



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

February 4, 2022

Lawrence Derenge
Yum! Brands, Inc.

Re: Yum! Brands, Inc. (the "Company")
Incoming letter dated February 3, 2022

Dear Mr. Derenge:

This letter is in regard to your correspondence concerning the shareholder proposal (the "Proposal") submitted to the Company by Paul Rissman (the "Proponent") for inclusion in the Company's proxy materials for its upcoming annual meeting of security holders. Your letter indicates that the Proponent has withdrawn the Proposal and that the Company therefore withdraws its January 11, 2022 request for a no-action letter from the Division. Because the matter is now moot, we will have no further comment.

Copies of all of the correspondence related to this matter will be made available on our website at <https://www.sec.gov/corpfin/2021-2022-shareholder-proposals-no-action>.

Sincerely,

Rule 14a-8 Review Team

cc: Sara E. Murphy
The Shareholder Commons

January 11, 2022

VIA EMAIL: shareholderproposals@sec.gov

U.S. Securities and Exchange Commission
Division of Corporate Finance
Office of Chief Counsel
100 F Street, NE
Washington, DC 20549

Re: Yum! Brands — Exclusion of Shareholder Proposal
Submitted by The Shareholder Commons on behalf
of Paul Rissman

Dear Sir or Madam:

Yum! Brands, Inc. (the “*Company*”), respectfully submits this letter pursuant to Rule 14a-8(j) under the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), to notify the Securities and Exchange Commission (the “*Commission*”) of the Company’s intention to exclude from the Company’s proxy materials for its 2022 annual meeting of shareholders (the “*2022 Proxy Materials*”), a shareholder proposal submitted to the Company by The Share Holder Commons (the “*Representative*”) on behalf of Paul Rissman (the “*Proponent*”) in a letter dated November 30, 2021 (the “*Shareholder Proposal*”).

The Company requests confirmation that the Commission’s staff (the “*Staff*”) will not recommend to the Commission that enforcement action be taken against the Company if the Company excludes the Shareholder Proposal from its 2022 Proxy Materials pursuant to Rules 14a-8(i)(10) and 14a-8(i)(3) under the Exchange Act, on the basis that (i) the Company has already substantially implemented the Shareholder Proposal and (ii) the Shareholder Proposal is vague and misleading in violation of Rule 14a-9.

Pursuant to Exchange Act Rule 14a-8(j), the Company is submitting electronically to the Commission this letter and the exhibits attached hereto, and is concurrently sending a copy of this correspondence to the Proponent, no later than eighty (80) calendar days before the Company intends to file its definitive 2022 Proxy Materials with the Commission.

Rule 14a-8(k) and Staff Legal Bulletin No. 14D (November 7, 2008) (“*SLB 14D*”) provide that shareholder proponents are required to send companies a copy of any correspondence that the proponents elect to submit to the Commission or the Staff. Accordingly, we are taking this opportunity to inform the Proponent that if the Proponent elects to submit additional correspondence to the Commission or the Staff with respect to the Shareholder Proposal, a copy of that correspondence should be furnished concurrently to the undersigned on behalf of the Company pursuant to Rule 14a-8(k) and SLB 14D.

The Shareholder Proposal

On November 30, 2021, the Company received the following Shareholder Proposal from the Proponent for inclusion in the 2022 Proxy Materials:

Item [4] – Report on Strategies to Mitigate Antimicrobial Resistance

Resolved, shareholders ask that the board commission and disclose a study on how the Company can address competitive concerns that interfere with efforts to mitigate the antimicrobial resistance (“AMR”) crisis by considering the financial position of the Company’s diversified owners in establishing its practices.

Supporting Statement:

At least 700,000 people die annually due to AMR, the phenomenon of pathogens becoming resistant to antibiotics and other antimicrobials. The death toll may rise to 10 million by 2050. The *2021 YUM! Antimicrobial Resistance Report*¹ (“Report”) identifies AMR as “among the 21st century’s main threats,” noting:

[T]he World Bank estimates a global GDP shrinkage of 3.8% [due to AMR], with direct costs reaching over \$3 trillion USD, annually... However, even high-AMR scenarios may reflect an underestimation of the true costs of AMR because of the challenges in calculating second order effects related to trade and other broad economic activity.

Resistance is accelerated by misuse of antimicrobials in animals raised for food. The Report notes the link between producing meat and AMR, finding that “agriculture and livestock settings account for approximately two-thirds of global antibiotics [use]” and that many “factors point to alternative practices that can decrease the need for excessive antibiotic use in animal husbandry.”

Despite this connection, the Report says it is difficult for the Company to address the problem properly because of competitive concerns:

*This research appears to show that **one of the most significant barriers to meeting the challenge of AMR is the balance between the rewards of proactive AMR mitigation and the cost of changing established husbandry practices.***

*The challenge of individual costs and widely distributed societal benefits, a situation common in many sustainability issues, plays a key role in antimicrobial resistance. **This may make it difficult to pursue AMR mitigation while remaining competitive on costs and highlights the need for strong collaboration between both the public and private sectors.** (Emphasis added.)*

This suggests the Company prioritizes profits over safeguarding the global economy. This is a bad choice for the Company’s diversified owners, who lose when companies in their portfolios engage in practices that lower global economic performance, because financial market values rise and fall with GDP.²

The Proposal would encourage the Company to study how, in order to address the cost of better antimicrobial practices, it could (1) participate in more public and private collaborations and (2) explicitly account for consequent performance improvements in its shareholders’ diversified portfolios. Such a report would help diversified shareholders determine whether to seek a change in corporate direction so that the Company can better serve their interests.

A copy of the Shareholder Proposal from the Proponent is attached hereto as Exhibit A.

¹ <https://www.yum.com/wps/wcm/connect/yumbrands/41a69d9d-5f66-4a68-bdee-e60d138bd741/Antimicrobial+Resistance+Report+2021+11-4+-+final.pdf?MOD=AJPERES&CVID=nPMkceo>,

² https://www.unepfi.org/fileadmin/documents/universal_ownership_full.pdf.

Basis for Exclusion

We respectfully request that the Staff concur in our view that the Shareholder Proposal may be excluded from the 2022 Proxy Materials pursuant to:

- Rule 14a-8(i)(10) because the Company has substantially implemented the Shareholder Proposal through the Company's 2021 Yum! Antimicrobial Resistance Report (the "**Report**"), attached hereto as Exhibit B; and
- Rule 14a-8(i)(3) because the Shareholder Proposal is impermissibly vague and indefinite so as to be materially misleading in violation of Rule 14a-9.

Analysis

I. The Shareholder Proposal May Be Excluded Pursuant to Rule 14a-8(i)(10) Because The Company Has Substantially Implemented The Shareholder Proposal.

A. Background

Rule 14a-8(i)(10) permits a company to exclude a shareholder proposal if "the company has already substantially implemented the proposal." As detailed below, the Company publicly released its detailed 2021 Antimicrobial Resistance Report mere weeks before the Shareholder Proposal was submitted. Under the "substantially implemented" standard, a company may exclude a shareholder proposal when the company's actions address the shareholder proposal's underlying concerns, even if the company does not implement every aspect of the shareholder proposal. Masco Corporation (Mar. 29, 1999) (permitting exclusion on substantial implementation grounds where the company adopted a version of the proposal with slight modification and clarification as to one of its terms). *See also* MGM Resorts International (Feb. 28, 2012) (permitting exclusion on substantial implementation grounds of a proposal requesting a report on the company's sustainability policies and performance, including multiple objective statistical indicators, where the company published an annual sustainability report); Exxon Mobil Corp. (Rossi) (Mar. 19, 2010) (permitting differences between a company's actions and a shareholder proposal so long as the company's actions satisfactorily address the proposal's essential objectives); Texaco, Inc. (Mar. 28, 1991) ("a determination that the company has substantially implemented the proposal depends upon whether [the company's] particular policies, practices and procedures compare favorably with the guidelines of the proposal"). The purpose of Rule 14a-8(i)(10) is to "avoid the possibility of shareholders having to consider matters which have already been favorably acted upon by management." *See* Exchange Release No. 34-20091 (August 16, 1983); and Exchange Act Release No. 34-12598 (July 7, 1976) (discussing Rule 14a-8(c)(10), the predecessor to Rule 14a-8(i)(10)).

The Staff has previously considered proposals similar to the Shareholder Proposal, and granted no-action relief pursuant to Rule 14a-8(i)(10) on the basis that those proposals were substantially implemented. *See e.g.*, Exxon Mobil Corporation (Mar. 20, 2020) (concurring with the company's exclusion of a proposal requiring the Company to issue a report describing how the company can reduce its contribution to climate change and align with the Paris Agreement's standard where such information is made available in the Company's public report); Hess Corp. (Apr. 11, 2019) and Entergy Corp. (Feb. 14, 2014) (both concurring with the company's exclusion of a shareholder proposal that requested a report on how the company can reduce its carbon footprint in alignment with greenhouse gas reductions where the company had met the essential objective through its annual sustainability report and other existing company disclosures); Wal-Mart Stores, Inc. (Feb. 21, 2017) (concurring with the company's exclusion of a shareholder proposal that requested the company to establish time-bound quantitative goals for reducing food waste and a report with plans to achieve those goals where the company had already adopted such goals and the company website contained information on how the company planned to achieve those goals); Mondelēz International, Inc.

(Mar. 7, 2014) (concurring with the company’s exclusion of a shareholder proposal that requested reporting on the company’s process for identifying and analyzing potential and actual human rights risks in the company’s operations and supply chain where the company had already provided the requested information in several different locations on the company website); The Wendy’s Company (Apr. 10, 2019) (same); Caterpillar, Inc. (Mar. 11, 2008) (concurring with the company’s exclusion of a shareholder proposal that requested the company to prepare a global warming report where the company had already published a report containing information on its environmental initiatives); Wal-Mart Stores, Inc. (Mar. 10, 2008) (same); PG&E Corp. (Mar. 6, 2008) (same); The Dow Chemical Co. (Mar. 5, 2008) (same); Alcoa Inc. (Feb. 3, 2009) (same).

B. The Company’s Detailed and Publicly-Available 2021 Antimicrobial Resistance Report Substantially Implemented The Shareholder Proposal.

The Shareholder Proposal, entitled “Report on Strategies to Mitigate Antimicrobial Resistance,” requests that the Company issue a report on how the Company is responding to competitive concerns that interfere with efforts to mitigate antimicrobial resistance (“AMR”). The Company understands the significance of antimicrobial resistance as a critical issue globally, and especially as it relates to several commodity supply chains. As discussed in more detail below, the Company has already substantially implemented this aspect of the Shareholder Proposal through the Report it recently published in November 2021. Notably, this Report was tailored to address particular issues raised in a proposal submitted to the Company by the same Proponent for consideration at the 2021 annual meeting of shareholders (see Exhibit C). That proposal was ultimately withdrawn by the Proponent after the Company agreed to publish the Report, which addressed the particular issues raised by the Proponent, both in his prior proposal and during dialogue between the Company and the Proponent’s representatives. The Company’s clear stance on reducing antibiotic use and the Report discussing the AMR issue are publicly viewable at <https://www.yum.com/wps/portal/yumbrands/Yumbrands/citizenship-and-sustainability/planet/animal-welfare>.

