

Antibiotic Use in Poultry Production

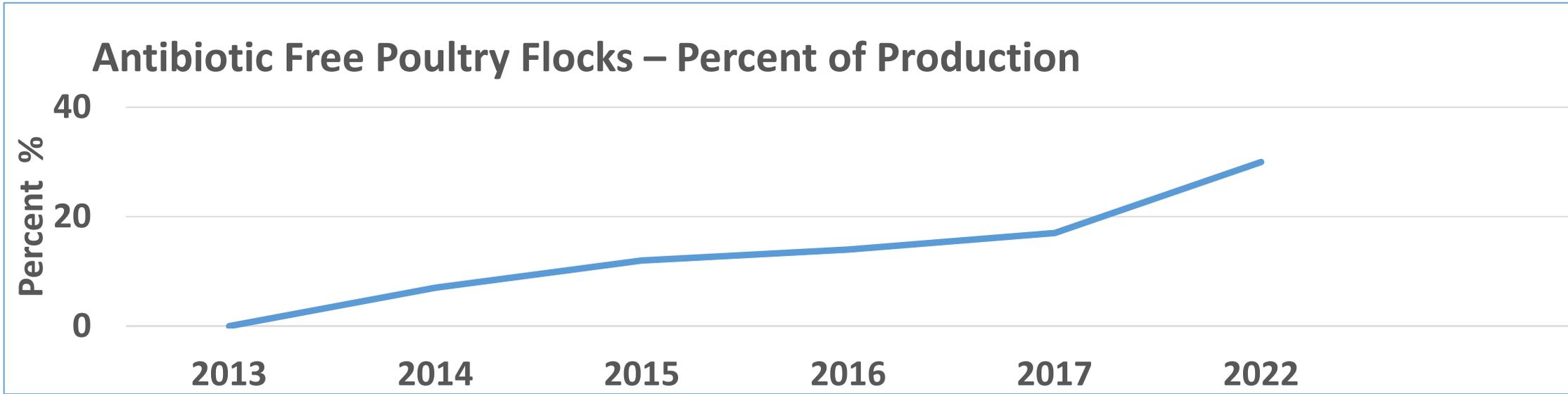
Donna K. Carver, DVM, PhD, Dip. ACPV
Professor and Extension Poultry Veterinarian
North Carolina State University

The Conundrum

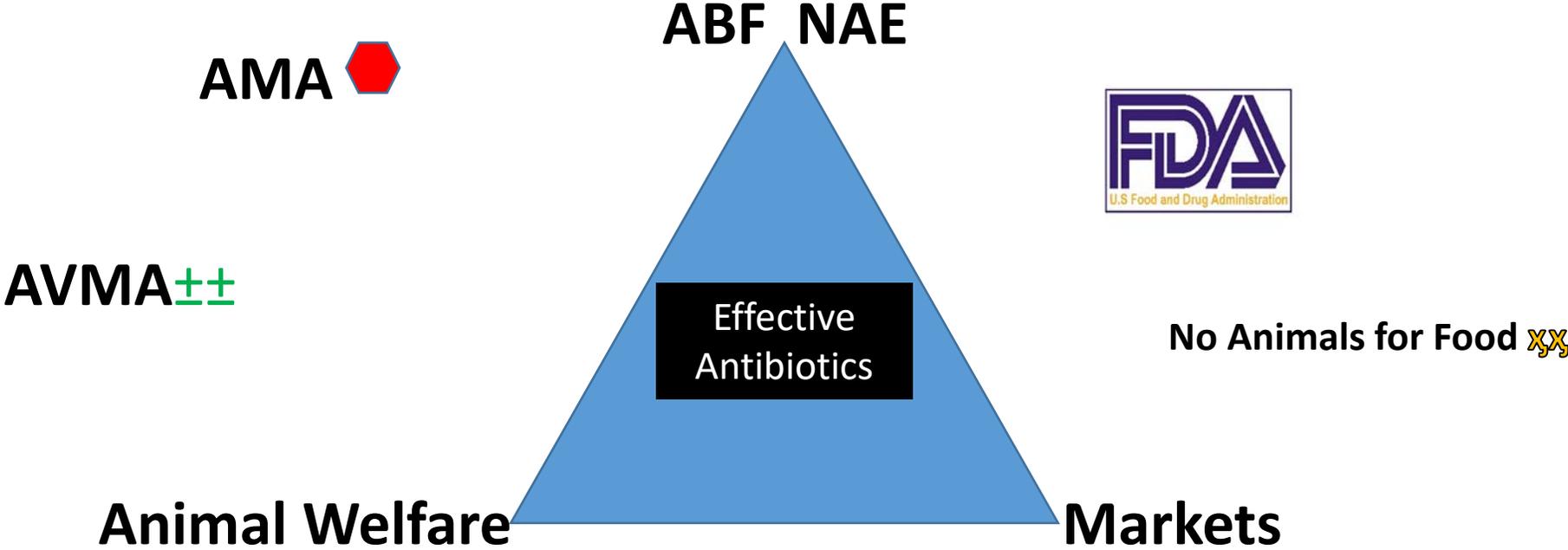
- Protect antibiotics that are used in human health ††
- Protect the welfare of the birds
- Protect markets
- Improve public perception

