



# Manufacturing Consent for Vaccine Mandates: A Comparative Case Study of Communication Campaigns in France and Australia

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Governments making childhood vaccination more mandatory is controversial, and can be met with pushback from the public. Hence such policies may be accompanied by some form of communication to manufacture consent for either vaccination, mandatory vaccination policies, or both. This paper engages in case studies of two countries which recently made vaccination more mandatory and accompanied this policy change with concerted communication campaigns. It examines the French and Australian governments' new mandatory vaccination regimes, the communication strategies undertaken to manufacture consent for them, and the complex ways these policies interact. The analytical focus is the content of the websites at the center of the communications campaigns, "Vaccination-Info-Service" and "Get the Facts," as well as relevant academic articles, government press releases, documents and reports, and key informant interviews conducted in both countries. We report three key findings. First, we demonstrate how both countries' governance strategies intertwine persuasion with coercion in complex ways. Second, we examine how each country's website reflects local constructions of under-vaccination, especially regarding social groups and motivations. Third, we consider their vastly different communication styles and how these reflect alternative ways of constructing the public as well as differences in the use of communication expertise in the websites' production. These factors produce different tactics regarding manufacturing consent for vaccination and for vaccine mandates. We conclude that manufacturing consent for vaccination is a laudable exercise, but find that the involvement of numerous actors and institutions results in various interests, objectives, and conceptions of what drives audience reception, resulting in divergent strategies. This is particularly the case when it comes to manufacturing consent for vaccine mandates themselves; a more complex task that relies on strong understandings of community, knowledge, and effective channels of state power.

**Keywords:** immunisation, vaccination, health communication, mandates, health policy, persuasion

## INTRODUCTION: GOVERNING VACCINE ACCEPTANCE – MANDATES AND COMMUNICATION CAMPAIGNS

Parental refusal of childhood vaccines is a problematic issue for governments. In 2019, the World Health Organisation named vaccine hesitancy – defined as the refusal of available vaccines – one of the top ten global health threats of 2019 (World Health Organisation, 2019). When insufficient proportions of populations are fully vaccinated, diseases can re-emerge with social and economic costs, with the worst being loss of human life. However, under-vaccination is a complex and multi-faceted problem, with parental attitudes not the only driver (Dubé et al., 2013; Bedford et al., 2018). Indeed, the issue of under-vaccination is one that benefits from complexity thinking, as it involves numerous components that interact in many, often unanticipated ways (Braithwaite et al., 2017). While vaccine refusal captures the headlines, populations facing access problems can account for an even greater proportion of under-vaccinated children (Beard et al., 2016). Governments therefore need to provide supply-side support, including free and readily available vaccines, and ensure that they are developing appropriately targeted promotional messages to motivate populations to avail themselves (Omer et al., 2019). Populations need continual reminders that vaccines are safe, effective and necessary, and can benefit from SMS prompts and healthcare worker encouragement (Leask et al., 2014). Healthcare workers may need supporting or upskilling to become better vaccine advocates (Kaufman et al., 2019).

Governments in developed countries have employed these measures to varying success over recent years. Some, such as Australia (at a national and state level), France, Italy, Germany, and American states including California have also recently adopted a stronger suite of policies mandating childhood vaccinations, with no opt-outs for personal beliefs. Consequences for non-vaccination include restrictions on welfare, fines, and school or child care exclusion (Attwell et al., 2018).

Such “restrictive” mandatory vaccination policies are controversial. Critics see them as limiting the choice available to individuals and parents regarding medical treatment (Leask and Danchin, 2017). Some consider better governance strategies to be those that permit hard-to-obtain exemptions to avoid pressuring committed refusers (Ward et al., 2017; Omer et al., 2019). There are also queries about restrictive mandates’ capacity to change the behavior of the intended cohort, which needs to be determined by careful evaluation of specific policies’ results (Attwell and Navin, 2019). Others argue instead that such policies can increase coverage rates, and that it is legitimate to demand universal participation in the construction of community protection – the “herd immunity” that keeps viruses out of populations (Giubilini, 2019). Irrespective of these contending arguments, restrictive mandatory vaccination policies are now newly entrenched or enlarged in several jurisdictions.

What happens to the remaining facets of a vaccination program when a government makes vaccination mandatory or

more mandatory is an open question. Theoretically, mandating vaccines reduces the pressure on governments to push vaccines out, instead deploying a more coercive pull mechanism. If parents face loss of benefits or lack of access to child care or school for their child, they may require less motivating to vaccinate (Attwell and Navin, 2019). However, if parents remain steadfast about refusing vaccination, their children may be disadvantaged by exclusion from services. Nevertheless, governments making vaccines (more) mandatory without ensuring adequate and easy supply would face pushback from inconvenienced populations, while steadfast refusers facing punishment might challenge the policy’s legitimacy. Mandates may also antagonise hesitant parents sitting on the fence about vaccination if governments do not make sufficient effort to convince them of vaccination’s benefits. Accordingly, mandates should not be regarded as a replacement for the other facets of a vaccination program, but rather as an augmentation to existing and complementary efforts to encourage full vaccination.

