

# COVID-19 MANDATORY VACCINATION OF SPECIAL STATUS PUBLIC SECTOR EMPLOYEES. AN ANALYSIS OF REQUESTS FOR EXEMPTION IN THE US AIR FORCE

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**Abstract:** *One of the largest public sector operations in the world is within the United States of America military, with over 2 million service members and approximately 1.4 million full-time equivalent civilian workers, with bases and operations in at least 80 different nations. The US military made COVID-19 vaccinations (COVAX) mandatory among all members but allows for requests to accommodate refusals for reasons of personal beliefs. These can be beliefs of conscience, personal morality or religious expression, whether from organized or individual tenets. Multiple articles have been produced during the COVID-19 pandemic identifying willingness to receive COVAX or reasons for COVAX reluctance and refusal, but almost all data has been obtained from short-response surveys. Taking a departure from that, this study reviews the qualitative data from over 100 extensive interviews conducted with individual military members (from the US Air Force) who requested COVAX exemption. Their reasons given to refuse vaccination are also provided in a letter written by the member, regardless of rank, directly to the general at the top of their particular command. Examination of the reasons given provides unique insights into the thought processes of requestors. Regardless of the request's outcome, this data demonstrates the administrative and policy importance placed by the US military on at least considering personal beliefs, even in a pandemic, and protecting individual freedoms, even of military members with curtailed rights. By far, disproportionate requests came from lower ranks with some mid-level leadership making formal requests to refuse the COVAX. In this sample, no top leadership requested exemptions.*

*The analysis finds evidence for pressure exerted on members to not submit an exemption request. For those who did, the 111 requests were not a static or set doctrinal view. Arising from at least 29 distinct religious traditions, all requests showed signs of an emerging or developing sense of belief praxis in the face of new situations. Other dominant patterns also emerged. The study found critical objections to the use of fetal stem lines in developing available vaccines and concerns about potential vaccine side effects to the requestor's body. Trust in the process and a sense of autonomy in participation also were found to be critically important to most requests.*

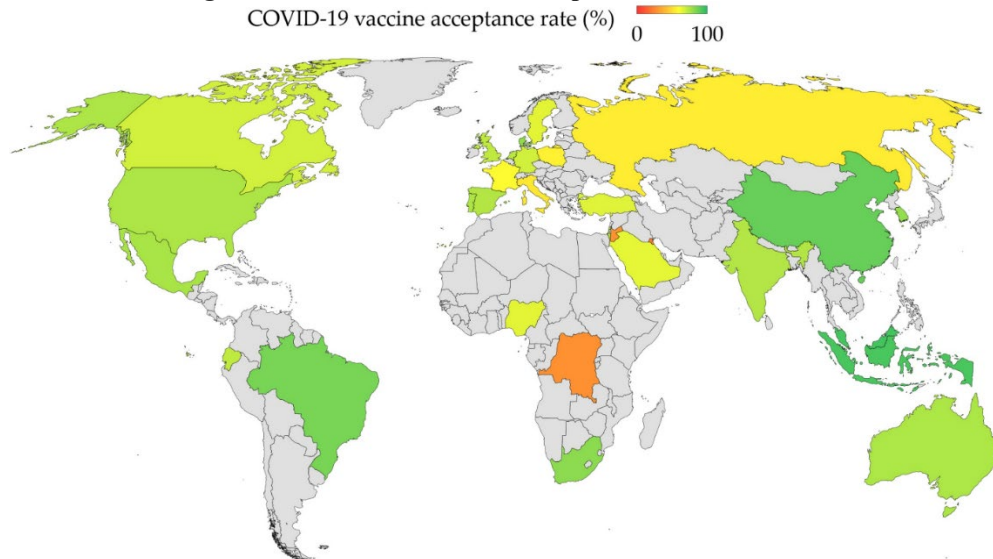
**Keywords:** *public health policy, special status civil servants, Covid-19 vaccinations.*

## Introduction

The COVID-19 pandemic influenced societies and transformed life as well as the functioning of public (see Mar and Buzeti, 2022; Comite, 2020; Onofrei et al., 2021), private, and non-governmental organizations in a degree and to an extent that was not

imaginable in the years preceding the pandemic. Even if policy makers generally believed that the discovery of vaccines and mass campaigns for vaccination would be accepted with open arms by the population – despite the assumed limitations and constraints on personal, social and professional life – the actual feedback and reactions to this solution were mixed and nuanced. For example, according to a meta-analysis of 172 studies from 50 countries published between 2020 and July 2021 by Norhayati, Yusof and Azman (2022) only 61% of individuals accepted the COVID-19 vaccine, though the vaccine acceptance rate was slightly higher among males, healthcare workers and for vaccines with higher (95%) effectiveness. In general, the vaccine acceptance rate ranges between 50 and 60% (also see for example Cordina, Lauri and Lauri, 2021; Alqudeimat *et al.*, 2021; Cerda and Garcia, 2021). This level is below what is necessary to reach herd immunity. The COVID-19 vaccination processes also was plagued by other issues beside vaccine hesitancy and reluctance, such as inequity and its financialization within global health (Stein, 2021) or usage as a political or power play (de Bengy Puyvallée and Tagmatarchi Storeng, 2022). According to Sallam (2021), the countries where the general population was most accepting of the COVID-19 vaccine were Ecuador (97.0%), Malaysia (94.3%), Indonesia (93.3%) and China (91.3%), while the lowest vaccine acceptance rates were in Kuwait (23.6%), Jordan (28.4%), Italy (53.7), Russia (54.9%), Poland (56.3%), US (56.9%), and France (58.9%) (see Figure 1). Differences regarding Covid-19 attitudes and behaviors, as well as the acceptance of the vaccine can be connected with cultural values and characteristics, an aspect which is often ignored in policy analysis (Barnes and Moldovan, 2019).

