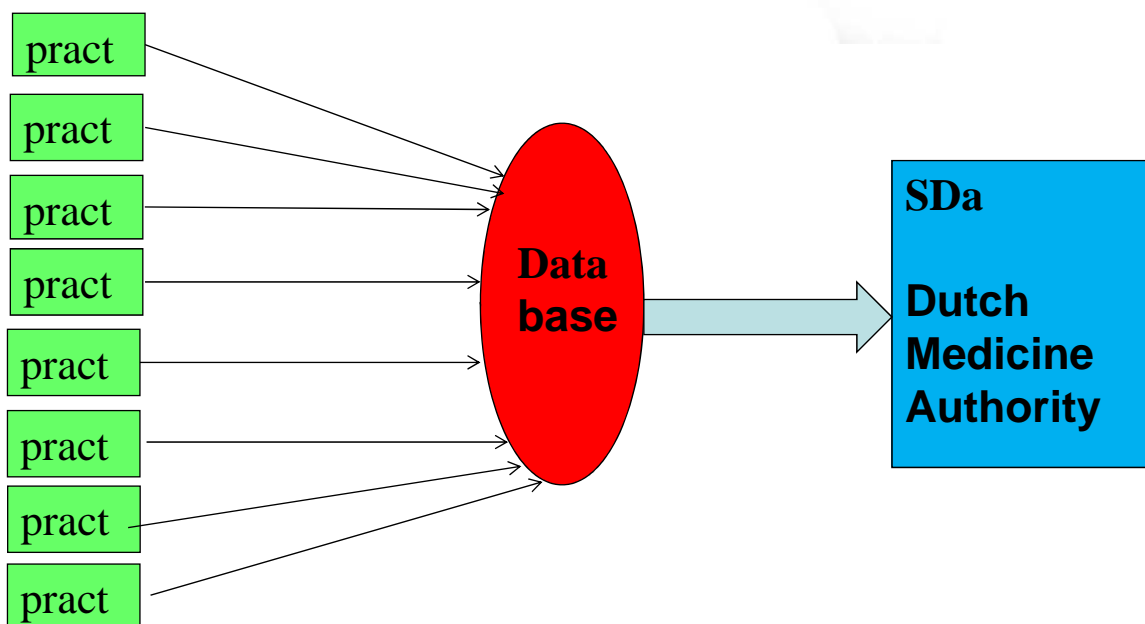


We need a database



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VetCIS, the Dutch Digital Database





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Dutch Medicine Authority

This **private** organisation is financed by

- Swine farmers
- Dairy farmers
- Poultry farmers
- Veal farmers
- Veterinary practitioners
- Government



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Annual Daily Doses (ADD/Y)

- = How many daily doses an average present animal receives in one year
- This is compared to a guideline per animal species, issued by the Dutch Medicine Authority which can monitor on vet practice level as well as farm level
- The system is 'voluntary'. Quality systems (milk/meat/eggs) require participation of vet and farmer



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Monitoring Farms

- Broilers: ≤ 15 ; > 15 < 30 ; ≥ 30
- Fattening pigs: ≤ 10 ; > 10 < 12 ; ≥ 13
- Dairy ≤ 3 ; > 3 < 6 ; ≥ 6

direct action
under attention
no action



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Monitoring Vets

Veterinary Benchmark Indicator (VBI)

$\geq 0,3$	direct action
$\leq 0,1 \leq \text{VBI} \leq 0,3$	under attention
$\leq 0,1$	no action



Dutch Animal Law 2013

- Prophylactic use of antibiotics prohibited (and removed from leaflets)
- Antibiotics only administered by vet except if
- Fluoroquinolons (2^e gen) and Cephalosporins (3^e and 4^e gen) only after sensitivity testing
- 'No stock' on the farm
- Individual decoupling of prescribing and dispensing (sanction)



But there is more. Private actions

- Feedmill industry stopped mixing ab (covenant)
- Swine sector required ban on CIA mass medication
- Dairy sector banned CIAs totally
- Guideline Vet Ass criteria drying cows with antibiotics
- Idem streptococcus suis treatment
- Formularies adapted to conclusions National Health Council
- Farm specific Health Plans and Treatment Plans



