

Interactions Between the U.S. National Institute on Alcohol Abuse and Alcoholism and the Alcohol Industry: Evidence From Email Correspondence 2013–2020

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ABSTRACT. Objective: The purpose of this study was to examine the extent and nature of email interactions between National Institute on Alcohol Abuse and Alcoholism (NIAAA) leaders and the alcohol industry from 2013 to 2020. **Method:** We performed a thematic content analysis of 4,784 pages of email correspondence obtained from Freedom of Information Act requests to the National Institutes of Health on three senior NIAAA staff members. **Results:** A total of 43 NIAAA staff were identified interacting with 15 industry bodies (companies and other organizations). NIAAA leaders provided industry with extensive information about scientific and policy developments. Discussions were facilitated by the willingness of NIAAA leaders to meet with industry and have other

informal contacts, as well as NIAAA leadership presence at industry-sponsored and other events. Key industry actors asked NIAAA leaders for help on science and policy issues. At times, NIAAA leaders heavily criticized public health research and researchers in correspondence with industry. **Conclusions:** Institutional practices of engagement with the alcohol industry have been sustained by NIAAA leaders' activity. There is an urgent need to better understand the extent to which commercial rather than public health interests have shaped alcohol research agendas, both within and beyond NIAAA. (*J. Stud. Alcohol Drugs*, 84, 11–26, 2023)

ALCOHOL CONSUMPTION and the damage it does is a large and growing global health problem, and the World Health Organization (WHO) is now accelerating actions to reverse forecast trends (WHO, 2018, 2021). Although researchers, policymakers, and practitioners now broadly agree that there is no role for the tobacco industry within public health, the same cannot be said for the alcohol industry (Marten et al., 2020). The alcohol and tobacco industries are deeply connected, for example via co-ownership (Bond et al., 2010; Hawkins & McCambridge, 2018), and there is growing evidence that these and other unhealthy commodity industries use a common playbook of strategies to influence public policy to suit commercial rather than public health interests (Michaels, 2020; Nestle, 2018; Oreskes & Conway, 2010; White & Bero, 2010). These practices are a key component of the corporate or commercial determinants of health (Kickbusch et al., 2016; Millar, 2013). There are known to be wide-ranging impacts on research agendas (Fabbri et al., 2018), although formal documenta-

tion and study of global alcohol industry involvement in science is relatively recent (Babor, 2009; Babor & Robaina, 2013; Bartlett & McCambridge, 2021, 2022; Golder et al., 2020; Golder & McCambridge, 2021; Jernigan, 2012; McCambridge & Mitchell, 2022; McCambridge et al., 2021; Mitchell & McCambridge, 2022a, 2022b, 2022c; Mitchell et al., 2020; Stockwell et al., 2020).

A major controversy arose in 2018 regarding the \$100 million Moderate Alcohol and Cardiovascular Health (MACH) trial. The study, which was designed to investigate the possible cardioprotective effects of alcohol, received two thirds of its funding from the alcohol industry and was supported by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) (ACD Working Group, 2018). The trial was terminated due to a biased trial design co-produced by researchers, NIAAA staff, and alcohol industry representatives (Mitchell et al., 2020). NIAAA is the largest funder of alcohol research globally (NIAAA, 2020). After funding of the MACH trial by five major companies had been secured, two NIAAA senior leaders took part in a promotional video for an AB InBev (the world's largest brewer and MACH trial funder) corporate social responsibility (CSR) initiative in 2016 (Siegel, 2018). As part of the MACH trial controversy, email correspondence was released into the public domain that appeared to show an NIAAA Director assuring an industry executive that they would not be funding further research on alcohol marketing by David Jernigan and colleagues (Begley, 2018). Based on this information, we sought to identify the extent and nature of NIAAA interactions with the alcohol industry, which parties were most prominent in

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facilitating and maintaining such connections, the topics discussed, and any industry attempts to influence NIAAA scientific and other decision making.

Method

On August 12, 2020, and January 15, 2021, we made Freedom of Information Act (FOIA) requests for all email correspondence (including attachments) from and to three NIAAA leaders who had been in senior positions during various phases of the MACH trial (the current Director, former Acting and Deputy Director, and former Director of Global Alcohol Research) and the following alcohol industry email addresses: @ab-inbev.com, @diageo.com, @heineken.com, @carlsberg.com, @pernod-ricard.com, @beamsuntory.com, @sabmiller.com, @bacardi.com, @molsoncoors.com, @asahigroup-holdings.com, @asahibeer.co.jp, @b-f.com, @kirin.co.jp, @discus.org, @BeerInstitute.org, @wineinstitute.org, @icap.org, @iard.org, @gapg.org, @spirits.eu, @brewer-sofeurope.org, @responsibility.org, @centurycouncil.org, and @abmrf.org. These organizations were identified based on their prominence nationally and globally and/or their involvement in the MACH trial. We received email correspondence from January 11, 2013, to January 14, 2021, across both requests, which are provided as supplementary files (Supplementary File A; Supplementary File B; Supplementary File C; Supplementary File D; Supplementary File E). This resulted in the receipt of 4,784 pages of email records in total.

Informed by well-developed approaches to private correspondence subsequently made publicly available, such as in the Truth Tobacco Industry Documents archive (Anderson et al., 2011; Bero, 2003), a thematic content analysis was conducted. The first author carried out an initial reading of the material to identify evidence of industry–NIAAA interactions beyond the topic of the MACH trial, and all such material was uploaded to NVivo and organized by year/industry group. We excluded data pertaining solely to the MACH trial because we have examined this elsewhere (Mitchell et al., 2020). There were various consultancy, lobbying, public relations, marketing, and market research firms included in the emails, although these were only included in the analysis if it was clear that they were representing the alcohol industry.

We identified 44 NIAAA staff and 26 industry bodies in the data set. One staff member and 11 industry companies or organizations were only involved in MACH trial discussions and are thus excluded here. We excluded industry emails with no NIAAA response and no record of previous contact on that topic. This process retained 43 NIAAA staff identified as directly interacting with 15 industry bodies, or in internal discussions about these interactions. Through an iterative process, the first author reviewed and organized the data set into a list of “episodes” of contact, including key meetings and events, which often comprised distinct email threads. This list was later refined to comprise a series of

topics discussed, with other publicly available information used where possible to construct a coherent, contextualized account (Anderson et al., 2011). The second author supported the analytic process throughout, in checking data and building interpretation.