**Figure 1. COVID-19 Vaccine Acceptance Rates, 2020-2021**



*Source: Sallam, 2021*

Our research provides useful insights into the reasoning of public sector employees that requested COVID-19 vaccination exemptions, focusing on the characteristics of requestors as well as the reasons of conscience, religious practice, or moral beliefs that they provided in their formal letter of request and subsequent interview. The results can be used by national policy makers and local decision makers to design more efficient and effective

mandatory vaccination policies and to establish adequate rules for granting exemptions. The paper continues with a brief analysis of the literature (looking mainly into the reasons people vaccinate or refuse vaccines, as well as government policies to increase vaccination), a methodological section, results and discussion and concluding remarks.

### **Theoretical framework**

#### *What determines people's willingness to be vaccinated?*

Multiple articles have been produced during the COVID-19 pandemic identifying willingness to receive COVAX or reasons for COVAX reluctance and refusal, but most of the data has been obtained from short-response surveys (e.g. see Cordina, Lauri and Lauri, 2021; Alqudeimat *et al.*, 2021). According to de Menezes Succi (2018, p. 574) 'beliefs and arguments of the anti-vaccine movements have remained unchanged in the past two centuries, but new social media has facilitated the dissemination of information against vaccination'. The new widespread adoption of social media in the last decade can be seen as one of the main differences between the COVID-19 vaccination campaign and previous ones, and as a key factor in understanding personal views and behaviors regarding this issue. Misinformation within these new social media formats, or the so-called "infodemic", was one of the main challenges to successful vaccination campaigns identified by OECD (2021), while better education by itself proved to be ineffective in combating misinformation regarding vaccines and vaccinations campaigns (Kata, 2010). Lupu and Tiganasu (2024) also found evidence that 'education counts in the COVID-19 vaccination, the tertiary one having the greatest meaning in accepting it'.

In a study conducted on a large sample of 229,242 individuals, Song and Lee (2023) found consistent evidence that vaccine refusal depends on health literacy, as both respondents who 'found spoken directions very difficult to understand' and those who 'did not pay attention to written information' had a higher likelihood to refuse COVID-19 vaccine. Based on data from 170 (high, middle and low-income) countries, Lupu and Tiganasu (2023) found evidence that governance influenced Covid-19 vaccinations (more in high-income countries, less in low income ones), with the most significant predictors of vaccination being 'government effectiveness, regulatory quality and control of corruption'. Globalization was one of the main factors that facilitated the widespread circulation of the Covid-19 virus, but was also an element that influenced the recovery from the pandemic, as more globalized European countries were more efficient in managing the vaccination campaign (Lupu and Tiganasu, 2022) and achieved higher vaccination rates. Cordina, Lauri and Lauri (2021) conducted two online surveys of the general population on Malta in late 2020 and found that males were more willing to take the vaccine than women. The survey also found that willingness to take the vaccine increased with favorable opinions of significant others (family and friends) or health professionals, as well as due to previous positive experiences with vaccines (such as having acquired the influenza shot in the previous year), or when providing care for others. A similar online survey was conducted by Alqudeimat *et al.* (2021) in Kuwait and provided corroborating findings: men were more likely to be vaccinated than women, while previous recent experiences with influenza vaccines and the high self-perceived chances to contract the infection increased the likelihood of receiving a COVID-19 vaccination. Kaplan and Milstein (2021) conducted experimental studies in 2020 in order to explore vaccine acceptance decisions and observed

that vaccine efficacy was an important factor in deciding to receive the vaccine. The authors found that the potential existence of minor side-effects does not seem to influence vaccination opinions, but respondents did pay more attention to the possibility of adverse reactions. Roy *et al.* (2022) conducted a systematic literature review in order to identify factors that can influence vaccine hesitancy and acceptance and found that issues such as ‘safety’, ‘side effects’, ‘effectiveness’, ‘trust’, ‘information sufficiency’, ‘efficacy’, ‘conspiracy beliefs’, ‘social influence’, ‘political roles’, ‘vaccine mandates’ and ‘fear and anxiety’ are the main common elements mentioned by previous studies. Brakel and Foxall (2022) noticed an interesting trend, as some of those that refused to be inoculated against COVID-19 had previously received other standard recommended vaccines, thus their stance on the new vaccine were even more complicated to explain.

#### *What influences vaccine refusal / hesitancy?*

On the other hand, lack of vaccine safety or insufficient information about the vaccine were the main reasons offered by those who refused to take the vaccine in late 2020 (Cordina, Lauri and Lauri, 2021, p. 5). Other researchers (Alqudeimat *et al.*, 2021, p. 262) found evidence that those who ‘viewed vaccines in general to have health-related risks were less willing to accept vaccination’. Cerda and Garcia (2021, p. 4) cite main reasons why people could avoid vaccination as being the possible existence of side effects or associated risks, lack of knowledge regarding vaccines, and the desire to see others vaccinated first to ‘test the waters’. Although vaccine hesitancy is not a new phenomenon at the global level, it represents a serious risk to public health, and it can be connected with the reappearance of previously eradicated infectious diseases, such as measles (Sallam, 2021). Clarke, Giublini and Walker (2017) distinguish between three main ‘rationalities and justifications’ for refusal:

- Beliefs that vaccines can cause health concerns, are ineffective or that there are better disease treatment alternatives available or possible;
- Selfishness or the desire to ‘free ride’ and enjoy the benefits provided by herd immunity from those who are vaccinated without assuming any of the costs, potential risks or possible side-effects of vaccination – this is not an issue specific to vaccination, as such behaviors occur whenever collective action takes place; and
- Conscientious grounds or conscientious objection to vaccinations ‘based on religious, moral, or philosophical convictions, such as the conviction that health and disease should not be controlled by vaccination, or that governments should not coerce citizens to receive medical interventions’ (Giublini and Walker, 2017, p. 155).

