



A status report by
Centre for Science and Environment

DOUBLE STANDARDS

**ANTIBIOTIC MISUSE BY
FAST FOOD COMPANIES**



Research direction: Chandra Bhushan
Authors: Amit Khurana and Ananya Tewari
Editor: Arif Ayaz Parrey
Design direction: Ajit Bajaj
Cover, design and layout: Raj Kumar Singh
Production: Rakesh Shrivastava and Gundhar Das



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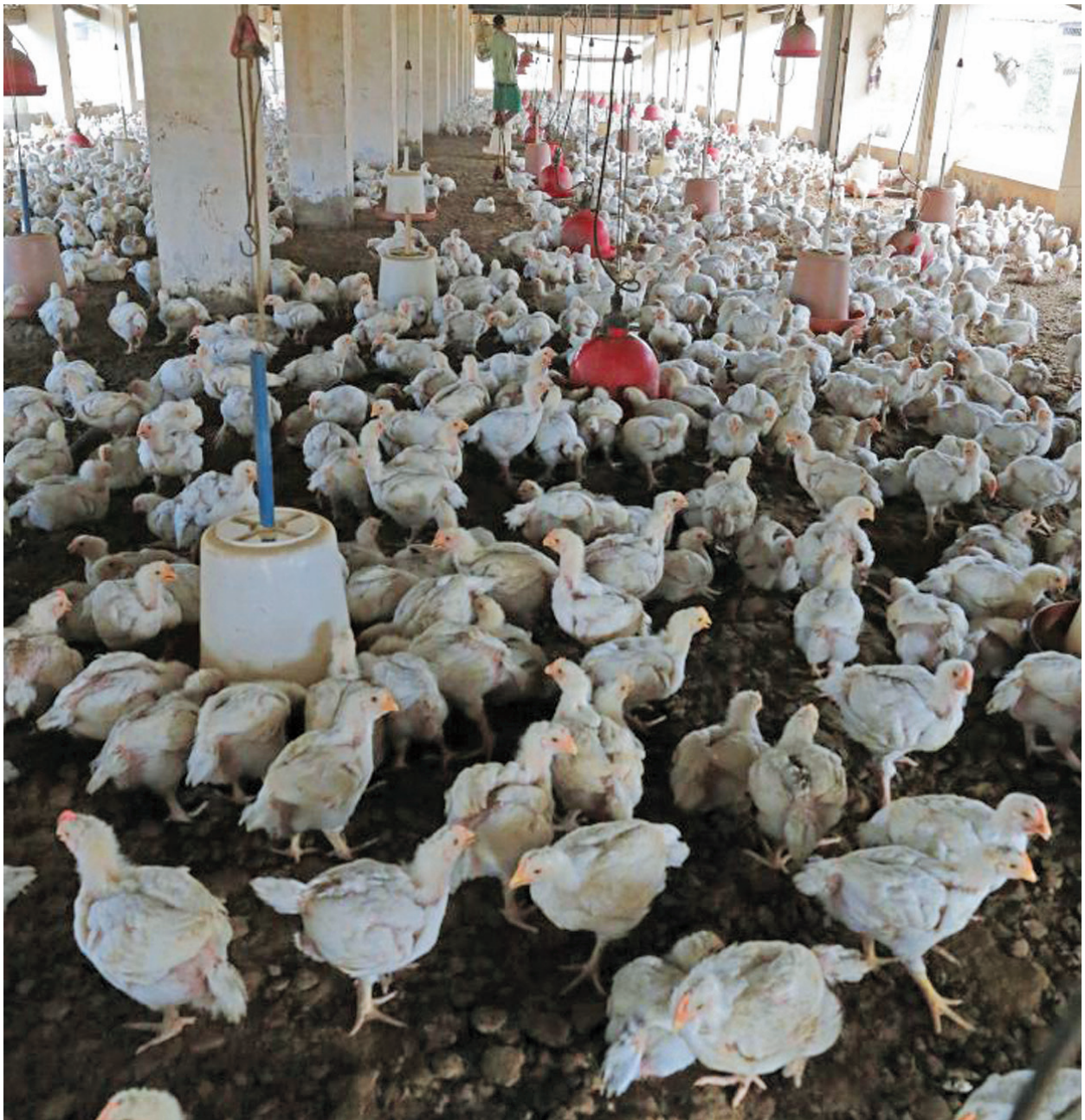
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41, Tughlakabad Institutional Area
New Delhi 110 062
Phone: 91-11-40616000
Fax: 91-11-29955879
E-mail: cse@cseindia.org
Website: www.cseindia.org