The Company demonstrated its response to the Proponent’s concerns through issuing the recent public Report. The Report makes clear that the Company acknowledges the concerns surrounding antibiotic use in its supply chains as a global issue requiring cross-border solutions and collaboration. The Report explores the complexity of the AMR issue and identifies measures the Company is taking to reduce antibiotic use and to mitigate the overall problem. The Company grounded the Report on evidence-based research conducted by a third-party organization.³ The research included a review of existing data and literature and interviews with subject matter experts.⁴ A leading AMR expert also worked closely with this third-party organization and the Company to help ensure the accuracy and quality of the content included in the Report, as well as to provide oversight throughout the Report’s production.⁵

The Report disclosed key findings tied to the research, including: (1) AMR is increasing and research indicates that direct costs imposed on the healthcare system worldwide are currently significant; (2) mitigation strategies that have decreased AMR and costs have mostly been deployed on a national level; (3) existing AMR efforts in the food industry are largely based on a compliance approach in countries of operation; (4) government strategies are far-reaching but might take between five to 10 years to implement; (5) the lack of reliable economic data associated with AMR caused by antibiotic use in

³ Report, at 3.

⁴ *Id.*

⁵ *Id.*

agriculture limits the ability to quantify the cost of AMR in the agricultural space; (6) the number and intensity of public and private antibiotic stewardship initiatives have increased over the last few years; and (7) the outbreak of COVID-19 has put the global health sector under extreme pressure resulting in the increased use of antibiotics for COVID-19 secondary infections.⁶

Through its research efforts, the Company further highlighted in the Report its existing policies and foundations to its antimicrobial stewardship program.⁷ As mentioned below, this program was established in 2019 as the Company's response to the AMR issue. These policies include (1) effective animal husbandry practices and alternate interventions that reduce risks to animal health; (2) responsible judicious use of antimicrobials; (3) implementing science-based solutions; (4) implementing solutions tailored by country and region; (5) implementing solutions specific to and compliant with local government and regulations; and (6) surveillance and monitoring antimicrobial usage by auditing suppliers to confirm compliance with the Company's safety and quality standards for food animals.⁸ The Company's commitments to responsible usage of its antibiotics are clearly identified in the Report, with a status as to its progress with each.⁹

The Report describes a number of strategies that the Company has pursued and is continuing to pursue to address competitive concerns that may hinder AMR mitigation efforts. The principal strategy involves active support by the Company of governmental and industry wide efforts in this area. The Report is replete with specific examples of this strategy. For example, the Report notes the Company's support of "One Health, a holistic and multi-sectoral, long-term effort to combat AMR by the United Nations World Health Organization (WHO), the Food and Agriculture Organization (FAO), the World Organisation for Animal Health (OIE) and other key stakeholders."¹⁰

Another example of the Company's support for public and private antibiotic stewardship initiatives cited in the Report is the "AMR Challenge, a year-long global challenge organized by the Centers for Disease Control and Prevention (CDC) in 2018 . . . [that] resulted in 345 commitments from public and private institutions, including YUM!"¹¹

Crucial to any AMR mitigation strategy is the involvement of the public sector because, as the Report states, "public sector actions set a supporting baseline for further private sector action by discouraging the undercutting of competitors through employing practices that can drive AMR."¹² In order to further the implementation of regulatory standards for AMR mitigation, the Report identifies the Company's "efforts to impact this through lobbying, political influence, educational activities and other expenditures."¹³

Other components of the Company's strategy that the Report describes as fostering collaborative industry efforts include the Company's involvement with the U.S. Roundtable for Sustainable Beef (USRSB) and the International Consortium for Antimicrobial Stewardship in Agriculture (ICASA).¹⁴ By

⁶ *Id.* at 4.

⁷ *Id.* at 13.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 3, 13, 15.

¹¹ *Id.* at 4, 15.

¹² *Id.* at 10.

¹³ *Id.* at 15.

¹⁴ *Id.* at 13.

participating in these industry-wide efforts, “Yum! and other companies can leverage scale to potentially influence key players such as suppliers and governments.”¹⁵

Another element of the Company’s strategy which is designed to address competitive concerns is education, because, as the Report notes, “consumers are increasingly aware of AMR, and have a positive view of brands that pursue AMR mitigation.”¹⁶

The Report discussed above amply demonstrates that the Company has substantially implemented the essential objective of the Shareholder Proposal by furnishing information on “how the Company can address competitive concerns that interfere with the efforts to mitigate the [AMR] crisis.” For the above reasons, the Company has substantially implemented the Shareholder Proposal, and it may be excluded from the 2022 Proxy Materials in reliance on Rule 14a-8(i)(10).

II. The Shareholder Proposal May be Excluded Pursuant To Rule 14a-8(i)(3) Because It Is Impermissibly Vague And Indefinite So As To Be Materially Misleading.

As detailed in Section I above, the Report substantially implements what the Company believes to be the “essential objective” of the Shareholder Proposal – to prepare a report that describes how the Company can address competitive concerns in the context of its AMR mitigation efforts. To the extent that the “essential objective” of the Shareholder Proposal is something different, then the inclusion of various vague and undefined terms make it difficult for the Company, much less a shareholder, to discern what that objective might be. As further discussed in this Section II, the Shareholder Proposal as written is impermissibly vague and indefinite and should be excluded as it is materially misleading.

A. Background

Rule 14a-8(i)(3) provides for the exclusion of a shareholder proposal from a company’s proxy materials “[i]f the proposal or supporting statement is contrary to any of the Commission’s proxy rules, including Rule 14a-9, which prohibits materially false or misleading statements in proxy solicitation materials.” The Staff has repeatedly advised that vague and indefinite shareholder proposals are materially misleading and are therefore excludable because “neither the [share]holders voting on the proposal, nor the company in implementing the proposal (if adopted) would be able to determine with any reasonable certainty exactly what actions or measures the proposal requires.” Staff Legal Bulletin No. 14B (Sept. 15, 2004). *See also* Dryer v. SEC, 287 F.2d 773, 781 (8th Cir. 1961) (“[I]t appears to us that the proposal, as drafted and submitted to the company, is so vague and indefinite as to make it impossible for either the board of directors or the stockholders at large to comprehend precisely what the proposal would entail.”). The purpose of Rule 14a-8(i)(3) is to prevent misleading shareholder proposals that could lead shareholders to interpret the proposal differently so that “any action ultimately taken by the [c]ompany upon implementation could be significantly different from the actions envisioned by shareholders voting on the proposal.” Fuqua Industries, Inc. (avail. Mar. 12, 1991).

The Staff has consistently concurred with the exclusion of shareholder proposals under Rule 14a-8(i)(3) where the proposal lacked specificity, explanation or guidance as to the standards, terms and scope of its request so as to allow the company and its shareholders to comprehensively understand how such proposal should be fully implemented. *See, e.g., eBay Inc.* (avail. Apr. 10, 2019) (concurring with the company’s exclusion under Rule 14a-8(i)(3) where the proposal that the company “reform the company’s

¹⁵ *Id.* at 14.

¹⁶ *Id.* at 15.

executive compensation committee” was vague and indefinite); Microsoft Corp. (Oct. 7, 2016) (concurring with the company’s exclusion under Rule 14a-8(i)(3) where the stockholder proposal requested the board to find a “compelling determination” before taking actions that would prevent the “effectiveness of a shareholder vote”); Apple Inc. (Zhao) (avail. Dec. 6, 2019) (concurring with the company’s exclusion under Rule 14a-8(i)(3) where the proposal requesting the company to “improve guiding principles of executive compensation” failed to provide sufficient clarity as to what improvements the proponent was seeking).

B. The Shareholder Proposal Is Inherently Vague and Indefinite So As To Be Materially Misleading.

Here, analogous to the line of precedent discussed above, the Shareholder Proposal is vague as to several of the terms it uses as further discussed below.

The Shareholder Proposal requests for the Company to address “competitive concerns.” It is unclear which “competitive concerns” the Shareholder Proposal is referring to. The Report states that “the challenge of individual costs and widely distributed societal benefits ... may make it difficult to pursue AMR mitigation while remaining competitive on costs ...”¹⁷ It could be that the Proponent is referencing this text from the Report. It could also be that the Proponent has an alternative definition as to what these competitive concerns are.

As stated above, the Shareholder Proposal requests “a study on how the Company can address competitive concerns that interfere with efforts to mitigate the antimicrobial resistance (“AMR”) crisis **by considering the financial position of the Company’s diversified owners in establishing its practices.**” (Emphasis added.) The Company is unable to discern how the study’s outcome might be impacted by consideration of “the financial position of the Company’s diversified owners.” The Shareholder Proposal offers no guidance as to how to interpret “financial position” nor any indication as to how the “financial position” of these owners might impact the results of the study.

Similarly, the Shareholder Proposal provides no guidance regarding the meaning of “diversified owners.” Is this referring to all of the Company’s shareholders? If so, what meaning is to be given to the term “diversified”? If it is not referring to all of the Company’s shareholders, the Shareholder Proposal provides no guidance as to the standards the Company is to use to distinguish those of its shareholders who are “diversified” from those who are not. From the Supporting Statement’s reference to “shareholder’s diversified portfolios,” one might infer that diversification should be assessed with respect to each shareholder’s financial assets. Even if this information were available to the Company, what particular asset classes would a shareholder have to own, and in what proportions, to be considered diversified? The Shareholder Proposal provides no indication whatsoever, leaving each shareholder to conclude for itself how their “financial position” is relevant to the study and what constitutes a “diversified owner” thereby leading each shareholder to have its own interpretation as to what the Shareholder Proposal means. Given the vagueness of the Shareholder Proposal, the Company has no assurance that any study would satisfy Proponent’s explicit direction to consider the “financial position of the Company’s diversified owners.”

Accordingly, for the reasons discussed above, the Shareholder Proposal is vague and indefinite so as to be inherently misleading in violation of the Commission’s proxy rules and it may be excluded from the 2022 Proxy Materials in reliance on Rule 14a-8(i)(3).

¹⁷ *Id.* at 14.

Conclusion

Based on the foregoing analysis, we respectfully request that the Staff concur that it will take no action if the Company excludes the Shareholder Proposal from its 2022 Proxy Materials on the basis that the Shareholder Proposal has been substantially implemented by the Company and that the Shareholder Proposal is inherently misleading. Should the Staff disagree with the Company's conclusions regarding the omission of the Shareholder Proposal, or should any additional information be desired in support of the Company's position, I would appreciate the opportunity to confer with the Staff concerning these matters prior to the issuance of your response.

If the Staff has any questions regarding this request or requires additional information, please contact the undersigned by phone at 502-874-8719 or by email at larry.deringe@yum.com.