According to Menezes Succi (2018, p. 576), vaccine hesitancy or refusal can be attributed to multiple factors of socio-cultural, political or personal characteristics, such as ‘doubts about the actual need for vaccines, concerns about vaccine safety, fear of possible adverse events, misconceptions about the safety and efficacy of vaccines, concerns over a possible ‘immune system overexposure’, past negative experiences with vaccines, mistrust of the seriousness of the vaccine industry and healthcare system, heuristic thinking, and philosophical or religious issues.’ However, other authors noticed that in some cases ‘during the pandemic, the restrictions imposed on religious life were politically bargained by the government rather than being mediated through national law and international standards and commitments on Freedom of Religion or Belief and based on the democratic principles of the rule of law’ (Raiu and Mina-Raiu, 2022, p. 81).

Based on a sample of 5,323 participants in 24 countries, Hornsey, Harris and Fielding (2018) showed that anti-vaccination attitudes were stronger in the case of respondents who: (a) were high in conspiratorial thinking, (b) were high in reactance (have a low tolerance for infringements on their freedoms), (c) reported high levels of disgust toward blood and needles, and (d) had strong individualistic/hierarchical worldviews; demographic variables (such as gender, age, educational level) had a rather low influence on anti-vaccination attitudes. Simply repeating facts such as those related to the safety and effectiveness of vaccines is not enough to convince people who manifest anti-vaccination beliefs and attitudes (Hornsey; 2022); policy makers should also pay attention to the way in which the message is transmitted (communication should be respectful and inclusive in order to enact positive behavioral change).

One key factor to better understand vaccine hesitancy refers to analyzing special situations and individuals such as those with chronic diseases (Dubé and MacDonald, 2022), pregnant women (Ayhan, 2021), minorities (Kricorian and Turner, 2021) or parents (Ruiz and Bell, 2022), as other more potentially justified worries can play a role in their decision to reject or be skeptical of vaccination. Focusing only on the general population or healthcare workers provides partial view of the situation to create a distorted image for policy makers, potentially skewing vaccination policies and awareness / information campaigns that are supposed to reduce hesitation and increase vaccination rates.

Some authors (Giubilini, 2020; Giubilini and Savulescu, 2021) adopt a less nuanced, more authoritative stance on COVID-19 vaccination, positing that saving lives (as a public good) should be prioritized over religious or personal freedom, and that the good of the many outweighs individual need. In this line, Giubilini and Savulescu (2021, p. 242) argue that ‘religious or personal moral objections to vaccine research are unethical and irresponsible, and in an important sense, often irrational. They are unethical because of the risk of causing serious harm to other people for no valid reason; irresponsible because they run counter to individual and collective responsibilities to contribute to important public health goals; and in the case of certain kinds of religious opposition, they might be irrational because they are internally inconsistent.’ However, ‘the moral and ethical obligation’ or the ‘interest of public health’ argument are argued to be false constructs (see Kowalik, 2022) as ‘mandatory vaccination amounts to discrimination against healthy, innate biological characteristics, which goes against the established ethical norms and is also defeasible a priori’.

#### *Government policies: the pros and cons of mandatory vaccinations*

As the initial Covid-19 vaccine roll-out had a mixed success in different countries, either due to logistical complications (lack of infrastructure to actually deliver the vaccine, organizational deficiencies), lack of trust in government or vaccine refusal/hesitancy, governments designed and implemented additional policies to improve the rate of vaccination, ranging from communication/awareness or public marketing campaigns to mandatory vaccinations. However, even these policies, aimed at increasing vaccination rates and voluntary compliance, were not ideal, as some of them had unintended consequences and the potential to ‘cause more harm than good’ (Bardosh et al., 2022) if not designed and implemented with due consideration. Even in exceptional cases, such as healthcare workers which were in the first line of defense and had a higher likelihood to

contact the coronavirus disease (Covid-19), the vaccine mandate imposed on them is not 100% defensible from an ethical point of view (Gur-Arie, Hutler and Bernstein, 2023). As previously mentioned, mandatory vaccinations are assumed to be ethically justified ‘if the threat to public health is grave, the confidence in safety and effectiveness is high, the expected utility of mandatory vaccination is greater than the alternatives, and the penalties or costs for noncompliance are proportionate’ (Savulescu, 2020, p. 78). Even so, there are more nuanced ethical considerations regarding mandatory vaccinations campaigns that have to be taken into account (World Health Organization, 2022, pp. 2-4):

- Mandates have to be necessary (as there is no other viable solution/alternative) and proportional (they take into account the nature of the disease and are established accordingly);
- There has to be sufficient (reliable, consistent) evidence for the safety of the vaccine, for its efficacy and effectiveness before instilling obligations for citizens;
- The vaccine roll-out has to be effective and efficient before the mandate, so that anyone who is willing to receive the vaccine has access to it (justice in access and vaccine availability should both be observed);
- The mandate should be based on public trust and must not ‘undermine confidence and public trust’ (also see Radu, 2022);
- Decision-making regarding vaccine policies (mandates in particular) and public health policies (in general) should be transparent and clearly communicated to all targeted groups.

On an institutional level, according to OECD (2021), trust in vaccination and in the ability of governments to communicate and successfully ensure vaccination roll-out is influenced by:

- the extent to which governments instill and support public confidence in the safety and effectiveness of vaccines;
- the competence and reliability of the institutions that deliver them;
- the principles and processes that guide government decisions and actions in vaccine procurement, distribution, prioritisation, and administration;
- the capacity and effectiveness of regulatory agencies in handling issues and communicating consistently as events arise, while retaining public confidence in their review processes; and
- the effectiveness of the public engagement and communications that accompany these.’

