

FDA Action to Curb Antimicrobial Resistance

Food Supply Chain Impacts

Miami, Florida June 20, 2017

CDC's top 5 Health Threats in 2014

(posted 12/17/2013)

1. Antibiotic Resistance & Advanced Molecular Detection

- 2. Prescription Drug Abuse and Overdose
- 3. Global Health Security (infectious disease outbreaks)
- 4. HPV Vaccination
- 5. Global Polio Eradication

Antibiotic Use In Animal Agriculture

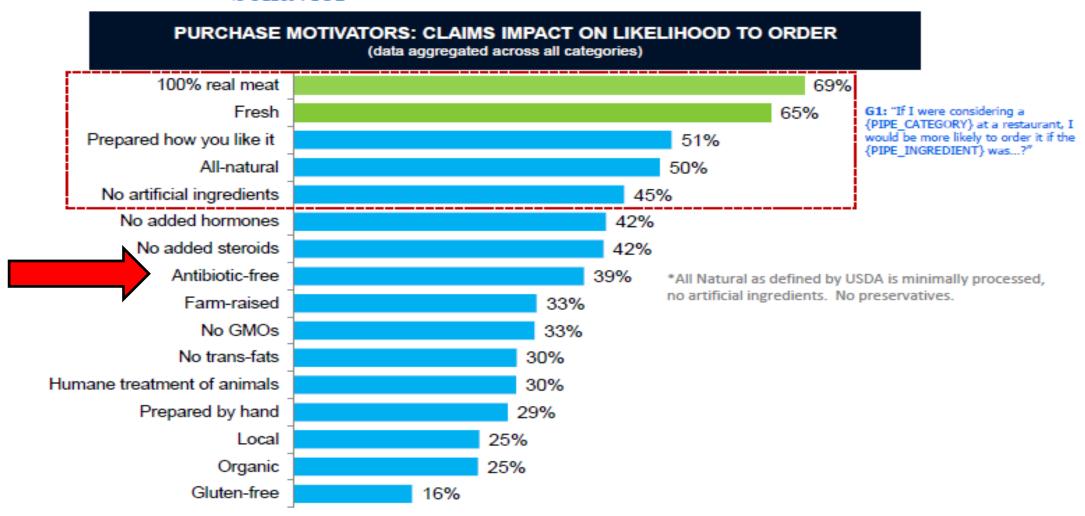
- 1970's FDA early studies of antibiotics use in animal feeding suggested development of resistant bacteria that could lead to anti-microbial resistant pathogens capable of causing human disease
- 1980's and 1990's ongoing studies and debate about the degree of risk
- 1990's Increasing use of antibiotics in animal feeding
- 2004 Panera Bread is a Food Service pioneer in serving meat raised without antibiotics
- 2006 European Union Bans use of antibiotics for animal growth promotion purposes
- 2013 FDA issues final guidance implementing voluntary plans to phase out use of "medically important" antibiotics in animal production
- 2013 CDC identifies Antibiotic Resistance as one of the most important risks to global health
- 2014 WHO reported that Antimicrobial Resistance (AR) is a serious threat to global Health
- 2014-16 Majority of retail food service Brand-Owners develop and begin implementation of strategies for reducing or eliminating antibiotics in raising meat animals in their supply chain
- 2017 FDA bans using medically important antibiotics for promoting growth in animals

Consumer Expectations of Brands: <u>Transparency</u>

- "Trust" in a Brand requires Transparency of its supply chain:
 - Where do the ingredients come from?
 - Local?
 - Domestic or Imported?
 - What's in it?
 - Artificial colors, preservatives, flavors?
 - GMO ingredients?
 - High Fructose Corn Syrup?
 - Gluten-free?
 - Trans-fats?
 - How is it produced?
 - Fresh, Never Frozen?
 - Organic?
 - "Natural"?
 - "Sustainable" production systems?
 - Humane Treatment of Animals?
 - Cage-Free Chickens?
 - No Gestation crates?
 - Humane slaughtering practices?
 - Growth hormones or steroids used in raising animals?
 - Antibiotics used in raising animals?

