

Analysis of the political viewpoint of policy statements from professional medical organizations using ChatGPT 4.0

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Abstract

Background: Professional medical organizations publish policy statements that are used to impact legislation or address societal issues. Many organizations are nonpartisan, yet it is uncertain whether their policy statements balance liberal and conservative values. We determined the political viewpoint (liberal vs conservative) of policy statements from six organizations: American Academy of Pediatrics (AAP), American College of Surgeons (ACS), American Psychiatric Association (APA), American College of Obstetricians and Gynecologists (ACOG), American College of Physicians (ACP), and American Academy of Family Physicians (AAFP).

Objective: To evaluate the political alignment of policy statements from six influential medical organizations including: AAP, ACS, APA, ACOG, ACP, AAFP.

Methods: Between 12/2023 – 2/2024, policy statements from the six organizations were identified and evaluated using ChatGPT 4.0, to remove bias. Each statement was pasted into a new ChatGPT session following the phrase, “Does this text align with a liberal or conservative viewpoint?” Two authors reviewed each response and categorized the statement as: liberal; probably liberal (PL); neutral; probably conservative (PC); conservative.

Results: One third of policy statements were found to be aligned with a political ideology (529/1592). Among these, 516 (98%) were liberal or PL and 13 (2%) were conservative or PC. For each organization, among policy statements with a political leaning, the percentage of liberal or PL statements was: 100% – AAP; 100% – ACOG; 100% – ACS; 99% – APA; 97% – AAFP; 96% – ACP.

Conclusions: One in three policy statements from these six professional organizations are politically partisan. Among these, positions are 40-times more likely to be liberal or PL than conservative or PC. Whether or not organizations are politically neutral and seek viewpoint diversity warrants further exploration.

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Original Manuscript

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Study Type: Cross-sectional analysis

Author contributions

BK and VP conceptualized the study design. BK obtained and abstracted data. BK and AM reviewed and confirmed data. BK performed data analysis. BK and AH performed statistical analysis. BK wrote the first draft of the manuscript. PC contributed to the discussion. BK, AM, PC, AH, and VP reviewed subsequent and final versions of the manuscript.

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Abstract

Background: Professional medical organizations publish policy statements that are used to impact legislation or address societal issues. Many organizations are nonpartisan, yet it is uncertain whether their policy statements balance liberal and conservative values. We determined the political viewpoint (liberal vs conservative) of policy statements from six organizations: American Academy of Pediatrics (AAP), American College of Surgeons (ACS), American Psychiatric Association (APA), American College of Obstetricians and Gynecologists (ACOG), American College of Physicians (ACP), and American Academy of Family Physicians (AAFP).

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Results: One third of policy statements were found to be aligned with a political ideology (529/1592). Among these, 516 (98%) were liberal or probably liberal and 13 (2%) were conservative or probably conservative. For each organization, among policy statements with a political leaning, the percentage of liberal or probably liberal statements was: 100% – AAP; 100% – ACOG; 100% – ACS; 99% – APA; 97% – AAFP; 96% – ACP.

Conclusion: One in three policy statements from these six professional organizations are politically partisan. Among these, positions are 40-times more likely to be liberal or probably liberal than conservative or probably conservative. Whether or not organizations are politically neutral and seek viewpoint diversity warrants further exploration.

Keywords: Medical organizations; Health policy; Policy Statements; Public health; ChatGPT; Artificial Intelligence; Chatbot; Political Viewpoint; Political Alignment; Political Ideology

Introduction

Professional medical organizations have guided the medical community for well over a century and continue to evolve in size, function, and influence.[1] Currently, in addition to creating clinical guidelines, holding conferences,[2] and publishing research,[3] organizations develop policy and

position statements that are used to advocate for legislative changes.[4] Political advocacy often occurs in the form of lobbying[5] and, to a lesser extent, contributions to political candidates or parties.[6]

In 2023, among lobbyists for health professionals, the American Medical Association (AMA) was the top donor at \$21,215,000, followed by the American Academy of Family Physicians (AAFP) with \$3,152,917 in contributions;[5] thus, some medical organizations have leverage to impact legislation and engage in political activities.

Although some overlap between politics and medicine is unavoidable, there have been growing concerns, most notably during the COVID-19 pandemic,[7–9] about clinical and public health recommendations becoming associated with a political party. Global polls suggest that two in three people worry about the politicization of medical science.[10] This has resulted in widespread effects, ranging from growing distrust among the public towards federal and other public health institutions as well as scientific experts to increased emotional burden and stress among practicing physicians during patient encounters.[11]

Several major medical organizations such as the AMA,[12] American Academy of Pediatrics (AAP), [13,14] American College of Surgeons (ACS),[15] American College of Physicians (ACP),[16] American College of Obstetricians and Gynecologists (ACOG)[17] and others, label themselves as non-partisan entities, while simultaneously publishing policy statements that center on political issues. It is uncertain whether these policy statements are non- or bipartisan given that some medical organizations have recently (and historically)[18] taken stances on important political issues[19] including climate change[20–24] and Medicare for All[25–27]. This may indicate a preference for policies favored by one political party.

Given the influence and involvement of medical organizations in politics, their endorsement of political issues, and the negative effects of the politicization of medicine, we sought to characterize the political viewpoint (liberal vs conservative) of all policy statements from the following six prominent medical organizations using ChatGPT 4.0: AAP, ACS, ACOG, ACP, AAFP, and American Psychiatric Association (APA). Our analysis seeks to provide the first descriptive analysis of the political alignment of policy preferences of medical societies. To reduce potential bias and more objectively ascertain the political leaning of each statement, a third-party method – ChatGPT – was used to code the political valence of all statements.

Methods

Overview

We used ChatGPT 4.0 to analyze the political alignment of policy and position statements (referred to as policy statements) from six medical organizations including: AAP, ACS, APA, ACOG, ACP, and AAFP. ChatGPT is a chatbot designed to understand input presented by users and provide a human-like text response.

We limited our analysis to flagship organizations for medical specialties that are considered core rotations in medical school (pediatrics, surgery, psychiatry, obstetrics and gynecology, internal

medicine, family medicine). This cross-sectional study was performed in accordance with the STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) statement.

Policy statement inclusion criteria

From 12/2023 – 2/2024 we identified all policy statements listed on the websites of the six organizations.

- For AAP, policy statements available under the “Policy Statements” section on publications.aap.org/pediatrics/pages/policy through 12/2023 were included. Documents under the following headings were not included: Clinical Reports, Clinical Practice Guidelines, AAP News, Statements of Endorsement, Technical Reports, or AAP Policy Books.
- For ACS, statements available under the “Statements” heading on [facs.org](https://www.facs.org) through 12/2023 were included.
- For APA, position statements under the “Policy Finder” section on [psychiatry.org](https://www.psychiatry.org) through 12/2023 were included.
- For ACOG, reports under the headings “Statements of Policy” and “Position Statements” on [acog.org](https://www.acog.org) through 12/2023 were included.
- For ACP, policy statements located in the “Policy Compendium” on [acponline.org/advocacy/where-we-stand](https://www.acponline.org/advocacy/where-we-stand) through 12/2023 were included. The Policy Compendium is a collection of “policy statements of a national scope adopted by the ACP Board of Regents” and listed as an “up-to-date summary of ACP's policy positions.” Other policy statements or papers from the ACP were not considered.
- For AAFP, policies, position statements, and position papers located in the full policy listing on [aafp.org/about/policies](https://www.aafp.org/about/policies) through 2/2024 were included.

Policy statements that were duplicates, old versions, or unable to be viewed or evaluated were excluded. For the AAP, definitions, prevention guidelines, AAP retired or reaffirmed, and vaccine schedule updates were excluded. The name, date (most recent), and status of each policy statement was obtained. Many policy statements were a revision of a prior statement. In these cases, the most recent version was used. Older versions were not readily available.

Political viewpoint determination

The whole text of each policy statement (excluding references and acknowledgements) was pasted into a new ChatGPT 4.0 session (with prior queries having been deleted) following the phrase, “Does this text align with a liberal or conservative viewpoint?” The full ChatGPT response was recorded. Safeguards were utilized to prevent ChatGPT from being influenced by prior queries. Specifically, the first ChatGPT output was always used; the option to regenerate a response was never selected; previous ChatGPT sessions were always deleted and never present when performing the analysis for each subsequent policy statement; after each policy statement evaluation, the ChatGPT session was deleted, and a new session was initiated.