Lupu and Tiganasu (2023) also highlight the importance of trust in relation to state actions, the aforementioned authors concluding that ‘public policies should be designed in such a way as to strengthen trust in vaccination regulations and in governments’.

### **Methodology**

This study reviews qualitative data from 111 requests by individual military members from the US Air Force (AF) who sought COVAX exemption for reasons of Religious Accommodation (RA). The data was collected based on a chaplain review letter after a formal interview was conducted; the member’s letter of request, and written comments in their commander’s memorandum for record (MFR from here on). AF policy provided a clear process for members to request an exemption from immunization as found in Department of the Air Force Instruction (AFI from here on) 52-201, which was revised in

June 2021. AFI 52-201 guarantees a process based on: “Sincerely Held Beliefs – a member’s conscience, moral principles or religious beliefs demonstrated through a pattern of behavior ... consistent with the beliefs.” Therefore, data was collected regarding which of these three beliefs – conscience, moral principle or religious practice – the requests were based on. In addition to the 111 member letters, extensive interviews were conducted with each member by one of 11 different AF Chaplains, who then wrote a letter of evaluation based on the criteria set out in AFI 52-201. The members’ letter of request and the Chaplain’s interview letter then went through a procedure of review which, regardless of rank, were directed to the general leading the Major Command (MAJCOM). Reasons provided in requests were coded into 18 categories, after reviewing the qualitative data for common themes.

Data was collected through the chapel office at one AF base location. Some members were deployed and thus interviewed off-site, however their packages were submitted through the one AF base collection site. At this base, requests for exemptions began to be formally submitted on August 8, 2021, before the August 24, 2021 USAF Secretary of Defense (SecDef) Memorandum ordered all members to be vaccinated. The last request was initiated on December 15, 2021. The interview/submission process was expected by leadership at this location to be completed by the end of the 2021 calendar year. All requests were then packaged with proof of medical briefings on the COVAX as well as a formal MFR from the member’s direction commander. These final packages were submitted to the Religious Resolution Team (RRT from here on) for an added review and recommendation that was then submitted to the base/wing leadership for transmittal through the chain of command to the respective MAJCOM, where a second RRT would review the package and submit for a decision by general MAJCOM Commander (MAJCOM/CC).

### **The exemption request process**

Our data was collected from a formalized, though relatively new review process for all immunization exemptions established within in the AF. In August 2021, the US Department of Defense (DoD) SecDef made COVID-19 vaccinations (COVAX) mandatory for all uniformed military members (SecDef Memorandum). As one of the world’s largest public sector employers, the DoD possesses unique persuasive and coercive administrative tools to enforce standards of personal immunization, though a subsequent order requiring vaccination of all civilian DoD employees is on hold, as of April 2022, by court mandate. (And on January 10, 2023 the DoD SecDef rescinded all COVID-19 COVAX requirements for military members.) Implementation of administering the required COVAX immunization was delegated to the individual DoD branches: Army, Navy, Air Force (AF), Coast Guard, Space Force and Marines. Each service had its own process to review accommodation requests for COVAX refusals based on personal belief. The DoD has approximately 2.4 million active duty and reserve military members in all service branches, with an estimated 22% or 532,000 in the AF, from which this paper’s research is based. As of April 2022, the DoD reported 395,578 cases with 2,598 hospitalizations and 94 deaths ([www.defense.gov/Spotlights/Coronavirus-DOD-Response/](http://www.defense.gov/Spotlights/Coronavirus-DOD-Response/)). The AF reports 92,594 total cases with 53 hospitalizations and 15 deaths. Currently 96.5% of members are vaccinated, and 0.1% partially vaccinated. The AF has approved 2,509 medical or administrative exemptions and administratively discharged 236

members. Of 7,608 requests for exemption based on personal beliefs, 22 were approved; 2945 are pending; 4,641 were denied; 1,163 are pending appeal; 1,502 were disapproved after appeal; and 3 were approved upon appeal. The AF approved a total of 25 COVAX religious accommodations, or 0.3% of all requests.

The AF assigns responsibility to adjudicate all vaccine accommodation request to the commanding general in charge of each major command (MAJCOM/CC). The AF has 9 MAJCOMs: 7 functional and 2 geographic. Appeals were decided by the AF Surgeon General (AF/SG). Processing COVAX accommodation requests are handled at the base/wing level and funneled up to the MAJCOM/CC by a process outlined in AFI 52-201 on Religious Freedom, a policy administered by the AF Chaplain Corp (HC). The process requires a requestor to write a letter addressed to the MAJCOM/CC, which is reviewed by a Chaplain assigned to interview the member. Most often, the base/wing of a MAJCOM requires the member receive documented briefings from both base medical providers and from the members' unit, squadron or group commander. The Chaplain writes an MFR describing the member's beliefs; which can be based on conscience, personal morality or religious expression. Personal beliefs do not have to align with tenets of an organized religion, but are expected to demonstrate genuine belief, consistent practice, and a real personal burden if not granted the exemption being requested.

AFI 52-201 requires the assigned interviewing Chaplain to prepare "a memorandum documenting the interview and making a recommendation to the decision authority." This MFR is submitted with the member's package which include the request letter, CC briefing MFR, medical briefing MFR, and any additional documents the member wants to include in support of their claim. The Chaplain's interview MFR was generally reviewed with the member before submission up the chain of command to assure clarity and accuracy. The Chaplain's evaluation or recommendation is based on the assessed sincerity of the request, alternate means of accommodation explored, and "substantial burden infringing on religious free exercise" (AFI 52-201, Chaplain Interview Checklist, Attachment 5).