Results

Four NIAAA senior leaders, including the three named in the FOIA requests, plus the current Deputy Director, had extensive contacts with industry about a range of science, policy, and public information topics (Tables 1–3). We also identified the involvement of eight other leaders, prominently including senior advisors and directors of sections of the organization. Contacts took place via email, telephone, and in-person meetings across the range of topics discussed. The key industry groups were the companies AB InBev and Diageo, two trade associations—the Beer Institute and the Distilled Spirits Council of the United States (DISCUS), and the “social aspects organization” (Babor & Robaina, 2013) the International Alliance for Responsible Drinking (IARD).

Data are presented on the privileged access to information afforded by ongoing relationships, the health-related topics discussed, and the broader contexts in which relationships were built and consolidated.

Ongoing relationships gave industry privileged access to information

NIAAA leaders provided industry groups with extensive information on science and policy developments (Tables 1–3). In some instances, they advised industry representatives on how to advance their interests in relation to other agencies or processes (e.g., Table 2, Organisation for Economic Cooperation and Development [OECD] 2015 report and United Nations Sustainable Development Goals). For DISCUS, this contact was facilitated by a “revolving-door” individual, who had previously been a senior NIAAA employee. The Beer Institute and DISCUS representatives involved other industry groups by including them in email correspondence and organizing various meetings and events at which alcohol companies, trade associations, and NIAAA senior leaders were in attendance.

NIAAA leaders were active participants in interactions with industry, both initiating and reciprocating contacts (Tables 1–3). For example, NIAAA leaders and Diageo and DISCUS representatives discussed the appointment of a new NIAAA Director in 2013 (Supplementary File A, pp. 256–2577; Supplementary File C, pp. 543; 619; 718), which included the following:

Re the new NIAAA director, looks like [Head of National Institutes of Health, NIH] will be making a decision very soon, so if you have real objections to any

TABLE 1. Science-related topics discussed between National Institute on Alcohol Abuse and Alcoholism (NIAAA) staff and alcohol industry representatives 2013–2020

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/ events (planned and confirmed) with NIAAA	Telephone/ conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
Drinking in the general population, including biological mechanisms and effects, problems, dependence, and definitions of alcohol use disorder	AB InBev Beer Institute Constellation Craft Brew Alliance Diageo DISCUS Heineken MillerCoors	01.22.13 Beer Institute 04.23.13 Beer Institute 08.20.13 Beer Institute 05.13.14 Beer Institute Annual Meeting (AB InBev; Beer Institute; Constellation; Craft Brew Alliance; Heineken; MillerCoors) 12.01.14 AB InBev 04.14.15 AB InBev “meet and greet” 04.24.15 DISCUS “briefing”	None identified	Between 2013 and 2016, and in 2018, NIAAA leaders exchanged peer-reviewed papers with AB InBev, the Beer Institute, Diageo, and DISCUS, as well as other scientific information. Both sides initiated the exchanges, and NIAAA senior leaders provided interpretations of the science when requested. For AB InBev, this included a visit to a bar-laboratory constructed for research on alcoholism during an AB InBev “briefing” (Supplementary File C, pp. 54–55) with NIAAA senior leaders in 2015. The topic was discussed at the Beer Institute Annual Meeting, which an NIAAA senior leader participated in. In 2014, a DISCUS representative invited an NIAAA senior leader to present a paper on female underage drinking at an American Women’s Medical Association (AWMA) 2015 meeting. The DISCUS representative attended the event and arranged to have dinner with the NIAAA senior leader. In 2015 the NIAAA Director requested (and received) the same DISCUS representative’s interpretation of research on blood alcohol concentration and gender. When the DISCUS representative strongly criticized peer-reviewed data on the changing alcohol content of beer, the Director requested data from the representative.	04.24.15 During the AWMA event, a DISCUS representative emailed an NIAAA senior leader and other researcher, stating: “I am forwarding this study [on drinking patterns in the US] to both of you because it uses a definition that anything above 7 drinks/week (I drink/day) is heavy drinking . . . I am calling this to your attention because I know NIAAA is working on this problem” (Supplementary File C, p. 9)	(Supplementary File B, pp. 71–74; Supplementary File C, pp. 8–10; 54–55; 101; 119–120; 153; 310–311; 316–318; 587–588; 648–649; 660; 705; 718–720; 780–785; 799; Supplementary File D, pp. 89–90; 95–96; 117–118; 124–127; Supplementary File E, pp. 1277–1278)
Putative cardioprotective effects of alcohol	AB InBev Beer Institute Constellation Craft Brew Alliance Diageo DISCUS Heineken MillerCoors	01.22.13 Beer Institute 04.23.13 Beer Institute 05.13.14 Beer Institute Annual Meeting (AB InBev; Beer Institute; Constellation; Craft Brew Alliance; Heineken; MillerCoors)	None identified	Between 2013 and 2015, NIAAA leaders exchanged peer-reviewed papers and media reports separately with the Beer Institute, Diageo, and DISCUS on the putative cardioprotective effects of alcohol. An NIAAA senior leader took part in a panel at a Beer Institute Annual Meeting where this subject was discussed, alongside other topics. When a Mendelian randomization (MR) study was published that found no cardioprotective effects of alcohol, NIAAA senior leaders disputed the findings, both between themselves and with industry representatives.	01.24.13 An NIAAA senior leader responded at length to an industry document titled “Equalization: A Drink is Not a Drink,” shared by a Beer Institute representative alongside other material, stating: “NIAAA has repeatedly stated that the cardiovascular protective effects of alcohol extend to both moderate beer and spirits use and are not limited to wine (or even red wine) as some have tried to advocate. It is in packaging that much of the confusion has arisen . . .” (Supplementary File C, p. 78)	(Supplementary File C, pp. 78; 82; 109–113; 187–191; 294–298; 306–310; 316–318; 445–448; 608–610; 629; 691–692; 780–781)

