

FRAMING THE CONVERSATION AROUND IVERMECTIN:
NEWS MEDIA'S ROLE IN THE SPREAD OF MISINFORMATION
ABOUT THE ANTI-PARASITIC DRUG IN THE
TREATMENT OF COVID-19

by

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ABSTRACT

The World Health Organization labeled the rise of misinformation during the COVID-19 pandemic an “infodemic,”¹ or an overabundance of information, both online and offline. The COVID-19 pandemic is an example of how the scientific method can find itself at odds with journalism practices, especially those which promote the communication theory of priming. Moreso, the challenge news media face when it comes to keeping up with an ever-changing landscape of pandemic conditions as numbers and medical advice shift. Researchers, epidemiologists, and medical professionals shared early advice with the public about the SARS-CoV-2 virus that didn’t recognize it as highly infectious and able to rapidly mutate.² As such, their earlier recommendations and predictions changed with the timeline of the virus, mutations and suggested treatments. As time went on, their recommendations and predictions changed, leading some critics to question their expertise. Where society was fearful and grasping for information to protect themselves and their families, there was no expectation that researchers felt the same. Therein lies a fundamental misunderstanding of how the public thinks scientific research works and how it actually manifests. Researchers do not have all the answers, much less at the start of a pandemic caused by a novel virus. The scientific method rewards scientists for asking questions, finding what the answer cannot be in order to narrow down possibilities, and not necessarily figuring out the answer on the first try. The urgency of the pandemic complicated this natural timeline for research as time and educated guesses were the only options when the virus was mutating quickly, millions of people were dying from the disease, and major political

¹ “Managing the COVID-19 Infodemic: Promoting Healthy Behaviours and Mitigating the Harm from Misinformation and Disinformation,” World Health Organization (World Health Organization, September 23, 2020), <https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation>.

² Nash D. Rochman et al., “Ongoing Global and Regional Adaptive Evolution of SARS-COV-2,” *Proceedings of the National Academy of Sciences* 118, no. 29 (February 2021), <https://doi.org/10.1073/pnas.2104241118>.

and economic stressors were intensifying the need for solid, correct answers quickly. The growing discrepancy between scientific and public consensus for a range of issues, like vaccine safety and climate change only exacerbated the situation.³ So, society and scientific communities were both under extreme stress and pressure to have answers where there were no easy answers.

Role of News Media in Scientific Communication

When false information is intentionally spread it is usually referred to as disinformation; when spread unintentionally it is considered misinformation.⁴ The sphere of incorrect shared information, such as propaganda, fake news, and misinformation has long been on the radar for news media.⁵ Journalism ethics codes like the Society of Professional Journalists' Code of Ethics highlight values of accuracy, proper context for stories, and correcting and updating information throughout the life of a news story.⁶ Like the field of science, journalism seeks to find the truth and is held to high standards to do so. But members of both fields are subject to intense external pressures, especially in today's online world that functions as an attention economy.⁷ West and Bergstrom claim that science is the greatest of human inventions for understanding our world, but it is pushed by what the public wants to see, as "scientists compete for eyeballs just as journalists do. They face incentives to hype their work and to publish selectively those findings that are surprising and 'clickable.'" Experts market their work for views and citations in hopes of receiving research money, grants, tenure, more publications, etc. When the sheer amount of

³ Dietram A. Scheufele and Nicole M. Krause, "Science Audiences, Misinformation, and Fake News," *Proceedings of the National Academy of Sciences* 116, no. 16 (2019): pp. 7662-7669, <https://doi.org/10.1073/pnas.1805871115>.

⁴ Dietram A. Scheufele and Nicole M. Krause, "Science Audiences, Misinformation, and Fake News."

⁵ David M. Lazer et al., "The Science of Fake News," *Science* 359, no. 6380 (September 2018): pp. 1094-1096, <https://doi.org/10.1126/science.aao2998>.

⁶ "SPJ Code of Ethics - Society of Professional Journalists," Society of Professional Journalists - Improving and protecting journalism since 1909, September 6, 2014, <https://www.spj.org/ethicscode.asp>.