Completed request packages for each member are then delivered to the base's Wing Commander (CC) by way of this CC's Religious Resolution Team (RRT). The RRT was a new process implemented by the revised AFI 52-201, and is chaired by the Wing Chaplain (who appoints the interviewing chaplain). The RRT often includes representative leaders from the Wing CC's legal, medical and public affairs offices. After review the package, the RRT makes a written recommendation, and the request is sent to the Wing CC for transmittal through the chain of command to the MAJCOM/CC. Requests from members within Geographically Separated Units (GSUs) of MAJCOMS located on bases of another MAJCOM are processed by the host wing / base but forwarded to the member's actual MAJCOM. At the MAJCOM level, the MAJCOM/CC also has an RRT review before making his or her final a decision, based on the needs of the military mission.

This research samples data from 111 formal requests at one single base/wing within one AF MAJCOM. The requests from members at GSUs of two other MAJCOMs were also interviewed by assigned Chaplains at this location though forwarded for review by the GSU's RRT to the member's actual MAJCOM. All requests and their respective data are kept anonymous for this research, as is the base location and MAJCOMs involved. However, it is noted that this base location reportedly had one of the highest levels and rates of members requests from RA COVAX exemptions in that base's MAJCOM. All



proper review and permissions have been obtained from the appropriate AF offices by the researchers to analyze and present this data and its analysis results.

### Sample

The data was obtained from military members' written requests and memorandums written by the assigned interviewer to assess sincerity of the belief(s), burden of the requirement and alternatives explored. The age, rank, gender and career field of the individuals were analyzed, though no personally-identifiable information is released. The type(s) of belief – religious, spiritual, moral, ethical – from both documents are analyzed, as was whether the request was completed and/or allowed by the member to go forward for official review by the RRT and MAJCOM/CC. The location from which data was collected experienced a higher-than-normal volume of requests for the AF, but documented informal requests (calls, in-person conversations, participation in medical or commander briefings, etc.) were not included if the formal written requests were not submitted. 145 formal requests were made, but 2 were duplicates made through different channels, and 1 was misidentified or misplaced. Of 142 completed formal requests, 31 were not completed, and 111 were analyzed for this study (Table 1). These 111 include 104 submitted for review and 7 which were completed but withdrawn at the member's request before being submitted for MAJCOM review.

**Table 1. Requests initiated by members**

Date	Requests Initiated			Submitted	Total
	Incomplete	Withdrawn %	Completed		
Aug	1	100%	0	0	1
Sep	27	22%	4	92	123
Oct	3	20%	3	9	15
Nov	0	-	0	2	2
Dec	0	-	0	1	1
Total	31	22%	7	104	142

Source: The authors based on AF data

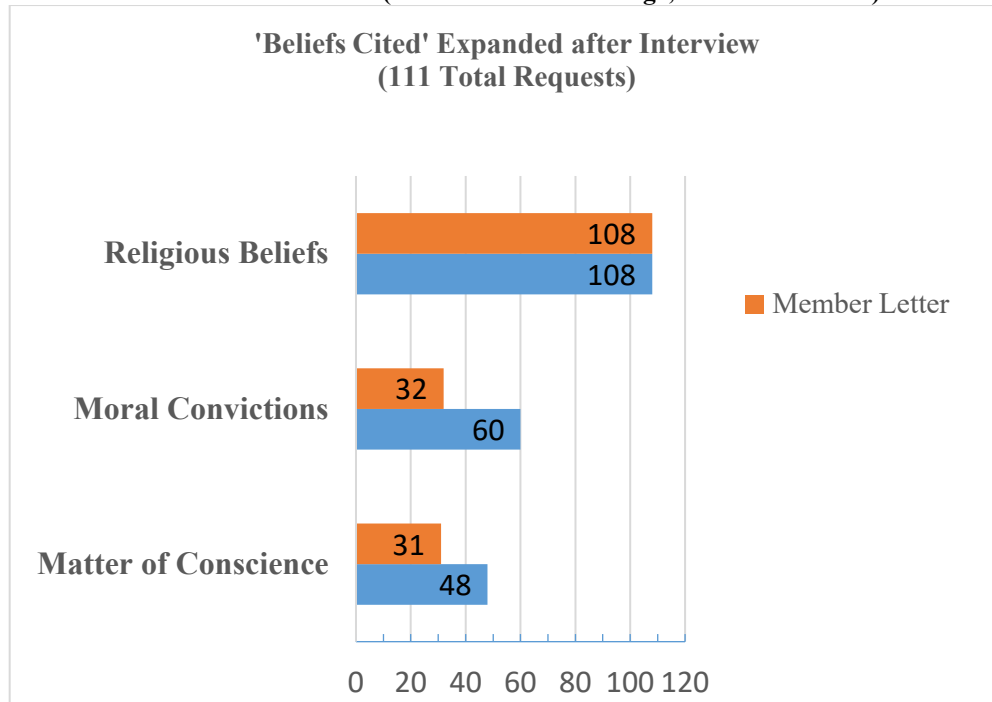
The 31 incomplete requests not included in this analysis were withdrawn by the member before the letter or interview were completed or because the member did not chose to complete their medical or commander briefing. Reasons for withdrawal include receiving vaccination, being medically exempted for pregnancy, transferring to a new base, or separating from military service.

### Results

Table 2 shows that Religious Beliefs were cited as a reason for 108 of the 111 requests, the same from both the Chaplain assessment letter and the member's letter of request. However, after the interview, Chaplains found twice as many members also were basing their requests on Moral Convictions (60 vs. 32 respectively) and 55% more included a belief based in conscience (48 vs. 31 respectively). Chaplains were required to investigate and detail which (if any) of the three AFI 52-201 criteria (beliefs of conscience, personal morality or religious expression) the member request fell under because the AF Judge

Advocate (JA) office had different evaluation criteria of the request’s legal aspects based on which of the three different types of belief concerns were involved.