Issues Related to Antimicrobial Stewardship in Poultry Production

- Much of the antimicrobial stewardship responsibility is placed on veterinarians
- Animal Welfare and the veterinary oath vs. no treatment
- Veterinarians have few antibiotics in their toolboxes
- Tool boxes include prevention, vaccines, botanical, antibiotics as last resort
- There is conflict between antimicrobial free birds and animal welfare.
- Much of the ABF thrust is Market Driven – grocery stores, food service, public schools



The Players



Antibiotic Free Birds

Pros

- Meet market demands
- Reduce food animal exposure to antibiotics
- Reduced antimicrobial resistance???

Cons

- Increased cost of production
 - Feed conversion
 - Live weight
 - Days to market
 - Etc.
- Increased morbidity and mortality (necrotic enteritis, histomoniasis)
- Increased Salmonella incidence and shedding

Current Trends

Four antibiotic programs

Full Spectrum

Keeps the door open to using the full spectrum of FDA-approved poultry feed medications.

Reduced Use

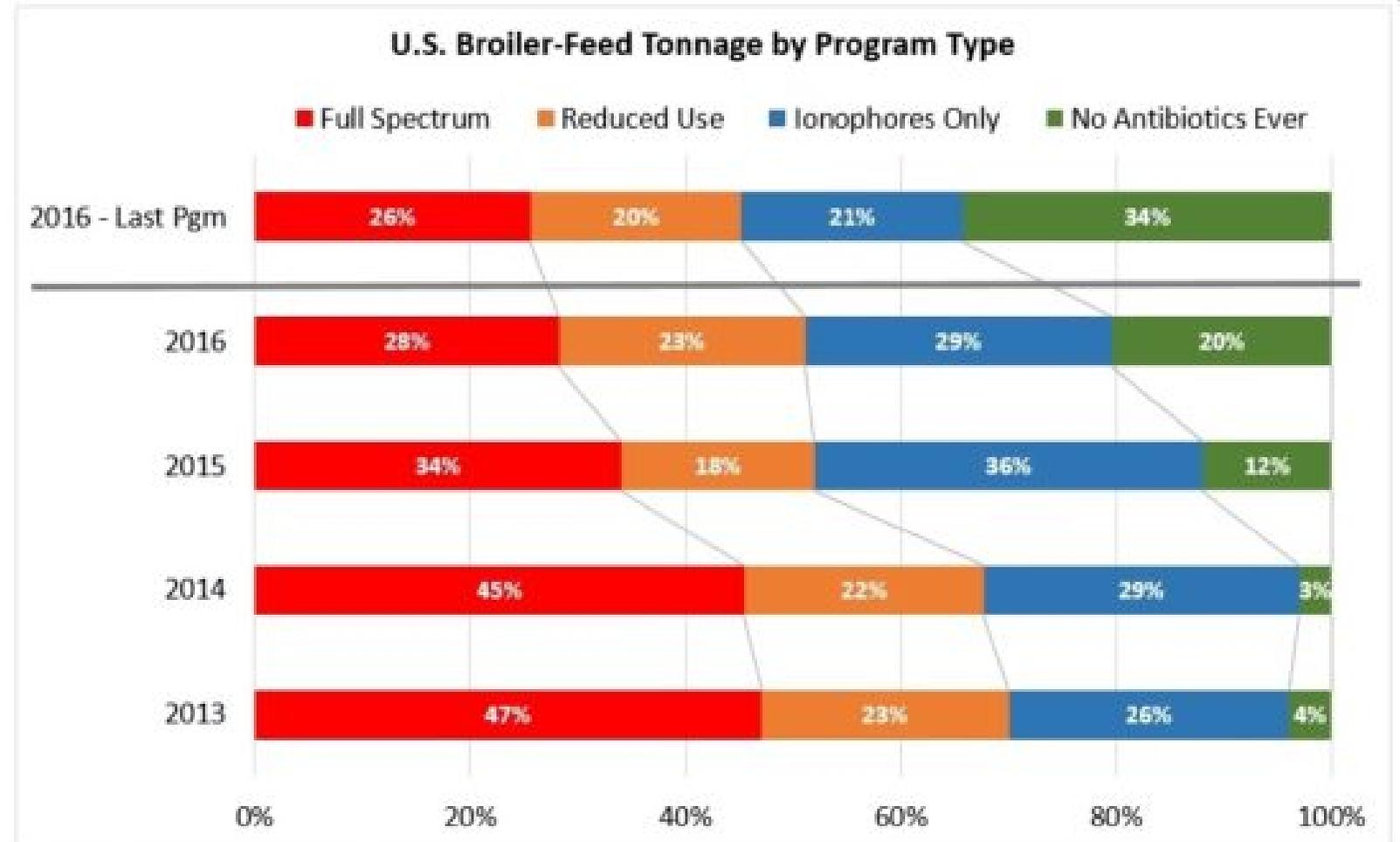
No medically important antibiotics, as designated by FDA.