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VIKAS CHOUDHARY / CSE

INDIA'S ANTIBIOTIC RESISTANCE STORY

Given the unrelenting growth of antibiotic use in human healthcare and animals, in particular for intensive food-animal production, the impact of antimicrobial resistance (AMR)—antibiotic resistance (ABR) in particular—will be huge in India. India bears a serious burden of bacterial infections.¹ Unsanitary conditions, limited infection prevention and control, poor regulations and implementation, and inadequate health systems add to the problem. Due to high resistance, antibiotics such as fluoroquinolones, macrolides and cephalosporins used to treat common infections of the urinary tract, respiratory tract and gastrointestinal tract etc. and those used as a last resort in hospitals are increasingly becoming ineffective.

India's rapidly growing fast food restaurant industry, which uses meat raised with antibiotics, is a key contributor in the worsening AMR situation. It can also be a game-changer in the fight against AMR.

Internationally, fast food chains are under pressure to end antibiotic misuse in chicken, fish and other meat production. In response, they have already come out with measurable objectives and clear-cut timeframes to reduce and eliminate such use in many countries across the globe, including in the US. Yet, when it comes to India, these companies exhibit double standards and are vague about reduction or elimination frameworks and timelines, as this status report by Centre for Science and Environment (CSE) reveals.

HOW IS THE WORLD PREPARING TO DEAL WITH THE THREAT?

Currently, there is a huge momentum worldwide to combat AMR. After the adoption of the World Health Organization (WHO)-led Global Action Plan on AMR at the World Health Assembly in 2015, many countries have developed their National Action Plans (NAPs) on AMR with interventions specific to human and animal health, and the environment.² Combatting AMR also received global political support at the United Nations General Assembly in 2016, following which an Inter-Agency Coordination Group was established in 2017. There has been significant contribution and buy-in from multiple stakeholders such as governments, civil society, and industries across food, animal and human health sectors. The problem of antibiotic misuse in animals has been recognized as a key contributor to rise of AMR and necessary interventions are being made to curtail the spread of AMR due to antibiotic misuse in animals. Historically, some developed countries, particularly those of the European Union (EU), have addressed AMR through systematic policy and practice initiatives. For example, the use of antibiotic growth promoters (AGPs) in animals was banned in the EU in 2006. India still allows such use.

COMMITMENTS MADE BY FAST FOOD MNCs TO ELIMINATE USE OF ANTIBIOTICS

In response to the growing momentum to reduce animal use of antibiotics, several US-based multinational companies (MNCs) have come forward and made commitments to reduce antibiotics in their supply chain. Pressure from consumers and investors, along with campaigns by civil society, has played a key role. These companies belong to quick service restaurant (QSR), café and casual dining restaurant (CDR) segments. Most of them have a global presence and their counterparts in India are key players in the respective categories (see *Table 1: Commitments made by fast food MNCs to eliminate use of antibiotics*).

Overview of the commitments

- Commitments are made by restaurant chains serving almost all kinds of fast foods such as pizzas, burgers, sandwiches and wraps. These are for ten leading global fast food brands managed by eight companies.
- Commitments are primarily made for the US. However, most of these companies have an over-arching policy which is applicable to operating countries. McDonald's, in addition to its US commitments, has also committed for Europe, Australia, Canada, Russia, Japan, South Korea, Brazil and China.
- Most commitments aim to eliminate similar set of antibiotics, i.e., use of medically important antibiotics as defined by the WHO. Few specify eliminating from routine use, i.e. growth promotion and disease prevention. Dunkin' Donuts has committed no antibiotic use ever. McDonald's aims to eliminate antibiotics considered highest priority critically important to human medicine in countries other than US.
- These commitments are publically available, time-bound and include third-party audits, in most cases by the United States Department of Agriculture Process Verified Program (USDA-PVP).
- Chicken supply chains are the focus of most commitments. A few have provided timelines for other food animals. For example, Subway mentions transition for turkey by about two-three years from 2016 and for pork and beef by 2025. Wendy's mentions coming up with a commitment for pork and beef in 2017.
- By the end of 2017, most chains would already have eliminated medically important antibiotics from chicken supply chain in US and the remaining would do so before 2020.