**Table 2. Beliefs Cited (member letter in orange, interview in blue)**



Source: The authors based on US Air Force primary data

The review of the data found some discrepancy within the process, as well as between the written AFI guidance in most Chaplain Recommendations compared to the AFI guidance provided in the member’s Commander MFR (see Table 3, “Possible Request Suppression”). In 94 of the Commander (CC) MFRs, members were instructed that requesting an exemption could damage their career. A common phrasing of that wording stated that “noncompliance with immunization requirements may adversely affect readiness for deployment, assignment, international travel, or result in other administrative consequences”. Policy AFIs were rarely, if ever, cited for this admonition; however, a different AFI released at a previous date to AFI 52-201 does include similar language as that used by many commanders in their briefing MFRs. In relation to this warning by the member’s squadron commander, for 25% of the cases, the interviewing Chaplain gave no related guidance. In 1% of the cases, the Chaplain affirmed the Commander’s warning. But in 72%, the Chaplain cited the more current AFI 52-501 to contradict the Commander admonition. Common citations were: “However, DAFI 52-201 §1.3 provides that ‘expression of sincerely held beliefs may not be used as the basis for any adverse personnel action, discrimination, or denial of promotion; and may not be used as a basis for making schooling, training, or assignment decisions.’”

**Table 3. Possible request suppression**

	Conflicting Advice	
CC Warn	13	12%
CC Warn/CH Warn	1	1%

CC Warn/CH Protect	80	72%
No Negative Advice	17	15%
<b>Total</b>	<b>111</b>	<b>100%</b>

Source: The authors based on US Air Force data

Table 4 shows a “Timeline of Requests.” Most were submitted in the first full month after the COVAX mandate. From the data reviewed in Table 3 and 4, it is a valid assumption that some members who were likely inclined to request exemption did not do so because of pressure from their leadership. Of the 142 formal requests received by this office, 22% were withdrawn, with 31 packages not fully completed and 7 completed but pulled by the member.

**Table 4. Timeline of requests**

	Requests Initiated				Total
	Withdrawn		Completed	Submitted	
2021	<i>Incomplete</i>	%			
Aug	1	100%	0	0	1
Sep	27	22%	4	92	123
Oct	3	20%	3	9	15
Nov	0	-	0	2	2
Dec	0	-	0	1	1
Total	31	22%	7	104	142

Source: The authors based on AF data

Table 5 outlines the “Demographic Data of Requestors” by age and rank, and an analysis of this data suggests that older members at a given rank resisted pressure to take the vaccination and were more likely to submit an exemption request.

**Table 5. Demographic Data of Requestors**

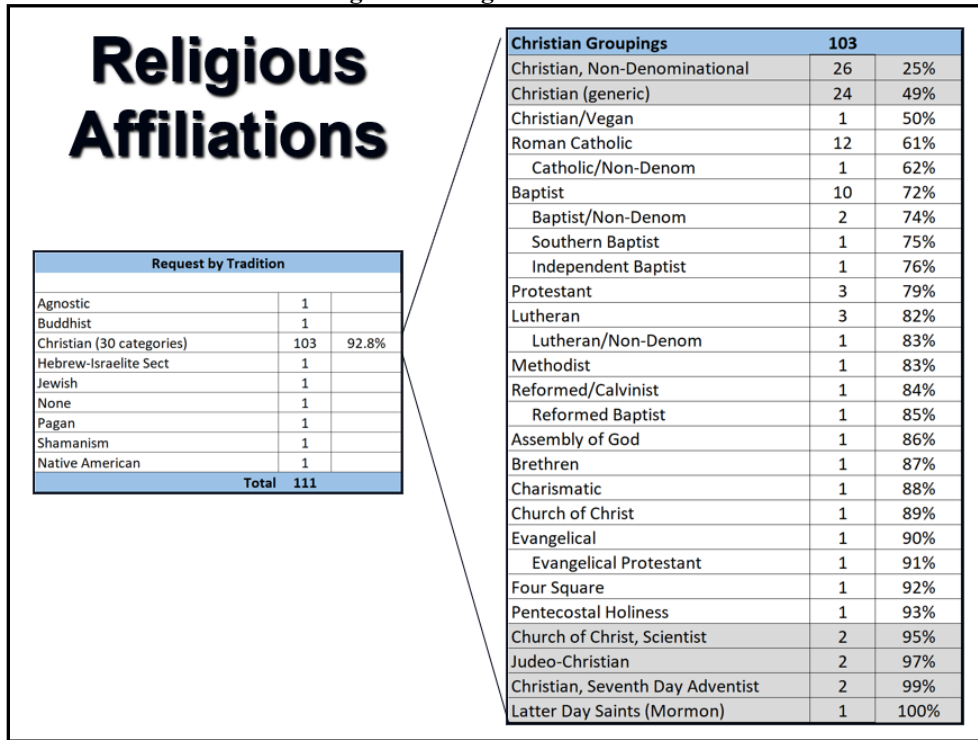
Age of Requestors (by Rank)				
		Avg. Age	#	Share
Airmen	E-1	40	1	1%
	E-2	20	3	3%
	E-3	35	25	23%
	E-4	31	33	30%
NCOs	E-5	35	16	14%
	E-6	35	15	14%
SNCOs	E-7	39	6	5%
	E-8	48	1	1%
Officers	O-2	26	4	4%
	O-3	54	5	5%
	O-4	36	2	2%
<b>All</b>		<b>34</b>	<b>111</b>	<b>100%</b>

Source: The authors based on AF data

Religious affiliations of the 111 requests varied widely, though the population is predominantly Christian. Figure 2 shows that 103 requests fell under 30 different sectarian categories, with the largest (nearly half) self-described as simply “Christian” (24%) or

“Christian, Non-Denominational” (25%). Each can be stated as both a generic term and as a specific worship or theological preference. Over 10% were Catholic, 9% Baptist, and 6% (7 of the 111 requests) were from closely Christian-adjacent traditions of Christian Scientists, Judeo-Christian practitioners, Mormon, and Seventh Day Adventists faith communities.