Table continued

TABLE 1. Continued

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/ events (planned and confirmed) with NIAAA	Telephone/ conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
Alcohol and cancer	DISCUS	May 14–17, 2019 4th International Alcohol and Cancer Conference (DISCUS)	None identified	Between 2018 and 2019, a DISCUS representative and NIAAA leaders exchanged peer-reviewed articles and a magazine article relating to cancer, with a particular interest in breast cancer. Most but not all of the articles related to alcohol. A leader shared a draft program for the International Alcohol and Cancer 2019 Conference and comments with the DISCUS representative; the DISCUS representative also presented at the event.	<p>02.03.15 When a Beer Institute representative queried a Centers for Disease Control and Prevention (CDC) citation of the Mendelian Randomization study, an NIAAA senior leader responded: “<i>We, of course, do not agree with the CDC and the article they site [sic] was debunked.</i>” (Supplementary File C, p. 82)</p> <p>09.10.18 An NIAAA leader shared a statement from the American Society of Clinical Oncology on alcohol and cancer with a DISCUS representative, stating: “<i>I thought this was a fairly balanced statement of the risks without jumping on the prohibitionist soapbox.</i>” (Supplementary File E, p. 827)</p>	(Supplementary File E, pp.177–178; 211; 309–310; 407; 827–829; 1093–1106; 1280–1281)
Alcohol consumption and stress	DISCUS	May 9–12, 2017 International Congress on Alcoholism and Stress symposium (DISCUS)	None identified	In 2018, a DISCUS representative co-authored a peer-reviewed paper of symposium proceedings on alcoholism and stress with an NIAAA leader (and others) in a former research area.	<p>06.03.18 The DISCUS representative responded to an NIAAA leader’s email regarding the paper, stating: “<i>Looking forward to seeing you @RSA [Research Society on Alcoholism conference]</i>” (Supplementary File E, p. 1275)</p>	(Supplementary File E, pp. 448; 564; 1275–1278; 1314–1315; 1318–1321)

TABLE 2. Discussions of alcohol policy and related scientific issues between National Institute on Alcohol Abuse and Alcoholism (NIAAA) staff and alcohol industry representatives 2013–2020

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/events (planned and confirmed) with NIAAA	Telephone/conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
Organisation for Economic Co-operation and Development (OECD): “Tackling harmful alcohol use: economics and public health policy” report (2015)	Beer Institute Diageo DISCUS Spirits Europe	06.14.13 Diageo	06.27.13 10.18.13 11.25.13 09.18.14 12.01.14 12.10.14 02.06.15 07.02.15 08.04.15 All Diageo	Between 2013 and 2015, an NIAAA senior leader held extensive discussions with a Diageo representative about the progress of the report before publication. The Diageo representative was advised on how to frame industry concerns about the wording and content of the report to the OECD, with Diageo sharing particular concerns about the previous working title of the report, “Drinking Lives Away” (Supplementary File C, pp. 39–42; 160). The Diageo representative introduced the NIAAA senior leader to other groups, including Spirits Europe and the cross-industry group Business and Industry Advisory Committee to the OECD (BIAC). The NIAAA senior leader and Diageo representative also discussed OECD working papers 79 and 80. In 2014, the Beer Institute received a limited response from an NIAAA senior leader to a query re OECD material and subsequently shared their comments on a draft version of the report with the same leader. [See also main text].	06.21.13 The NIAAA senior leader responded via email to the Diageo representative’s concern that they would not have access to the microsimulation model papers before publication, stating: “I would ask if you guys have any power over that process if you can demand to see them before publication and have any right of review. Also, you should question them as to why Australia dropped out of the analyses, leaving only Germany and Canada.” (Supplementary File C, p. 619) 12.09.14 After previously sharing that the title of the report may be changed (Supplementary File C, p. 151), the NIAAA leader emailed the Diageo representative, stating: “Believe it or not [a key author of the OECD report] is going to let me come up with the new title for the paper. Any thoughts?” (Supplementary File C, p. 103) [See also Box 1 email thread 1]	(Supplementary File A, pp. 245–252; Supplementary File B, pp. 367; 590–591; 611–612; 632–634) Supplementary File C, pp. 1–3; 39–42; 79–81; 89–96; 102–103; 106; 114; 122–123; 151; 154; 156–160; 162; 239–248; 477–478; 532; 549–552; 615–624; 626)
National Academies of Sciences, Engineering, and Medicine’s Forum on Global Violence Prevention	AB InBev Diageo	12.01.14 AB InBev “Meet and Greet” 12.09.15 Diageo (and Institute of Medicine staff)	None identified	In 2014, NIAAA senior leaders discussed the forum with AB InBev during a “meet and greet” (Supplementary File C, p. 119), alongside other health-related topics. AB InBev sponsored at least one forum workshop in 2014 (National Academies of Sciences, Engineering, and Medicine, 2018). In 2015, an NIAAA senior leader introduced Diageo representatives to Institute of Medicine staff, facilitating a meeting between the two parties. For details of scientific exchanges, see also main text.	11.09.15 An Institute of Medicine staff member emailed an NIAAA senior leader, stating: “You had suggested we engage in a discussion with Diageo regarding a potential sponsorship from them.” The NIAAA leader responded, stating: “[I] will set up a meeting with yourself, [Institute of Medicine colleague] me, and my Diageo contact when I return. Their interests will likely be similar to AB InBev.” (Supplementary File B, p. 344) [See also Box 1, email thread 2]	(Supplementary File B, pp. 175–178; 182–198; 223–224; 303; 307–308; 344; Supplementary File C, p. 119)
Unrecorded alcohol consumption	Diageo IARD	None identified	None identified	In 2013, a Diageo representative requested evidence that supported their view that increased taxes led to an increase in the illicit market. NIAAA senior leaders agreed with this view, notwithstanding the lack of evidence to support it. In 2016, an IARD representative, NIAAA senior leader, and other scientists planned a symposium on unrecorded consumption for the Research Society on Alcoholism annual meeting, although it appears the symposium did not take place.	03.20.13 In response to the Diageo request for evidence on the topic, an NIAAA senior leader stated: “I only had a brief chance to run a quick PubMed search to see if I could find anything specifically related to this issue published and that search did not immediately reveal a study to cite. I am sure there is data out there—the issue is just pulling it together. In some sense, it is “researching the obvious” but having data in hand is always good.” (Supplementary File C, p. 737)	(Supplementary File A, pp. 11–14; Supplementary File C, pp. 727–728; 731; 733; 735–737)