Sincerely,

Lawrence Deringe
Director, Legal
Yum! Brands, Inc.

cc: Paul Rissman
The Shareholder Commons

Exhibit A

Copy of the Shareholder Proposal

See Attached

[YUM! Brands, Inc.: Rule 14a-8 Proposal, November 30, 2021]

[This line and any line above it – Not for publication]

ITEM 4* – Report on Strategies to Mitigate Antimicrobial Resistance

RESOLVED, shareholders ask that the board commission and disclose a study on how the Company can address competitive concerns that interfere with efforts to mitigate the antimicrobial resistance (“AMR”) crisis by considering the financial position of the Company’s diversified owners in establishing its practices.

Supporting Statement:

At least 700,000 people die annually due to AMR, the phenomenon of pathogens becoming resistant to antibiotics and other antimicrobials. The death toll may rise to 10 million by 2050. The 2021 YUM! Antimicrobial Resistance Report¹ (“Report”) identifies AMR as “among the 21st century’s main threats,” noting:

[T]he World Bank estimates a global GDP shrinkage of 3.8% [due to AMR], with direct costs reaching over \$3 trillion USD, annually... However, even high-AMR scenarios may reflect an underestimation of the true costs of AMR because of the challenges in calculating second order effects related to trade and other broad economic activity.

Resistance is accelerated by misuse of antimicrobials in animals raised for food. The Report notes the link between producing meat and AMR, finding that “agriculture and livestock settings account for approximately two-thirds of global antibiotics [use]” and that many “factors point to alternative practices that can decrease the need for excessive antibiotic use in animal husbandry.”

Despite this connection, the Report says it is difficult for the Company to address the problem properly because of competitive concerns:

*This research appears to show that **one of the most significant barriers to meeting the challenge of AMR is the balance between the rewards of proactive AMR mitigation and the cost of changing established husbandry practices.***

*The challenge of individual costs and widely distributed societal benefits, a situation common in many sustainability issues, plays a key role in antimicrobial resistance. **This may make it difficult to pursue AMR mitigation while remaining competitive on costs** and highlights the need for strong collaboration between both the public and private sectors. (Emphasis added.)*

This suggests the Company prioritizes profits over safeguarding the global economy. This is a bad choice for the Company’s diversified owners, who lose when companies in their portfolios engage in practices that lower global economic performance, because financial market values rise and fall with GDP.²

¹ <https://www.yum.com/wps/wcm/connect/yumbrands/41a69d9d-5f66-4a68-bdee-e60d138bd741/Antimicrobial+Resistance+Report+2021+11-4+-+final.pdf?MOD=AJPERES&CVID=nPMkceo>

² https://www.unepfi.org/fileadmin/documents/universal_ownership_full.pdf

The Proposal would encourage the Company to study how, in order to address the cost of better antimicrobial practices, it could (1) participate in more public and private collaborations and (2) explicitly account for consequent performance improvements in its shareholders' diversified portfolios. Such a report would help diversified shareholders determine whether to seek a change in corporate direction so that the Company can better serve their interests.

Please vote for: Report on Strategies to Mitigate Antimicrobial Resistance – Item 4*

[This line and any below are not for publication]

Number 4* to be assigned by the Company

Exhibit B

Copy of the Report

See Attached

2021 YUM! ANTIMICROBIAL RESISTANCE REPORT

Research conducted by PreScouter



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PROLOGUE

In early 2021, as part of Yum! Brands' continued antimicrobial resistance (AMR) journey, the company's sustainability team had an ongoing dialogue with a shareholder who filed a proposal regarding the issue of AMR. As a result of our discussions, it was agreed that Yum! would produce a report on AMR that provides or addresses the following:

- Greater context on AMR, the systemwide costs of AMR and strategy for quantifying external AMR costs
- Stakeholders who absorb these costs
- An optimal global scenario to eliminate or internalize AMR costs
- Competitive concerns
- How Yum! policies and procedures could influence the global scenario

Prior to working on the report, we established key principles to guide its production including that the report must remain grounded in evidence-based, sound science and balance the complex nature and increased pressure in the AMR space.

We commissioned a third-party organization to conduct the research, which included a review of existing data and literature and interviews with subject matter experts (SMEs). Additionally, a leading AMR expert worked closely with the third-party organization and our team to help ensure the accuracy and quality of the content included in the report, as well as to provide oversight throughout the report's production.

The content contained in the report is intended to be a snapshot of the current state of research, outlined above and isn't a holistic review of all AMR data and literature. We acknowledge that AMR is a complex and multifaceted issue, and this report is only one output with a limited scope.

We believe that by continuing to better understand the broader AMR landscape and existing research that Yum! can make more progress when it comes to programs and policies to positively impact the global AMR scenario. In addition, we are committed to being a good steward of the animals raised for food throughout our supply chain and that includes playing a positive role in the responsible and judicious use of antimicrobials and decreasing AMR.

Across the Yum! system, we take a thoughtful, comprehensive health management approach to our AMR programs, which may necessitate the use of antibiotics for animal health. We share concerns regarding the rising threat of AMR and support One Health, a holistic and multi-sectoral, long-term effort to combat AMR by the United Nations World Health Organization (WHO), the Food and Agriculture Organization (FAO), the World Organisation for Animal Health (OIE) and other key stakeholders.

EXECUTIVE SUMMARY

This report is intended to evaluate the global costs associated with AMR and better understand the high-level drivers and mitigation strategies, which impact cost. In this report, we disentangle the elements and identify the relative contribution of individual factors to global AMR costs at large. The investigation, conducted by PreScouter, combined data from existing research articles, policy white papers and market research reports with research conducted through interviews with SMEs. The research portion of this investigation included a panel of 12 experts on global health, epidemiology, infection control, medical microbiology and health economics.

As of 2021, it is thought that the global cost of AMR, including direct and indirect costs, is significant and that these costs are largely driven by the increase in infections caused by antibiotic resistant bacterial species; with infections from *A. baumannii*, *E. coli* and *S. pneumoniae* driving more than 54% of AMR costs by 2027. In addition, AMR contributes to costs worldwide through an increased strain on the medical system.

While quantifiable risks and costs are well documented, AMR attribution is challenging. One major driver is the misuse of medically important human antibiotics. At its core, three separate but interrelated issues involving the use of medically important human antibiotics – excess, access and governance – influence AMR. Excess includes easy to obtain and relatively inexpensive antibiotics, often leading to overuse and misuse. Access problems include no access, delayed access and access to mostly counterfeit antibiotics. Poor access can result in an increased misuse of higher group antibiotics as well as unnecessary deaths. Inadequate governance, with limited or no immediate tangible consequences, fosters overuse and misuse. While research indicates that a major driver of AMR is medical misuse of antibiotics, the following are identified as key drivers in each economic category:

- Misuse of antibiotics in the medical, agricultural and food sectors are seen as playing a role in high-income countries.
- Middle-income countries have poorly regulated agriculture as one of their largest drivers of AMR.
- Sanitation and economics in low-income countries are major issues that contribute to poor access and misuse.

The problem of AMR cannot be solved with quick-fix solutions. Responsible antibiotic prescription and more specific use of antimicrobials in humans **may be the highest impact strategy for reducing AMR's impact moving forward**. In agriculture, effective strategies have included removal of preventative antibiotics from the value chain, improved monitoring of suppliers and targeted removal of medically relevant antibiotics from operations. Enhancing husbandry practices, judicious use of antimicrobials for animals, AMR monitoring and improvement of animal sanitation are seen as critical AMR reduction strategies. Key enablers for these strategies are continued research and development efforts on the data collection and diagnostics side, as well as educational programs and awareness initiatives at a larger scale.

Lastly, the outbreak of COVID-19 (the coronavirus SARS CoV-2) has put the global health care sector under extreme pressure. Experts state that the pandemic will surely have its repercussions on AMR costs and that it will take some time to evaluate whether this has had a positive or negative impact on AMR that will likely vary from country to country.

KEY FINDINGS

- **AMR is increasing and research indicates that direct costs imposed on the healthcare system worldwide are currently significant.** These costs are largely driven by the increase in infections caused by antibiotic resistant bacterial species. It is difficult to assign particular numeric values to the costs of AMR given the low reliability of the data acquired worldwide.
- **Mitigation strategies that have decreased AMR and costs have mostly been deployed on a national level.** In the U.S., as a result of a U.S. Federal Drug Administration (FDA) 2017 mandate on restricted antibiotic use in livestock production implemented by the Veterinary Feed Directive (VFD), the consumption of antibiotics by livestock and occurrence of AMR by bacteria that inhabit both livestock and humans appear to have decreased (Dillon 2020). Other successful national mitigation strategies include those in the Netherlands and Sweden. According to our interviews with SMEs, the effects of strategies deployed on a national level can transcend borders. This amplification of effect size is also true for companies.
- **Existing AMR efforts in the food industry are largely based on a compliance approach in countries of operation.** Exceptions to this trend are increasing, especially among larger global firms, and companies are removing antibiotics from their entire supply chain.
- **Government strategies are far-reaching but might take between five to 10 years to implement.** In contrast, private companies may have the ability to move faster due to more nimble operations, but it can be challenging for them to impact the broader industry. Partnerships between the private and public sectors work best to implement change at scale.
- **The lack of reliable economic data associated with AMR caused by antibiotic use in agriculture limits the ability to quantify the cost of AMR in the agricultural space.** Our research suggests that the agricultural cost of AMR is meaningful in trade disruption alone, with outbreaks of resistant bacteria causing incidents that can increase these costs directly, or indirectly via culling, penalties, etc.
- **The number and intensity of public and private antibiotic stewardship initiatives has increased over the last few years.** Common partnerships for mitigation strategies occur between the public and private sectors. A key example is the AMR Challenge, a year-long global challenge organized by the Centers for Disease Control and Prevention (CDC) in 2018. This resulted in 345 commitments from public and private institutions, including Yum!.
- **The outbreak of COVID-19 has put the global healthcare sector under extreme pressure.** The increased use of antibiotics for COVID-19 secondary infections may lead to an acceleration of AMR trends moving forward (Center for Food Safety 2021).

BACKGROUND

AMR is the capacity of a microbe to adapt and survive under the inhibitory activity of antimicrobial compounds (Verraes et al. 2013). Once AMR is achieved by bacteria, antimicrobials that were previously effective at treating patients with this microbe no longer work. These acquired resistance events across bacterial strains collectively contribute to AMR as a global problem. The

higher the frequency of these events, the more difficult the treatment for infectious diseases becomes and the higher the incidence of severe outcomes. The resulting increased mortality, overloading of healthcare systems and disruption of economic activity/trade are the major drivers of AMR-related costs.