⁷ Jevin D. West and Carl T. Bergstrom, "Misinformation in and about Science," *Proceedings of the National Academy of Sciences* 118, no. 15 (September 2021), <https://doi.org/10.1073/pnas.1912444117>.

available content (and competition for interest) increases, the public faces a deluge of information. Pre-pandemic studies of public opinion found that a significant number of Americans felt inundated by information and questioned whether their peers could understand the scientific concepts being reported:

Two in five Americans (44%) agree that it is “a big problem” that “[t]he public doesn’t really know enough about science to understand findings in the news,” with only 16% not considering it a problem. Similarly, 4 in 10 (40%) think that it is “a big problem” that “[t]here are so many findings that it’s hard to distinguish between high and low quality studies,” with only 18% not seeing it as a problem (12).⁸

Even for individuals who feel confident in their ability to understand findings in the news, the pace of information travel can complicate understanding. Lazer and other colleagues note that “Fake news as a form of misinformation benefits from the fast pace that information travels in today’s media ecosystem, in particular across social media platforms.”⁹

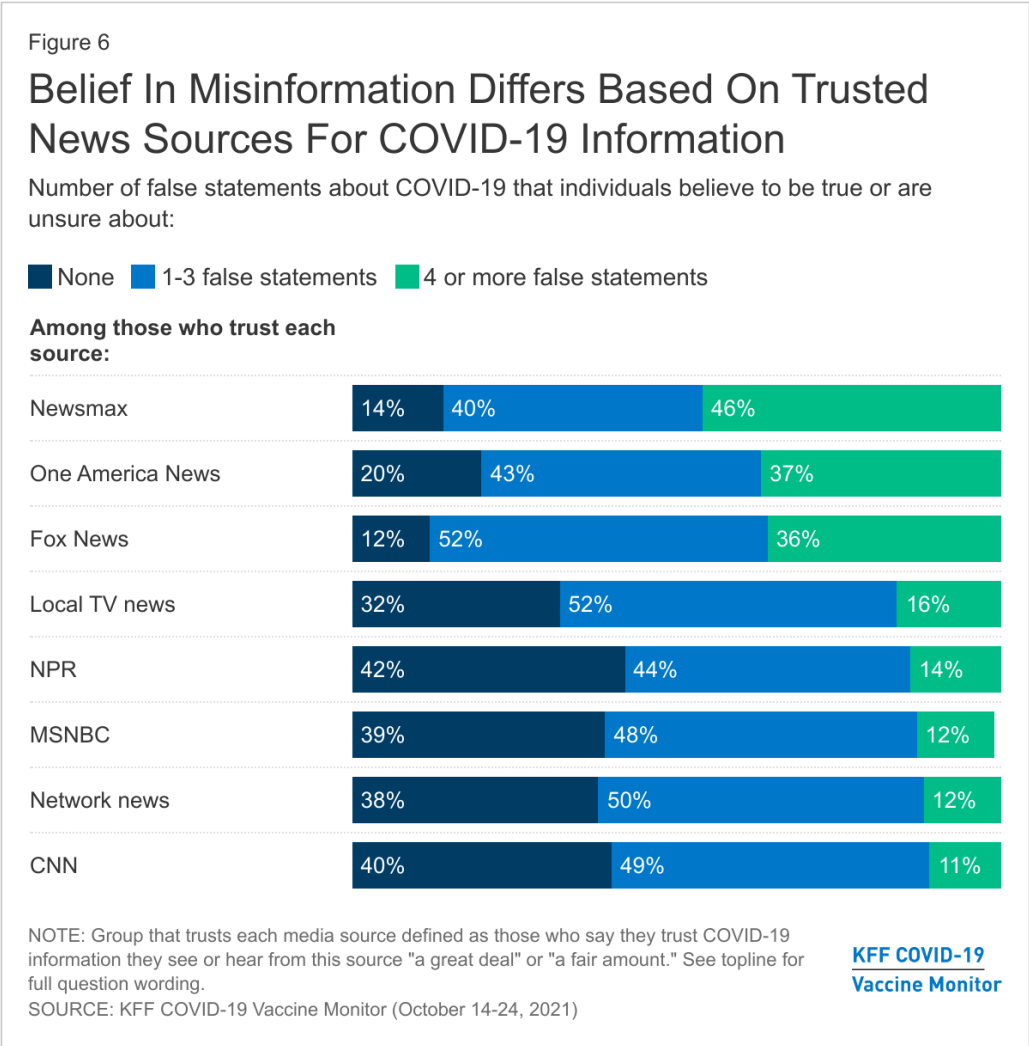
Misinformation dissemination, especially via social media, benefits from users’ tendency to scroll quickly over a cacophony of information and click or retweet without much critical thinking. When tense emotions, public safety, and uncertainty are added into the mix, users were easy prey for disinformation.