Table 1: Commitments made by fast food MNCs to eliminate use of antibiotics^{3&4}

Brand	Country	Antibiotics	Timeline	Notes
McDonald's	US	Antibiotics important to human medicine	2016	As part of 2017 updated Global Vision for Antibiotic Stewardship in Food Animals
	Brazil, Canada, Japan, S. Korea, US, and Europe	Highest priority critically important antibiotics	January 2018	Except colistin for Europe
	Australia, Russia, and Europe	Highest priority critically important antibiotics	2019-end	Including colistin for Europe
	China	Highest priority critically important antibiotics	January 2027	
Subway	US	Medically important antibiotics for growth promotion	2016	
Domino's Pizza	US	Antibiotics important for human health	2018-beginning	Commitment stated in Corporate Stewardship Report of 2016
Dunkin' Donuts	US	Chicken raised with no antibiotics ever	2018-end	Commitment part of Animal Welfare Policy updated in July 2017
Pizza Hut	US	Antibiotics important to human medicine	March 2017	Commitment part of Good Antimicrobial Stewardship Programme by Yum! Brands
KFC	US	Antibiotics important to human medicine	2018-end	
Taco Bell	US	Antibiotics important to human medicine	First quarter of 2017	
Burger King	US and Canada	Antibiotics important to human medicine	2018-end	Commitment stated in the 2016 Sustainability Report
Starbucks	US	Medically important antibiotics for routine use	2020	Commitment part of animal welfare practices
Wendy's	US	Medically important antibiotics	2017	Commitment part of Wendy's antibiotic use policy guidelines

Note: The list focuses on commitments in US and is non-exhaustive; 'medically important antibiotics', 'antibiotics important to human medicine' and 'antibiotics important to human health' are terms used in respective commitments and likely convey similar set of antibiotics, i.e., those recognized by the WHO. McDonald's and Burger King have referred to the WHO's recent list of critically important antimicrobials for human medicine (5th revision). Source: CSE compilation

NO COMMITMENTS IN INDIA TO ELIMINATE ANTIBIOTIC USE

While much headway has been achieved globally in recent times on elimination of antibiotic misuse for food-animal production, the situation in India remains largely unchanged.

To understand India-specific policies and commitments to reduce or eliminate antibiotic use in meat supply chains of the fast food companies, CSE wrote to 12 companies serving fast food and managing 14 key brands in India (see *Box: CSE queries*). These include nine companies operating 11 multinational brands. Most of these brands are of US-based global giants and their counterparts in India are leading the Indian fast food industry. Three more brands are managed by three Indian companies.

Summary of responses

» Five companies (operating six brands) responded (see *Table 2: Analysis of responses from fast food companies in India*).

- Only three out of the nine companies managing four multinational brands responded. These include those managing Subway, Burger King, Domino's Pizza and Dunkin' Donuts (the last two brands are managed by Jubilant FoodWorks Ltd. in India).
- Two out of three companies managing Indian brands responded. These include Café Coffee Day and Barista.

» Seven companies managing eight brands did not respond (see *Table 3: Indian and global or US position of fast food companies who did not respond*).

● Six companies operating seven multinational brands did not respond. The brands include McDonald's, Pizza Hut, KFC, Taco Bell, Chili's Grill & Bar, Starbucks and Wendy's. Except Chili's Grill & Bar, all have specific commitments in the US. McDonald's has also made commitments in several other countries.

- Nirula's is only Indian brand which did not respond.

» Among those companies that responded, none shared an India-specific time-bound commitment to reduce or eliminate antibiotics in the supply chain.

» Typically, the responses conveyed how sourcing is done through approved suppliers and that necessary quality, testing and audits are conducted. Those managing multinational brands also referred to their global policy and US commitments. Only one mentioned the possibility of plans to transition learnings in India (Subway).

» When asked to share relevant test and audit reports, only one (Jubilant FoodWorks Ltd.) shared laboratory reports.



CSE QUERIES

- 1 Does your organization have any India-specific policy for use or sourcing of fish and meat such as chicken, raised using antibiotics, for your food products? If yes, please share the details.
- 2 If there is no policy initiative then what is the plan in future?
- 3 What is the policy of your organization to test for the presence of resistant bacteria and antibiotic residues in meat or fish products sold at your outlets?