Table continued

TABLE 2. Continued

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/ events (planned and confirmed) with NIAAA	Telephone/ conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
Cannabis	Beer Institute DISCUS	08.06.15 Beer Institute	None identified	In 2014 and 2015, NIAAA senior leaders exchanged a policy update and scientific information separately with DISCUS and the Beer Institute.	06.29.14 The NIAAA director shared a media article on cannabis legislation with a DISCUS representative, stating: “ <i>ONDPC [Office of National Drug Control Policy] stepped up to the plate. I will be visiting them tomorrow.</i> ” The DISCUS representative responded: “ <i>Thanks [name]. Give them a pat on the back!</i> ” (Supplementary File D, p. 123)	(Supplementary File D, pp. 79; 123–128)
United Nations (UN) Sustainable Development Goals indicator measurement	AB InBev Diageo DISCUS	None identified	None identified	Between 2015 and 2016, DISCUS (separately) and AB InBev and Diageo (individually and jointly) representatives were involved in efforts to encourage the NIAAA to submit comments to a consultation on the proposed indicator framework that aligned with strongly held industry views.	11.05.15 A DISCUS representative forwarded an email from IARD to an NIAAA senior leader, stating: “ <i>as discussed.</i> ” (Supplementary File A, p. 15) 15) The forwarded email to key industry actors asked the DISCUS representative to request the NIAAA to make a submission to the consultation.	(Supplementary File A, p. 15; Supplementary File B, pp. 123–125)
Opioid crisis (U.S.)	Foundation for Advancing Alcohol Responsibility (FAAR) IARD	03.13.18 Friends of NIAAA-sponsored event (FAAR)	None identified	In 2018, FAAR co-organized a Friends of NIAAA event described as an “informal discussion” (Supplementary File E, p. 1164) with the NIAAA Director on the role of alcohol in the opioid crisis. FAAR is a member of the Friends of NIAAA (Friends of NIAAA). In 2020, an IARD representative and NIAAA leader met at an opioid crisis talk [date unknown].	03.06.20 IARD representative emailed a senior NIAAA staff member, stating: “ <i>It was such a pleasure meeting you—a fellow [institution] alumni—at the opioid crisis talk [date unknown]. As promised, I wanted to share with you my contact information as we both work in similar fields. I would love to talk further. . . .</i> ” (Supplementary File E, p. 176)	(Supplementary File E, pp. 176; 1148–52; 1159–62; 1164; 1173; 1179–80)
Alcohol-related road injuries	AB InBev Beer Institute Diageo	None identified	None identified	In 2015, an NIAAA senior leader separately emailed AB InBev, Beer Institute, and Diageo representatives a letter by a group of academics to the UN Secretary General expressing concerns regarding industry involvement in UN road safety initiatives. The same leader provided a limited response to a separate AB InBev query.	03.23.15 The NIAAA senior leader emailed the letter to a Diageo representative, stating: “ <i>FYI: The Diageo representative responded, stating: ‘Thanks. Ridiculous!’</i> ” (Supplementary File C, p. 62) 03.30.15 An AB InBev representative emailed the same NIAAA senior leader, stating: “ <i>When the NTSB [National Transportation Safety Board] came out with the recommendation in 2013 to lower the illegal BAC [blood alcohol content] limit to 0.05, did NIAAA or CDC make any comment or taken [sic] any position . . . ?</i> ” The NIAAA leader responded: “ <i>NIAAA does not take a position on alcohol policy. We fund the research that they used to make the recommendation, and we did speak to them about that when asked . . .</i> ” (Supplementary File C, p. 48)	(Supplementary File C, pp. 47–48; 62; 64; 65–68)

Table continued

TABLE 2. *Continued*

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/ events (planned and confirmed) with NIAAA	Telephone/ conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
OECD Expert Group on the Economics of Prevention meeting (October 2016)	Diageo	None identified	08.12.16 Diageo	In 2016, after asking an NIAAA senior leader if they were attending the meeting, a Diageo representative requested (and received) a same-day telephone call.		(Supplementary File B, p. 84)
Alcohol excise tax	Beer Institute	None identified	None identified	In 2018, an NIAAA staff member discussed the topic with a Beer Institute representative and requested materials to share with senior NIAAA staff.	02.12.18 An NIAAA staff member emailed a Beer Institute representative, stating: <i>"thank you for taking the time to discuss the ramifications of the recently passed alcohol excise tax with me. It was helpful to understand your perspective and clarify the impact the bill would have on public health . . . could you please share any summaries or documents . . . to share with my senior staff and the Friends of NIAAA . . . I think it is important for them to have a clear understanding of this issue."</i> (Supplementary File E, p. 2033)	(Supplementary File E, p. 2033)

TABLE 3. Discussions of guidelines, information, and advice to the public between National Institute on Alcohol Abuse and Alcoholism (NIAAA) staff and alcohol industry representatives 2013–2020