Another study surveyed viewers who trusted different news sources whether they believed in false statements on COVID-19 information. The Kaiser Health Foundation found that

⁸ Dietram A. Scheufele and Nicole M. Krause, “Science Audiences, Misinformation, and Fake News.”

⁹ Lazer, David M., Matthew A. Baum, Yochai Benkler, Adam J. Berinsky, Kelly M. Greenhill, Filippo Menczer, Miriam J. Metzger, et al. “The Science of Fake News.” *Science* 359, no. 6380 (2018): 1094–96. <https://doi.org/10.1126/science.aao2998>.

many viewers, regardless of what outlet they trust, believed in some form of misinformation.¹⁰ The most conservative leaning outlets had the highest degree of believing in or being unsure about false statements. All viewers seem to have been vulnerable to misinformation. Thus, how the news framed the conversation around ivermectin, a misunderstood drug, is imperative.



To what extent can framing or giving space to these conversations at all further propagate the spread of misinformation? I predict that how the news media shapes the conversation around

¹⁰ Liz Hamel, Lunna Lopes. "KFF COVID-19 Vaccine Monitor: Media and Misinformation." Kaiser Family Foundation, November 16, 2021. <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-media-and-misinformation/>.

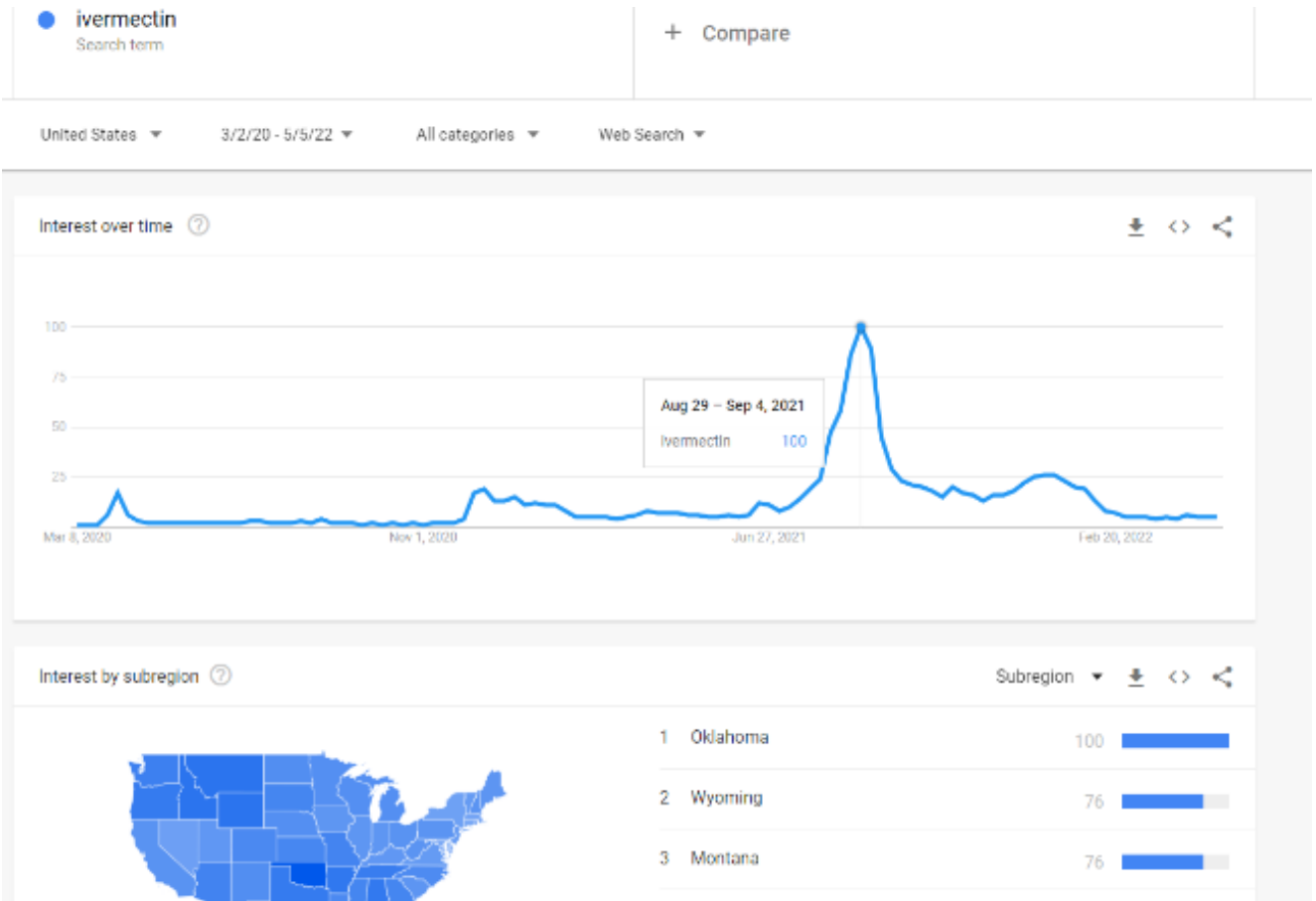
ivermectin might be unbalanced as a result of false equivalence. I suggest that this decision making process is similar to how news media editors decide what they give a platform to and how they frame the subject. Journalists may also prime their audiences by suggesting their readership considers certain subjects a benchmark for how leaders should be judged. Other pertinent questions that I hope others consider in further research are: what decisions should editors make so as to avoid false equivalence when a certain treatment or opinion is deemed unsafe by experts? When is there enough evidence to the contrary to make these decisions, and how does news media come to terms with the fact that science has many unknowns when their readers want answers? Is the news media a small piece of the misinformation puzzle? How vigilant must leaders and reporters in a waning industry remain so as not to contribute to the misinformation storm in a desire for clicks?