The large and growing volume of antibiotic use in the last decades in healthcare and agriculture, coupled with the discovery of relatively few new antibiotics, has led to AMR as a growing global health and economic threat (CDC 2019). AMR is recognized as a global health issue in the eyes of many policy makers, scientists and civil society organizations. AMR is reported among the 21st century’s main threats, and the United Nations has recognized AMR as a “long-term threat to human health [and] sustainable food production and development” (UN, 2016). Further, the WHO, Food and Agricultural Organization (FAO) and the World Organization for Animal Health (OIE) have developed a One Health approach in the face of this issue (FAO, OIE, WHO 2010, WHO 2017a). In addition to the economic impact of AMR, the societal impacts driven by mortality, increased hospitalization rates and trade disruption could be even more costly (Innes, G, 2019, World Bank 2017).

According to the WHO, coordinated global efforts to minimize the impact of AMR are necessary (Queenan et al. 2016). Although responsible consumption of antibiotics alone might not be sufficient to tackle AMR, an integrated strategy around antimicrobial stewardship, AMR surveillance and judicious use of antimicrobials may help the human population to attenuate AMR worldwide (Aliabadi et al. 2021). While there have been encouraging signs in government policy and private action, unified multilateral action has yet to move from proposal to concrete and enforceable policy.

“The threat of AMR to the global economy was only recognized in the last few years; consequently, the effects of mitigation strategies are yet to be advanced.”

- Head of R&D Medical Microbiology and Infection Control in the U.K.

AMR Drivers	Mitigation Steps	Yum! Efforts
Antimicrobial Use (misuse/overuse)	Improved Use of Antimicrobials	Compliance with Local Regulators
Antibiotics for Growth Promotion	Judicious Use of Antimicrobials	Responsible Use of Antimicrobials
Suboptimal Diagnostics	Reliable Data Monitoring	Effective Animal Husbandry Practices
Poor Sanitation & Water Quality	Improved Sanitation Measures	Suppliers Audition for Quality Standards
Overcrowded Populations	Education & Awareness	

DRIVERS OF AMR

Antibiotic use is crucial to combat bacterial infection. Widespread medical use and misuse of antimicrobials is a mainspring associated with increased AMR (Singer et al. 2016). Both overuse and misuse of antibiotics in hospitals and care settings, together with over-the-counter access of antibiotics, have been well-studied. Several papers report the major impact of these drivers on the development and spread of resistant microbes, particularly within high-income countries (Vikesland et al. 2019). Agriculture and animal husbandry practices including overuse of antibiotics for disease prevention or growth promotion, overcrowding, and insufficient sanitation may also have a significant, though lesser, impact on the rise of AMR.

The four main objectives in agricultural antibiotic use are treatment, control, prevention and production. In this report, we consider treatment to be administering antibiotics to individuals or groups that are showing signs of illness. Control, sometimes called metaphylaxis, is treating a group or subgroup that has been exposed to a person or animal showing clinical illness to prevent further spread. Prevention, or prophylaxis, is giving antibiotics to a group where there are no clinical signs of disease, but there are risk factors or high-risk populations where failure to give antibiotics may result in future disease. Production uses include giving antibiotics at low levels to increase feed efficiency or promote growth. In U.S. food animal production, antibiotics are used for treatment, control, prevention and production. However, production uses of human class antibiotics for use in animals are no longer allowed in the U.S. Antibiotics are overwhelmingly used to treat clinical illness in human medicine and are rarely employed for disease control in humans. An example is administering antibiotics for a short time to a family or social group to prevent further spread of bacterial meningitis (Peltola 1999). Even more rarely, antibiotics are used in human medicine such as is recommended to prevent malaria that has not yet occurred but has a significant probability of causing harm if a person is infected (CDC 2018).

The use of antimicrobials for food production in animal husbandry is purported to have impacted the spread of AMR over the last decade, but the magnitude of this impact remains challenging to define (O’Neill 2016). Regarding antibiotic use, agriculture and livestock settings account for approximately two-thirds of global antibiotics. Antibiotics are mostly used for treating a pathogen or as a prophylactic measure to prevent infections in agriculture (Nhung et al. 2017). Continual application of antimicrobials to the

water or the food that the animals feed on at full or subtherapeutic doses can prevent new occurrences of disease or the spread of infections, but it can also increase the likelihood of developing resistant microbes (Wall et al. 2016). And, depending on the drug, about 30% to 90% of the antibiotics administered to animals in the feed or water are released back into the environment as urine or manure. If not well treated, the discharge of animal waste can contaminate bodies of water with antibiotics, creating yet another potential source for the development of AMR (Singer et al. 2016). However, the overall contribution of animal antimicrobial treatments to AMR has yet to be fully elucidated due to the complex array of factors that can contribute to AMR in this setting (Wu 2017).

Although the use of antibiotics is primarily correlated with the surge of resistant microbes, other factors may also contribute to the global development of AMR (Wall et al. 2016). Significant additional drivers include poor sanitation standards, untreated wastewater and high human population densities. These factors lead to increased contact with contaminated environments and, therefore, a higher prevalence of infectious diseases (Holmes et al. 2016, Vikesland et al. 2019). Other factors causing an escalation of AMR include ineffective and/or underutilized vaccination, which could reduce infection prevalence and transmission, and inefficient and/or insufficient diagnostic procedures that could otherwise prevent antibiotics overuse and misuse (Holmes et al. 2016).

Importantly, many of the above factors point to alternative practices that can decrease the need for excessive antibiotic use in animal husbandry. Improved sanitation and lower population density in animal agriculture have been shown to decrease the rate of infection and the need for antibiotics in agricultural practice (Tiseo et al. 2020, Schoenmakers 2020). Additionally, utilizing improved surveillance systems on an agricultural scale may decrease the incidence of AMR generation; while a scalable solution for agriculture has yet to be developed, groups such as Nesta are funding research to develop these tools (Nicholson et al. 2020).

The socioeconomic risk factors involved in the increased prevalence and surge of resistant microbes create a higher burden for low- and middle-income countries, compared to high-income countries. For low-income countries, poverty and poor sanitation conditions are considered the main drivers of AMR. For middle-income countries, the relatively unregulated use of antibiotics in humans and agriculture are the major AMR-related threats (Van Boeckel et al. 2019). It is notable that there is a publication bias that may be impacting these results: A greater number of AMR studies have been conducted within high-income countries, leading up to an unbalanced knowledge about the impacts of AMR in lower-income settings (Vikesland et al. 2019).

COVID-19 AS A DRIVER OF AMR

Additionally, COVID-19 has served as a driver of AMR in human health. General hygienic measures for the containment of the COVID-19 pandemic have led to an overall reduced number of bacterial infections of people in most European countries. On the other hand, some healthcare systems have shown an increase in antibiotic prescriptions to combat COVID-19 secondary infections at rates significantly higher (94%-100%) than the actual prevalence of COVID-19 secondary infections (10%-15%) (Rossato et al. 2020). There is a fear that the increased use of antibiotics for prevention during the pandemic may lead to a long-term increase in AMR trends (Center for Food Safety 2021).

IMPACT OF AMR ON SOCIETY

POTENTIAL GLOBAL ECONOMIC IMPACT

A low-AMR scenario could reduce the global GDP by 1.1% by 2050, which represents a direct cost of around \$1 trillion USD per year (Figure 1). Under a high-AMR scenario, the World Bank estimates a global GDP shrinkage of 3.8%, with direct costs reaching over \$3 trillion USD, annually (World Bank 2017). However, even high-AMR scenarios may reflect an underestimation of the true costs of AMR because of the challenges in calculating second order effects related to trade and other broad economic activity (Smith & Coast 2013). Given the low reliability of the data acquired worldwide, it remains difficult to quantify the appropriate range of the potential economic impact presented by AMR with any certainty.

“The economic consequences of AMR are yet very poorly understood. This is in part due to a lack of reliable data, but also because the currently employed methods still focus on costs at the individual patient level, rather than having a holistic view on the matter.”

- Professor of Animal Infection Prevention in Sweden

Low-income countries are the most strongly impacted by AMR due to the high prevalence and impact of infectious diseases (e.g., malaria or tuberculosis). Taking both public and private healthcare expenditures into account, the costs of AMR-related disease burden are expected to rise by 25% in low-income countries by 2027. In contrast, these costs are expected to increase by only 15% and 6% in medium- and high-income countries, respectively by 2027 (World Bank, 2017).

Potential Global Impact of AMR on GDP

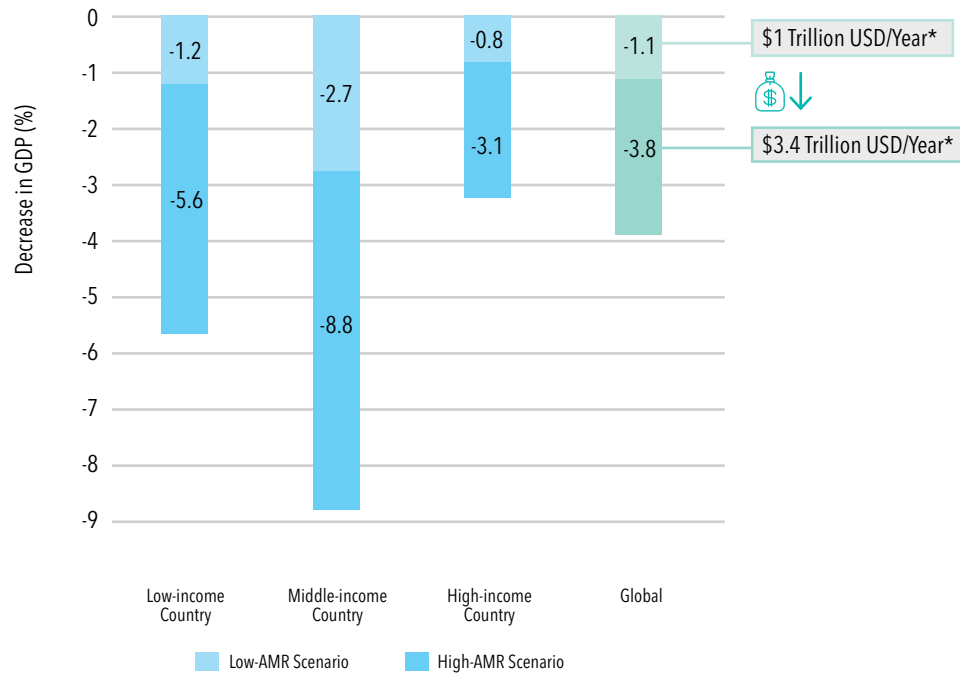


Figure 1. Global GDP reduction projections under low- and high-AMR scenarios. (Data from the World Bank 2017)

According to our research, the current direct costs of AMR are approximately \$10 billion USD worldwide. Notably, this is within the range of cost estimates made by other organizations, although it does not cover second-order impacts of AMR such as trade disruption. With a global compound annual growth rate (CAGR) of 4.3%, the global direct cost of AMR is expected to reach \$13.8 billion USD by 2027. **Almost half of the costs used to calculate this value come from hospitals (46%), followed by research institutes (24%) and clinics (20%).**