Table 2: Analysis of responses from fast food companies in India

Brands (company)	Summary or excerpts from response and gaps identified
<p>Subway (Subway Systems India Pvt. Ltd.)</p>	<p>Response:</p> <ul style="list-style-type: none"> ● Global policy that antibiotics can be used to treat, control and prevent disease, but may not be used for growth promotion. ● Working on possible transition plans from US for each region, including India. ● Suppliers test chicken and lamb raw materials for antibiotic residues; wild tuna is raised without antibiotics. ● Third party audits conducted for compliance of food safety and quality protocols and expected practices. Would share details on their future plans in 2018. <p>Gaps:</p> <ul style="list-style-type: none"> ● No specific time-bound commitment made to reduce or eliminate antibiotics despite a global policy and elimination of medically important antibiotics for growth promotion in US by 2016. ● Focus only on reducing the use of growth promoters and not prophylactic use. ● Reports of tests and audit not shared.
<p>Domino's Pizza and Dunkin' Donuts (Jubilant FoodWorks Ltd.)</p>	<p>Response:</p> <ul style="list-style-type: none"> ● Processes aligned as per global standards; follow stringent food safety and quality systems. Do have India-specific policy for sourcing chicken used in food. ● Ensure chicken processors buy from farms committed to using antibiotics for health management; follow requirement of a proper withdrawal period. ● Regular certifications from processors; their factories regularly audited. ● Check chicken products for antibiotic residues and microbial compliances; no residues or resistant bacteria found; also shared test reports but not audit reports.* <p>Gaps:</p> <ul style="list-style-type: none"> ● No specific time-bound commitment made to reduce or eliminate antibiotics despite US commitment to serve chicken free from antibiotics (Domino's Pizza) and not use antibiotics ever in rearing chicken (Dunkin' Donuts). ● 'Health management' has not clarified whether antibiotic use is allowed or not. ● Tests reports shared largely for antibiotic residues and not for resistant bacteria. Audit report not shared.



<p>Burger King (Burger King India Pvt. Ltd.)</p>	<p>Response:</p> <ul style="list-style-type: none"> ● Recognize that antibiotics play an important and delicate role in animal well-being and human health. ● Hold suppliers to very high standards, including audits to meet food safety requirements. ● Gave reference to the global website for commitments made in 2016 <i>Sustainability Report</i>. <p>Gaps:</p> <ul style="list-style-type: none"> ● No specific time-bound commitment made to reduce or eliminate any kind of antibiotics in India despite a commitment made in US and Canada and a recognition in policy (applicable globally) that it is important to preserve the effectiveness of antibiotics in veterinary and human medicine. ● Reports of tests and audits not shared.
<p>Café Coffee Day (Coffee Day Enterprises Ltd.)</p>	<p>Response:</p> <ul style="list-style-type: none"> ● Follow all norms of Food Safety and Standards Authority of India (FSSAI); vendors source chicken meat from suppliers who follow food safety measures, a veterinary care programme, and biosecurity measures. ● Poultry meat and finished products are tested for antibiotic residues as per Indian regulation once every six months in National Accreditation Board for Testing and Calibration Laboratories (NABL)-accredited and FSSAI-approved laboratories. ● Confirmation of withdrawal period for antibiotic residues through 'health certificates' by suppliers; no antibiotic residue detected in poultry meat. <p>Gaps:</p> <ul style="list-style-type: none"> ● No specific time-bound commitment made to reduce or eliminate any kind of antibiotics. ● Reports of tests and audits not shared. ● No FSSAI standards for antibiotic residues in chicken exist as on date.
<p>Barista (Barista Coffee Company Ltd.)</p>	<p>Response:</p> <ul style="list-style-type: none"> ● Forwarded the response of three vendors. One of the vendors stated that suppliers ensure delivery of antibiotic-free chicken or mutton and meat derivatives; tested by veterinary doctors. ● Another vendor mentioned that suppliers are approved, there are no antibiotic residues in the final product and vendors have traceability up to the farm level. <p>Gaps:</p> <ul style="list-style-type: none"> ● No specific commitment made to reduce or eliminate any kind of antibiotics. ● Reports of tests and audits not shared.**

Note: * In a verbal response Jubilant FoodWorks Ltd. mention that they plan to address the issue through an India-specific commitment.
 **Third vendor supposedly shared some reports which could not be accessed. No further response received when informed.
 Source: CSE compilation based on email responses



Table 3: Indian and global or US position of fast food companies who did not respond