Ivermectin in the news

There were 14 articles about using ivermectin as a treatment for COVID-19 published by news services in the United States from Aug. 23 to Sept. 9, 2021. This timeframe reflects when colloquial interest in ivermectin peaked according to a Google trends search result.

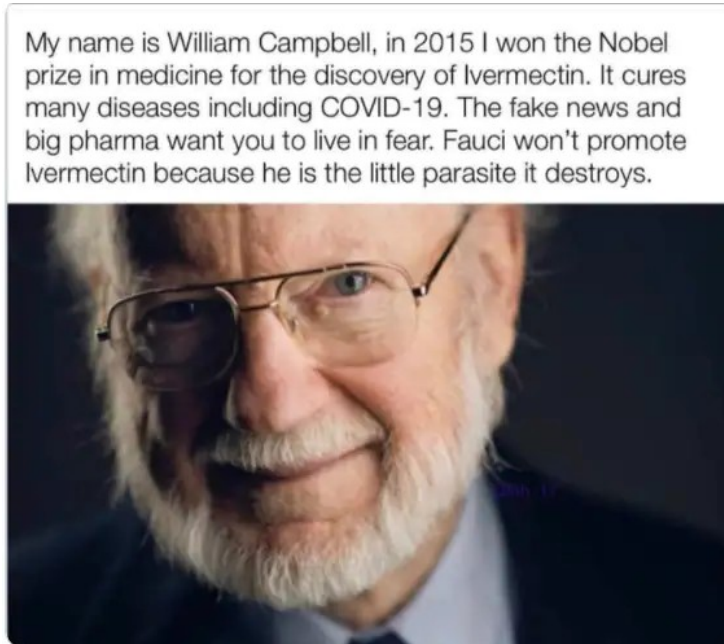
Oklahoma had the highest search interest rate of all states.

Much of the conversation surrounding ivermectin was happening on social media.



Memes promoting ivermectin circulated on social media, like this one that was reposted by a verified writer with 33,000 followers, Sharell Cook, in the replies to an FDA tweet warning about the usage of ivermectin.¹¹

¹¹ Sharell Cook, Twitter post, April 2022, 9:04 a.m., <https://twitter.com/AboutIndia/status/1519316584732319744>



The Washington Post investigated this “false meme,” noting that the Nobel laureate did not say that Ivermectin will cure COVID-19.¹²

Misinformation case study

I aim to investigate an example of whether the process of misinformation swirls from research through news media and ultimately to groups on social media during the COVID-19 pandemic by investigating a specific example of ivermectin. Alternative treatments for COVID-19, such as ivermectin, an antiparasitic drug, grew in popularity among conservative and anti-vaccine crowds. Ivermectin is prescribed as treatment for parasitic worm infections; there is also