Potential Global Costs of AMR

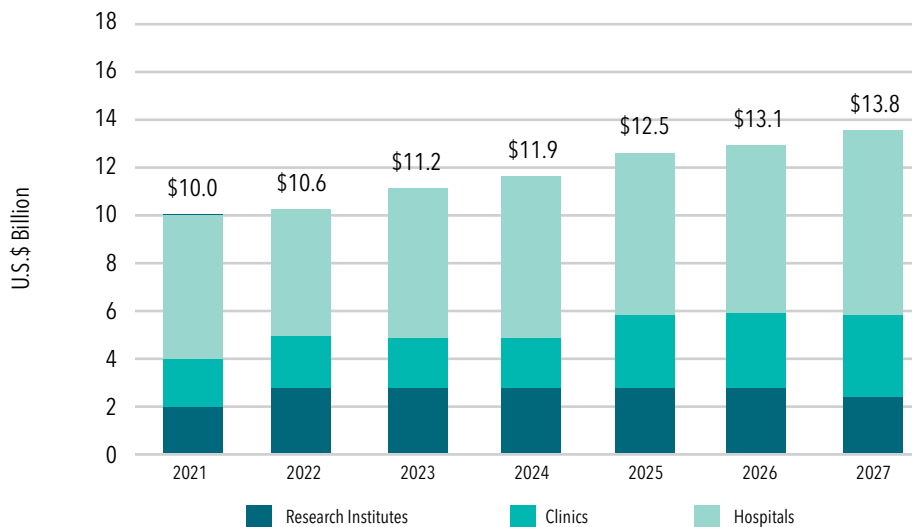


Figure 2. Global direct costs imposed by AMR in 2021 and estimates for the next six years (PreScouter Primary Research).

North America and Europe, together, constitute over half (51.3%) of the global direct costs imposed by AMR (Figure 3). North America, Europe and Asia-Pacific are the primary drivers of global AMR direct costs, with a combined value of \$7.4 billion USD in 2021 and estimated at \$10.2 billion USD for 2027 (73% and 74% of the total value, respectively).

Potential Market Value of AMR, by Continent

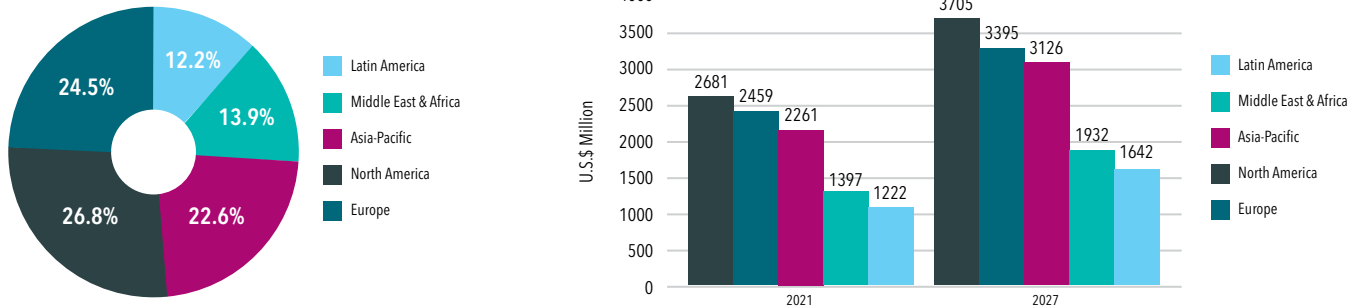


Figure 3. Direct AMR market costs per continent. Left: AMR as a percentage of total global costs, per continent, reported for 2021. Right: Direct AMR costs, per continent, reported for 2021 and estimates for the next six years (PreScouter Primary Research).

Research into the direct costs of AMR were further broken down by bacterial strain. At a global level, human infections caused by drug-resistant strains of *Acinetobacter baumannii* have the highest economic cost to society (Figure 4). This microbe is primarily associated with infections on the skin of immunocompromised hospital patients and currently exhibits considerable resistance to the majority of the available first-line antibiotics (Howard et al. 2012). Resistant strains of *A. baumannii* are responsible for a total cost of \$2.5 billion USD in 2021 and an estimated \$3.5 billion USD by 2027, followed by *Escherichia coli* and *Klebsiella pneumoniae*, accounting together for \$1.8 billion USD in 2021 and estimated at \$2.4 billion USD by 2027. A current challenge with these kinds of cost models is the lack of reliable data from regions outside of North America and Europe. This may bias the cost data and underestimate the impact of major infection such as *M. tuberculosis*, the biggest bacterial killer worldwide, with an annual mortality rate of about 1.2 million (WHO, 2019).

Potential Global Costs of AMR, by Pathogen

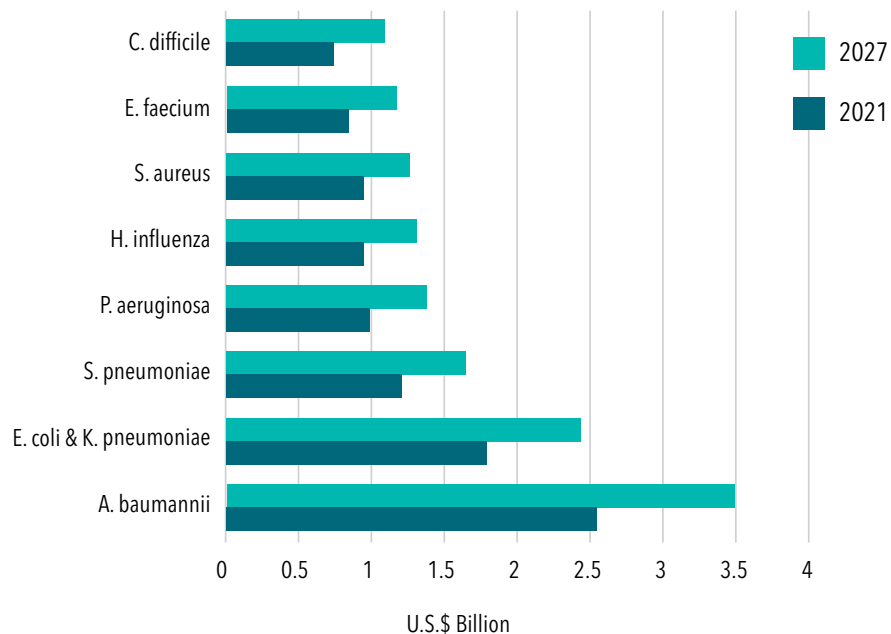


Figure 4. Potential AMR healthcare costs of selected bacteria excluding TB. (PreScouter Primary Research)

Besides direct costs (e.g., hospital admission and treatment costs), AMR is also responsible for an increasing number of indirect economic losses due to increased illness, morbidity and disabilities. These reflect on lower productivity rates and are referred to as the indirect costs of AMR (World Bank, 2017). However, these indirect costs are necessarily more difficult to estimate.

COSTS OF AMR IN THE U.S.

According to the CDC, almost 3 million people in the United States become ill with antibiotic-resistant diseases every year, resulting in more than 35,000 annual deaths (CDC, 2019). Compiling direct and indirect impact, the CDC estimates that the costs imposed by AMR in the U.S. were \$5.6 billion USD in 2019. Regarding particular pathogens, the CDC estimates the following costs:

- \$281 million for carbapenem-resistant Acinetobacter
- \$1 billion for Clostridioides difficile
- \$130 million for carbapenem-resistant Enterobacteriaceae
- \$133.4 million for drug resistant Neisseria gonorrhoeae
- \$1.2 billion for extended spectrum beta lactamase producing Enterobacteriaceae
- \$539 million for vancomycin-resistant Enterococci
- \$767 million for multidrug-resistant Pseudomonas aeruginosa
- \$1.7 billion for methicillin-resistant Staphylococcus aureus (MRSA)

While these costs serve as estimates including both direct and indirect costs, **the CDC also indicates that it can be very difficult to fully quantify the economic impact of AMR. Importantly, mitigation efforts in the US have improved the outlook since the CDC's 2013 report.** Particularly, they note that **dedicated prevention and control efforts have helped reduce the number of infections and deaths caused by antibiotic resistant bacteria in the U.S. (CDC 2019).**

IMPACT OF AMR IN AGRICULTURE

AMR in humans and animals – particularly for food animals – is intrinsically connected. Bacteria which obtain resistance during food production and livestock management can transfer directly to humans, and waste antibiotics can induce AMR outside of controlled agriculture settings. AMR reduces the productivity of agricultural and livestock industries through, for instance, trade disruption, animal death and the need to destroy contaminated stock. This, in turn, increases the cost of meat and dairy products and broadly disrupts the agriculture sector (World Bank 2017). Given these factors, the industry is interested in balancing the challenges of maintaining healthy livestock and reducing the incidence of AMR.

Reports have recently shown a substantial reduction in the use of antimicrobials within the poultry industry in the U.S.; however, the same does not hold true for the beef and pork sectors, in which the use of antimicrobials may have been slightly rising since 2018 (Center for Food Safety 2021). There is a lack of consensus by SMEs of the economic or health costs of AMR in agriculture or of its costs in human populations. Robust models to estimate AMR costs due to antibiotic use and animal husbandry practices in agriculture are still nascent (Innes et al. 2019).

Lack of sufficient reporting may make it difficult to measure costs, but the array of reporting networks in mid- to high-income countries allow us to accurately measure the volume of antibiotic use. It is estimated that global consumption of veterinary antimicrobials was 93,309 tonnes in 2017, and this is projected to grow to 104,079 tonnes by 2030 (Tiseo et al. 2020). Notably, a significant majority of this projected consumption comes from China, accounting for 45%, with Brazil accounting for 7.9% and the U.S. accounting for 7%. A great deal of China's agricultural antibiotic use is purported to be driven by a significant increase in the demand for pork, which has necessitated higher crowding of animals and thus higher antibiotic consumption (Yang et al. 2019).

While there is no direct correlative line between antimicrobial consumption in agriculture and AMR broadly, a number of studies have been conducted on the direct costs AMR can impose on agriculture. These direct costs include operational agriculture costs such as the need to cull sick animals, costs that come from direct transmission of foodborne illnesses, destroying contaminated food and disruptions to trade. As an example, in 2011, an outbreak due to drug resistant E. coli in fenugreek sprouts led to 53 deaths, \$1.3 billion USD losses for German farmers and industries, and up to 236 million emergency aid payments to European Union (EU) states (Criscuolo, N. G. 2021). More broadly, the World Bank has reported that AMR could result in a decline in total food production caused by livestock deaths and international trade disruption of between 2.6% to 7.5% (FAIRR 2021).

MITIGATION STRATEGIES

PUBLIC SECTOR

Governments generally drive AMR mitigation strategies aimed to reduce the global emergence of resistant pathogens. From a governmental perspective, the development of AMR mitigation strategies is most effective when implementing combined regulatory legislation, policies, programs and research within different sectors (WHO 2017a, Council of Canadian Academies 2019). These public sector actions set a supporting baseline for further private sector action by discouraging the undercutting of competitors through employing practices that can drive AMR.