Figure 2. Religious Affiliations



Source: The authors based on AF data

The reasons given for requesting a COVAX RA exemption are summarized in Table 6 and Figure 3 below. While the three types of beliefs cited (beliefs of conscience, issues based of personal morality, or religious expression) expanded with the Chaplain interview, the specific reasons given consolidated after the Chaplain interview. This is expected, as the Chaplain interview is intended to test and explore the depth and consistency of reasons given with long-term practices in other areas of the member’s life or as a new expression of established religious thought. By far, opposition to the use of fetal stem cell lines in the testing or development of the vaccines was the largest concern, followed by both body autonomy and body sanctity.

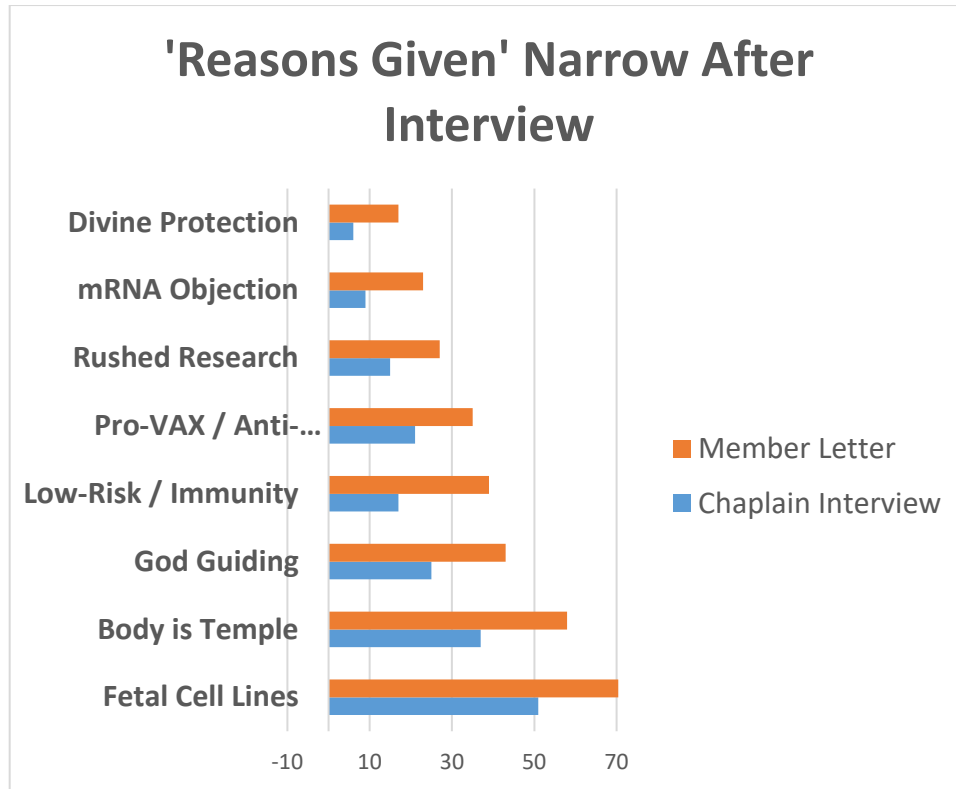
Table 6. Categories of Reasons Given

Code	Reasons Cited	Member Letter		Chaplain Interview	
0	Health Concerns from Inadequate/Rushed Research, Long-Term/Pregnancy Information	27	5%	15	2%
1	Fetal Cell Lines/Abortion/Sanctity of Life	71	14%	51	6%
2	Not Opposed to Vaccines/Should Not Be Mandated	35	7%	21	3%
3	Religious Beliefs	108	21%	108	13%
4	Moral Convictions	32	6%	60	7%

5	Matter of Conscience	31	6%	48	6%
6	Alternate Vaccine	4	1%	24	3%
7	Mask	4	1%	68	8%
8	Social Distance	6	1%	85	10%
9	Testing	7	1%	45	5%
10	Healthy Diet	6	1%	63	8%
11	Regular Exercise	3	1%	60	7%
12	Quarantine for Exposures	2	0%	56	7%
13	Handwashing/Hygiene	2	0%	31	4%
14	God Will Protect Me	17	3%	6	1%
15	God is Guiding Me	43	8%	25	3%
16	mRNA is Unnatural/Unhealthy	23	4%	9	1%
17	Low-risk, natural/created immune system	39	8%	17	2%
18	Protect body in-take as God's temple or personal domain from harmful substances	58	11%	37	4%
	<b>TOTAL</b>	<b>518</b>	<b>100%</b>	<b>829</b>	<b>100%</b>
	CONFIRM TOTAL	518	829	1347	

Source: The authors based on US Air Force data

Figure 3: Reasons Given



Source: The authors based on US Air Force data

### Discussion and conclusions

These findings suggest four key considerations for the introduction of major new public policy requirements. First, beliefs and values are emergent and developing, just as policy mandates are emergent and developing. Consideration of and alignment between the new initiatives in both public policy and individual practice are to be expected. These can be

viewed as being not only similar in nature but also as being reciprocal with each other, even though one is formed primarily at the public level and the other is formed as the more individual or community level. From this perspective, it could be easily argued that policy-making should not be based only on political and expert / technical criteria, but that transparency and public participation should also be key factors (Rodriguez and Komendantova, 2022).