Brands (company)	Likely status in India (based on no response and no publicly available information)	Global or US position (based on company websites)
McDonald's (Connaught Plaza Restaurants Pvt. Ltd.; Hardcastle Restaurants Pvt. Ltd.)	No commitment to reduce or eliminate any kind of antibiotic use	<ul style="list-style-type: none"> ● <i>Global Vision for Antimicrobial Stewardship</i> aims to source meat with no growth promoter use and routine prevention use as well as with no use of antibiotics which are part of Highest Priority Critically Important Antimicrobials. ● Commitments made for US, Canada, Japan, South Korea, Australia, Russia, Europe, Brazil and China.
Pizza Hut (Yum! Restaurants India Pvt. Ltd.)	No commitment to reduce or eliminate any kind of antibiotic use	<ul style="list-style-type: none"> ● <i>Good Antimicrobial Stewardship Programme</i> mentions efforts to eliminate use of antibiotics for growth promotion even where permitted by law. ● Commitment made for US.
KFC (Yum! Restaurants India Pvt. Ltd.)		
Taco Bell (Yum! Restaurants India Pvt. Ltd.)		
Starbucks (TATA Starbucks Pvt. Ltd.)	No commitment to reduce or eliminate any kind of antibiotic use	<ul style="list-style-type: none"> ● Recognition of the requirement to eliminate routine use of medically important antibiotics. ● Commitment made for US.
Chili's Grill & Bar (TexMex Cuisine India Pvt. Ltd.)	No commitment to reduce or eliminate any kind of antibiotic use	<ul style="list-style-type: none"> ● Publically supports United States Food and Drug Administration (USFDA)'s action to eliminate the use of medically important antibiotics for growth promotion and feed conversion.
Wendy's (Sierra Nevada Restaurants Pvt. Ltd.)	No commitment to reduce or eliminate any kind of antibiotic use	<ul style="list-style-type: none"> ● Antibiotic use policy referring to eliminate all use of medically important antibiotics, if possible. ● Commitment made for US.
Nirula's (Nirula's Corner House Pvt. Ltd.)	No commitment to reduce or eliminate any kind of antibiotic use	Not applicable

Note: The queries were typically sent to the office of Chief Executive Officer or Managing Director or other relevant senior officers through a hard copy at the corporate office and addressed to the concerned official via email. In case of non-availability of email-id, queries were sent to respective communication offices as well as posted at appropriate place on the company website. Follow-up emails and calls were also made. Typically, about five weeks were given to the companies to respond, except the Connaught Plaza Restaurants Pvt. Ltd., the company which manages McDonald's in the north and east of India, which got about two weeks to respond. Among those who have not responded, during the follow-up CSE was told that the queries were received by McDonald's (both operating companies), Pizza Hut and KFC.

Source: CSE compilation



CHICKEN-BASED DISHES: A KEY PART OF INDIA'S FAST FOOD CULTURE

Indian organized food service market is growing steeply at a double-digit rate. Chain restaurants, which include QSRs (such as KFC and Domino's Pizza), cafés (such as Starbucks and Barista), and CDRs (such as Pizza Hut) accounted for US \$2.4 billion in 2014, and are projected to grow to US \$5.5 billion by 2020 at a compound average growth rate of 15 per cent.⁵ This growth is primarily driven by QSRs. Collectively, these fast food companies, which are spread across the country, seem to be contributing significantly to the growing demand and production of chicken for meat. Chicken-based dishes are a big and integral part of the menu of these establishments (see *Table 4: Chicken-based dishes served by popular fast food companies in India*).

Table 4: Chicken-based dishes served by popular fast food companies in India

Brand	Outlets in India	Meat dishes/total dishes*	Based on chicken or other meat
Multinational brands			
McDonald's	300	12/27	Nine chicken; three fish or sausage
Subway	600	20/47	14 chicken; six turkey or tuna
Domino's Pizza	1,117	23/44	All chicken
Pizza Hut	346	17/41	All chicken
KFC	313	11/13	All chicken
Taco Bell	13	18/45	All chicken
Burger King	100	10/21	All chicken (with mutton in few)
Starbucks	91	11/20	Eight chicken; one salmon, two not specified
Chili's Grill & Bar	10	53/85	33 chicken; ten (beef, salmon, pork and shrimp); no data on the rest
Wendy's	4	15/29	Eight chicken; two pork; no data on the rest
Indian brands			
Café Coffee Day	1,654	8/21	All chicken
Barista	141	8/22	All chicken

*Note: Menu dishes have been selected based on best judgment of information on company websites. For Barista and Wendy's, Zomato was referred to due to paucity of details on the company website. For McDonald's, menu of the restaurants in the north and east zone is considered. None of the dishes in beverage and dessert menu have been considered. Sausage dishes are not counted as chicken dishes. Information was not available for Nirula's and Dunkin' Donuts. Source: CSE compilation (information on outlets from company websites except for Burger King, Café Coffee Day, Barista and Chili's Grill & Bar sourced from public domain)



WHAT IS ANTIBIOTIC RESISTANCE?