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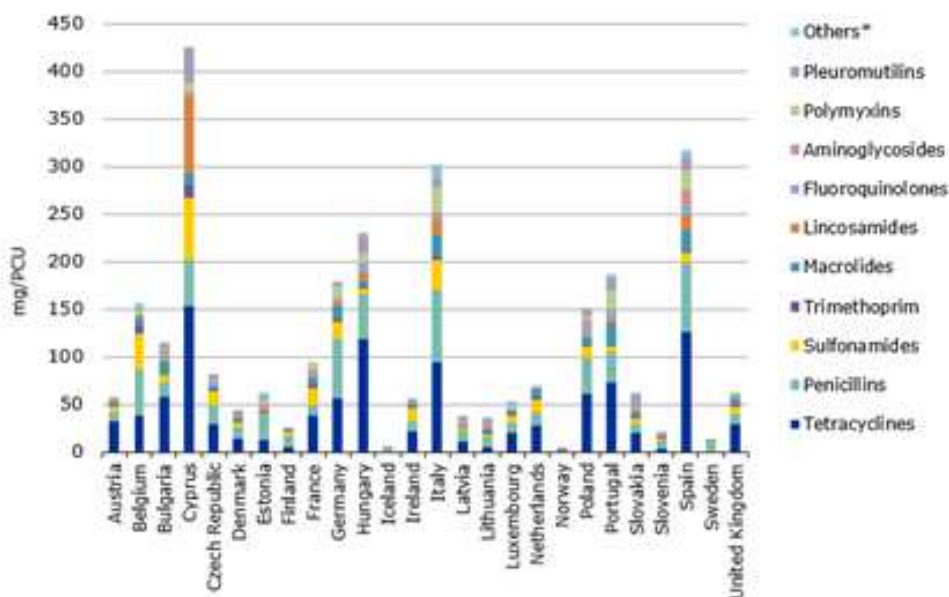
Four years after the start of intensive attention for ab use, the Dutch government announced a decrease of >57% ultimo last year (2014 compared to 2009)

**And more important:
Scientists proved amr levels decreased
So it is possible!**



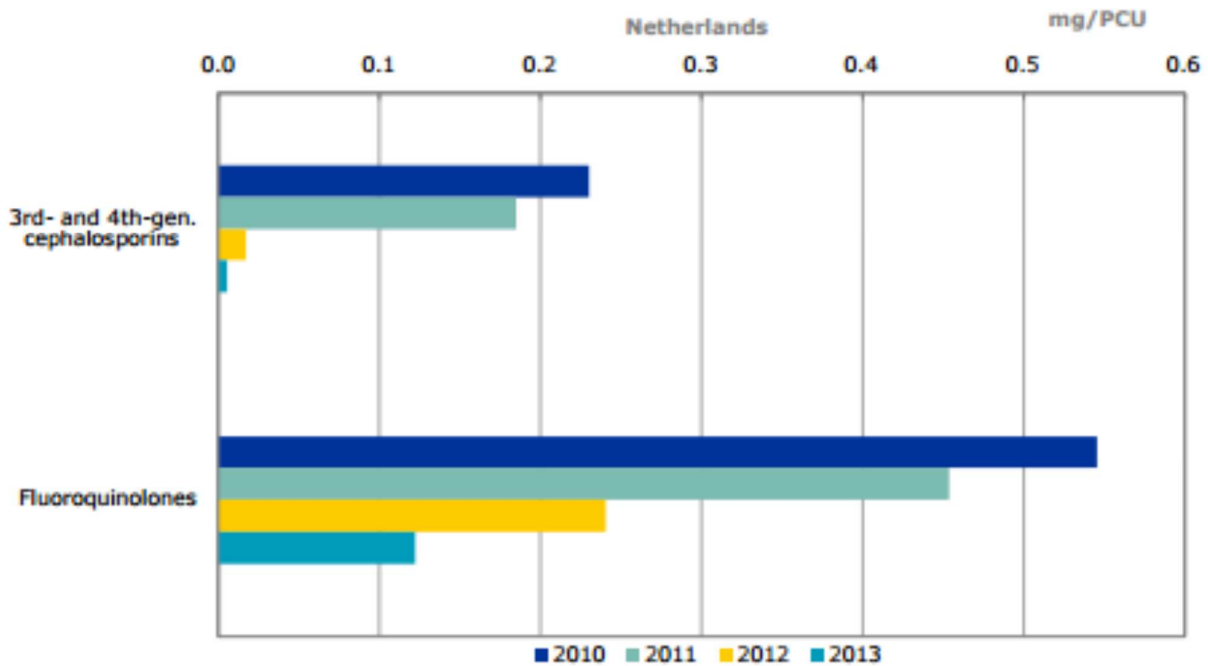
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Figure 9. Sales for food-producing species, including horses, in mg/PCU, of the various veterinary antimicrobial classes, for 26 countries in 2013¹





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Conditions for success!

- Measuring ab consumption is key
- Farmers and veterinarians have to cooperate
- If the government does not subsidise, 'everybody' has to put in some money
- Companion animals?