“The design of AMR strategies by the One Health lens have increased our chances to successfully mitigate AMR.”

- Assistant Professor in Epidemiology in Switzerland

To respond to the growing AMR crisis, the May 2015 World Health Assembly (WHO 2016) adopted a global action plan on AMR, which outlines five objectives:

1. To improve awareness and understanding of antimicrobial resistance through effective communication, education and training
2. To strengthen the knowledge and evidence base through surveillance and research
3. To reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures
4. To optimize the use of antimicrobial medicines in human and animal health
5. To develop the economic case for sustainable investment that takes account of the needs of all countries and to increase investment in new medicines, diagnostic tools, vaccines and other interventions

Countries have adopted a range of AMR mitigation strategies. Countries that have implemented notably comprehensive strategies over the last decade include the Netherlands and Sweden (Figure 5). Both countries implemented a combination approach of infection prevention, increased AMR awareness, a comprehensive regulatory framework for human and veterinary prescription, and the availability of reliable databases on disease incidence. These efforts were coordinated between governments, academia, farmers and the private sector. As a result, over five years, government antibiotic stewardship in the Netherlands reduced antibiotic use in animals by 56% (Speksnijder et al. 2014). Sweden’s mitigation strategies, by comparison, have reduced the use of antibiotics by 13% in 2020 compared to 2019 (Swedres-Svarm 2020).

Key AMR Mitigation Milestones

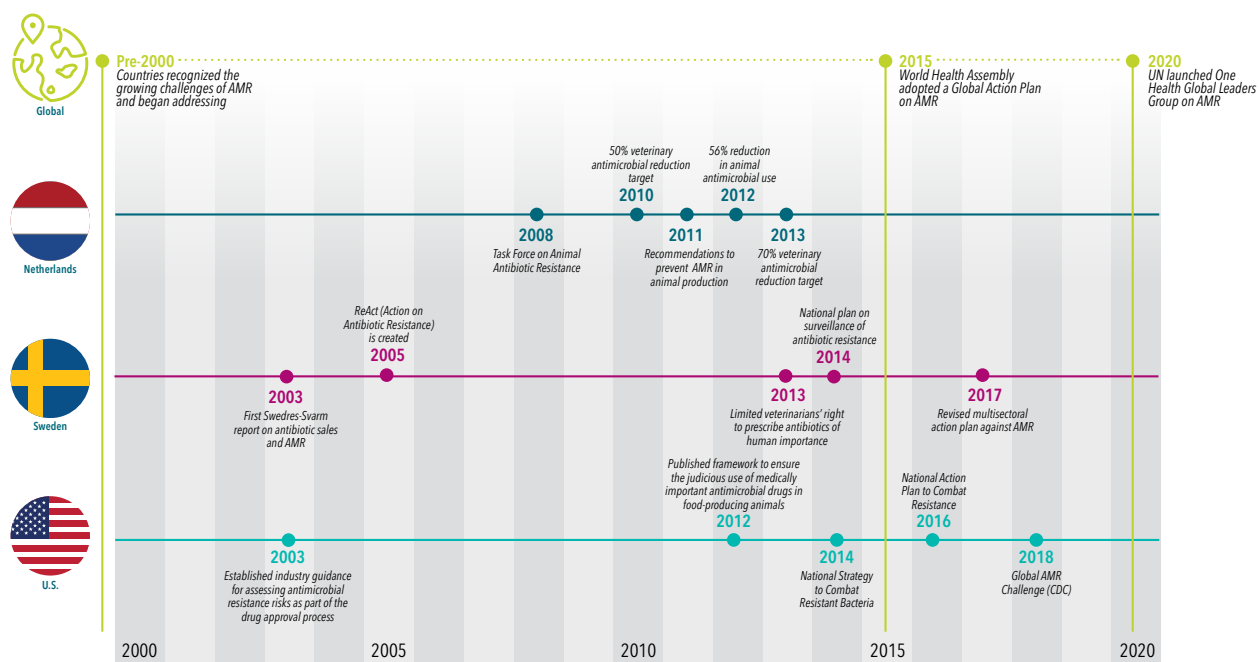


Figure 5. Overview of some of the AMR mitigation plans, including regulation and reporting, implemented by the Netherlands, Sweden and the U.S. governments in the last two decades. This chart is not comprehensive and only a snapshot of some of the key milestones that have occurred and countries that have taken action. (Data from Speksnijder et al. 2014, Eriksen et al. 2021, CDC 2019, CSIS 2020, FDA 2021 and WHO 2020)

The U.S. is also taking steps towards curbing the excessive use of antimicrobials to combat AMR. For example, the FDA Center for Veterinary Medicine and animal drug manufacturers completed the transition of all medically important antimicrobial drugs used in animal feed and drinking water from over-the-counter (OTC) medications to require veterinary oversight, including revising the Veterinary Feed Directive (VFD) (FDA 2017). This requires the use of these drugs to be authorized by a licensed veterinarian, thus curbing their use. This regulation does not necessarily mandate a reduction in antibiotics, so long as a licensed veterinarian is authorizing the use of antibiotics. **The most recent data from the FDA from 2019 showed a drop in sales and distribution of “medically significant antimicrobials licensed for use in food-producing animals,”** according to figures issued in 2020 (FDA 2019):

Table 1. Drop in sales and distribution of medically significant antimicrobials licensed for use in food producing animals

Species	2016 Estimated Annual Totals (kg) ³	2017 Estimated Annual Totals (kg) ³	2018 Estimated Annual Totals (kg) ³	2019 Estimated Annual Totals (kg) ³	% Change 2016 - 2019	% Change 2018 - 2019
Cattle	3,605,543	2,333,839	2,517,386	2,529,281	-30%	<1%
Swine	3,133,262	2,022,932	2,374,277	2,582,399	-18%	9%
Chicken	508,800	268,047	221,774	192,964	-62%	-13%
Turkey	756,620	670,831	671,108	644,921	-15%	-4%
Other*	352,114	263,564	247,753	239,694	-32%	-3%
Total	8,356,340	5,559,212	6,032,298	6,189,260	-26%	3%

*The Other category includes estimates of product sales intended for use in (1) species listed on the approved label other than cattle, swine, chickens, and turkeys, including nonfood-producing animal species (e.g., dogs and horses) and minor food-producing species (e.g., fish); (2) other species not listed on the approved label; and (3) unknown uses.

To develop a deeper understanding of critical mitigation strategies for AMR, we conducted interviews with a panel of experts in the field. Some of the key AMR mitigation strategies they identified were reducing use of antimicrobials in agriculture and healthcare, engaging in infection prevention, making data available, innovation in diagnostics and therapeutics and sanitation. Importantly, when asked to score the importance of these initiatives, our expert panel agreed with very low variance that the strategies were of almost equal importance. This highlights the broad perception in the space that an “all of the above” approach, of which reducing antibiotic use in animal husbandry is a part, is required for addressing AMR (Figure 6). There has recently been a significant increase in the utilization of monitoring and data tracking platforms (e.g., Criscuolo et al. 2021, Freifeld et al. 2008) that provide essential information to tackle resistance hotspots, particularly in Europe (ECDC, EFSA & EMA 2021, UK-VARSS 2019, NethMap 2021). The regions which use these technologies are able to respond to outbreaks of AMR sooner, reducing their health and economic impacts.

Importance of Key AMR Mitigation Strategies

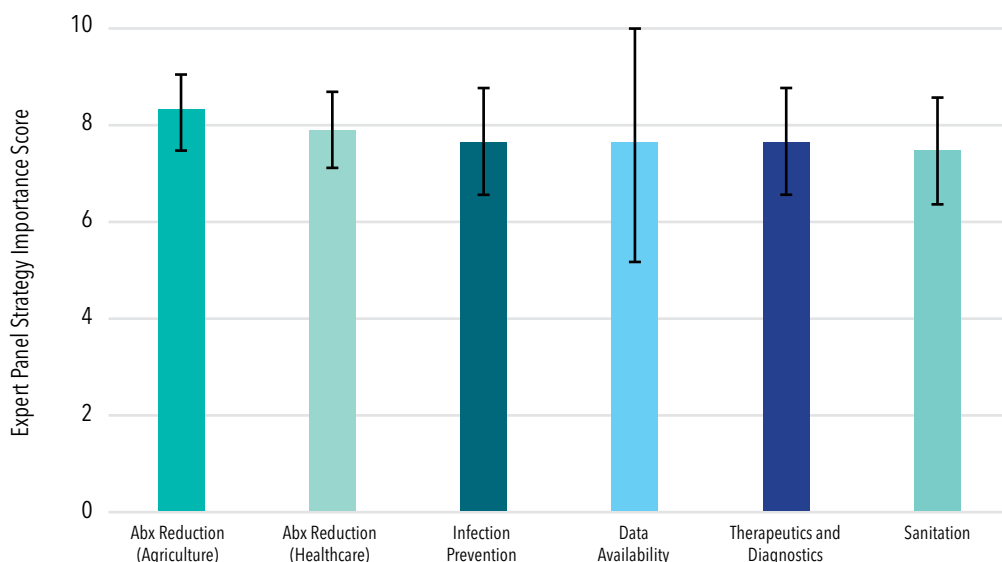


Figure 6. Expert panel evaluation of the relative importance of the main AMR mitigation steps according to the One Health Approach with a 1 indicating low importance and 10 indicating high importance. Importance scoring by our expert panel reveals the relevant contribution of all mitigation steps (Expert Panel Interviews).

Low-income countries tend to have a different approach to addressing AMR reduction. Given the reduced financial resources, low-income countries pursuing AMR reduction primarily center on less infrastructure intensive initiatives such as educational programs and awareness campaigns around the use of antibiotics in agriculture and the impact of AMR. Examples of low-income countries that have successfully implemented these strategies include Pakistan and Cambodia. Both of these countries have administered national action plans in line with the WHO recommendations (WHO 2017b, WHO 2019, Saleem et al. 2021).

“Education is changing to make sure that prescriptions are made wisely and that patients know that antibiotics are not always necessary.”

- Professor of Antimicrobial Stewardship in Scotland

Limited infrastructure and programs are among the main challenges preventing AMR mitigation in low- and middle-income settings. In these countries, negligible funding, weak laboratory infrastructure, limited staff capacity and communication issues are considered barriers to effective surveillance of AMR (Iskandar et al. 2021).

Reducing AMR trends within the food system can be achieved through clear antibiotic stewardship (with solid legislation and regulations) by governments. Effective strategies will include both prevention and control of infectious diseases, consequently culminating in a reduced need for antibiotics.

“Changing the message around antibiotics can combat the idea that farmers have that using fewer antibiotics will consequently reduce food production.”