TOP CLAIMS THAT IMPACT LIKELIHOOD TO ORDER:

Beyond "Real" and "Fresh", claims relating to "Natural" and "Not Artificial" are most likely to impact menu ordering behavior



Wendy's Plans To Eliminate Antibiotics From Chicken Production In 2017

The fast-food chain may do the same in beef and pork







Panera celebrates 10 years of serving antibiotic-free meat

HEALTH NEWS | Thu Dec 29, 2016 | 6:24pm EST

Burger King, Tim Hortons to curb antibiotics used in chicken



Chick-fil-A to serve antibiotic-free chicken

By Elizabeth Landau, CNN

① Updated 10:19 AM ET, Wed February 12, 2014



Chipotle, Panera Receive an A for Antibiotic Use

by Jan Lee on Friday, Sep 18th, 2015







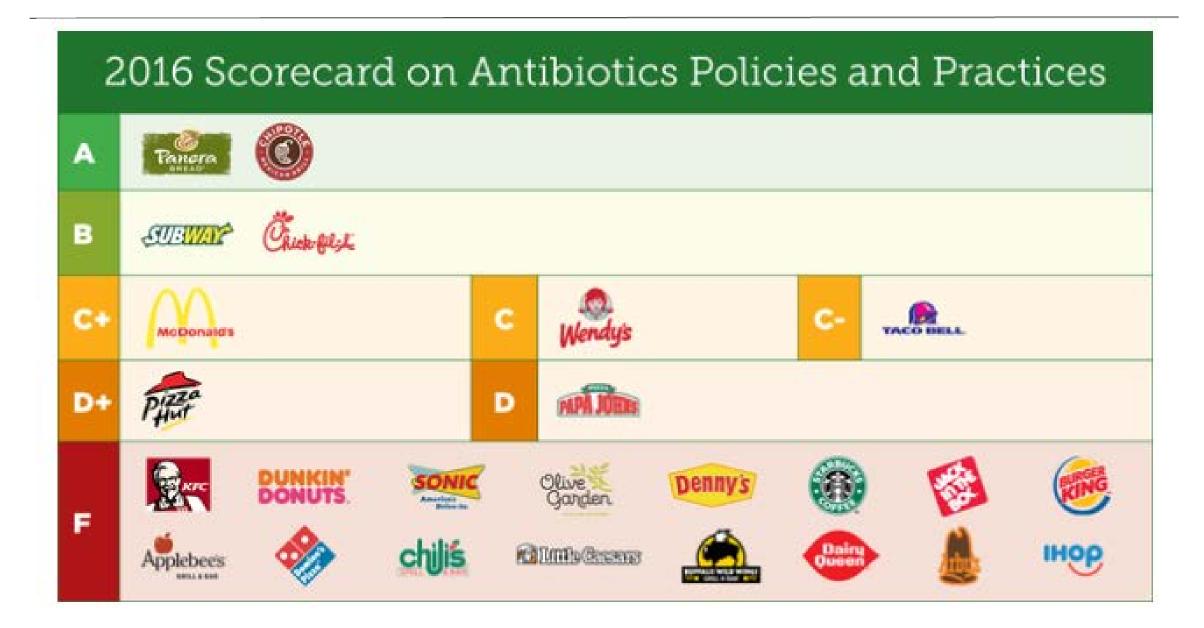








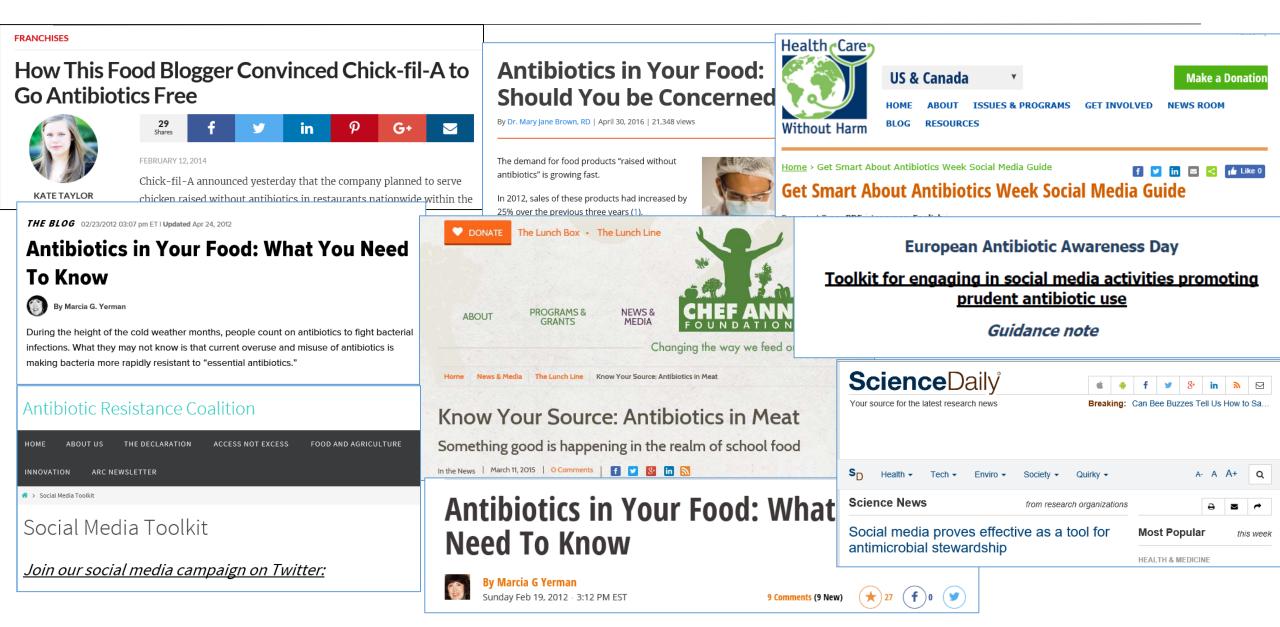
Consumer Coalition* Report

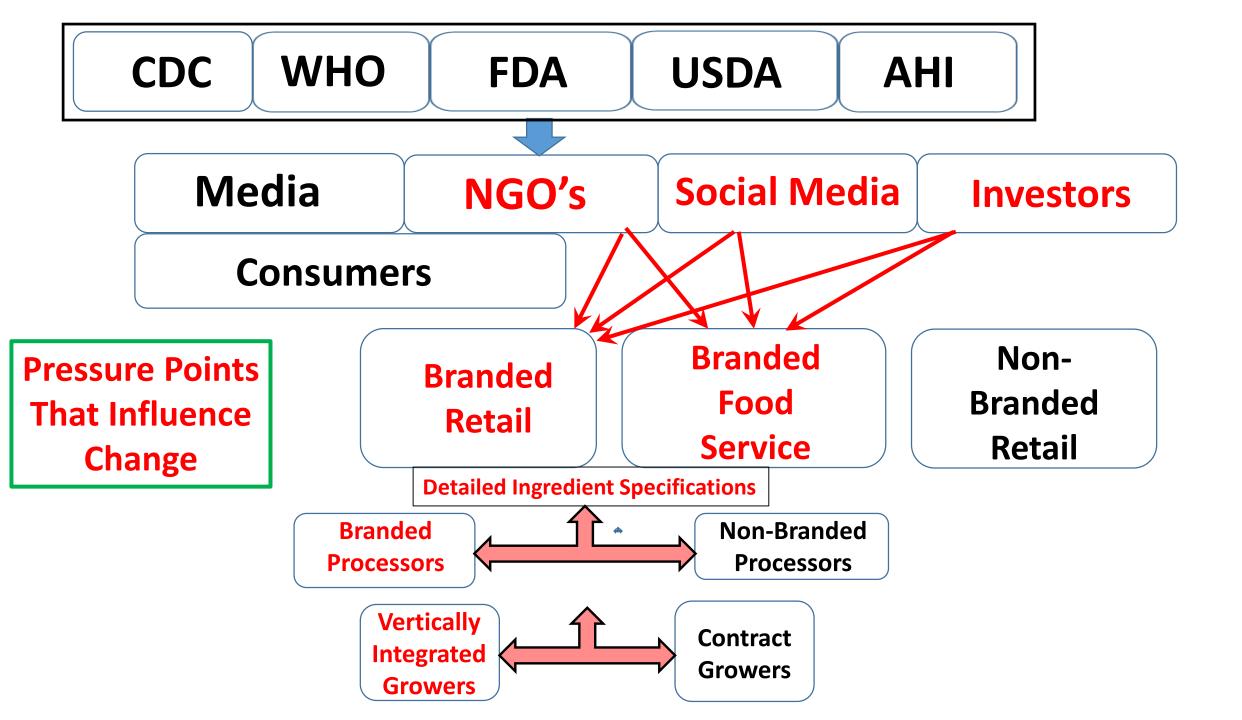


*Consumer Coalition Report Participants

- Friends of the Earth
- Natural Resources Defense Council
- Consumers Union
- Food Animal Concerns Trust
- Keep Antibiotics Working
- Center for Food Safety

Social Media Becoming Increasingly Important





Summary

- Brand owners (Food Service and Retail Grocery) are the key pressure points for implementing industry change in food ingredients
 - No Antibiotics in Animal Feeding
 - No Preservatives
 - No Artificial Colors
 - No Artificial Flavors
 - Minimal/No preservatives
 - No Tans-fats
 - Local-Sourced
 - Gluten Free

- Fresh/Never Frozen
- No Hormones
- No Steroids
- Farm-Raised/Free Range
- No GMOs
- No Gestation Crates
- Organic
- Consumer Preferences and Perceptions of Food Quality are Important for driving change over time, But
- Activist NGO's, Social Media and Investors can accelerate industry change through pressure on Brand Owners, particularly on the issue of utilization of antibiotics in animal feeding
- Cost of eliminating antibiotics = F(Time, Technology/Innovation)

Thank You