ChatGPT was used to evaluate political alignment to reduce bias that may be present in human reviewers and for its ability to quickly analyze long and detailed documents. Additionally, ChatGPT has performed highly on various professional and academic exams[28] and is growing in popularity in medical research.[29] It is reported that ChatGPT may have a left leaning political bias.[30–32] However, newer versions of ChatGPT,[32,33] specifically 3.5-turbo and 4.0, have shown less political

bias than earlier models. Despite ChatGPT's observed political bias, our methodology did not prompt ChatGPT to provide its own opinion; rather we queried ChatGPT to match ideas in a text to well established political values, which likely bypassed ChatGPT's inherent political preferences. Motoki et al. showed that ChatGPT was capable of correctly identifying liberal and conservative values, which is the foundation of our study.[30]

ChatGPT responses did not always definitively label a statement as either liberal or conservative. Thus, each ChatGPT response was analyzed independently and separately by two authors (BK and AM) and the policy statement was determined to be one of the following: liberal; probably liberal; neutral; probably conservative; conservative. If both authors agreed, the political classification was assigned to the policy statement. If the two authors disagreed, a third author (AH) independently analyzed and assigned a political label to the statement. Then, the third author's political classification was compared to those from the first two authors (BK and AM). The final classification was determined to be the political category that received the most votes. For example, if BK labeled a statement as liberal and AM labeled a statement as probably liberal, a third author, AH, evaluated the statement. If AH found the statement to be liberal, then the liberal category had received two votes and the final classification for that policy statement was liberal.

Full transcripts of the ChatGPT results are available in the **Supplement**. The following bullet points provide further explanation regarding the criteria used to categorize the ChatGPT outputs.

- **Liberal or Conservative:** The ChatGPT output clearly defined the political alignment of the policy statement. ChatGPT described principles in the policy statement that were associated with either liberal or conservative views. The explanation was non-ambiguous. The explanation did not suggest that part, or all the policy statement was of the opposite political alignment.
- **Probably Liberal or Probably Conservative:** The ChatGPT output was nuanced and did not obviously indicate that the policy statement was strictly liberal or conservative. The ChatGPT explanation indicated that some, but not all ideas in the policy statement were associated with a political ideology. ChatGPT recognized that some ideas in the policy statement aligned with both liberal and conservative views, while also suggesting that one ideology was more apparent and discussed with more importance.
- **Neutral:** ChatGPT clearly indicated that the policy statement was neutral, and its contents were not political in nature. The ChatGPT output described that the policy statement contained both liberal and conservative ideologies but did not report that one set of ideas was more prominent.

As a quality assurance check for ChatGPT outputs, random policy statements were read by the authors after the ChatGPT query, to ensure the ChatGPT responses were representative of the policy statement.

Table 1 contains examples of parts of the ChatGPT output that were key to categorizing the statement into a political category. Policy statements were not evaluated based on their original content but were assessed based on their associated ChatGPT output.

Table 1. Examples of key elements of ChatGPT output that were used for classifying the political alignment of policy statements.

Liberal	Probably Liberal	Neutral	Probably Conservative	Conservative
"The text you provided appears to align more with a liberal viewpoint. This conclusion is based on several key aspects of the text..."	"Overall, while the text does not explicitly align with a strictly liberal or conservative viewpoint, its emphasis on community involvement, addressing social determinants of health, and advocating for systemic changes in public health policy might resonate more with liberal perspectives..."	"The text you provided doesn't align distinctly with either a liberal or conservative viewpoint..."	"The text primarily aligns with principles that could be appreciated by both sides for different reasons but leans more towards a conservative viewpoint..."	"The text you've provided appears to align with a more conservative viewpoint..."
"Key aspects that suggest a liberal alignment include..."	"In summary, while the text itself is focused on educational criteria and does not explicitly endorse a political ideology, some of the values it promotes—such as a focus on underserved communities, inclusivity, and a comprehensive approach to healthcare—might resonate more with ideologies typically associated with progressive or liberal viewpoints..."	"The content is neutral and objective, presenting facts and guidelines without any discernible bias towards a liberal or conservative viewpoint..."	"The ACP's stance against mandatory Medicare assignment by states might not align neatly with traditional liberal views, as it advocates for less state control over Medicare policies..."	"The text reflects a conservative viewpoint towards healthcare professional roles and scope of practice..."
"The text provided primarily aligns with a liberal viewpoint..."	"Thus, while the text aligns with principles often associated with liberal viewpoints, the call for transparency in healthcare transcends traditional political boundaries and can be supported by individuals with a wide range of political beliefs..."	"However, the text you've provided is centered around the structure and philosophy of care rather than explicit political arguments or policy prescriptions..."	"In essence, the ACP's position might be seen as aligning more with a conservative viewpoint on regulatory issues, advocating for professional discretion over government mandates..."	"This stance aligns more closely with a perspective that values structured oversight, professional standards, and integration within traditional healthcare frameworks, which can be seen as conservative in the context of healthcare policy..."
"The text you provided expresses a viewpoint that is generally aligned with liberal or progressive ideologies. This alignment is evident in several key aspects..."	"Therefore, while some elements of the text may align more closely with liberal viewpoints, particularly in terms of regulatory and public health perspectives, the overall concern for reducing the impact of	"The text you provided primarily aligns with a viewpoint that emphasizes patient autonomy, informed consent, and ethical considerations in healthcare, which are principles that can be		"The text you provided represents a viewpoint that is generally aligned with conservative principles..."

	tobacco use is a bipartisan issue that transcends traditional liberal-conservative divides..."	appreciated across the political spectrum..."		
"The text you provided presents a viewpoint that is more commonly associated with liberal ideologies, although it's important to note that such categorizations can vary and are not always clear-cut. Here are some key reasons why this text aligns more closely with a liberal viewpoint..."		"In summary, the text discusses healthcare and legal reform in a way that doesn't neatly fit into a liberal or conservative box. It seems to prioritize practical solutions and systemic improvement over ideological positions..."		
"Conservative viewpoints, in contrast, might emphasize..."		"In essence, while the text does not neatly fit into a single political ideology, elements of it can be appreciated or critiqued from both liberal and conservative perspectives..."		

Below is an example of how an ambiguous case was evaluated. The following is the ChatGPT output for an ACP policy statement titled "Proper Use of Accepted Drugs."

"The text expresses a viewpoint advocating for physician autonomy and clinical judgment in determining the proper usage of approved drugs, rather than strict legislative or administrative controls. This perspective aligns more with principles typically associated with a liberal viewpoint, which often emphasizes individual professional judgment and less restrictive government intervention in professional practices. However, some aspects of this stance could be embraced by conservatives who support limited government regulation in professional affairs. Ultimately, the alignment might vary based on the broader context of healthcare policies and the specific beliefs of individuals within each ideological group."

This statement was classified as probably liberal. There is a blurry and unclear delineation between liberal and conservative values. The output suggests that both viewpoints may align with parts of the policy statement depending on specific beliefs. However, given the emphasis of liberal values such as individual professional judgment and less restrictive government intervention in professional practices, it was determined that overall, the policy statement was probably liberal.

Data analysis

Among all medical organizations and for each individual organization, the percentage of statements categorized as liberal, probably liberal, neutral, probably conservative, or conservative was calculated.

Descriptive statistics are provided. Graphs were created using Excel. The Kappa coefficient was found using R version 4.2.2 to determine the degree of agreement between the political categories

assigned to policy statements by the two reviewers.

Secondary analysis – ChatGPT reliability

Identical queries and the words used to prompt ChatGPT have been shown to influence its output; thus, a secondary analysis was performed from 12/2024 – 1/2025 using the following scenarios to evaluate ChatGPT's reliability. 150 random policy statements were re-analyzed using ChatGPT or Grok with either the same prompt or an alternative prompt. This is roughly 10% of all policy statements, and this number was chosen for feasibility purposes. Grok is a chatbot with similar capabilities as ChatGPT but differs in various ways that include the developer, philosophy, and integration. In addition to its popularity and accessibility, Grok was chosen due to the possibility that it has a conservative bias as its founder, Elon Musk, has recently been associated with the republican party. However, this is speculative, and studies have indicated that Grok has less political bias than ChatGPT. Nonetheless, Grok is a chatbot that may lean conservative and thus was selected as a comparator to ChatGPT.

- Scenario 1: Policy statements were re-queried in ChatGPT with the original prompt ("Does this text align with a liberal or conservative viewpoint?").
- Scenario 2: Policy statements were re-queried in ChatGPT with an alternative prompt ("Please describe if you think the following statement leans toward a politically liberal or conservative stance."). This entire scenario was repeated twice with the same policy statements to gather more data.
- Scenario 3: Policy statements were re-queried in Grok with the original prompt.

All safeguards to protect against ChatGPT bias as described in the *Political viewpoint determination* section were used. Additionally, memory (this is a feature within ChatGPT settings that allows the program to learn from user responses) was cleared and disabled to prevent any prior queries within ChatGPT to influence the output for the policy statement evaluations. A political category (liberal, probably liberal, neutral, probably conservative, conservative) was then assigned to the policy statement by BK (classification from the original analysis was hidden). The political label was then compared to the original analysis.