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/ events (planned and confirmed) with NIAAA	Telephone/ conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
Dietary and Drinking Guidelines	<p>AB InBev Beer Institute Brewer's Association Constellation Craft Brew Alliance Diageo Heineken MillerCoors Wine Institute</p>	<p>08.20.13 Beer Institute 05.13.14 Beer Institute Annual Meeting (AB InBev; Beer Institute; Constellation; Craft Brew Alliance; Heineken; MillerCoors) 07.28.14 Beer Institute 04.02.15 Beer Institute, Wine Institute, Brewer's Association 02.04.16 Beer Institute, AB InBev, Heineken, MillerCoors, Constellation 09.27.17 Beer Institute</p>	<p>09.22.15 Diageo 01.07.16 Diageo</p>	<p>All requests from the Beer Institute to discuss the U.S. Dietary Guidelines were granted by NIAAA senior leaders, and the Beer Institute involved other alcohol companies and trade associations. An NIAAA senior leader took part in a panel during a Beer Institute Annual Meeting, where the U.S. guidelines were discussed. A key Beer Institute concern appeared to be the standard drink model used in the U.S. guidelines and on the NIAAA Rethinking Drinking website (see below), and they attempted to build "consensus" with NIAAA leaders on the issue (Supplementary File C, p. 177). Separately, between 2013 and 2017, a Diageo representative expressed concern with one NIAAA senior leader regarding both the U.S. Dietary Guidelines and the UK Drinking Guidelines. Regarding the former, Diageo were opposed to the removal of content on alcohol as part of a "healthy" diet. Regarding the UK drinking guidelines, they expressed negative views regarding the lowering of thresholds for men to be in line with women, and suggested intervening. Between 2015 and 2016, the same Diageo representative and NIAAA senior leader planned a global drinking guidelines scientific conference. Over time, this changed to a proposal for a symposium at the International Congress of Dietetics 2016. It appears the plans were cancelled by the Diageo representative.</p>	<p>05.13.14 An NIAAA senior leader attended a Beer Institute Annual Meeting and took part in a panel titled "<i>Commercial Impact of Health Policy: Dietary Guidelines, Labeling Facts and What Makes Beer Distinct</i>" (Supplementary File C, p. 454). Proposed questions from the Beer Institute included how the public perceived the standard drinks model and the extent of NIAAA input into the guidelines. 06.16.16 A Diageo representative emailed a draft proposal for the conference to an NIAAA senior leader, with working title: "<i>An In-Depth Review of the Science on Alcohol and a Discussion about the Role of Dietitians in Educating Adults about Moderate and Responsible Drinking.</i>" (Supplementary File B, p. 104) [See also Box 1, email thread 3]</p>	<p>(Supplementary File B, pp. 5–31; 102–105; 133–134; 155–157; 348–349; 351; 367; Supplementary File C, 73–4; 133–135; 152; 177–178; 452–455; 501–502; 605–607)</p>

Table continued

TABLE 3. *Continued*

Topic discussed (most extensive presented first)	Industry groups involved	In-person meetings/ events (planned and confirmed) with NIAAA	Telephone/ conference calls (planned and confirmed) with NIAAA	Summary of discussions	Informative examples	Relevant documents
NIAAA Rethinking Drinking website/ information	AB InBev Beer Institute Craft Brew Alliance Constellation Diageo Heineken MillerCoors	05.13.14 Beer Institute Annual Meeting (AB InBev; Beer Institute; Constellation; Craft Brew Alliance; Heineken; MillerCoors) 02.04.16 Beer Institute, AB InBev, Heineken, MillerCoors, Constellation	None identified	Between 2014 and 2018, NIAAA leaders responded to most Beer Institute and Diageo queries about the website. The site was discussed at the Beer Institute Annual Meeting, where an NIAAA senior leader took part in a panel. Many Beer Institute queries related to how NIAAA material defined a “standard drink.”	A Diageo representative requested Rethinking Drinking material for an advertisement in 2013 with reference to “hard liquor” removed (Supplementary File C, p. 769) (unknown if material provided), and in 2014 suggested the company adapted the “Rethinking Drinking brochure” for the military. An NIAAA leader responded positively to the suggestion, although the outcome is unknown. In 2018, a Beer Institute representative made a request to contribute to material on the website. This was rejected by NIAAA staff.	(Supplementary File B, pp. 133–134; Supplementary File C, pp. 130–131; 213–216; 451–453; 456; 467–468; 477–479; 768–769; 771; Supplementary File E, pp. 1117–1122; 1316)
Product labeling	AB InBev Beer Institute Constellation Craft Brew Alliance Heineken MillerCoors	05.13.14 Beer Institute Annual Meeting (AB InBev; Beer Institute; Constellation; Craft Brew Alliance; Heineken; MillerCoors)	07.11.16 Beer Institute	Between 2014 and 2016, Beer Institute and AB InBev representatives (separately) and NIAAA staff exchanged information on the topic, including discussion of voluntary industry labeling schemes. Product labeling was also discussed at the Beer Institute Annual Meeting.	04.16.15 Following a “briefing” between NIAAA senior leaders and AB InBev on 14.04.15, an AB InBev representative followed up by email with query: “I wanted to probe further on . . . your feeling about nutritional labeling or ingredient labelling . . . I am just wondering if you hear any grumblings from a regulatory perspective of wanting to make that a requirement here.” An NIAAA leader responded the same day, stating: “We have not heard anything from the regulatory perspective about nutrition/content labeling, but then again we likely would not . . .” (Supplementary File C, p. 22)	(Supplementary File B, pp. 89–94; Supplementary File C, pp. 22; 318–319; 451–452; 454–455; 501)

candidate (whom I believe is the top choice) [no name provided] you should make it known to the Secretary's office—she has to approve his choice.

[email from NIAAA senior leader to Diageo representative, June 21, 2013; Supplementary File C, p. 619]

In this instance, the NIAAA leader appears to be encouraging this major company to consider lobbying the political representative whose authorization is required for the appointment of the new Director, if the prospective appointee was not in line with their preferences.

At times, there were discussions between NIAAA leaders about whether to attend particular meetings with industry representatives, and in many cases the meetings did go ahead. For example, one senior leader asked the Director and another senior leader for advice about whether to attend a meeting with the Beer Institute regarding a range of topics, including dietary guidelines and the NIAAA website (Supplementary File B, pp. 5–7; 12; 22–31). The following response from the Director appears designed to avoid criticism of such contacts, although others had different views and the individual concerned later confirmed they would attend (Supplementary File B, pp. 5–7):

[Name]: I would stay away. Let's not be knight this meeting so that our friends can dig it up later and say we met with the beverage industry when it will be nothing but a semantic discussion (as usual).