¹² Kessler, Glenn. “Analysis | False Meme: Nobel Laureate Did Not Say Ivermectin ‘Cures’ Covid-19.” The Washington Post. WP Company, September 10, 2021. <https://www.washingtonpost.com/politics/2021/09/08/false-meme-nobel-laureate-did-not-say-ivermectin-cures-covid-19/>.

a version used to deworm livestock. Prescriptions for the antiparasitic pill as a treatment for COVID-19 spiked during the week of Aug. 18, 2021 when the CDC reported 88,000 prescriptions were written, compared to an average of 3,600 prescriptions prior to the pandemic¹³. I have performed a content review using Nexis Uni to first track how the use of the drug was covered by news media, and will contextualize those results with published studies and social media on the drug around that time frame.

Methods

The search was completed using a journalism database in NexisUni. The results were filtered by date published, location, type of piece, and filtered to avoid duplicates. The initial search query included keywords of “ivermectin,” “treatment” and “COVID-19” and was later broadened to only include the keyword “ivermectin” when looking at news transcripts. Articles published between August 25th – September 9th, 2021 in the United States were included. Newswire services and blog posts were not included. The search came up with nine articles from the time frame specified. It was then noted whether the article included several key terms and components: an uptick in ivermectin usage, sources including a medical professional, sources endorsing use of ivermectin, the word “misinformation,” mention of the word “horse,” “animal,” or “livestock,” use of horse dewormer noted instead of prescription meant for humans, notes insufficient studies or data in humans, and recommends or references sources who promote vaccine usage instead. Quotes or interesting notes from the story were also pulled.

¹³ “Rapid Increase in Ivermectin Prescriptions and Reports of Severe Illness Associated with Use of Products Containing Ivermectin to Prevent or Treat COVID-19.” Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, August 9, 2021. <https://emergency.cdc.gov/han/2021/han00449.asp>.

Results

Publications included in the final content review included articles from the Wisconsin State Journal, Dayton Daily News, The Salt Lake Tribune, Tampa Bay Times, the New York Times, and AZ Mirror.

Category	Frequency
uptick in sales	8
warning usage	8
sources endorses	7
social media source	5
medical professional source	8
study referenced	9
"misinformation"	2
"horse" "animal" "livestock" "veterinary"	9
insufficient studies	9
pro-vaccine	4

Although there were fewer articles and news transcripts that talked about ivermectin in a positive light, it is still possible to analyze two mostly distinct framing patterns. Framing theory refers to the assumption that an issue is presented in news to reach the broadest audience.¹⁴ This differs from agenda setting, because it's less of *whether* the topic is discussed, and more of *how* the topic is discussed. Scheufele and Tewksbury do not assert that framing is a conniving method that the journalist uses, but rather a necessary tool to help an audience make sense of their complex world. "In fact, framing for them, is a necessary tool to reduce the complexity of an

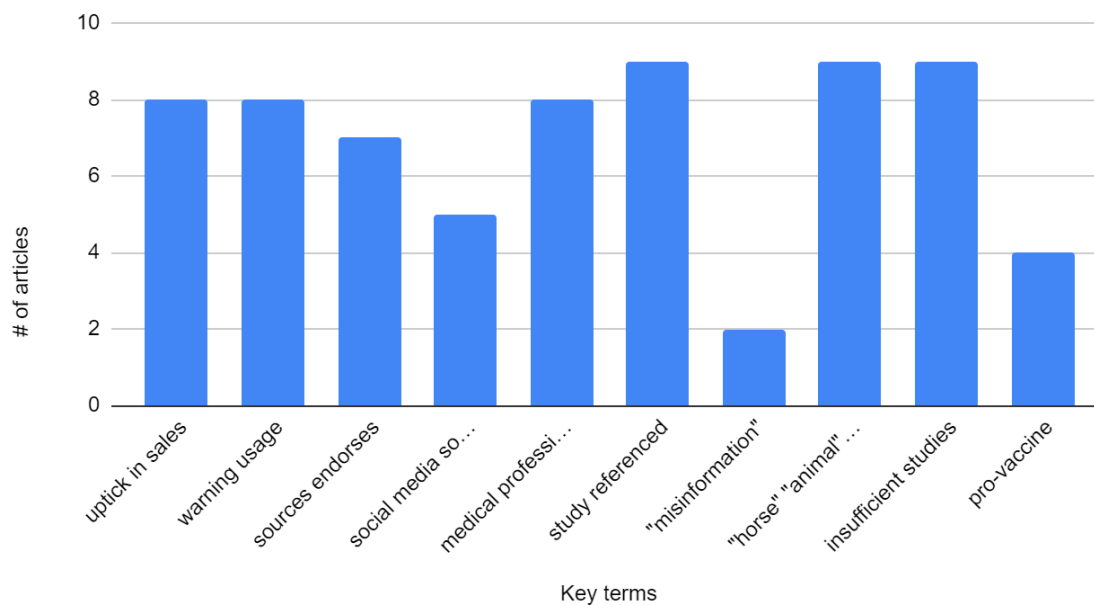
¹⁴ Scheufele, Tewksbury *Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models*, Journal of Communication, 2007