The percentage of policy statements with the same political label was calculated. For statements with discordant results, the statement from the secondary analysis was characterized as either more liberal, less liberal, more conservative, or less conservative compared to the original analysis by BK. For example, if a statement was labeled neutral in the original analysis and liberal or probably liberal in the secondary analysis, it was placed in the more liberal category. Alternatively, if a statement labeled as liberal in the original analysis and probably liberal or neutral in the secondary analysis, it was placed in the less liberal category.

Ethics Statement

In accordance with 45 CFR §46.102(f), this study was not submitted for institutional review board approval because it involved publicly available data and did not involve individual patient data. There are not individual patients involved in the study and therefore informed consent was not required.

Data sharing

The data that supports the findings of this study are available in the supplementary material of this article. The ChatGPT output for all policy statements analyzed in this study is available in the **Supplement**.



Results

Collectively, there were 1672 statements across the 6 high profile medical organizations evaluated (AAP, ACS, APA, ACOG, ACP, and AAFP). After duplicates, old versions, statements that were unable to be viewed, and others (from AAP) were excluded, 1592 policy statements were included in the final analysis which were either revised or originally published between 1986 – 2023.

Table 2. Number and percent of policy statements from each medical organization stratified by political categorization (liberal; probably liberal; neutral; probably conservative; conservative).

Medical Organization	Liberal n (%)	Probably Liberal n (%)	Neutral n (%)	Probably Conservative n (%)	Conservative n (%)	Total n
AAP	53 (18)	16 (5)	225 (77)	0 (0)	0 (0)	294
ACS	7 (7)	5 (5)	94 (89)	0 (0)	0 (0)	106
APA	55 (25)	17 (8)	149 (67)	0 (0)	1 (<1)	222
ACOG	22 (59)	2 (5)	13 (35)	0 (0)	0 (0)	37
ACP	142 (27)	23 (4)	353 (67)	2 (<1)	4 (1)	524
AAFP	143 (35)	31 (8)	229 (56)	2 (<1)	4 (1)	409
Total	422 (27)	94 (6)	1063 (67)	4 (<1)	9 (1)	1592

Political Theme	AAP	ACS	APA	ACOG	ACP	AAFP
Healthcare - (access, financing, efficiency, reform, etc.)	11	2	7	5	38	27
Social justice - (racial equity, inclusion, diversity, LGBTQ equity)	10	2	16	2	13	45
Public health	10	1	6	2	25	20
Reproductive rights	4	1	4	7	4	10
Education/ Medical training	5				6	12
Criminal justice/ Crime			12	2	3	5
Immigration	2		5	1	5	5
Substance use	3	2	6		2	2
Pharmaceuticals					12	1
Firearms	2	1	4	1	2	2
Mental health	1		4		1	4
Social determinants of health	3		1		4	2
Clinical care	3		1		1	4
Climate and environment	2		1	1	2	2

COVID-19			1	1	5	1
Domestic violence		1			1	4
Employee rights	1	1	1	1		2
Poverty/ Welfare/ Homelessness	2		1			2
Alternative treatments					1	2
Foreign policy/ National security					3	1

Figure 1. Theme of liberal and probably liberal policy statements. All policy statements were categorized by political theme based on their content. The number of liberal or probably liberal policy statements from each medical organization categorized by political topic is shown. Darker blue boxes represent a higher number of policy statements and lighter blue boxes represent a lower number. Blue was chosen due to its association to liberal political ideology as represented in modern politics. Few policy statements did not fall under these categories and thus were excluded from the figure. Lesbian, Bi-sexual, Gay, Transgender, Queer (LGBTQ).

For AAP, 294 of 321 policy statements published or revised between 2010 – 2023 were included. There were 225 (77%) neutral and 69 (23%) liberal or probably liberal policy statements (**Table 2**). The Kappa coefficient between reviewers was 0.841 ($P < .001$). Of liberal or probably liberal policy statements, the most common topics were related to healthcare (11/69), social justice (10/69), and public health (chemical exposure, immunization, nutrition, smoking, etc.; 10/69) (**Figure 1**).

For ACS, 106 of 113 policy statements published or revised between 1986 – 2023 were included. There were 94 (89%) neutral and 12 (11%) liberal or probably liberal policy statements (**Table 2**). The Kappa coefficient between reviewers was 0.716 ($P < .001$). The topics of some of the liberal or probably liberal policy statements were healthcare (2/12), social justice (2/12), substance use (2/12), public health (1/12), reproductive rights (1/12), firearms (1/12), and employee rights (1/12) (**Figure 1**).

For APA, 222 of 239 policy statements published or revised between 1993 – 2023 were included. There were 149 (67%) neutral, 72 (32%) liberal or probably liberal, and one (<1%) conservative policy statement (**Table 2**). The Kappa coefficient between reviewers was 0.861 ($P < .001$). The conservative policy statement was about opposing cannabis as a treatment for post-traumatic stress disorder. The most common topics among liberal or probably liberal policy statements were social justice (16/72), criminal justice/ crime (12/72), and healthcare (7/72) (**Figure 1**).

For ACOG, 37 policy statements published or revised between 2016 – 2023 were included. There were 13 (35%) neutral and 24 (65%) liberal or probably liberal policy statements (**Table 2**). The Kappa coefficient between reviewers was 0.89 ($P < .001$). Among liberal or probably liberal statements, the most common topics were reproductive rights (7/24) and healthcare (5/24) (**Figure 1**).

For ACP, 524 of 551 policy statements published or revised between 2008 – 2023 were included. There were 353 (67%) neutral and 165 (31%) liberal or probably liberal and 6 (1%) conservative or probably conservative policy statements (**Table 2**). The Kappa coefficient between reviewers was 0.847 ($P < .001$). The most common political issues discussed among liberal or probably liberal

policy statements were healthcare (38/165), public health (25/165), social justice (13/165), and pharmaceuticals (12/165) (**Figure 1**).

For AAFP 409 of 411 policy statements published or revised between 2008 – 2023 were included. There were 229 (56%) neutral and 174 (43%) liberal or probably liberal and 6 (1%) conservative or probably conservative policy statements (**Table 2**). The Kappa coefficient between reviewers was 0.855 ($P < .001$). The most common political issues discussed among liberal or probably liberal policy statements were social justice (45/174), healthcare (27/174), and public health (20/174) (**Figure 1**).

Overall, 1063 (67%) policy statements were neutral, 422 (27%) were liberal, and 94 (6%) were probably liberal. There were only 9 (1%) and 4 (<1%) conservative and probably conservative policy statements, respectively. Examples of liberal and conservative policy statements with a selection of their ChatGPT output are shown in **Table 3** and **Table 4**, respectively.

Table 3. Examples of liberal policy statements with part of their ChatGPT output. The full output is available in the Supplement.

Medical Organization	Policy statement title (date)	Portion of ChatGPT output	Political category (topic)
AAP	Global Climate Change and Children's Health (11/1/2015)	"The text you've provided aligns more closely with a liberal viewpoint. It emphasizes the scientific consensus on human-driven climate change, highlights the vulnerability of children to climate change impacts, and advocates for substantial action to mitigate these effects."	Liberal (climate and environment)
	Detention of Immigrant Children (5/1/2017)	"The text you provided focuses on the treatment and care of immigrant children, particularly those who are unaccompanied or in family units, and emphasizes the importance of their health and well-being. This perspective aligns more closely with liberal viewpoints for several reasons."	Liberal (immigration)
	Firearm-Related Injuries Affecting the Pediatric Population (11/1/2012)	"The text you provided aligns more closely with a liberal viewpoint. It emphasizes the need for gun control, the dangers of firearm availability, particularly in homes with children and adolescents, and supports specific measures such as the regulation of firearms, a ban on semiautomatic assault weapons, and strong regulations on handguns for civilian use."	Liberal (firearms)
ACS	Statement on Supreme Court Decision in Dobbs v. Jackson Women's Health Case (6/24/2022)	"In summary, the ACS's statement reflects a liberal viewpoint through its emphasis on personal and professional autonomy in healthcare, support for reproductive services, and advocacy for evidence-based, accessible healthcare for all."	Liberal (reproductive rights)
	Diversity (1/1/2018)	"1. **Emphasis on Diversity and Multiculturalism**: The text highlights a strong commitment to multiculturalism and diversity. Liberal viewpoints typically stress the importance of including people from diverse backgrounds and ensuring equal opportunities for all, regardless of their race, ethnicity, or other demographic characteristics. 2. **Active Promotion of Inclusion in Leadership**: The mention of ensuring that leadership positions are held by individuals from diverse groups aligns with a liberal perspective, which often advocates for representation and inclusivity in decision-making roles. 3. **Focus on Underrepresented Groups**: The acknowledgment of the need for specific recruitment and development of individuals from underrepresented groups is a hallmark of liberal approaches, which prioritize social justice and equity. 4. **Merit-based Nominations with an Inclusive Approach**: The combination of basing nominations on individual qualifications and the active effort to include diverse backgrounds is reflective of a liberal viewpoint that seeks to balance meritocracy with inclusivity."	Liberal (social justice)
APA	Position Statement on Police Brutality and	"The text's focus on systemic issues, the impact of police brutality on mental health, and the call for broad reforms and collaborative efforts between law enforcement and mental health professionals is more aligned with liberal ideologies that prioritize systemic change and address issues of racial inequality and	Liberal (criminal justice)