Bacteria are increasingly becoming resistant to antibiotics, rendering them ineffective. Common infections are becoming difficult to treat, leading to more extensive spread of infectious diseases, uncertainty in success of surgical procedures, longer hospital stays, and more expensive treatments. With no new antibiotics developed over the last three decades, a 'post-antibiotic era' is no longer considered a distant possibility. AMR (ABR in particular) is, therefore, recognized as a global public health threat of an unprecedented scale. AMR is estimated to have huge economic and health impact. It could lead to 10 million deaths per year and loss of outputs worth US \$100 trillion by 2050 globally.⁶ A World Bank report suggests that it will cause a 3.8 per cent decline in world's annual GDP by 2050.⁷ AMR can also adversely impact food safety, nutrition security, livelihood and the success of Sustainable Development Goals.

HOW BACTERIA BECOME RESISTANT

The emergence of resistance is a natural process. However, it accelerates and spreads by antibiotic misuse and overuse. Antibiotic use exerts greater selection pressure on bacteria, causing susceptible populations to die and resistant ones to survive. At a cellular level, resistance is acquired through mutations in bacteria or transfer of genetic material (such as resistance genes) from other bacteria through horizontal transfer. Subsequently, the bacteria undergo structural and chemical alterations that render the antibiotic ineffective. These changes may include one or more of the following: reduced membrane permeability to the drug, alteration of the drug-binding site at the cell wall, enzymatic degradation of the drug, and normal functioning of bacteria bypassing the drug-affected enzyme or pathway.

ANTIBIOTIC MISUSE IN INTENSIVE FOOD-ANIMAL PRODUCTION

Antibiotic misuse in food-animal production is one of the key causes of AMR, not only spreading resistant bacteria but also carrying antibiotic residues into human food streams. Industrial-scale producers engage in intensive farming of animals, characteristically involving rearing in a high stocking density using high chemical inputs.

Antibiotic misuse for non-therapeutic use such as promotion of growth and prevention of disease is widespread and quite integral to such intensive farming practices. Low doses of antibiotics are routinely administered, mostly through feed, to fatten animals in shorter durations, thereby consuming lesser feed. Similarly, antibiotics are pumped into large unaffected populations, mostly through water, even in the absence of any clinical sign of infection or disease. Non-therapeutic use largely substitutes better hygiene and sanitation, good animal husbandry, and biosecurity measures in farms. Veterinary oversight on such use is either absent or limited, and antibiotics can be easily availed over-the-counter from pharmacists and bulk-drug dealers. Antibiotic-laden feed premixes can be procured online. Such non-therapeutic use is prevalent across India in farming of food-animals such as chicken and fish.

This is, however, different from therapeutic use of antibiotics, wherein antibiotic administration to animals takes place under veterinary supervision following clinical or laboratory-based diagnosis.

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Globally, a large proportion of antibiotics produced is consumed by the livestock sector. For example, in the US, 70 per cent of all antibiotics used are estimated to be consumed by farm animals, most of which through intensive farming practices.⁸ The Indian food-animal sector is also growing steeply due to greater demand for animal protein domestically, increasing farm intensification and exports. India is among the top global producers of poultry, fish and dairy. While India does not have consolidated data on antibiotic use in food animals, it can safely be inferred that it must be a significant proportion of the total antibiotics produced. A 2017 global study projects over 80 per cent increase in antibiotic consumption in livestock by 2030 in India.⁹ In particular, consumption of quinolones, macrolides and polymyxins is estimated to grow by about 250, 90 and 160 per cent respectively.