issue, given the constraints of their respective media related to news holds and airtime.” (Gans, 1979) Is ivermectin being framed as horse medicine and dewormer, or a secret elixir hidden from the public?

Most, 88.9% of the articles warned against using the drug to treat COVID-19; all noted that there were insufficient studies to condone its usage. However, 77% of the articles included a source that endorsed the drug, some of whom being medical professionals. This is a false equivalency. False equivalence, sometimes also referred to as false balance, is when the media represents two opposing sides on a subject as equally credible when in reality the evidence and leans greatly one way or another.¹⁵ This false equivalency characterizes these articles on ivermectin. Most of the articles included sources from both sides even when there was a strong factual base of credibility warning the use of the drug. Furthermore, most of the articles that included sources warning against using ivermectin were usually included at the top of the story, lending extra emphasis on their importance. Journalists are taught to include the most important information in a story at the top of their article, so one may assume that either these sources were included as a method of increasing clicks or as clickbait or because the journalist truly thought they were most important. Additionally, most readers do not finish an article, where the warnings against using the medicine or getting vaccinated instead were planted.

¹⁵ Spayd, Liz. “The Truth about ‘False Balance.’” The New York Times. The New York Times, September 10, 2016. <https://www.nytimes.com/2016/09/11/public-editor/the-truth-about-false-balance.html>.

Key topic frequency in Ivermectin news articles



There were 44 broadcast transcripts that discussed ivermectin during the Aug. 25 - Sept. 9 timespan. Fox News first mentioned “ivermectin,” “COVID-19” and “treatment” on June 24, 2021 in a segment that suggested that there is mass silencing going on social media over the drug:

“Ivermectin, that's the current debate, it's a therapeutic that many are saying is somewhat of a miracle drug perhaps, we'll see if it works out in treating COVID-19. But even the idea of Ivermectin, [Glenn](#), has totally pushed off on social media. I mean you will get banned; you'll get red flagged.

Bret Weinstein, for example, had his podcast almost kicked off of YouTube for even considering that Ivermectin could be a good potential therapeutic. Now today, it's announced the University of Oxford is testing Ivermectin as a possible treatment for COVID-19.

I can't help but avoid the idea, [Glenn](#), that these stories are connected. It's all coming back to some sort of mind control. Why can we not even consider possible alternatives to, I guess what is endorsed by big pharma?"¹⁶

On Aug. 28, CNN aired a segment on the misinformation surrounding ivermectin intended for animals. The report noted the uptick in poisonings and hospitalizations from taking ivermectin as a possible treatment and included a medical correspondent for comment, similar to eight of the articles that used a medical professional as a source. Then it framed the other side promoting ivermectin usage with clips from conservative news outlets:

“LAURA INGRAHAM, FOX NEWS HOST: We know that our FDA has, in many ways, failed us by not allowing for the use of ivermectin.

TUCKER CARLSON, FOX NEWS HOST: Weinstein (PH) discussed the benefits of a drug called ivermectin which can and is around the world used to treat and prevent the spread of the coronavirus.”