	Black Males (12/2018)	justice."	
	Position Statement on Affirmative Action (7/2017)	"The position described in the text aligns more closely with a liberal viewpoint. It emphasizes affirmative action, the recruitment and training of minority psychiatrists, and the recognition of the special mental health needs of minority populations. These priorities are typically associated with liberal ideologies, which often prioritize diversity, equity, and inclusion in various sectors, including healthcare and education."	Liberal (social justice)
	Position Statement on Issues Related to Sexual Orientation and Gender Minority Status (7/2020)	"The text provided aligns more closely with a liberal viewpoint. This assessment is based on the emphasis on inclusivity, support for diverse sexual orientations and gender identities, opposition to practices like conversion therapy, and advocacy for equal rights in various aspects of life such as employment, military service, and family rights."	Liberal (social justice)
ACOG	Racism in Obstetrics and Gynecology (2/2022)	"The text provided primarily aligns with a liberal viewpoint. It emphasizes the social construction of race, acknowledges systemic racism and its impact on health disparities, and calls for systemic changes to address these issues. This approach is generally associated with liberal or progressive ideologies, which tend to focus on social justice, systemic inequalities, and the need for active reform to address historical and ongoing injustices."	Liberal (racial equity)
	Opposition to Criminalization of Individuals During Pregnancy and the Postpartum Period (12/2020)	"The text presents a viewpoint that aligns more closely with liberal principles. It emphasizes the importance of patient autonomy, bodily autonomy, and opposes criminalizing behaviors during pregnancy, which are typically associated with progressive or liberal stances on healthcare and reproductive rights. The stance against punitive measures for pregnant individuals, especially concerning substance use and refusal of care, reflects a focus on public health, social justice, and individual rights over strict legal enforcement, which are hallmarks of liberal ideology."	Liberal (criminal justice)
	Abortion Policy (5/2022)	"The text you've provided aligns more closely with a liberal viewpoint. It emphasizes the importance of comprehensive, evidence-based health care, which includes access to abortion services. The liberal perspective typically supports the idea of broad access to a range of healthcare services, including reproductive rights and the protection of patient-clinician relationships free from governmental or external interference. The text's strong opposition to efforts that impede access to abortion, its advocacy for privacy and dignity in healthcare decisions, and its condemnation of stigma and violence against healthcare providers are all stances generally associated with liberal ideologies."	Liberal (reproductive rights)
ACP	Racism and Health: A Position Statement from the American College of Physicians (6/8/2020)	"The text primarily aligns with a liberal viewpoint. It emphasizes the condemnation of systemic racism and discrimination, advocating for equitable access to healthcare, and calling for comprehensive reforms in law enforcement practices to ensure equality and reduce violence and discrimination, particularly against Black, indigenous, and other people of color. The focus on social justice, systemic change, and the protection of minority rights are themes commonly associated with liberal ideologies, which typically emphasize equality, civil rights, and the need for systemic reforms to address social inequalities."	Liberal (racial equity)
	Nuclear Weapons (2016)	"The text you provided seems to align with a viewpoint that is generally more liberal in nature. It emphasizes the recognition of the threat posed by nuclear weapons and advocates for diplomatic efforts to limit, reduce, and ultimately eliminate these weapons."	Liberal (foreign policy/national security)
	Environmental Health (2022)	"1. **Climate Change and Global Warming**: Acknowledging climate change as a crisis and advocating for immediate action to limit global temperature rise is a position more commonly associated with liberal viewpoints. Conservatives may acknowledge climate change but often differ in the urgency and type of response they support. 2. **Environmental Justice**: The focus on environmental justice and the specific mention of communities of color, low-income groups, and marginalized populations is a hallmark of liberal policies, which often emphasize social equity and addressing disparities."	Liberal (climate and environment)
AAFP	Medical Schools, Underrepresentation In Medicine (2020)	"The focus on equitable representation, leadership opportunities for those underrepresented in medicine, and the development of specific outreach programs to increase diversity in medical school applicants and matriculants are consistent with liberal efforts to address systemic inequalities and promote inclusiveness. Supporting leadership by family physicians who are underrepresented in medicine, and recommending commitment to the development of medical careers among those underrepresented or underpowered, also aligns with liberal values of diversity and equity."	Liberal (social justice)
	Policing Standards (1/2022)	"The text presented aligns more closely with a liberal viewpoint. It emphasizes the need for systemic reforms in policing practices, focusing on reducing harm to Black, Indigenous, and people of color (BIPOC) and other marginalized populations. The document advocates for addressing health inequities, systemic racism, and the negative impacts of policing on community health and well-being. It calls for a shift in policies and procedures within law enforcement agencies to prioritize public health and safety, particularly for BIPOC communities."	Liberal (crime/ criminal justice)

	Hydraulic Fracturing (Fracking): Health Effects and Disclosure of Proprietary Information (1/2022)	"1. **Emphasis on Environmental and Public Health Risks:** The text highlights the negative impacts of hydraulic fracturing (fracking) on the environment and public health, including the contamination of water sources and soil, and the association with serious health effects like asthma and cancer. Liberal perspectives often prioritize environmental protection and public health over the interests of industry. 2. **Concern for Marginalized Communities:** The text notes the disproportionate impact of fracking on marginalized communities, communities of color, and communities with lower incomes. This focus on social justice and equity is a hallmark of liberal ideologies, which advocate for policies that protect vulnerable populations from environmental and economic harms."	Liberal (climate and environment)
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Table 4. All 13 conservative or probably conservative policy statements with part of their ChatGPT output. The full output is available in the **Supplement**.

Medical Organization	Policy statement title (date)	Portion of ChatGPT output	Political category (topic)
APA	Position Statement Against the Use of Cannabis for PTSD (7/2019)	"The text you've provided appears to align with a more conservative viewpoint. This assessment is based on the following observations: 1. Emphasis on Lack of Credible Studies: The statement highlights the absence of credible studies supporting the clinical effectiveness of medical cannabis for PTSD. This cautious approach to adopting new medical treatments without substantial evidence is often associated with conservative perspectives, which typically emphasize traditional methods and rigorous scientific validation. 2. Non-endorsement of Medical Cannabis: The American Psychiatric Association's (APA) position of not endorsing medical cannabis for PTSD treatment reflects a conservative stance. Conservative viewpoints often express skepticism or caution regarding the legalization and medical use of cannabis, preferring established treatments and further research."	Conservative (alternative treatments)
ACP	Provider-Specific Taxes (2015)	"The text you've provided seems to align more closely with a conservative viewpoint. It expresses opposition to the idea of levying taxes on professional physician services, whether for funding specific healthcare programs or for general revenue enhancement. Generally, conservative perspectives favor lower taxes and less government intervention in business and professional activities."	Conservative (service tax)
	Payment Issues (2015)	"The text you provided represents a viewpoint that is generally aligned with conservative principles, particularly in the context of healthcare policy. This stance emphasizes the autonomy of private entities and professionals in setting their fees, opposing government intervention or influence in these matters. Here's a breakdown: 1. **Opposition to Government Mandates on Private Payers**: The text's opposition to legislative proposals that would require private payers to align their payment structures with public programs like Medicare and Medicaid reflects a conservative viewpoint. Conservatism typically advocates for limited government intervention in business and private sector affairs. 2. **Physician Autonomy in Setting Fees**: The emphasis on physicians' rights to set their charges and enter into contracts with private individuals or payers without restrictions aligns with conservative values of individual freedom and free-market principles."	Conservative (payment structures)
	Understanding the Fraud and Abuse Laws: Guidance for Internists (2022)	"The text you've provided appears to be more aligned with a conservative viewpoint, particularly in its emphasis on reducing regulatory burdens and its concern over the perceived overreach of fraud and abuse laws. Conservative viewpoints typically favor less government intervention in business and professional practices, arguing that excessive regulation can be counterproductive, stifle innovation, and create unnecessary burdens. The text's focus on the idea that fraud and abuse laws are an "onerous burden" on practicing internists and create a climate of suspicion aligns with this conservative perspective. Moreover, the concern that inadvertent billing and coding errors are being treated as fraud suggests a viewpoint that favors protecting professionals from what is seen as overzealous enforcement of regulations. This too is more in line with conservative views that often advocate for a more limited scope of government oversight in professional matters."	Conservative (fraud and abuse laws)
	Promoting the Leadership Role of Physicians in the Health	"The text from the American College of Physicians (ACP) seems to align more closely with a conservative viewpoint in the context of health care policy. It emphasizes the distinct roles and leadership of physicians in healthcare teams, suggesting a preference for traditional, hierarchical models of care delivery. This stance might resonate with conservative values that emphasize respect for established structures and	Conservative (leadership hierarchy)