Ionophores Only

Follows WHO guidelines and therefore allows ionophores only.

No Antibiotics Ever

No antibiotics in feed.



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What happens when ABF birds get sick?

- Veterinarians have to weigh the increased market price for ABF and the welfare of the sick birds.
- Bird deemed to be too sick to clear the infections without treatment are treated.
- These birds are no longer ABF birds and cannot be marketed as such.
- These birds are marketed as conventional birds, though depending on the age at which they were treated, could result in substantial losses.
- Not all companies have conventional options.
- These scenarios raise the cost of production.

How are markets affected and how might they change?

- There are essentially 2 markets for birds. People able and willing to pay for ABF birds and people who can't quite afford the ABF birds.
- Due to antibiotic residue monitoring, people who eat poultry products do not eat antibiotics.
- The market for ABF birds is growing.
- Cost of production for both types of birds is not fixed.
- The cost to raise birds produced ABF birds is much greater and they do not convert feed to muscle as efficiently, which means they eat more feed and take longer to get to market size, it adds up.
- What happens if the price of corn or soybeans spike due to drought **or** mycotoxins? Low supply.

Attitudes are changing

- Groups important to the conversation once stuck to their values without considering commonalities
- Research efforts important to the industry are changing to studies that address intestinal microbiome, pro- and pre- biotics to exclude organisms such as Salmonella sp. and Campylobacter sp.
- Prevention is stressed
- Veterinarians have few antibiotics and use them judiciously because there is little evidence that new and effective antibiotics are on the horizon approved for animals

Be honest about our food animal products: inexpensive source of protein, healthy, safe and raised under conditions that meet these and market demands.

- Our birds are never fed hormones – TRUE...but not the point
- Eggs from free range hens are better than caged reared. –UNTRUE- not the point
- Consumers eat meat that is free of antibiotics. – TRUE... not the point

The point is protecting the effective antibiotics for future use. Educate consumers and other interested groups.

Education is a shared responsibility!

- Veterinarians should continue work to protect antibiotic effectiveness
- Physicians should also educate patients that viral diseases do not require antibiotics.
- The more people understand about the issues, the more likely they will make good choices
- We do not need to further confuse the public by making statements that have no merit (ie, hormones), and focus on educating consumers on our legitimate concerns which are related to protecting antibiotic susceptibility.