The conservative quotes were sandwiched in between another medical professional, the U.S. Surgeon General, who said “Let me just say very clearly that ivermectin is not a recommended treatment for COVID-19.”¹⁷

¹⁶ Will Cain, Jonathan Serrie, Brian Kilmeade, Rachel Campos-Duffy. "Dems Are Hiding From Their Racist Creation; Replacing America's Values With Racism; The Left's Values Are Based in Racism; A Grandmother from Indiana Who is a Trump Supporter Was Sentence to Jail for Going Inside the Capitol on January 6, But Was Given a Laundry List of Books By Her Attorney to Reprogram Her Thinking on How Things Are Happening in the Realm of Politics; President Joe Biden Mentioned in His Speech That Americans Should Purchase Weapons Like F-15s to Fight Against Each Other". *Fox News Network*. June 24, 2021 Thursday. <https://advance.lexis-com.ezproxy.tcu.edu/api/document?collection=news&id=urn:contentItem:630M-XJ71-JB20-G09J-00000-00&context=1516831>.

¹⁷ Pamela Brown, Kaitlan Collins, Oren Liebermann, Brian Todd, Tom Sater, Derek Van Dam, Nadia Romero, Salma Abdelaziz. "U.S. Strikes Back For Kabul Bombing, Evacuations In Final Phase; Drone Strike Kills Two High-Profile ISIS Targets According To The Pentagon; Ida Expected To Hit Louisiana Tomorrow As Category 4 Hurricane; Anti-Vaccine Protesters Harass Hawaii's Lt. Governor; Team Rubicon Preps To Respond After Hurricane Ida Hits; Biden: Another Kabul Attack "Highly Likely In Next 24-36 Hours"; Ivermectin Debacle Exposes Hypocrisy Of Anti-Vax Crowd. Aired 6-7p ET". *CNN*. August 28, 2021 Saturday. <https://advance.lexis-com.ezproxy.tcu.edu/api/document?collection=news&id=urn:contentItem:63GH-D4W1-JB20-G1VF-00000-00&context=1516831>.

On Sept. 1, Chris Hayes, an MSNBC Host, had a segment on how the American Medical Association called for an immediate end to using ivermectin as a treatment for COVID. The transcripts show similar framing to the CNN segment, as it too is mostly critical of the professionals prescribing ivermectin to their patients. Hayes interviewed Dr. Gerald Harmon, President of the American Medical Association, on the statement. “We can understand why folks are grasping at things such as these novel treatments for – in the middle of a pandemic for which there’s not a whole lot of established effective treatments, in general at least at the frontlines. And so, doctors should be cautious in their zeal to provide something for patients,” Harmon said.¹⁸ Harmon also used the term “fact pollution” to describe some of the misinformation that can cause their patients to probe about being prescribed these treatments.

Three days later, CNN had another segment on ivermectin, this time mentioning the name of podcaster Joe Rogan who touted using the drug as part of a milieu of medicine to treat his COVID.

“JOE ROGAN, PODCASTER: It turns out I've got COVID. So we immediately threw the kitchen sink at it, all kinds of meds, monoclonal antibodies, Ivermectin, Z-Pak, Prednisone, everything.

ACOSTA: In case you missed it, Rogan said Ivermectin. Yes, that's the de-worming medicine made to kill parasites in farm animals and, weirdly, is being promoted by right-wing media figures and even some politicians as a COVID treatment.”¹⁹

The CNN anchors then discussed how influential Rogan is to his audience.

¹⁸ Chris Hayes. "ALL IN for September 1, 2021". *MSNBC*. September 1, 2021 Wednesday. <https://advance-lexis-com.ezproxy.tcu.edu/api/document?collection=news&id=urn:contentItem:63HB-DKJ1-JB20-G068-00000-00&context=1516831>.

¹⁹ Jim Acosta, Arlette Saenz, Brian Todd, Rachel Crane. "Roe V. Wade In Jeopardy As Texas Effectively Bans Abortion; Biden Orders Declassification Review Of 9/11 Documents; Interview With Rep. Eric Swalwell (D-CA); Six Deaths Tied To Louisiana Nursing Home Temporary Shelter; Rand Paul: "Hatred For Trump" Blocking Research Into Horse Drug Ivermectin As COVID-19 Treatment; CNN KFile: GOP Gov. Candidate Larry Elder Once Implied Female Accuser Was Too Ugly For Claim To Be True. Aired 4-5p ET". *CNN*. September 4, 2021 Saturday. <https://advance-lexis-com.ezproxy.tcu.edu/api/document?collection=news&id=urn:contentItem:63J1-6F41-DXH2-60FR-00000-00&context=1516831>.

Political biases of news transcripts on ivermectin from Aug. 25-Sept. 9, 2021

Transcripts were gathered using NexisUni.