	Care Team (2022)	roles."	
	Opposing the Requirement that Hospitals Screen Patients for Methicillin-resistant Staphylococcus aureus (MRSA) (2022)	"In essence, the ACP's position might be seen as aligning more with a conservative viewpoint on regulatory issues, advocating for professional discretion over government mandates. However, it's important to note that many factors influence stances on healthcare policies, including scientific evidence, ethical considerations, and practical implications, not just political ideologies."	Probably conservative (healthcare regulation)
	Prohibit States from Tampering with Federally Funded Health Programs in Which States Have Not Contributed (2015)	"2. **Conservative Viewpoint**: Conservatives typically favor less government intervention in healthcare and more market-driven solutions. They also often support states' rights over federal control. In this context, the ACP's position might align more with conservative principles, as it opposes state mandates regarding Medicare assignment, advocating for less government intervention at the state level."	Probably conservative (states' rights)
AAFP	Credentialing and Privileging Decisions of Family Physicians by Non-Physician Practitioners (2020)	"The text reflects a conservative viewpoint towards healthcare professional roles and scope of practice. It emphasizes a traditional hierarchy in medical practice, advocating for the authority and expertise of residency-trained, board-certified family physicians over non-physician practitioners. "	Conservative (leadership hierarchy)
	Nurse Midwives, Certified (2020)	"The text reflects a viewpoint that emphasizes regulation, oversight, and integration within the existing medical system for certified nurse midwives (CNMs). It advocates for specific training, certification following an RN license, and the functioning of CNMs under the supervision of licensed physicians. Furthermore, it supports quality assurance in training programs and advocates for payment for CNM services within an integrated practice arrangement. This stance aligns more closely with a perspective that values structured oversight, professional standards, and integration within traditional healthcare frameworks, which can be seen as conservative in the context of healthcare policy."	Conservative (professional standards)
	Nurse Practitioners (2020)	"The text reflects a viewpoint that leans more towards what might be traditionally seen as conservative in the context of healthcare policy, specifically regarding the roles and independence of nurse practitioners (NPs) compared to physicians. This perspective emphasizes a structured hierarchy in healthcare, with physicians at the top and nurse practitioners working under their supervision, rather than advocating for the independent practice of NPs."	Conservative (leadership hierarchy)
	Professional Medical Liability (1/2022)	"The text you've provided outlines the goals and methods of the American Academy of Family Physicians (AAFP) concerning professional medical liability and insurance issues. It suggests reforms aimed at reducing the costs associated with professional liability insurance for physicians and ensuring more equitable compensation for patients harmed by medical negligence. The viewpoint expressed in this text can be considered to align more closely with conservative political viewpoints for several reasons."	Conservative (medical liability)
	Physician and Patient Relationships, Professional Responsibility (2019)	"The text primarily aligns with principles that could be appreciated by both sides for different reasons but leans more towards a conservative viewpoint in its emphasis on the physician's right to act according to personal judgment and moral principles, even if it means withdrawing from providing certain treatments. This aspect of the statement highlights a conservative inclination towards protecting individual liberties and moral autonomy over a broader mandate for universal access to all forms of medical care regardless of the provider's personal beliefs."	Probably conservative (physician autonomy)
	Physician's Right Relative to Imposed Administrative Costs (2020)	"However, the text primarily leans towards a viewpoint that could be more closely associated with conservative principles of free market operations within the healthcare system, focusing on the rights of healthcare providers to charge for their services in a transparent manner. It doesn't explicitly address broader healthcare system reform or the impact of these charges on access to care, issues that are often more prominently featured in liberal discussions about healthcare policy."	Probably conservative (billing autonomy)

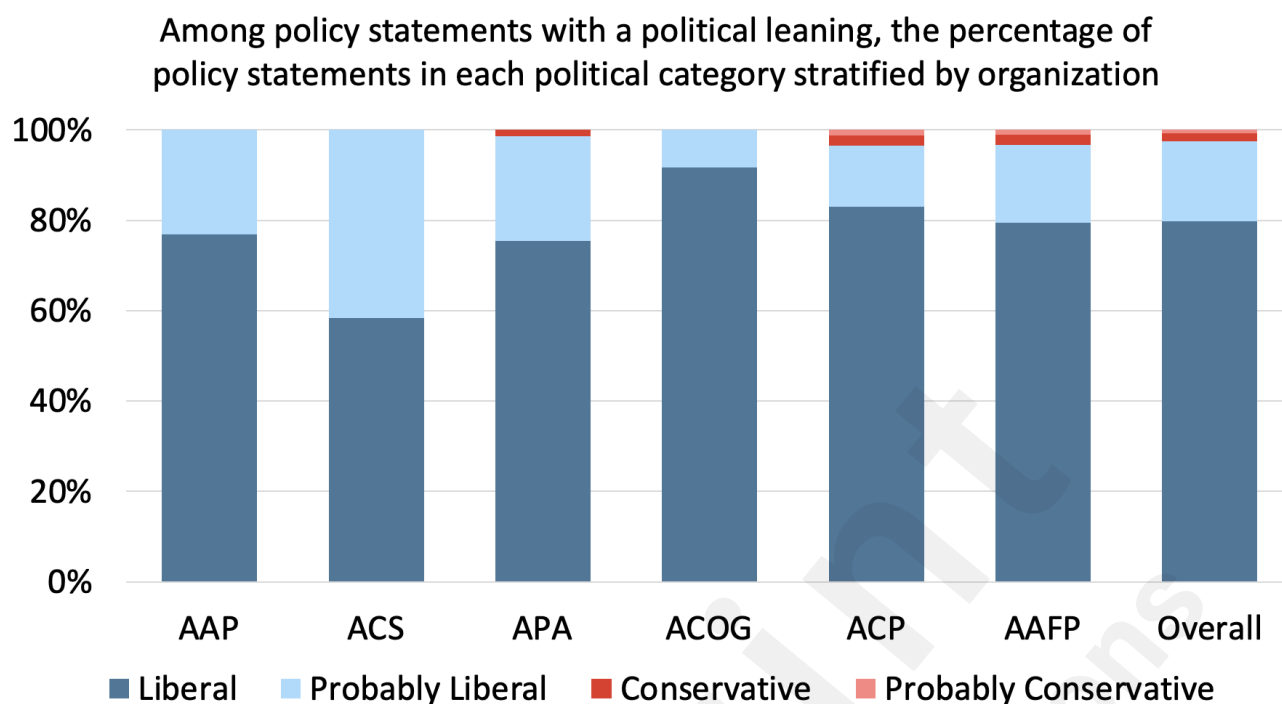


Figure 2. Percentage of policy statements that are liberal, probably liberal, conservative, or probably conservative for each medical organization among only policy statements found to have a political alignment. Dark blue = Liberal; Light blue = Probably Liberal; Dark red = Conservative; Light red = Probably Conservative. Blue and red were chosen due to the association to liberal and conservative political ideology, respectively, as represented in modern politics.

150 random policy statements were re-analyzed using an identical prompt, an alternative prompt, or Grok and compared to the original analysis (**Table 5**). 50 of the policy statements were analyzed twice using the alternative prompt (scenario 3), thus the analysis included 200 total data points. Overall, the percent agreement between the two analyses ranged from 54–66%. Among the policy statements coded differently, the majority (72/80, 90%) were categorized as more liberal in the secondary analysis. There were zero policy statements that moved from either liberal or probably liberal to conservative or probably conservative or vice versa. Among statements within the “More liberal” group, most policy statements (58/72, 81%) changed from neutral (original analysis) to liberal (secondary analysis). There were zero neutral statements in the original analysis that changed to conservative or probably conservative. There were zero statements that were less conservative in the secondary analysis.

Among 71 policy statements originally coded as liberal or conservative (the most distinct categories), 67/71 (94%) were coded the same in the secondary analysis. In contrast, among 119 statements originally coded as neutral, 51/119 (43%) were coded the same in the secondary analysis.

