Comments of Consumer Reports on Draft Recommendations of the Ad Hoc Interagency Coordination Group on Antimicrobial Resistance

February 15, 2019

Consumer Reports welcomes the opportunity to comment on the Draft Recommendations of the Ad Hoc Interagency Coordination Group (IACG) on Antimicrobial Resistance. Antimicrobial resistance is a growing global problem that threatens human health in the United States and throughout the world.[1] We commend the IACG for developing these extensive recommendations for practical action, and for opening them for public comment, before transmitting them to the UN Secretary General later this year.

Consumer Reports is an independent U.S. non-profit organization that works side by side with consumers for truth, transparency and fairness in the marketplace, through research, testing, journalism and advocacy.[2] We have more than 6 million members, and more than 1.5 million volunteers and online activists. Consumer Reports seeks to establish strong pro-consumer policies and protections.

Established more than 80 years ago, Consumer Reports is a founding member of Consumers International, which now has more than 200 member organizations in more than 100 countries. Consumer Reports has represented Consumers International in various fora on the issue of antibiotic resistance and how to address it.

Consumer Reports shares the IACG's commitment to addressing this issue. Over the past several years, we have published numerous articles on antimicrobial resistance in our flagship magazine to provide consumers with actionable information;[3] we have lobbied state and federal legislative and regulatory bodies to adopt policies to reduce antibiotic use; and have partnered with other organizations to achieve changes in corporate practice regarding food animal production through marketplace action.[4]

The IACG has developed an important set of recommendations in a number of areas. We are especially interested in those related to animal agriculture. We

[1] O'Neill J (Chair). 2016. *Tackling Drug-Resistant Infections Globally: Final Report and Recommendations The Review on Antimicrobial Resistance*. At: https://amr-review.org/sites/default/files/160525_Final%20paper_with%20cover.pdf

[2] www.consumerreports.org

[3] https://www.consumerreports.org/health/how-to-stop-the-overuse-of-antibiotics-in-our-food-supply/

[4] https://www.antibioticsoffthemenu.org/score-cards/

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submit our comments and suggestions below on the recommendations of concern to us.

Recommendation A3: The IACG calls on all Member States to phase out the use of antimicrobials for growth promotion, consistent with guidance from the Tripartite agencies (FAO, OIE and WHO) starting with an immediate end to use of the Highest Priority Critically Important Antibiotic Agents (i.e., quinolones, third- and higher- generation cephalosporins, macrolides and ketolides, glycopeptides and polymyxins).

We support this recommendation, since it recognizes the importance of reducing usage of antibiotics in animal agriculture. However, we urge rewording of the recommendation to make it more specific, and explicitly consistent with the guidance from the Tripartite agencies, including WHO's *Guidelines on Use of Medically Important Antimicrobials in Food-Producing Animals*. In terms of the main recommendation--to end use of medically important antimicrobials for growth promotion--we note that this is consistent with action taken by a major animal drug manufacturer and the national policies of many Member States, as well as joint advice from the Tripartite agencies that judicious use of antimicrobials means they should only be used to treat or control disease. We also urge the IACG to call out the need for an overall targeted global reduction in usage of antibiotics, especially medically important antibiotics, in food animal and plant food production. Consequently, we suggest the following rewording:

"The IACG calls on Member States to:

- *Reduce use of antimicrobials in food animal and plant production with targeted reduction goals and timelines determined by countries' specific conditions.*
- *End use of medically important antimicrobials for growth promotion purposes immediately.*
- *End use of medically important antibiotics for disease prevention purposes, except where a veterinary professional judges there is a high risk of spreading a specific infectious disease, based on a recent culture and sensitivity testing results.*
- *Use antimicrobials to treat or control disease consistent with the guidance of the Tripartite agencies (FAO, OIE and WHO).*
- *End use of Highest Priority Critically Important Antimicrobials (i.e., quinolones, third- and higher- generation cephalosporins, macrolides and ketolides, glycopeptides and polymyxins) for growth promotion, disease prevention and disease control in food animal or plant production and use only*

for disease treatment if it is the only treatment option as determined by recent culture and sensitivity testing results."

Rationale for Suggested Rewording

Antimicrobial use in agriculture often exceeds human use, particularly in high-income countries with industrialized farm animal production systems where large numbers of animals are raised together in confined conditions. In the United States, more than half of medically important antibiotics are sold for use in animals.[5] Such industrialized farm animal production systems often routinely administer antibiotics in subtherapeutic doses in the animal feed. A 2015 study, by an international team of scientists, has estimated that such industrialized farm animal production systems are set to dramatically expand in mid- and low-income countries, particularly Brazil, Russia, India, China and South Africa, leading to an "antimicrobial consumption increase of 99% [by 2030], up to seven times the projected population growth" in these countries.[6] Antimicrobial use in industrialized agricultural systems will increase antibiotic resistance. Clearly, there is a need to reduce antimicrobial use in food production.