[email from NIAAA director to two other senior leaders, August 3, 2017; Supplementary File B, p. 22]

Substantive discussions of scientific issues

NIAAA leaders shared, received, and discussed peer-reviewed articles on a range of health-related topics with industry representatives, most of which were highly alcohol policy-relevant (Table 1). The Beer Institute in particular used in-person meetings with NIAAA senior leaders to discuss several different health-related topics at the same time. Industry representatives were concerned about criticism of the purported cardioprotective effects of alcohol, and NIAAA comments on this and other research areas were requested and provided (Table 1). AB InBev gained additional information on NIAAA-funded studies during in-person meetings in 2014 and 2015 (Table 1); the latter itinerary included visiting at least one NIAAA-funded study site and discussing NIAAA-funded work and possible regulatory issues (Supplementary File C, pp. 22–27).

Discussions at the science/policy interface: Refuting the "public health model"

NIAAA leaders also engaged in substantive discussions of policy-related issues with industry representatives (Table 2). NIAAA senior leaders were highly responsive to key

Diageo and DISCUS representatives' queries (e.g., Box 1 email thread 1), and their own perspectives on key policy-relevant issues were often closely in line with those of industry actors. This alignment was notable, for example, in the NIAAA organizational response to drafts of the OECD 2015 report on alcohol (Sassi, 2015). This report assessed alcohol consumption, harms, and costs and impacts of key policy options, finding that as public health policies confer important economic and societal benefits, they should be adopted more widely (Sassi, 2015). Here, analysis of the email correspondence significantly extends existing findings (Mitchell et al., 2020) on interactions relating to the OECD report. The NIAAA formal response to an early draft of the report, shared with a Diageo representative in January 2015 (Supplementary File C, pp. 89–92), criticized the OECD microsimulation model, particularly the underpinning aim of reducing overall consumption; this went as far as claiming there was an "overreaching bias against reduction in heavy episodic drinking" (Supplementary File C, p. 90), and recommended more emphasis of harmful drinking. This key industry argument is contradicted by WHO guidance, both current (WHO, 2018) and that available at the time (WHO, 2010), which identifies that targeted interventions for harmful drinkers are complementary to, rather than a substitute for, population-based approaches that seek to reduce overall consumption.

Further, the NIAAA position disputed the OECD report and well-established research community consensus (Babor et al., 2010) that reducing drinking across the population can have beneficial health effects. It also criticized one major study (Holmes et al., 2014) that rejected purported cardioprotective effects (Supplementary File C, p. 91). Industry groups had previously shared with NIAAA their critique of this same study and the related scientific issues in a joint Beer Institute, Wine Institute, and DISCUS letter to a U.S. government official regarding the report (Supplementary File C, pp. 93; 95–96). There was evidence in this instance that industry representatives had gained information about NIAAA publication intentions and sought to coordinate plans for voicing opposition to this OECD report using NIAAA (Sassi, 2015):

Coordinate media response in the event OECD progress to launch. In this regard, the best would be if NIAAA . . . would also issue press statements on the same day the report is released to the public. (We also heard from [DISCUS and Diageo named individuals] that NIAAA would plan to summarize their critique in *The Lancet* whenever the OECD report would be covered by that journal) . . ."

[Spirits Europe representative email to other industry groups, forwarded by Diageo representative to NIAAA senior leader, April 7, 2015; Supplementary File C, p. 41]

Box 1. Examples of NIAAA–alcohol industry correspondence

Email thread 1: Correspondence re the Organisation for Economic Co-operation and Development (OECD) 2015 report on alcohol**From:** Alcohol company senior executive**To:** NIAAA senior leader**Subject:** letter with title of paper*Dear [First name],**As always, it was awesome to see you. And seriously, you look amazing!! Please touch base when you get back from [region outside US]. I would love to get together and catch you up on what we have been up to on NOFAS [National Organization on Fetal Alcohol Syndrome], SBI [Screening and Brief Interventions], etc and get your good thoughts and some stuff. I also would like to hear what is going on with you.**Attached is the letter I referenced last night that refers to the upcoming publication [OECD report on alcohol] with the title. It would be great to request a copy of the publication for comment and certainly to request a name change [at that time the name was ‘Drinking Lives Away’] to something less inflammatory and more scientific as they purport this to be a scientific report.**As always and with all the best, [initials]***Same day reply from:** NIAAA senior leader*Can you give me a call sometime today? Want to straighten you out on something I mentioned last night [tel no.]
September 18th 2014 (Supplementary File C, p. 160)***Email thread 2: Correspondence re National Academies of Sciences, Engineering, and Medicine’s Forum on Global Violence Prevention****From:** NIAAA senior leader**To:** Two alcohol company senior executives**Subject:** materials sent by [name] re forum on Violence Prevention*[First names]**Good to see both of you yesterday. I wanted to give you a heads up re the presentations that [forum representative] sent you from the workshop we held two years ago on mental health and violence. I had a real problem with two of the presentations on alcohol and violence. The one from XXX was supposed to have focused on what happened in the city of XXX when there was a change in the municipal law regarding hours of operation of bars and other on premise consumption and it was enforced. He had been recommended to us as someone who could give us the data. He decided to use a portion of his speaking time to rail against unregulated alcohol and the undue influence of the alcohol industry (AMBEV [sic – AB InBev] in particular) on policy in Brazil. He used FIFA’s stipulation to Brazil to lift their alcohol ban for the World Cup as an example. [AB]InBev was not a member of the forum, I believe, at the time. Needless to say, this is not science, and will not be part of the report from this workshop (which has been delayed for non-related reasons). Nor has it been part of our serious discussions.**I was also not real happy with XXX presentation, in which he focused on reducing overall all consumption rather than problem use, but we will balance that in the future with other speakers. I am continuing to build the evidence for refutations of the “public health model.” which dominates the thinking of many in the prevention field (i.e. OECD). There are some good arguments against it out there.**The presentation by XXX was very good on alcohol and intimate partner violence and he recommends treatment of alcohol use disorders as a good prevention for intimate partner violence. The presentation by XXX was a bit too technical, but he is working on an animal model of how alcohol may interact with other factors in the brains of aggressive individuals, which is important to understand.**The paper by XXX in the second link [forum representative] sent, is also very good and identifies what we know and don’t about alcohol and firearms.**Just my thoughts.**[First name]**Continued*

Box 1. *Continued*

Same day reply from: One Diageo senior executive

thanks for the additional detail! Great to see you yesterday and for the introductions. All the best, [initials]
December 10th 2015 (Supplementary File B, pp. 186–187)

Email thread 3: Correspondence re US Dietary and UK Drinking Guidelines

From: Alcohol company senior executive

To: NIAAA senior leader

Subject: FW: CMO [Chief Medical Officer] GUIDELINES RELEASED UNDER EMBARGO [CONFIDENTIAL]
Confidential

[Name]

Hope you had a great break!! 2016 is set to be a year of insanity!!! US guidelines coming out later today and last I heard all contextual language regarding alcohol as part of healthy diet and all CHD [coronary heart disease]/anything gone. Let's talk also about surgeon general report.