Table 5. Results from the secondary analysis. Scenarios describe the prompt and chatbot used to re-evaluate policy statements. Percentage of policy statements coded with either the same, more liberal, less liberal, or more conservative political label is described. Footnotes explain the prompts and the types of political category change within the groups: More liberal, Less liberal, and More conservative

Scenario	Classification of policy statements relative to the original analysis			
	Same	More liberal ^a	Less liberal ^b	More conservative ^c
1) Original Prompt - Original Prompt (ChatGPT)	33/50 (66%)	14/17 (82%)	3/17 (18%)	-
2) Original Prompt - New Prompt (ChatGPT)	30/50 (60%)	19/20 (95%)	-	1/20 (5%)
3) Original Prompt - New Prompt (x2) (ChatGPT)	27/50 (54%)	20/23 (87%)	2/23 (9%)	1/23 (4%)
4) Original Prompt - Original Prompt (Grok)	30/50 (60%)	19/20 (95%)	1/20 (5%)	-
^a More liberal = neutral → liberal; neutral → probably liberal; probably liberal → liberal ^b Less liberal = liberal → neutral; liberal → probably liberal; probably liberal → neutral ^c More conservative = probably conservative → conservative Original prompt = Does this text align with a liberal or conservative viewpoint? New prompt = Please describe if you think the following statement leans toward a politically liberal or conservative stance.				

Discussion

We found 33% (529/1592) of policy statements from six highly regarded medical organizations were non-neutral and correlated with a set of political values. Of these statements, the majority (98%) were aligned with a liberal or probably liberal viewpoint, whereas only 2% aligned with a conservative or probably conservative viewpoint. This equates to 40-times more liberal than conservative policy statements.

For each organization, among policy statements with a political leaning, the percentage of liberal or probably liberal statements was: 100% – AAP; 100% – ACOG; 100% – ACS; 99% – APA; 97% – AAFP; 96% – ACP (**Figure 2**). The number of conservative or probably conservative policy statements, which totaled 13, were from only three of the six organizations: APA, ACP, and AAFP.

Our results may be surprising because within each medical specialty there is representation among physicians registered to both political parties.[34,35] Our results differ and represent an imbalance in favor of liberal values. For example, data published in 2016 in the New York Times[35] reported that about 47% of obstetrician/gynecologist physicians are registered as Republican; however, 100% of the non-neutral policy statements published by ACOG, the largest organization for this specialty, lean liberal. Similarly, the same report showed 52% of family medicine physicians are registered as Republican; however, the AAFP published 29-times more liberal or probably liberal than conservative or probably conservative policy statements. The same trend is true for the other organizations included in this study.

Across organizations, there were different proportions of liberal policy statements. For example, ACOG had the highest (59% liberal) while ACS had the lowest (7% liberal). There are a few explanations that may account for this difference. First, particular fields may attract individuals with a common political ideology. For example, Psychiatry may recruit individuals with a liberal political preference due to the focus on mental health. Second, the nature of the profession may impact and alter the political ideology of an individual. People training and practicing in Obstetrics and Gynecology may become a proponent of medical abortion after witnessing the devastating complications of unsafe abortions. Finally, members of the medical organizations or individuals that write policy statements may have a common political ideology that does not capture alternative viewpoints in the field. This reflects limited viewpoint diversity, which some have identified as a problem within the field of public health.[36] Future research could seek to evaluate if causal relationships exist between individuals' political orientation and policy positions. This could be evaluated within and between medical organizations. Moreover, it may be valuable to understand how political preferences of individuals within specialties change over time and measure how this affects favorability toward policies. As noted above, demographics such as age, gender, background, socioeconomic status, and professional experiences among others may influence policy preferences and additional research exploring these relationships would be an important contribution.

Medical organizations have an extensive history of involvement in politics;[37] however it is unclear how their politicalization has changed over time. A cross-sectional analysis in 2024 found that 34/55 (64%) medical organizations had statements related to gender affirming care and 97% of statements were supportive.[38] Furthermore, a report in 2022 found that 50/111 US medical organizations had at least one type of content related to climate change on their website.[39]

Finally, in our analysis we found that 4/6 organizations had policy statements related to COVID-19 that aligned with a liberal ideology. Although outside the scope of this analysis, it appears that medical organizations may be becoming more politicalized, especially since the COVID-19 pandemic. Research expanding on this work could aim to evaluate the political alignment of policy statements over time to explore how viewpoints have changed.

There are potential upsides and downsides by having medical societies issue political statements. As a potential benefit, these can catalyze important policy discussions that may lead to improved advocacy efforts and outcomes. For example, pediatricians may rightfully believe they have a duty to advocate against firearm shootings given the negative effects on children and society. Psychiatrists may feel compelled by a responsibility to advocate for an improved criminal justice system and legal procedures given the vulnerability of those with psychiatric disorders and their overrepresentation within the criminal justice system.

For potential downsides, it is unknown whether these statements achieve tangible change, and the effect on public trust, particularly among conservatives, may be impacted. Surveys show a major decline of public confidence in medical experts and organizations over the past five decades,[40] and specifically in recent years there has been a larger drop in trust from Republicans.[41,42]

Some may argue that our findings are explained merely by the fact that conservative viewpoints do not seek to maximize or promote public health, and ergo, it is natural that organizations' policy preferences are liberal. Yet, we contend that this point of view is itself lacking empirical support and may represent the underlying bias present in organizational views. Fundamentally, conservative and liberal policy positions are typically disagreements about the solutions to societal problems; rather than the enumeration of the problems themselves. Indeed, one striking example of this is the Affordable Care Act (ACA), which addresses the problems of uninsured Americans with a marketplace solution and was originally offered by the conservative Heritage Foundation. Like the ACA, there may be other potentially valuable conservative proposals, but excluding these views from professional organizations may result in missed opportunities to advance medicine and public health. Ultimately our paper merely documents the political leaning of policy statements from high profile medical societies and does not seek to adjudicate a reason for their alignment or their purpose.

The secondary analysis showed that ChatGPT has variable reliability depending on the content of the policy statement. For example, policy statements coded as liberal or conservative in the original analysis had 94% agreement in the secondary analysis when using the original prompt, an alternative prompt, or a different chatbot, Grok (**Table 5**). Liberal and conservative values represent opposite ends of the spectrum and embody principles that have minimal overlap. Thus, we found that ChatGPT had minimal variability when re-analyzing policy statements with clear political ideology. In contrast, neutral policy statements had 43% agreement in political coding. Ultimately, this is unsurprising given that policy statements without a uniform ideology often contained numerous political ideas that could be interpreted through a liberal or conservative lens based on the reader. ChatGPT frequently responded with this disclaimer.

Notably, among policy statements with discordant results, 72/80 (90%) of were coded as more liberal compared to the original analysis. There were zero neutral statements in the original analysis that were coded as conservative or probably conservative in the secondary analysis. Thus, it is likely

that the net vector of bias in these political statements lies in the liberal direction, which aligns with our main findings. Although these findings strengthen the study results, we do not have a concrete answer for why statements in the secondary analysis almost always shifted in the liberal direction relative to the original classification. Admittedly, we are not experts in artificial intelligence and are unfamiliar with the internal coding and processes within ChatGPT or Grok. Thus, it is hard to speculate the reason for the results. It is possible that this represents an inherent bias that exists within various Chatbots. Although the same version of ChatGPT was used in the secondary analysis, it is possible that there were minor changes to the code or internal algorithm that influenced our results. Considering these results, it is possible that our original analysis may have undercounted the number of liberal leaning statements and captured only the lower bound of total number of politically biased statements.

Strengths and limitations

Our study has at least three strengths and five limitations. To our knowledge, our work is the first to comprehensively evaluate most policy statements from these six professional organizations for political alignment. As opposed to selectively picking policy statements to analyze, we sampled most or all (in some cases) policy statements that the organizations published on their website. Second, the use of ChatGPT allowed us to reduce bias that may have been present in human reviewers. Finally, at least two independent authors reviewed each output from ChatGPT to determine the final political alignment, and their agreement was highly correlated, indicating high reliability in our classification.

For limitations, we evaluated policy statements from only six medical organizations; thus, our results may not be generalizable to other professional groups. Second, we were unable to analyze the trend in the political alignment of policy statements over time. Many policy statements were revisions (or updates) of established policy statements and the original text was unavailable. Third, we used a single prompt for all ChatGPT sessions and used the first ChatGPT response for our analysis. ChatGPT responses can be variable depending on the text used in each session and can change with repeated, identical queries.[30] Thus, our results are limited to a single prompt and do not account for variability in ChatGPT's output; however, by using a single prompt and only the first ChatGPT output, we maintained a uniform process for all policy statement evaluations. Fourth, most policy statements were long documents that discussed various ideas and covered many topics. It is uncertain if ChatGPT considered all points in each policy statement equally or selectively focused on a few. If the latter is true, then our results may not represent the entire scope of each policy statement. However, there is no reason to suspect that ChatGPT was selective in its analysis. Moreover, some policy statements were read in full by the authors after the ChatGPT query, and the ChatGPT outputs were representative of the policy statements. Finally, some reports have indicated that ChatGPT has a left leaning bias, which may have influenced our results. However, when ChatGPT's output was compared to an alternative chatbot, Grok, of all the statements categorized as liberal by ChatGPT, Grok agreed 95% of the time. Although, it is possible that Grok is also politically biased, it is unlikely that separate chatbots with different developers would produce almost identical results. Moreover, the secondary analysis showed that ChatGPT and Grok interpreted many more policy statements to be aligned with a liberal ideology than in the main analysis. Thus, we are more confident that political bias was not overestimated.