■ Left ■ Right

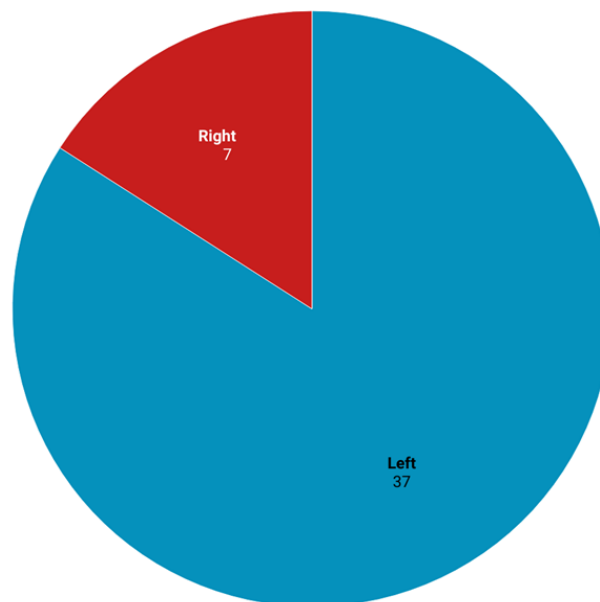


Chart: Katherine Lester • Created with Datawrapper

Of the 43 total news transcripts in the time period, most fall more clearly into a bucket of either endorsing ivermectin or warning of its usage. A majority, 37, were from left-leaning outlets, mostly CNN and MSNBC and seven were from conservative outlets – all Fox News. Consequently, most of the coverage around ivermectin in broadcast news was warning the use of ivermectin. However, most of the viewers of CNN were not the same people looking for alternatives to vaccination. A survey performed by the Kaiser Family Foundation found that “unvaccinated adults are far less likely than vaccinated adults to trust most of the news sources included in the survey for information on COVID-19, with the exception of conservative news sources.” Hence, there is more weight in how outlets like Fox News portrayed ivermectin to their vaccine-skeptical viewers looking for a cure for COVID-19 that did not involve vaccination. How the outlets framed ivermectin varied differently based on their political leanings. For example, Tucker Carlson on Fox News leaned heavily into the fact that the discovery of ivermectin led to a Nobel Peace Prize in 2015. However, he fails to mention that the drug’s

efficacy was for fighting parasites, not COVID-19. This leans into the conspiratorial framing of ivermectin by conservative outlets as a miracle drug hidden by the government, similar to the conversation around hydroxychloroquine.

Conclusion

What lies at the root of the ivermectin framing issue also drives ivermectin usage. People wanted a cure for COVID-19; a simple solution to a complex problem. News media outlets who framed the conversation of ivermectin with false equivalence as a path of least resistance fall prey to a similar desperation, of which the slow and meticulous scientific method is not conducive to. As Dr. Gregory Yu, an emergency physician in San Antonio told CNN anchor Erin Burnett, “I think there is possibly a lot of misinformation out there and maybe there is some mistrust. I think that people may want a cure for COVID-19 or medication out there to decrease the length of their symptoms or the severity of their symptoms.”²⁰ Journalists should strive to portray complex issues with complexity; simple issues, however, such as unfounded livestock dewormer as a COVID-19 treatment, with earnest simplicity.

²⁰ Wolf Blitzer, Erin Burnett, Jeff Zeleny, Natasha Bertrand, Dana Bash, Elie Honig, Ed Lavandra, Jessica Dean. "As WH Assesses Afghanistan Chaos, State Dept Officials Blame Intel Community, Intel Officials Say WH Trying To Scapegoat; Top U.S. General Milley On Whether U.S. Military Would Coordinate With Taliban To Combat ISIS-K: 'It's Possible'"; Rep. Pete Aguilar (D-CA) Discusses About Minority Leader McCarthy's Threat To Companies Who Will Cooperate With The January 6 Probe; Tornado Causes Damage In MD; Watches For Philly, NYC. Biden To Visit Louisiana, Nearly 1M Customers Without Power; Joe Rogan Says He Has COVID, Taking Livestock Drug Despite Warnings. Aired 7-8p ET". *CNN*. September 1, 2021 Wednesday. <https://advance-lexis-com.ezproxy.tcu.edu/api/document?collection=news&id=urn:contentItem:63HB-BJF1-JB20-G066-00000-00&context=1516831>.