Antibiotic misuse and antibiotic resistance—evidence from India

» A 2017 study by the CSE on antibiotic resistance in poultry farm environment found routine antibiotic use in all poultry farms surveyed across four states in North India.¹⁰

» In a 2017 study, antibiotic use in 18 broiler and layer poultry farms in Punjab was linked to emergence of resistance. Broiler farms were more likely to harbour resistant *E. coli* and multi-drug resistance compared to layer farms.¹¹

» In 2017, researchers at Bhabha Atomic Research

Centre, Mumbai, reported the presence of drug-resistant *Salmonella* in ready-to-cook poultry products in India. The study linked such observations to indiscriminate antibiotic use during poultry farming and improper food processing practices.¹²

» In 2016, a study by Bloomberg investigated the log books and receipts of poultry farms in Hyderabad which were on contract with some of the biggest chicken-rearing companies in India. The study

highlighted the rampant use of critically important antibiotics for non-therapeutic purposes.¹³

» In 2016, another investigative report by CSE showed wide-scale non-therapeutic use of antibiotics in aquaculture in West Bengal.¹⁴

» CSE found residues of multiple antibiotics such as fluoroquinolones and tetracyclines in chicken meat samples from Delhi NCR in 2014. The practice of rampant antibiotic use for non-therapeutic use in poultry industry in Haryana was also highlighted.¹⁵



USE OF ANTIBIOTICS IMPORTANT FOR HUMANS

The use of the same (or the same class of) antibiotics in human and veterinary medical practices, as well as in food-animal production, is quite common. Therefore, the potential utility of these antibiotics in humans is threatened due to growing bacterial resistance resulting from their non-human use. The WHO, recognizing the need to preserve the effectiveness of these antibiotics, groups all antimicrobials used for human medicine into three categories (critically important, highly important, and important antimicrobials) based on how crucial they are in human medicine. The list is intended to assist in managing AMR and ensuring prudent use of medically-important antimicrobials. Its fifth revision, published in 2017, further prioritizes critically important antimicrobials (CIAs) into ‘highest priority’ and ‘high priority’ antimicrobials¹⁶ (see *Annexure* for the WHO list of important antimicrobials).

The 2017 WHO *Guidelines on the Use of Medically Important Antimicrobials in Food-producing Animals* recommends complete restriction on use of all classes of medically important antimicrobials in food-producing animals for growth promotion and disease prevention. The guidelines also suggest that CIAs should not be used for controlling spread of disease diagnosed within a group of food-producing animals. In addition, the ‘highest priority’ CIAs in human medicine should not be used for treatment in food-producing animals with a clinically-diagnosed infectious disease.

In India, classes of CIAs commonly used in food-animal production include fluoroquinolones, penicillins and macrolides. Another important example is colistin, a last resort polymixin drug for humans, found to be used in food-animals. Moreover, many of these CIAs could be found in feed supplements for growth promotion, and are sold without any prescription or can be availed online.

Lancet Planet Health published a global review in October 2017 suggesting that reduction in antibiotic use in animals is associated with reduced antibiotic resistance in animals and humans.

CSE RECOMMENDATIONS

The global trends to eliminate antibiotic use in food-animal production must underline efforts made in India. The Indian fast food restaurant industry is in a unique position to effect a substantial reduction in antibiotic use in food-animal production. Besides social responsibility, there is a strong business case for these companies to sell food without use of antibiotics due to rising consumer awareness and accompanied future demand. In such a fast growing industry, a timely step to control antibiotic use in the supply chain will be much easier and have a long-lasting impact.

Therefore, companies managing both Indian and foreign multinational brands must come forward and contribute to halt rising AMR. The foreign multinational chains who know the best practices of their global counterparts must take a lead in this.

»» **Fast food companies must make time-bound and aggressive India-specific commitments to eliminate or phase-off antibiotic use in their supply chains.**

- The commitments must aim to eliminate all non-therapeutic use of antibiotics and clearly indicate by when the company plans to eliminate antibiotic use as a growth promoter as well as antibiotic use in disease prevention.
- The companies must also commit to stop using altogether any antibiotic which is recognized as critically important antibiotic for humans.
- The commitments should aim to include products from all food animals (chicken, lamb, fish etc.) relevant to a company and specify accordingly.
- To achieve the commitments and share the status of progress, third-party supply chain audits, laboratory testing for antibiotic residues and resistant bacteria and documentation of antibiotic use should be made an integral part of the process.
- The commitments and reports of audit, compliance and testing should be put up in public domain. Information on AMR and antibiotic use should also feed into the national-level surveillance databases (to be developed as part of the Indian NAP on AMR).