Conclusion

One third of policy statements from six medical organizations champion a political view. When this

occurs, the organization's statement is 40-times more likely to espouse a liberal rather than conservative viewpoint. Policy may inherently be political in nature, and our study shows a strong preference for liberal viewpoints in medical organizations. Notably, many of these organizations explicitly state they are nonpartisan. Whether and to what extent these represent viewpoints most compatible with evidence-based policies versus a lack of viewpoint diversity among the organizations should be further explored.

Author contributions

BK and VP conceptualized the study design. BK obtained and abstracted data. BK and AM reviewed and confirmed data. BK performed data analysis. BK and AH performed statistical analysis. BK wrote the first draft of the manuscript. PC contributed to the discussion. BK, AM, PC, AH, and VP reviewed subsequent and final versions of the manuscript.

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References

1. AMA. Ama history. American Medical Association. Accessed March 15, 2024. <https://www.ama-assn.org/about/ama-history/ama-history>.
2. Antonelli M, Coopersmith CM. Professional medical societies: do we have any conflict of interest with industry?. *Intensive Care Med*. 2018;44(10):1762-1764. doi:10.1007/s00134-018-5304-8
3. Dalsing MC. Industry working with physicians through professional medical associations. *J Vasc Surg*. 2011;54(3 Suppl):41S-6S. doi:10.1016/j.jvs.2011.04.068
4. Marcotte L, Moriates C, Milstein A. Professional organizations' role in supporting physicians to improve value in health care. *JAMA*. 2014;312(3):231-232. doi:10.1001/jama.2014.6762
5. Health professionals lobbying profile. OpenSecrets. Accessed March 20, 2024. <https://www.opensecrets.org/federal-lobbying/industries/summary?cycle=2023&id=H01>.
6. Health professionals summary. OpenSecrets. Accessed March 20, 2024. <https://www.opensecrets.org/industries/indus?ind=H01>.
7. Stroebe W, vanDellen MR, Abakoumkin G, et al. Politicization of COVID-19 health-protective behaviors in the United States: Longitudinal and cross-national evidence [published correction appears in PLoS One. 2022 Jan 21;17(1):e0263100. doi: 10.1371/journal.pone.0263100]. *PLoS One*. 2021;16(10):e0256740. Published 2021 Oct 20. doi:10.1371/journal.pone.0256740
8. Bolsen T, Palm R. Politicization and COVID-19 vaccine resistance in the U.S. *Prog Mol Biol Transl Sci*. 2022;188(1):81-100. doi:10.1016/bs.pmbts.2021.10.002
9. Prasad V, Haslam A. COVID-19 vaccines: history of the pandemic's great scientific success and flawed policy implementation. *Monash Bioeth Rev*. 2024;42(1):28-54. doi:10.1007/s40592-024-00189-z
10. 2024 Edelman Trust Barometer Trust and health. Accessed June 23, 2024. <https://www.edelman.com/sites/g/files/aatuss191/files/2024-04/2024%20Edelman%20Trust%20Barometer%20Trust%20and%20Health%20FINAL.pdf>.
11. Sinsky CA, Trockel M, Carlasure LE, et al. Politicization of Medical Care, Burnout, and Professionally Conflicting Emotions Among Physicians During COVID-19. *Mayo Clin Proc*. 2023;98(11):1613-1628. doi:10.1016/j.mayocp.2023.07.007
12. Southwick R. AMA chief: Stop the harassment and threats against doctors. MedicalEconomics. November 16, 2022. Accessed March 12, 2024. <https://www.medicaleconomics.com/view/ama-chief-stop-the-harassment-and-threats-against-doctors>.
13. American Academy of Pediatrics. InfluenceWatch. August 24, 2023. Accessed March 10, 2024. <https://www.influencewatch.org/non-profit/american-academy-of-pediatrics/#:~:text=political%20advocacy%20campaigns-,Political%20Activity,health%20issues%2C%20and%20gun%20control>.
14. Stein F. AAP statement on protecting immigrant children. American Academy of Pediatrics. January 25, 2017. Accessed March 10, 2024. <https://www.aap.org/en/news-room/news-releases/aap/2017/aap-statement-on-protecting-immigrant-children/>.
15. ACSPA-SurgeonsPAC. American College of Surgeons. Accessed March 10, 2024. <https://www.facs.org/advocacy/get-involved/surgeonspac/>.
16. Doherty R. Why ACP engages in politics, without being partisan. I.M. Matters from ACP. July 1, 2021. Accessed March 15, 2024. <https://immattersacp.org/archives/2021/07/why-acp-engages-in-politics-without-being-partisan.htm>.
17. Crissman H, Bhargava V. Legislature.mi.gov. October 2, 2023. Accessed June 23, 2024. http://legislature.mi.gov/publications/jcar/JCAR_Files/Rule_Documents_by_Department_and_Rule_Number/Department_of_Licensing_and_Regulatory_Affairs/2021-058_LR/.

18. Collins MC. Is universal coverage the American way?. *Fam Pract Manag.* 2000;7(7):33-38.
19. Lynch JF. Medical Associations as Social Partners in Support of Democracy. *Ann Am Thorac Soc.* 2021;18(7):1106-1108. doi:10.1513/AnnalsATS.202101-030IP
20. Global climate change and children's health: AAP recommendations. American Academy of Pediatrics. February 21, 2024. Accessed March 15, 2024. <https://www.aap.org/en/patient-care/climate-change/global-climate-change-and-childrens-health-aap-recommendations/#:~:text=Global%20Climate%20Change%20and%20Children%27s%20Health%3A%20AAP%20Recommendations,-Home%20%2F%20Patient%20Care&text=The%20>.
21. Position statement on mental health and climate change. American Psychiatric Association. Accessed March 10, 2024. <https://www.psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-2017-Mental-Health-Climate-Change.pdf>.
22. Crowley R, Mathew S, Hilden D, et al. Environmental health: A position paper from the American College of Physicians. *Annals of Internal Medicine.* 2022;175(11):1591-1593. doi:10.7326/m22-1864
23. Parker CL. Slowing global warming: Benefits for patients and the planet. *American Family Physician.* August 1, 2011. Accessed March 20, 2024. <https://www.aafp.org/pubs/afp/issues/2011/0801/p271.html>.
24. Addressing climate change. ACOG. Accessed March 20, 2024. <https://www.acog.org/clinical-information/policy-and-position-statements/position-statements/2021/addressing-climate-change>.
25. Universal Health Insurance. ACS. March 1, 2004. Accessed March 20, 2024. <https://www.facs.org/about-ac/s/statements/universal-health-insurance/>.
26. Position statement on Universal Health Care in the ... Accessed March 25, 2024. <https://www.psychiatry.org/getattachment/00b3d511-064e-4675-908a-bcceb0a27cae/Position-Universal-Health-Care.pdf>.
27. Crowley R, Daniel H, Cooney TG, Engel LS; Health and Public Policy Committee of the American College of Physicians. Envisioning a Better U.S. Health Care System for All: Coverage and Cost of Care. *Ann Intern Med.* 2020;172(2 Suppl):S7-S32. doi:10.7326/M19-2415
28. GPT-4. Accessed June 23, 2024. <https://openai.com/index/gpt-4-research>.
29. Gande S, Gould M, Ganti L. Bibliometric analysis of ChatGPT in medicine. *Int J Emerg Med.* 2024;17(1):50. Published 2024 Apr 4. doi:10.1186/s12245-024-00624-2
30. Motoki, F., Pinho Neto, V. & Rodrigues, V. More human than human: measuring ChatGPT political bias. *Public Choice* 198, 3–23 (2024). <https://doi.org/10.1007/s11127-023-01097-2>
31. T. Choudhary, "Political Bias in Large Language Models: A Comparative Analysis of ChatGPT-4, Perplexity, Google Gemini, and Claude," in *IEEE Access*, vol. 13, pp. 11341-11379, 2025, doi: 10.1109/ACCESS.2024.3523764.
32. Fujimoto S, Takemoto K. Revisiting the political biases of ChatGPT. *Front Artif Intell.* 2023;6:1232003. Published 2023 Oct 20. doi:10.3389/frai.2023.1232003
33. Webber E, Rutinowski J, Jost N, Pauly M. Is GPT-4 Less Politically Biased than GPT-3.5? A Renewed Investigation of ChatGPT's Political Biases. *Arxiv.* Submitted 2024 Oct28. [arXiv:2410.21008v1](https://arxiv.org/abs/2410.21008v1)
34. Bonica A, Rosenthal H, Rothman DJ. The political polarization of physicians in the United States: an analysis of campaign contributions to federal elections, 1991 through 2012 [published correction appears in *JAMA Intern Med.* 2019 Mar 1;179(3):457. doi: 10.1001/jamainternmed.2018.8727]. *JAMA Intern Med.* 2014;174(8):1308-1317.