Second, trust is a necessary condition for adoption of new recommendations (see for example Radu, 2021 and 2022). For adoption in pressing concerns like a pandemic, policy makers can recognize that new medical treatments like the COVAX, require trust as a critical aspect in acceptance rates. A primary path to building trust is in the quality of proposed treatments. So following standard practices to test new treatments to assure the highest quality of treatments in terms of maximizing effectiveness and minimizing adverse effects. As cited above in section 2.2, vaccine safety and sufficient information on the vaccine and its potential side effects were the main reasons offered by those who refused COVAX in late 2020 (Cordina, Lauri and Lauri, 2021, p. 5). Long-term testing is challenged by an immediate-term medical crisis, yet the burden of regulatory assurance remains with the public sector. Where the delays in typical testing regimes of new treatments is not deemed appropriate or possible, policy makers have two options to build trust. They can highlight expected benefits or the risks of refusal, and they can acknowledge any gaps in normal testing procedures while citing steps taken to compensate for that lack of testing. Public adoption relies on a personal analysis of their risk compared to the expected efficacy and adverse effects of the new treatment. Policy makers build trust by first trusting the public and showing transparency in available information. The public policy concern with full disclosure is that the public or public sector employees are not experts and may recoil from a treatment if told potential risks of adoption. However, in the social media age, that information will be disseminated in some form. Despite the best efforts of experts to decide on what is best for the public, adoption of COVAX was below what was needed. A meta-analysis of 172 studies from 50 countries finds that only 61% of people accept COVID-19 vaccine, which is below the level needed to reach herd immunity (Norhayati, Yusof and Azman, 2022). Similarly, a 50-60% range was found by Cordina, Lauri and Lauri (2021), Alqudeimat et al. (2021) or Cerda and Garcia (2021). With the widespread availability of the COVAX and a strong public push for adoption, this mid-range rate of acceptance suggests that people did not fully trust or agree with the introduction of the COVAX options or process for implementation. Even in an environment like the US military, where coercive pressure is severe even against a hint of dissent, requests for exemptions based on personal beliefs and religious convictions suggest that some pushback from a lack of trust or agreement is strong enough to resist even the most coercive measures to secure broad adoption. Members risked a loss of status, income and career, as well as their health. Perhaps the reasons cited by those in this study can inform and guide future approaches taken by public administrators in presenting new initiatives. This data is valuable because it shows public sector employees – a group often associated with risk aversion – are willing to face threats to health and employment if they do not sufficient trust the quality of mandated vaccinations.

Third, these findings reveal a strong, clear preference of individuals for body autonomy and personal agency. Recommendations for policy makers from this obvious priority can mirror that given to the developers and makers of new vaccines or treatments. Liability

limitations were offered to pharmaceutical companies to reduce exposure to potential lawsuits. A reverse version of the same is offered in the US military in the form of disability payments to veterans who are exposed to conditions that produced long-term personal harm. Military members exposed to napalm in Southeast Asia, open pit burning in the Middle East, and even back pain from carrying heavy weights commonly seek medical approval for partial disability payments. By assuming risk in either the government entity mandating a policy or the providers of a vaccine must take precedence over assigning risks to recipients of the desired treatment. Consumers calculate that in a rational, cost-benefit analysis to make their choice to comply. As people express a preference to make their own informed and considered choices, public policies, such as new vaccines, also certainly can benefit from utilizing approaches that aim to persuade by building trust. Advertising or administrative tools that tend toward coercion over choice are effective but experience push-back among those least likely to respond to the mandate in the first place. In fact, many interviewed for this study cited a COVAX resistance or refusal because they felt pressured. That pressure was both in their local command or in the political discourse in general. And many of those stated the health of their own bodies as their top concern. Diet and medical treatment are influenced by a host of individual health issues and personal beliefs. And niche access to information in a social medical age can target their highly specialized priorities. Information is not limited to government-approved platforms or advocacy supportive of new policies. Policy makers do well to embrace that individual choices may not align with public mandates due to a wide variety of deeply held personal or communal beliefs. Therefore an approach of cooperative planning and mutual appreciation or respect can form the basis of trust that may facilitate adoption.

Fourth, the process officials use to encourage adoption has long-term impacts on future policy initiatives. Trust may not come immediately or in the current medical crisis, but can be built over time to support adoption in the next crisis. Forming partnerships with stakeholders is possible through dialogue, concession and mutual respect. This is how trust in public policies grow over time. This study demonstrates that beliefs also change over time and react to new or perceived information. These beliefs may not be specifically-defined before the introduction of a new policy initiative, however, people will include their own views in adapting to new norms. Trust-building helps in that process if the policy makers are not adversarial or parental but embrace a mutual re-alignment in the face of shifting or evolving policy needs. The person who refuses today may advocate for the next policy if they see that their autonomy was respected.

In the case of the military members whose data is provided here, all their career outcomes are not known. However, the US Air Force policy did change based on political and judicial pressures, and many of those who requested exemption and did not receive the COVAX, are known by the study authors to still in the military. Some have even been promoted. They simply rode out the pandemic mandate and adhered to their personal beliefs. For public administrators, this is a well-known and highly effective tactic that many long-time civil servants pursue in a bureaucracy. Staff can avoid adopting new policies by waiting for the political leadership or climate to change. So those reluctant to adopt new policies are not powerless to do so, even in the face of a military mandate.

Decision makers should design, develop and implement public health and safety policies and programmes (such as vaccination campaigns, which can be voluntary or mandatory, curfews, mask mandates, etc.) only after taking into account multiple objective and

subjective factors that influence individual behaviors and attitudes, using a multi-dimensional policy framework (see Moldovan and Barnes, 2017) or a mind map, as proposed by Kourtit and Nijkamp (2023). Clear, consistent and understandable communication, especially coming from a trustworthy source, could reduce vaccine hesitancy (Song and Lee, 2023). Furthermore, more analytical nuances should be included in policy design and subsequent public vaccination programs, as there is no ‘one size fits all’ miracle solution to convince skeptics to vaccinate; for example, it would be useful to better distinguish and design specific measures for vaccine-resistant individuals and for vaccine-hesitant ones (Smith, 2017). A key reminder for all policy makers to remember is the adage of US President Bill Clinton: “Do not let the perfect be the enemy of the good.”

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