- Professor in Public Health in Singapore

PRIVATE SECTOR

Examples of mitigation strategies employed at in the private sector include responsible use of antibiotics and enhanced hygienic procedures to prevent crossover and spread of AMR-associated microbes (e.g., less crowded and cleaner facilities, continuous AMR monitoring). Collectively, these measures have the potential for further reducing the clinical need for antibiotics (FAO 2021).

Effective AMR mitigation strategies require joint efforts between both the governments and the private sector. Ideally, consumers would participate as well to reinforce the companies' actions and motivations (Expert Panel Interviews).

Only a handful of private companies from the food sector provide information about their past, current and future strategies for AMR (FAIRR 2021). However, given the increasing focus on AMR, private companies have started to outline plans for judicious use of antibiotics on food items. For example, a commonly implemented strategy is to minimize antibiotics of importance to human health from meat chain suppliers. A typical example of antibiotic stewardship from private companies includes restriction of the use of critically important antibiotics, responsible routine use of antibiotics for prophylactic purposes and constant support for R&D opportunities for judicious consumption of antibiotics.

“The private sector has the opportunity to work proactively with governments before mandatory regulations are implemented.”

- Senior Research in Health Economics in the U.K.

A proactive reduction of antibiotics in agriculture can be an effective strategy to mitigate AMR at a corporate level. Doing this will synergize with government efforts and decrease the spread of AMR and associated costs. Reducing the overall use of antibiotics in agriculture, in concert with government mitigation strategies could double the pace at which AMR reduces.

“Better compliance with regulatory frameworks from the private sector shall strengthen the policies employed by governments and could decrease the time to combat AMR by half.”

- Assistant Professor in Epidemiology in Switzerland

YUM!'S EFFORTS & POLICIES

Yum! established its animal welfare program in 2002 and has evolved it since then, including publishing its Sustainable Animal Protein Principles in 2017. In 2020, Yum! implemented health management programs dedicated to track and monitor animal health and wellbeing (Yum! 2020). Although these may necessitate the use of antibiotics and antimicrobials to maintain or restore good animal health, Yum! shares concerns regarding the rising threat of AMR and is committed to sustaining an antimicrobial stewardship program throughout its global supply chain (Figure 7). Besides compliance with governmental regulations, the good antimicrobial stewardship implemented by Yum! includes:

- a. Responsible, judicious use of antimicrobials to benefit human, animal and environmental health
- b. Reducing, and eliminating where possible, the use of antimicrobials important to human medicine
- c. Including effective animal husbandry practices and alternative interventions that reduce risks to animal health
- d. Implementing solutions specific to and compliant with each country's regulations, taking local supply chains, breeds of animals and disease profiles into consideration
- e. Surveillance and monitoring antimicrobial use by auditing suppliers to confirm compliance with Yum!'s safety and quality standards for food animals

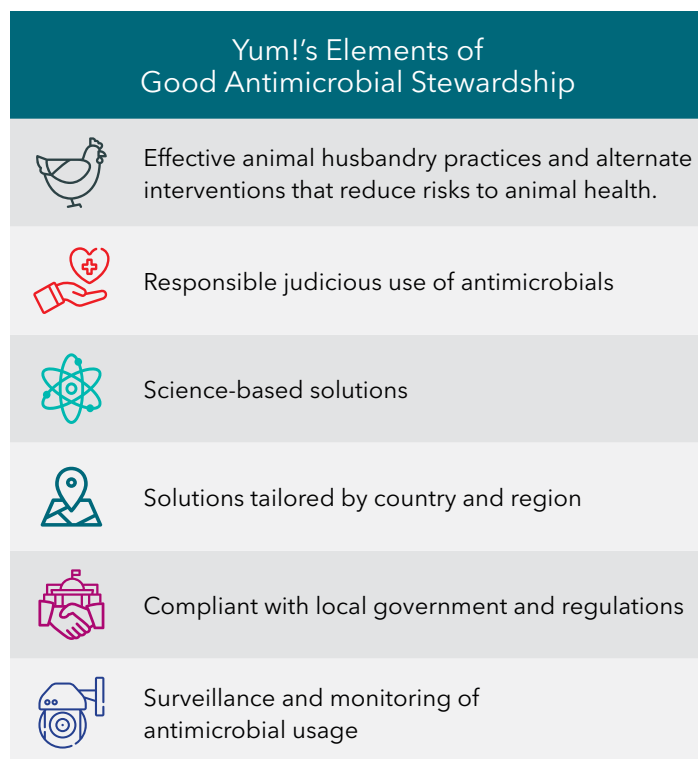


Figure 7. The Yum! Brands' antimicrobial stewardship program.

Yum! is part of the One Health endeavor which is a multi-sectoral, long-term effort to combat AMR by the WHO, FAO, OIE and other key stakeholders. In 2019, Yum! joined the CDC AMR Challenge, a global commitment to accelerate the fight against antimicrobial resistance. The AMR Challenge was an effort by the U.S. government to accelerate the fight against AMR.

Yum! subsidiaries KFC, Pizza Hut and Taco Bell in the U.S. have met public commitments to reduce antibiotics important to human medicine in their U.S. poultry supply chains and have made new commitments to drive further progress. Currently, all of Yum!'s U.S. meat and poultry suppliers follow U.S. FDA guidelines for antibiotic use in food animals.

Table 2. Yum! Commitments for Responsible Use of Antibiotics

Subsidiary	Commitments	Status
KFC U.S.	To remove antibiotics important to human medicine from its poultry supply	Complete
Pizza Hut U.S.	To remove antibiotics important to human medicine from its chicken toppings for pizza	Complete
Pizza Hut U.S.	To remove antibiotics important to human medicine from chickens used for wings by 2022	In progress
Taco Bell U.S.	To remove antibiotics important to human medicine for all chicken products	Complete
Taco Bell U.S. and Canada	<ul style="list-style-type: none"> • To reduce antibiotics important to human health by 25% in beef supply chain by 2025 • To give preference to beef suppliers that make measured reductions in their use of antibiotics • To participate in animal husbandry practices that promote antibiotic stewardship • To share progress on beef goal in 2022 	In progress

In addition, Yum! is engaging with internal and external stakeholders, including the U.S. Roundtable for Sustainable Beef (USRSB) and the International Consortium for Antimicrobial Stewardship in Agriculture (ICASA). The U.S. Roundtable for Sustainable Beef is a multi-stakeholder initiative developed to advance, support and communicate continuous improvement in sustainability of the U.S. beef value chain. ICASA is collaborating across the supply chain to pioneer technologies and management practices that promote judicious antibiotics use and produce healthier livestock. Progress on this engagement will be shared in 2022.

Yum! also uses the USDA Process Verified Program (PVP), third party auditing system. This verification process ensures our antibiotics claims and standards are met.

CONCLUSION

AMR is a significant healthcare challenge facing society today. AMR impacts are not only measured in direct and indirect financial costs, but also in the cost of human lives and other societal costs. Our strategy for quantifying the impact of AMR in this report reflects this by incorporating the burden on healthcare systems and loss of economic activity caused by the projected number of deaths associated with AMR. In addition, our quantification of AMR costs incorporates the costs associated with mitigation and research. The wide cost range reflects the challenges with obtaining robust global data and the inconsistencies across countries on reporting and is consistent with other estimates of the global cost of AMR. This research appears to show that one of the most significant barriers to meeting the challenge of AMR is the balance between the rewards of proactive AMR mitigation and the cost of changing established husbandry practices.

EXPANDED OVERALL FINDINGS

Our combined research confirms and begins to quantify the major drivers for AMR. Additional findings include:

- In high-income countries, the primary driver of AMR is seen to be the healthcare sector.
- In middle-income countries, agriculture is seen as the most impactful driver of AMR.
- In low-income countries, sanitation and economic inequality are seen as the most significant drivers of AMR, but the lack of data coupled with poor data quality makes measuring the impact of AMR in those countries challenging.
- The lack of reliable data associated with AMR caused by antibiotic use across agriculture limits the ability to quantify impact compared to human use.

FOOD SYSTEM INSIGHTS

The U.S. and Europe have established track records in taking regulatory action, engaging with stakeholders, including agricultural producers, and developing systems to better track antimicrobial usage and resistance. Private sector policies have also changed in these markets and industry collaborations are increasing. For the global food system, this framework of regulatory support, producer engagement, enhanced data-gathering and private sector collaboration could be shared more widely to drive accelerated change.

The following key insights reflect key findings of this research report and could help inform and support global actions including:

1. Required veterinary oversight of antibiotics in feed, through the Veterinary Feed Directive (VFD) and eliminating the use of medically important antibiotics for production purposes has been associated with decreased antibiotic use in food animals
2. Increasing veterinary oversight with a valid Veterinary Client Patient Relationship (VCPR), promotion of veterinary independence and antimicrobial labeling changes for all antibiotics will raise the bar for all companies in the food sector.
3. The challenge of individual costs and widely distributed societal benefits, a situation common in many sustainability issues, plays a key role in antimicrobial resistance. This may make it difficult to pursue AMR mitigation while remaining competitive on costs and highlights the need for strong collaboration between both the public and private sectors.
4. Improving oversight of production and distribution channels may be a cost-effective method to further reduce the agricultural impact on AMR and comply with increasingly strict regulations in the space.
5. Clear and sufficient data on antimicrobial use and resistance continue as issues. While much work has been done, challenges remain that hinder a better understanding of actual usage by species and by medication.
6. Global drivers of AMR will likely require different interventions to meet local market conditions and ensure continuous improvements.

AREAS OF OPPORTUNITY

Moving forward, we know there are areas of opportunity when it comes to making more progress around AMR and believe it will require a holistic approach among both the private and public sector. Collaboration is critical in making progress in the fight against AMR. Yum! and other companies can leverage scale to potentially influence key players such as suppliers and governments. Independent third-party oversight of antibiotic use will help ensure that reported practices are accurate.

Data & Transparency

As referenced, lack of transparent data across the public and private sector alike is an existing challenge to quantifying the economic impact of AMR. Yum! is committed to increasing our data collection and transparency across sustainability, which includes animal welfare. Having access to detailed data will help Yum! make more informed decisions but also sends a broader message on the importance of AMR. Additionally, where possible, we will encourage our partners in this space to increase the importance of data collection and reporting.

Education & Research

Education across the public and private sector is another area of opportunity to minimize AMR. Yum!'s work with ICASA, a public-private partnership on advancing antimicrobial stewardship in animal agriculture is one example of progress being made in this space.

Collaboration between the public and private sector can help drive success, educate and combat AMR. Joining the CDC AMR Global Challenge and similar efforts signify the desire to address the issue from an elevated perspective.

Animal Health & Husbandry

Responsible and judicious use of antimicrobials to help minimize antimicrobial resistance has long been a strategy in Yum!'s overall animal welfare strategy. Through improved data collection and welfare standards, the need for antimicrobials should decrease.

At Yum!, we take a thoughtful, comprehensive health management approach to our AMR programs which may necessitate the use of antibiotics for animal health. We share concerns regarding the rising threat of AMR and support One Health, a holistic, multi-sectoral, long-term effort to combat AMR by the WHO, FAO, OIE and other key stakeholders.