»» **While fast food companies must take a lead, policy makers must also undertake necessary measures to address the issue of antibiotic use in food-animals beyond the fast food industry:**

- Use of antibiotics as growth promoters and for disease prevention must be prohibited. The departments of animal husbandry, dairying and fisheries at the Central and state levels must ensure this through appropriate regulations and enforcement.
- FSSAI must develop standards for antibiotic residues and resistant bacteria for food from animals, conduct periodic surveillance, and make it public.
- FSSAI should also develop labelling laws, making the consumers aware about the use of antibiotics in rearing food-animals. It should aim to eliminate routine non-therapeutic use of antibiotics from the entire food chain, beginning with fast food sold at chain restaurants. Besides helping choose safe food, such an initiative could be an incentive for a company to make and fulfill its commitment to eliminate antibiotic use.

»» **Producers of food-animals like poultry and fish, who supply to the fast food companies, are typically big and few. They should pro-actively support the commitments made and adopt practices which reduce dependence on antibiotics.**

»» **Similarly, big institutional buyers such as hotels, hospitals, airlines and railways should also work towards developing similar policies and commitments of sourcing food from animals.**

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ANNEXURE

WHO list of important antimicrobial classes (5th revision)

Highest Priority Critically Important Antimicrobials (HPCIA)	Cephalosporins (3rd,4th,5th generation), Glycopeptides, Macrolides and ketolides, Polymyxins, Quinolones
High Priority Critically Important Antimicrobials	Aminoglycosides, Ansamycins, Carbapenems and other penems , Glycylcyclines, Lipopeptides , Monobactams, Oxazolidinones, Penicillins (natural, aminopenicillins and antipseudomonal), Phosphonic acid derivatives, Drugs used solely to treat tuberculosis or other mycobacterial diseases
Highly Important Antimicrobials	Amidinopenicillins, Amphenicols, Cephalosporins (1st and 2nd generation) and cephamycins, Lincosamides, Penicillins (anti-staphylococcal), Pseudomonicacids, Riminofenazines, Steroid antibacterials, Streptogramins, Sulfonamides, dihydrofolate reductase inhibitors and combinations, Sulfones, Tetracyclines
Important Antimicrobials	Aminocyclitols ,Cyclic polypeptides, Nitrofurazones and Nitroimidazoles, Pleuromutilins

Medically important antimicrobials are categorized according to specified criteria as either 'critically important', 'highly important', or 'important' for human medicine. Criteria for categorization includes; C1: The antimicrobial class is the sole, or one of limited available therapies, to treat serious bacterial infections in people. C2: The antimicrobial class is used to treat infections in people caused by either: (1) bacteria that may be transmitted to humans from non-human sources, or (2) bacteria that may acquire resistance genes from nonhuman sources. Antimicrobial classes that meet both C1 and C2 are termed critically important for human medicine. Highly important antimicrobial classes are those which meet either C1 or C2. Antimicrobial classes used in humans which meet neither C1 nor C2 are termed important for human medicine. Further, antimicrobials within the critically important category are prioritized as per the following criteria.

Prioritization criterion 1 (P1): High absolute number of people, or high proportion of use in patients with serious infections in health care settings affected by bacterial diseases for which the antimicrobial class is the sole or one of few alternatives to treat serious infections in humans. Prioritization criterion 2 (P2): High frequency of use of the antimicrobial class for any indication in human medicine, or else high proportion of use in patients with serious infections in health care settings, since use may favour selection of resistance in both settings. Prioritization criterion 3 (P3): The antimicrobial class is used to treat infections in people for which there is evidence of transmission of resistant bacteria (e.g., non-typhoidal *Salmonella* and *Campylobacter spp.*) or resistance genes (high for *E. coli* and *Enterococcus spp.*) from non-human sources. Antimicrobials that fulfill all three following prioritization criteria are categorized as 'highest priority critically important antimicrobials'.

Source: Critically Important Antimicrobials for Human Medicine, World Health Organization, 5th revision 2016



Antimicrobial resistance (AMR) is becoming a serious global problem. It is estimated that it might lead to 10 million deaths per year and loss of outputs worth US \$100 trillion by 2050. Antibiotic misuse in food-animal production is one of the key causes of AMR.

This study examines select fast food restaurants in India to draw a comparison between their Indian and global (particularly US) positions to contain or end antibiotic presence in the meat they use. While these chains have committed to stringent regulation in the US and international markets, their Indian commitments leave a vague aftertaste. Extending their international standards to India will not only preempt government intervention but will also certainly help with sales as an informed consumer-base seeks healthier and more wholesome quick bites.



Centre for Science and Environment

41, Tughlakabad Institutional Area, New Delhi 110 062, India

Ph: +91-11-40616000 Fax: +91-11-29955879

E-mail: ananya@cseindia.org Website: www.cseindia.org