At least one major producer of antibiotics is already moving in this direction. In 2015, Elanco, the second largest supplier of antimicrobial drugs globally, announced that they would not promote the use of shared-class antibiotics for animal growth or feed efficiency and would remove growth promotion label claims from all medically important antimicrobials sold globally.[7] In late 2018, Elanco announced that they had completed this task, removing label claims for growth promotion on almost 100 products globally.[8]

The need to limit antibiotic use in animals is already well recognized in the European Union and the United States, and many other countries. According to the OIE, in 2017, 110 of 155 countries surveyed do not allow use of antimicrobials for growth promotion.[9] An IACG recommendation that all

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[5] https://www.nrdc.org/experts/avinash-kar/livestock-antibiotic-sales-drop-remain-very-high

[6] Pg. 5649 in van Boeckel TP, Brower C, Gilbert M, Grenfell BT et al. 2015. Global trends in antimicrobial use in food animals. PNAS 112(18): 5649-5654. At: https://www.pnas.org/content/pnas/112/18/5649.full.pdf

[7] https://assets.ctfassets.net/f77lgyyxjmq2/4Tvrvy932oIMgOy0q8sgqg/813539917bd277949d5f36f88add26d8/easset_upload_file37598_111948_e.pdf

[8] https://www.elanco.com/news/press-releases/elanco-animal-health-expands-commitment-to-fight-antimicrobial-resistance

[9] World Organization for Animal Health (OIE). 2019. OIE Annual Report on antimicrobial agents intended for use in animals. Third Report. At: http://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/AMR/Annual_Report_AMR_3.pdf

medically important antimicrobials should be prohibited immediately for growth promotion will thus require no change for 71 percent of countries. To protect the effectiveness of antibiotics, IACG should urge the remaining Member States to also enact such restrictions as soon as possible.

Progress is also needed in reducing antibiotic use for disease prevention in animals. Civil society has worked with food retailers to achieve voluntary reductions in food animal antibiotic use for disease prevention. A coalition of six US consumer, environmental and animal welfare groups including Consumer Reports has published the Chain Reaction scorecard for the last four years using the WHO Guidelines as a benchmark.[10] Of the top 25 fast food chains in the US, the number that have policies that conform to the WHO Guidelines on disease prevention has risen from five to eighteen in 2018, for the chicken they serve.[11] Among those with such policies are the three largest *global* fast food chains, and these companies are beginning to extend their policies to the global level.

The majority of antimicrobial use in many industrialized farm animal production systems is for uses in healthy animals not exhibiting signs of infectious disease (e.g., for growth promotion and disease prevention). Given the serious problem of antimicrobial resistance, there is agreement that antimicrobials should only be used to treat or control infectious diseases. A poster on Antimicrobial Resistance jointly put out by the Tripartite agencies (WHO/FAO/OIE) as part of Antibiotic Awareness Week in 2015 states, under "What the Agriculture Sector Can Do: 1) ensure that antibiotics given to animals—including food-producing and companion animals—are only **used to control or treat** infectious diseases and under veterinary supervision"[12] (**bold** in original).

It is thus appropriate for the IACG to call on Member States to implement the WHO Guidelines specifically.

We have one further concern about the **Considerations for this recommendation** section. The third bullet states: "It is particularly important that all countries employ appropriate risk analysis – the process of hazard identification and risk assessment, management and communication – as described in the OIE Terrestrial Animal and Aquatic Animal Health Codes. Such risk analyses should be unbiased assessments that transparently present the evidence base for findings and recommendations and be subject to peer review." We suggest that this be reworded to make it clear that, while risk analysis should

[10] https://www.antibioticsoffthemenu.org/score-cards/
[11] https://uspirg.org/sites/pirg/files/ChainReaction4_Report-10_17_18.pdf
[12] https://www.who.int/mediacentre/events/2015/world-antibiotic-awareness-week/agriculture-poster.jpg?ua=1

be used when approving antimicrobials, there is no need to do a risk analysis for use of medically important antimicrobials for growth promotion purposes, because such use should not be allowed. As the Tripartite agencies have noted, antimicrobials should only be used to control or treat infectious disease, not for growth promotion or disease prevention. WHO's *Guidelines on Use of Medically-Important Antimicrobials in Food Producing Animals* also clearly states that medically important antimicrobials should never be used for growth promotion.

To clarify the appropriate use of risk analysis, we urge that the IACG revise the third bullet to read, "It is particularly important that all countries employ appropriate risk analysis **when approving antibiotics for animal use**…" (addition in **bold**). The IACG should further add an extra sentence to the above two sentences that reads, "Such risk analyses are not appropriate for medically important antimicrobials proposed for growth promotion purposes, because such uses should not be allowed."