Public Policy

National, regional and global policies should address the complex factors driving AMR. Policies should be anchored in science-based evidence that takes public risks and benefits into consideration. Short-term and long-term impacts are also important areas to review when setting policies. Lobbying and supportive efforts on the complex topic of AMR go hand in hand with education. It is apparent that efforts will differ across nations and regions, as the specific challenges vary by country.

Yum!'s efforts to impact this through lobbying, political influence, educational activities and other expenditures could support a positive impact on the feasibility of AMR mitigation efforts moving forward. Currently, there has been some momentum in the U.S. on improving the accountability and data transparency of antibiotic resistance in the food sector at the state level. California passed Bill SB27 prohibiting the routine use of animals that are not sick for either growth promotion or disease prevention and requiring tracking of antibiotics used in feed which went into effect on January 1, 2018. Maryland passed a similar bill in 2019. There is no data yet to determine the effects these laws may have on AMR.

To expedite progress, policies should support areas where there is existing momentum, for example, removal of human use antibiotics from specific commodities (such as poultry) and environments. Next steps would be to tackle other areas like pork and beef which present additional and species-specific production challenges.

Our research on how AMR is derived for each income at the country level should influence the solutions used within the respective country. One recommendation is pulling learnings on policies from high-income countries and global governing bodies to low-income countries while accounting for logistics challenges.

Awareness for AMR has been increasing and national and international government bodies have started to implement mitigation strategies. Our research indicates that large, concerted efforts coordinated by governments and companies can greatly reduce AMR costs. Further, consumers are increasingly aware of AMR, and have a positive view of brands that pursue AMR mitigation. Private food companies have a unique opportunity to join in with policies and mitigation strategies to synergize with existing plans from governments.

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PRIMARY PRESCOUTER RESEARCH

PreScouter engaged in primary survey research on estimates of incidence, market impact, and future trends with analysts, scientists and physicians. These results represent the synthesized results of this study.

EXPERT PANEL INTERVIEWS

Panel of 12 subject matter experts identified by PreScouter.

Profession	Operational Setting	Research Area
Executive Director	Australia	Molecular Bioscience, Medicine & Health
Professor	Singapore	Public Health
Senior Research Manager	U.K.	Antimicrobial Resistance and Global Burden of Diseases
Professor	Sweden	Animal Infection Prevention
Professor	U.S.	Molecular Epidemiology
Research Associate	U.K.	Infection Control
Professor	Scotland	Antimicrobial Stewardship
Head of R&D	U.K.	Medical Microbiology & Infection Control
Senior Researcher	U.K.	Health Economics
Assistant Professor	Switzerland	Epidemiology
Professor	U.S.	Agricultural Economics
Senior Consultant	U.S.	Infectious Disease Epidemiology

ABBREVIATIONS & ACRONYMS

AMR – Antimicrobial Resistance

CAGR – Compound Annual Growth Rate

CDC – Centers for Disease Control & Prevention

ECDC – European Centre for Disease Prevention & Control

EFSA – European Food Safety Authority

EMA – European Medicines Agency

FAIRR – Farm Animal Investment Risk & Return

FAO – Food & Agriculture Organization of the UN

FDA – Food & Drug Administration

GDP – Gross Domestic Product

ICASA – International Consortium for Antimicrobial Stewardship in Agriculture

MRSA – Methicillin-resistant *Staphylococcus aureus*

OIE – World Organisation for Animal Health

OTC – Over-the-counter

PVP – USDA Process Verified Program

UK-VARSS – United Kingdom Veterinary Antimicrobial Resistance & Sales Surveillance

UN – United Nations

USDA – U.S. Department of Agriculture

USRSB – U.S. Roundtable for Sustainable Beef

VCPR – Veterinarian Client Patient Relationship

VFD – Veterinary Feed Directive

WHO – World Health Organization

ABOUT YUM! BRANDS, INC.

Yum! Brands, Inc., based in Louisville, Kentucky, has over 52,000 restaurants in more than 150 countries and territories, operating the Company's brands – KFC, Pizza Hut and Taco Bell – global leaders of the chicken, pizza and Mexican-style food categories. The Company's family of brands also includes The Habit Burger Grill, a fast-casual restaurant concept specializing in made-to-order chargrilled burgers, sandwiches and more. Yum! Brands was included on the 2021 Bloomberg Gender-Equality Index. In 2020, Yum! Brands was named to the Dow Jones Sustainability Index North America and was ranked among the top 100 Best Corporate Citizens by 3BL Media.

Exhibit C

Copy of the Proponent's Prior 2020 Shareholder Proposal

See Attached

[YUM! Brands, Inc: Rule 14a-8 Proposal, December 3, 2020]
[This line and any line above it – *Not* for publication.]

ITEM 4* – External Public Health Cost Disclosure

RESOLVED, shareholders ask that the board commission and disclose a study on the external environmental and public health costs created by the use of antibiotics in the supply chain of our company (the “Company”) and the manner in which such costs affect the vast majority of its shareholders who rely on a healthy stock market.

The Company is a conventional North Carolina corporation, so that directors have no mandatory fiduciary obligations beyond considering the interests of the Company and its shareholders (except to the extent consideration of other stakeholders may create value for shareholders). Accordingly, when the financial return of the Company to its shareholders and the interests of stakeholders such as workers or customers clash, the directors will favor shareholder return. (The Company could reincorporate as a public benefit corporation¹ in another state to overcome this.)

For our Company, this may lead to overuse of antibiotics in raising livestock to increase profit, despite increasing the ability of diseases to resist antimicrobials. In addition to the resulting loss of life and increased poverty, antimicrobial resistance may decrease global GDP 3% by 2030, and almost 4% by 2050.² At an intermediate discount rate, this will amount to economic losses by 2050 with a current value of \$54 trillion.³

The Company does not report such external costs and consequent harm to the wider economy. This information is essential to shareholders, who are almost all broadly diversified. Indeed, as of September 2020, the top three holders of our shares are T. Rowe Price Associates, BlackRock and Vanguard—investment managers with indexed or otherwise broadly diversified investors.

Such shareholders and beneficial owners are materially harmed when companies impose external costs that lower GDP, which can reduce equity value. While the Company may profit by ignoring externalized costs, diversified shareholders ultimately pay these costs, and they have a right to ask what they are.

The Company’s prior disclosures and prior shareholder proposals do not address this issue, because they do not address the *the public health costs the Company imposes on shareholders as diversified investors who must fund retirement, education, public goods and other critical social needs*. This is a separate social issue of great importance. A study would help shareholders determine whether to seek a change in corporate direction, structure, or form in order to better serve their interests and to match its commitment to stakeholders.

Please vote for: External Public Health Cost Disclosure – Proposal [4*]



[This line and any below are *not* for publication]
Number 4* to be assigned by the Company

¹See, e.g., 8 Del. Code Section 361.

² <http://documents1.worldbank.org/curated/en/323311493396993758/pdf/final-report.pdf>

³ Id.

The graphic above is intended to be published with the rule 14a-8 proposal.

The graphic would be the same size as the largest management graphic (and accompanying bold or highlighted management text with a graphic) or any highlighted management executive summary used in conjunction with a management proposal or a rule 14a-8 shareholder proposal in the 2021 proxy.

The proponent is willing to discuss the in unison elimination of both shareholder graphic and management graphic in the proxy in regard to specific proposals.

Reference SEC Staff Legal Bulletin No. 14I (CF)

[16] Companies should not minimize or otherwise diminish the appearance of a shareholder's graphic. For example, if the company includes its own graphics in its proxy statement, it should give similar prominence to a shareholder's graphics. If a company's proxy statement appears in black and white, however, the shareholder proposal and accompanying graphics may also appear in black and white.

Notes: This proposal is believed to conform with Staff Legal Bulletin No. 14B (CF), September 15, 2004 including (emphasis added):

Accordingly, going forward, we believe that it would not be appropriate for companies to exclude supporting statement language and/or an entire proposal in reliance on rule 14a-8(i)(3) in the following circumstances:

- the company objects to factual assertions because they are not supported;
- the company objects to factual assertions that, while not materially false or misleading, may be disputed or countered;
- the company objects to factual assertions because those assertions may be interpreted by shareholders in a manner that is unfavorable to the company, its directors, or its officers; and/or
- the company objects to statements because they represent the opinion of the shareholder proponent or a referenced source, but the statements are not identified specifically as such.

We believe that it is appropriate under rule 14a-8 for companies to address these objections in their statements of opposition.

See also Sun Microsystems, Inc. (July 21, 2005)

The stock supporting this proposal will be held until after the annual meeting and the proposal will be presented at the annual meeting. Please acknowledge this proposal promptly by email [sara (at) theshareholdercommons.com].

Yum! Brands, Inc.
1441 Gardiner Lane
Louisville, KY 40213

The Yum! logo consists of the word "Yum!" in a white, bold, sans-serif font, enclosed within a red speech bubble shape with a white outline.

February 3, 2022

U.S. Securities and Exchange Commission
Division of Corporate Finance
Office of Chief Counsel
100 F Street, NE
Washington, D.C. 20549

By Email: shareholderproposals@sec.gov

Re: Withdrawal of No-Action Letter Request Regarding Shareholder Proposal of
The Shareholder Commons

Dear Sir or Madam:

In a letter dated January 11, 2022, we requested that the staff of the Office of Chief Counsel concur that Yum! Brands, Inc. (the "**Company**"), could properly exclude from its proxy materials for its 2022 Annual Meeting of Shareholders a shareholder proposal (the "**Proposal**") submitted by The Shareholder Commons on behalf of Paul Rissman (the "**Proponent**").

Attached is a letter from the Proponent to the Company dated January 31, 2022, stating that the Proponent voluntarily withdraws the Proposal. See **Exhibit A**. In reliance on this letter, we hereby withdraw the January 11, 2022 no-action request relating to the Company's ability to exclude the Proposal pursuant to Rule 14a-8 under the Exchange Act of 1934.

Please call the undersigned at (502) 874-8719 if you should have any questions or concerns in this regard.

Respectfully yours,

A handwritten signature in black ink, appearing to read "Lawrence Derenge", written over a light blue horizontal line.

Lawrence Derenge
Corporate Counsel
Yum! Brands, Inc.



Exhibit A

See attached.



Via electronic mail

January 31, 2022

YUM! Brands, Inc.

1441 Gardiner Lane
Louisville, KY 40213

Attn: Scott Catlett
Chief Legal & Franchise Officer & Corporate Secretary

RE: Withdrawal of Rule 14a-8 shareholder proposal for 2022 Annual Shareholder Meeting

Dear Mr. Catlett,

The Shareholder Commons withdraws the shareholder proposal we filed on behalf of Paul Rissman, a shareholder of YUM! Brands, Inc. (the "Company"), for action at the next Company annual meeting.

Sincerely,

Sara E. Murphy
Chief Strategy Officer

Cc: Larry Derenge