Finally, attached is a notice of the new UK guideline on alcohol. It is truly crazy!! They have lowered the guideline for men to be the same as women under the conclusion that there are only potential benefits for women 55 and older and otherwise there is a risk of cancer at any level for any one! can we discuss some people to send comments. This is rockers!! All the more reason for this moderate drinking guidelines conference [a planned event – see Table 3]! everyone has gone off the rails.

As always, [initials]

Same day reply from: NIAAA senior leader

[personal information – omitted]

Yes, I am aware of the DG. Sigh

I have meetings till noon- can [t]alk this afternoon. Is there a good time for you?

January 7th 2016 (Supplementary File B, p. 155)

There were other examples of criticism by NIAAA leaders of public health research findings and evidence-informed perspectives that conflict with commercial interests, and an emphasis on individual harm reduction in opposition to reducing overall consumption (e.g., see Table 2 content on unrecorded alcohol consumption and the National Academies of Sciences, Engineering, and Medicine's Forum on Global Violence Prevention). When discussing with Diageo a forum workshop that took place in February 2014, an NIAAA senior leader, who participated in the workshop, apparently positioned themselves as being against a public health framework (e.g., Rose, 2001; Box 1, email thread 2). Disagreements about evidence are a key facet of scientific progress, yet there is little by way of refutation of a public health approach in the literature, just a long-running industry campaign to subvert the science, developed in proximity to the tobacco industry (McCambridge et al., 2021). Language used by NIAAA leaders to characterize opposing views was at times derogatory of both researchers and research (as in the example above), and caricatured in ways long promoted by industry, e.g., conflating aiming to reduce consumption as a policy goal with prohibition (see Table 1, alcohol and cancer).

Health information and advice to the public

NIAAA leaders also discussed several topics relating to health information and advice to the public with industry, as set out in Table 3. The development of Dietary Guidelines in the United States were of particular interest to industry representatives (see Box 1, email thread 3), and were discussed, alongside other topics, when an NIAAA senior leader participated in a panel at a Beer Institute Annual Meeting in 2014.

Relationship building and consolidation

In-person meetings were key vehicles that enabled opportunities for developing relationships with NIAAA staff. In addition to the previously cited material where information was available on what was discussed, between 2012 and 2017 NIAAA senior leaders planned and/or confirmed attendance at several Beer Institute events, including a “Beer Freedom Party” to “celebrate the end of prohibition” (Supplementary File B, pp. 223–224; Supplementary File C, pp. 723–724; 755–756). NIAAA staff also planned and/or confirmed attendance at various DISCUS events (Supple-

mentary File B, pp. 311; 348; Supplementary File C, pp. 442; 516; 573; Supplementary File D, p. 92); this included the NIAAA Director accepting an invitation to an informal discussion over lunch at a DISCUS event with industry CEOs in 2015 (Supplementary File D, p. 92). At least one NIAAA senior leader attended the National Organization on Fetal Alcohol Syndrome (NOFAS) 2015 and 2016 galas (Supplementary File B, pp. 56; 58–64; 68–70; 353–356); at the 2016 gala, this person, along with other alcohol company representatives, attended as a guest of DISCUS rather than as a guest of NOFAS (Supplementary File B, pp. 56; 58). The 2016 invitation listed DISCUS as a trustee, the alcohol company Brown-Forman as a patron, and other industry organizations as “champions” and “friends” of the organization (Supplementary File B, p. 64). NOFAS and the industry-funded “social aspects organization” Foundation for Advancing Alcohol Responsibility (FAAR, previously The Century Council until 2014; McCambridge et al., 2021) are listed as members of Friends of NIAAA, a group that has supported NIAAA activities (Friends of NIAAA, n.d.-a). Friends of NIAAA has a “corporate advisory board” made up of “mainly for-profit” organizations (Friends of NIAAA, n.d.-b), and it remains active at the time of writing. Industry representatives used such events to initiate and follow up on discussions, for example after the 2015 gala:

It was great to see you Thursday night. As always, it was an awesome event [referring to NOFAS gala 17th September]. I am hoping that we can set up some time to talk either this afternoon or tomorrow morning re guidelines conference”

[email from Diageo representative to NIAAA senior leader, September 21, 2015; Supplementary File B, p. 353]

In this case, a call was agreed for the next day.

Industry representatives also attended some NIAAA meetings. Alcoholic Beverage Medical Research Foundation (a now disbanded social aspects organization that funded alcohol research; Babor & Robaina, 2013), Beer Institute, DISCUS, FAAR, and IARD representatives were invited (separately) to various NIAAA Advisory Council Meetings (Supplementary File B, p. 616; Supplementary File C, pp. 164; 776–779; Supplementary File E, pp. 189; 439; 1170–1172; 1183; 1185; 1187; 1189; 1310). The groups usually confirmed their attendance. After the formal advisory council meetings adjourned, they were followed by informal and unrecorded discussions, at which participants had the opportunity to meet the Director and other staff (Supplementary File E, p. 439). There were many other examples of calls and in-person meetings where the substantive contents of discussions are unknown, which were often arranged at short notice. These include introductions, checking in, or other informal chats with Diageo (Supplementary File B, pp. 87; 106; 109; 113–114; 127; Supplementary File C, pp. 19; 21; 744), the Beer Institute (Supplementary File C, pp.