Recommendation B2: The IACG recommends that existing and future global access initiatives should promote and support equitable and affordable access to existing and new antimicrobials, diagnostics, vaccines, waste management tools and safe and effective alternatives to antibiotics for human, terrestrial and aquatic animal and plant health.

We support this recommendation, since there is a great need for equitable and affordable access to both present and future antimicrobials and alternatives to antibiotics. However it is important to clarify that the alternatives to antibiotics can be either alternative substances (such as prebiotics, phages, competitive exclusion products, immune modulators, organic acids, etc.) or alternative practices, such as improved sanitation, good animal husbandry practices, appropriate stocking densities for animal agriculture; or crop rotation, integrated pest management practices, and improved soil health for plant agriculture. Thus, we suggest adding an extra sentence to the recommendation that reads, "*Such alternatives may include substances (such as prebiotics, phages, or immune modulators) or practices (such as improved sanitation, good animal husbandry practices, integrated pest management, or improved soil health)*."

In the **Considerations for this recommendation**, we suggest adding a third bullet which reads, "The IACG recommends greater efforts to disseminate practices for fighting animal diseases, including improved sanitation, prevention of disease, appropriate stocking density and other sound animal husbandry approaches. There should also be greater dissemination of practices to promote plant health and minimize pests and diseases such as crop rotation, integrated pest management practices and improved soil health." The reason for adding this

bullet is to make it clear that alternatives to antibiotics can also include practices, since the first two bullets focus on alternative substances.

Recommendation C1: The IACG calls for the systematic and meaningful engagement of civil society groups and organizations as key stakeholders in the One Health response to antimicrobial resistance at global, regional, national and local levels through: … c. Provision of political, financial and technical support for civil society organizations to enhance their engagement, including for work with governments.

We support this recommendation, since we see through our own work what civil society engagement can accomplish.

The second bullet of **Considerations for this recommendation** notes that "consumer groups have advocated successfully for responsible antibiotic use in food production by some companies, mainly in high-income countries." With financial support, consumer organizations outside of the high income countries could also successfully advocate for such responsible antibiotic use in food production. Thus, we suggest adding an additional sentence in the second bullet: "*Providing funding could enable sharing of strategies among consumer and other civil society organizations to bring pressure in the marketplace to increase availability and sales of food from production systems than minimize or eliminate use of antimicrobials, especially medically important antimicrobials*."

Recommendation E2: The IACG requests the Secretary-General, in close collaboration with the Tripartite agencies (FAO, OIE, WHO), UNEP and other international organizations, to convene an Independent Panel on Evidence for Action against Antimicrobial Resistance in a One Health context to monitor and provide Member States with regular reports on the science and evidence related to antimicrobial resistance, its impacts and future risks, and recommend options for adaptation and mitigation.

We strongly support this recommendation as it would provide much needed guidance across intergovernmental agencies on how best to weigh available evidence and to adopt policies to address antimicrobial resistance. The recent experience with colistin illustrates the value of sharing scientific findings and the potential usefulness of a Panel to evaluate new information. Colistin is a last-resort antibiotic able to treat certain otherwise resistant infections. In 2016, a colistin resistance gene, *mcr-1*, was described that appeared on a plasmid in *E.*

coli in China.[13] A detailed phylogenetic analysis published in 2018 found the gene likely originated in Chinese livestock around 2006 and, in the next ten years, spread to 31 countries on five continents.[14] The emergence and spread of this mobile colistin resistance gene so quickly throughout the world shows that a global response to new resistance threats is needed, since the emergence in one country can rapidly spread as a result of global trade and travel.

The recommendation would be strengthened by an addition to the fourth bullet of Considerations for this recommendation, which references the need for the proposed Independent Panel to "draw on the experiences and lessons of similar, existing entities." In addition to reference to International Panel on Climate Change, the Joint Expert Committee on Food Additives and the Joint Meeting on Microbiological Risk Assessment, we urge inclusion of the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD). This report will also provide useful information to the expert panel. The IAASTD was a global scientific assessment initiated by the World Bank and the United Nations and completed in 2008 to evaluate the state of global agriculture, its history and future and make recommendations for the future of farming.[15] The IAASTD Global Report and regional reports contain discussion of antimicrobial usage in agriculture and discusses ways to minimize such uses.

[13] Liu, YY, Wang Y, Walsh TR, Yi LX et al. 2016. Emergence of plasmid-mediated colistin resistance mechanism *mcr-1* in animals and human being in China: a microbiological and molecular biological study. *Lancet Infectious Diseases* 16: 161-168. At:
[14] Wang, R, can Dorp L, Shaw LP, Bradeley P et al. 2018. The global distribution and spread of the mobilized colistin resistance gene *mcr-1*. *Nature Communications*. At: https://www.nature.com/articles/s41467-018-03205-z.pdf
[15] https://www.globalagriculture.org/report-topics/about-the-iaastd-report.html