doi:10.1001/jamainternmed.2014.2105

35. Sanger-katz M. Your surgeon is probably a Republican, your psychiatrist probably a Democrat. The New York Times. October 6, 2016. Accessed June 23, 2024. <https://www.nytimes.com/2016/10/07/upshot/your-surgeon-is-probably-a-republican-your-psychiatrist-probably-a-democrat.html>.
36. VanderWeele TJ. Viewpoint diversity in public health. *Front Public Health*. 2023;11:1263767. Published 2023 Aug 31. doi:10.3389/fpubh.2023.1263767
37. Wilkerson JD, Carrell D. Money, politics, and medicine: the American Medical PAC's strategy of giving in U.S. house races. *J Health Polit Policy Law*. 1999;24(2):335-355. doi:10.1215/03616878-24-2-335
38. LaValley MN, Eble DJ, Kuzon WM Jr, et al. Making a Statement: Positions of Professional Medical Organizations Towards Gender-Affirming Care. *Ann Surg*. Published online May 10, 2024. doi:10.1097/SLA.0000000000006342
39. Bush T, Jensen WA, Katsumoto TR. U.S. medical organizations and climate change advocacy: a review of public facing websites. *BMC Public Health*. 2022;22(1):1950. Published 2022 Oct 21. doi:10.1186/s12889-022-14339-7
40. Blendon RJ, Benson JM. Trust in medicine, the Health System & Public Health. *Daedalus*. 2022;151(4):67-82. doi:10.1162/daed_a_01944
41. Kennedy B, Tyson A, Funk C. Americans' trust in scientists, other groups declines. Pew Research Center. February 15, 2022. Accessed June 23, 2024. <https://www.pewresearch.org/science/2022/02/15/americans-trust-in-scientists-other-groups-declines/>.
42. Borenstein S, Fingerhut H. Americans' Trust in science now deeply polarized, poll shows. AP News. January 26, 2022. Accessed June 23, 2024. <https://apnews.com/article/coronavirus-pandemic-science-health-covid-19-pandemic-4e99139d995581319dffab4107627a5e>.

Supplementary Files

Revised version 2 with tracked changes.

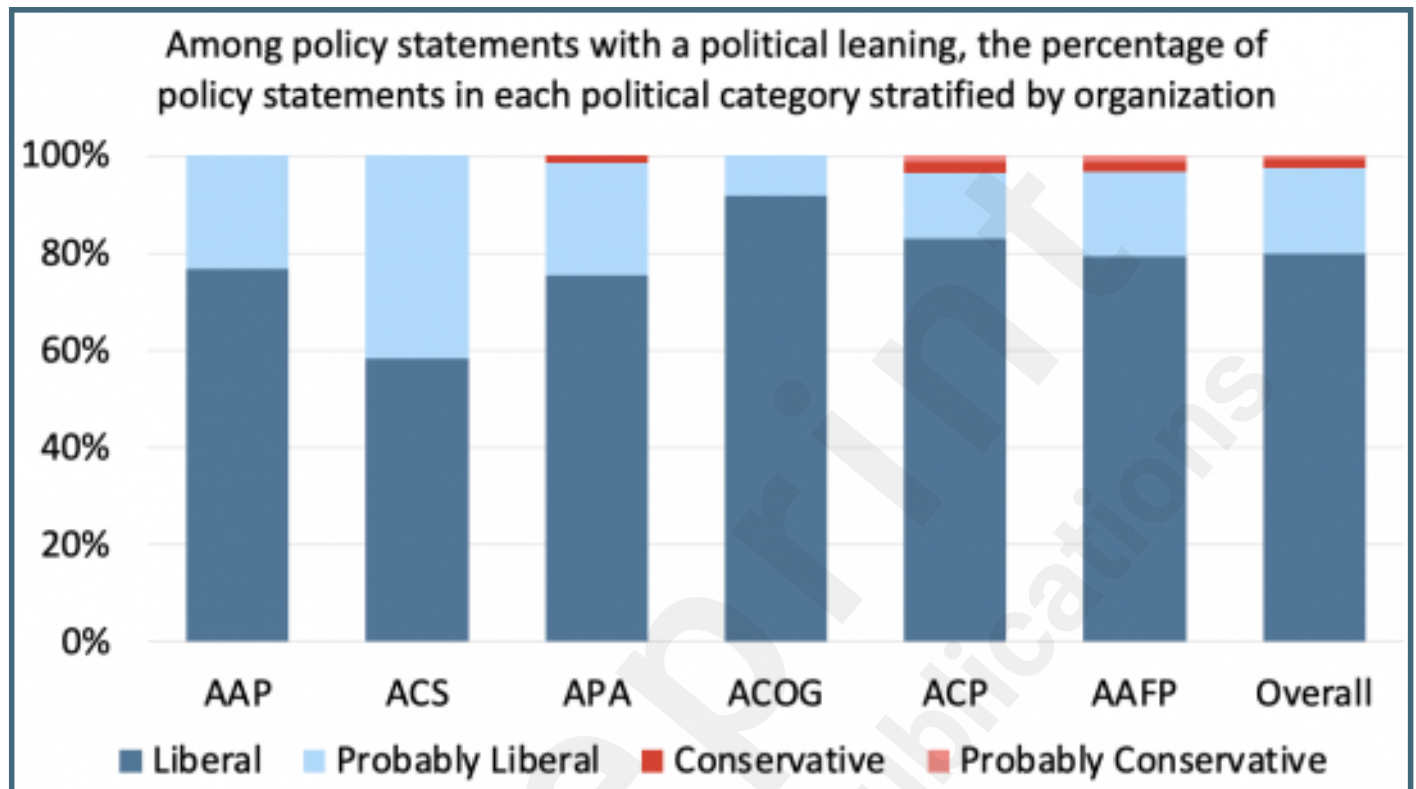
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Figures

Theme of liberal and probably liberal policy statements. All policy statements were categorized by political theme based on their content. The number of liberal or probably liberal policy statements from each medical organization categorized by political topic is shown. Darker blue boxes represent a higher number of policy statements and lighter blue boxes represent a lower number. Blue was chosen due to its association to liberal political ideology as represented in modern politics. Few policy statements did not fall under these categories and thus were excluded from the figure. Lesbian, Bi-sexual, Gay, Transgender, Queer (LGBTQ).

Political Theme	AAP	ACS	APA	ACOG	ACP	AAFP
Healthcare - (access, financing, efficiency, reform, etc.)	11	2	7	5	38	27
Social justice - (racial equity, inclusion, diversity, LGBTQ equity)	10	2	16	2	13	45
Public health	10	1	6	2	25	20
Reproductive rights	4	1	4	7	4	10
Education/ Medical training	5				6	12
Criminal justice/ Crime			12	2	3	5
Immigration	2		5	1	5	5
Substance use	3	2	6		2	2
Pharmaceuticals					12	1
Firearms	2	1	4	1	2	2
Mental health	1		4		1	4
Social determinants of health	3		1		4	2
Clinical care	3		1		1	4
Climate and environment	2		1	1	2	2
COVID-19			1	1	5	1
Domestic violence		1			1	4
Employee rights	1	1	1	1		2
Poverty/ Welfare/ Homelessness	2		1			2
Alternative treatments					1	2
Foreign policy/ National security					3	1

Percentage of policy statements that are liberal, probably liberal, conservative, or probably conservative for each medical organization among only policy statements found to have a political alignment. Dark blue = Liberal; Light blue = Probably Liberal; Dark red = Conservative; Light red = Probably Conservative. Blue and red were chosen due to the association to liberal and conservative political ideology, respectively, as represented in modern politics.



Multimedia Appendixes

Revised version with tracked changes.

URL: <http://asset.jmir.pub/assets/75b1f66a66eedb82743a460a235b55da.docx>

Response to reviewers.

URL: <http://asset.jmir.pub/assets/9280c11d4d19863995e5b757e3c863cb.docx>

Response to reviewers 2.

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Track changes manuscript 2.

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Supplement.

URL: <http://asset.jmir.pub/assets/2f88e5571123ac5a3ca0defb9e9929b9.pdf>



CONSORT (or other) checklists

STROBE.

URL: <http://asset.jmir.pub/assets/70a0599e91ffa896ddbc137368758bd6.pdf>