77; 84; 198), Heineken (Supplementary File C, p. 163), and FAAR (Supplementary File E, pp. 1135–1137; 2034).

In maintaining relationships with industry, NIAAA leaders were asked for help on a range of science and policy issues by key contacts (Tables 1–3). NIAAA leaders also supported—by both taking part in, and providing feedback on—alcohol industry-led CSR activity (Supplementary File B, pp. 108; 137–139; 226–232; 237–245; 271; 279; 286–287; 617; Supplementary File C, pp. 477–478; 518; 534; 741–742; 744–747; 759; Supplementary File D, pp. 1–2). For example, a Diageo representative sought thoughts and recommendations on the IARD CEO appointment from an NIAAA senior leader (Supplementary File C, pp. 477–478); subsequently, that individual was invited to be a member of an IARD advisory group (Supplementary File B, pp. 137–139). A fellow senior leader also recommended the same NIAAA colleague for an AB InBev advisory role (Supplementary File B, p. 108). Following retirement from NIAAA, the individual concerned joined the AB InBev Technical Advisory Group (AB InBev, 2020). NIAAA leaders also connected industry groups with other organizations, for example introducing and endorsing a Heineken CSR leader to a National Association for Children of Alcoholics representative (Supplementary File B, pp. 35–41; see also Table 2, National Academies of Sciences, Engineering, and Medicine’s Forum on Global Violence Prevention).

Discussion

NIAAA leaders have had extensive contacts with alcohol companies, trade associations, and so-called social aspects organizations (Babor & Robaina, 2013) since 2013. A wide range of highly policy-relevant scientific issues sat at the center of the discussions in email correspondence and telephone and in-person meetings. Four NIAAA senior leaders, including the current Director, and eight other leaders were identified as being involved. The most important findings, however, concern not the behavior of individuals but the institutional practices of active engagement with industry. These were sustained by NIAAA leadership and invited the embedding of alcohol industry influence, which likely contributed antipathy toward public health.

A key strength of this study is the scope of data available across a long period. The correspondence is provided as supplementary files to enable further analysis and scrutiny of this data set. This is necessarily an incomplete account because it is based on email correspondence provided via FOIA requests, and for only three senior leaders. Where possible we used other publicly available data to confirm that various events referred to actually took place. Discussions about the MACH trial supported relationship building between NIAAA staff and industry, and enabled the discussion of other science and policy topics, which also pre-dated the MACH trial. Further analyses may examine whether any

observed changes over time result from the MACH trial debacle, or may be an artefact of this particular data set. Although the study captures the importance of interpersonal as well as organizational relationship building as context for discussions, it cannot capture the mechanisms of influence in depth, nor their impacts.

The present findings add to recent studies that identify the long-term effects of industry research funding on alcohol science (Golder & McCambridge, 2021; Mitchell & McCambridge, 2022b), with likely profound impacts on the resulting evidence base. Public health science is arguably the most important area of alcohol research, at least in connection with the societal burden and the policies needed to ameliorate it. The study findings here provide examples of alcohol public health science being opposed rather than championed by NIAAA leaders, at least in their direct communications with industry. These data show that industry attention to alcohol science and policy has involved the targeting of NIAAA, and no doubt other key scientific institutions. These findings are consistent with recent investigations on the ultra-processed food and beverage industry, where similar strategies are used to attempt to influence public bodies to promote commercial rather than public health interests (Maani Hessari et al., 2019), including the recruitment of revolving-door individuals (Lauber et al., 2021) and involvement in scientific events (Wood et al., 2020). In the case of alcohol, this activity extends also to charities and other issue-based groups, such as on the intergenerational transmission of alcohol harms, where the science is underdeveloped and industry actors are actively involved, as seen here. This study suggests that there is an urgent need to better understand the nature and extent of this problem, both within and beyond NIAAA. This includes NIAAA (and industry) interactions with other public bodies, including other federal agencies in the United States, and internationally (e.g., with WHO).

The alcohol industry using NIAAA as a vehicle for influence may not be new; two of the first three Directors of the organization have claimed that they were removed for political reasons, as a result of funding public health-oriented research (Room, 1984). The other went on to receive alcohol industry funding and work with the tobacco industry after he stepped down (Chilcote, 1993; “Masks of Deception: Corporate Front Groups in America,” 1991). During the conduct of this study, one of the three senior leaders whose correspondence we requested went on to work for an alcohol industry organization (AB InBev, 2020). Another took up a role as Research Director for the Center for Truth in Science (Center for Truth in Science, 2021a), whose funding sources are opaque, but includes on its board Marjana Martinic, formerly Deputy President of the International Center for Alcohol Policies (Jernigan, 2012) and senior IARD staffer (Center for Truth in Science, 2021b). The third remains in post as NIAAA Director. After the MACH trial, the Direc-

tor is reported to have stated that they were “disappointed in what had transpired” (Reardon, 2018). It appears from the present study that there are further lessons to be learned, and these are not to do with individual conduct but with organizational culture and practices and their consequences for scientific and public understanding.

We suggest that there is a clear need for further study of the political and social factors that have shaped the organizational culture of NIAAA, particularly the roles played by alcohol industry actors. It is to be hoped that the NIAAA itself appraises transparently the scientific integrity of its own processes and their outcomes; independent scrutiny will engender confidence. Such attention needs to incorporate historical studies of NIAAA (Room, 1984) and extend also to the impact of NIAAA on the global alcohol evidence-base, thereby making alcohol science an object of study. The origins and impacts of the MACH trial episode require further study. The range of topics discussed between NIAAA senior leaders and industry, and the apparent embedding of industry influence over many years, adds vital context to the examination of the provenance of NIAAA decision-making by the NIH that led to the termination of the trial (ACD Working Group, 2018). That report should therefore be regarded as a preliminary point of departure rather than as presenting reliable conclusions. The COVID-19 pandemic has brought into sharp focus the crucial role public trust in science plays in efforts to improve public health; NIAAA and NIH have a job to do in rebuilding credibility and relationships with the alcohol public health community. In so doing, the organization must regard this report not as presenting a public relations challenge to be managed, but as posing a set of major scientific challenges to which it must rise.

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