The relationship between restrictive mandates and public communication and promotion strategies is of particular interest. Scholars and policymakers often conceptualise communication campaigns about vaccination’s benefits (“hearts and minds” approaches) as separate, distinct, and even competing policies compared to those that mandate an individual’s vaccination behavior. For example, in his case studies of America, Australia and the United Kingdom, McCoy (2019) adopts a framework based on policy coerciveness, presenting compliance with vaccination as obtained through either voluntaristic methods or mandates. McCoy uses a terminology of manufacturing consent to describe the outcomes of both processes, with the result being the population’s acceptance of vaccines. (Of course, not everybody ends up accepting, and hence manufacturing consent remains a partially successful and ongoing endeavor.) McCoy describes hearts and minds approaches as “process[es] in which citizens are persuaded to vaccinate their children by government officials and public health marketing.” The fact that critics of restrictive mandates favor this strategy for manufacturing consent over the “stick” of mandates reinforces the idea that the two policies are diametrically opposed. Moreover, the fact that mandates may result from real or perceived failures to use communicative approaches successfully, as noted by a group of public health scholars after Italy made its vaccination system more mandatory in 2017 (Signorelli et al., 2018), further cements the idea that mandates and communications are opposing strategies. Such a view could lead governments to regard public communication as less necessary once the coercive pull factors of a restrictive mandate are in operation.

Conversely, however, governments may perceive such communications as *more* important when vaccines are mandatory. Since effective governance seeks to minimise resistance amongst the governed, authorities may invest in strong efforts to convince populations of vaccination’s benefits (Attwell and Navin, 2019). This goes beyond simply manufacturing consent for vaccination as a practice to attain high levels of compliance (McCoy 2019). Manufacturing consent in the context of restrictive mandates may also involve public

communications to *build support for vaccine mandates as government policy*. But because this involves support for a policy instrument, rather than for a medical technology or scientific knowledge, manufacturing consent for vaccine mandates confronts the issues faced by political communication. For instance, studies in some contexts have shown that people's perception of the legitimacy of mandates is much more politically determined than perceptions of vaccines themselves (Kahan, 2014). Mandates and hearts and minds approaches, then, are not as diametrically opposed as may initially appear, and so it is beneficial to consider manufacturing consent from a complexity perspective, acknowledging that agents are interconnected (Long et al., 2018).

In this paper, we study how authorities have navigated these issues and consider what theoretical and practical lessons we can learn. A quick survey of the jurisdictions to recently make vaccinating more mandatory (Attwell et al., 2018) reveals both minimal and enhanced public communications about vaccination's benefits. Some jurisdictions, such as California, have not adopted "hearts and minds" communications campaigns to convince the population that vaccination is beneficial and effective, nor to persuade the public that vaccine mandates are the best way to achieve this. Instead, they have relied solely on the event of the legal change, and related coverage of its government and civil society proponents in the media. Among the jurisdictions with new vaccine mandates, Italy, Australia and France are noteworthy because they have augmented their new mandatory vaccination policies and public officials' pro-vaccine and pro-mandate communications with investments of public money into communication campaigns. We have chosen to focus on Australia and France for our case studies due to our deep expertise in these jurisdictions, and the differences between the two approaches that became apparent to us during preliminary discussions.

We investigate the communication strategies that Australia and France have employed in concert with their new mandatory vaccination regimes, and the complex ways in which they interact to manufacture consent for vaccines and vaccine mandates. In assessing the relationship between mandates and public communications, we consider how policymakers in both countries sought to shape public opinion regarding vaccination and regarding mandates as a governance strategy. We compare the circumstances in which each government instigated its vaccination communications campaign; the content of these campaigns; their ancillary components; and how the campaigns constructed and engaged the public. From our assessment of the relationship between mandates and communication campaigns, we seek to provide lessons for other jurisdictions contemplating mandatory policies in *how* governments communicate with populations about vaccines and mandates, and *why* it matters.

In studying these largely digital campaigns within their communication system ecology, we also shed light on the complex processes producing official health messages. Indeed, living in a communication ecology is complex, as the way that meaning-making occurs involves numerous "patterns, processes, and content/messages" unique to one's given context

(Parrish-Sprowl et al., 2020). Contrary to the tendency to think of communication as the simple and coherent product of one mind/rationality wishing to put one message forward, we situate such communication efforts within the institutional processes from which they emerge (Berlivet, 2004; Dubuisson-Quellier, 2016). Official websites, and public health communication more generally, are often the product of coordination and negotiation between different actors and institutions (Bouabal, 2019). These actors can have different interests, objectives, and conceptions of what drives the public's reception. For instance, sociological work inspired by Michel Foucault's concept of governmentality has shown how the assumption that the public is rational and driven by self-interest shapes the choices of policies and communication strategies (Berlivet, 2004; Dubuisson-Quellier, 2016; Chessel and Dubuisson-Quellier, 2018). Others have shown that public health communication, especially when it comes to vaccines, are often grounded in the idea that the public will react in an irrational and emotive way (Navin, 2015; Goldenberg, 2016; Ward, 2018). Such expectations regarding reception complicate the simple linear causal model whereby a message causes a reaction in a public. For this reason, we move away from the focus on the message-receiver dyad to shed light on the complexity of public health messages as components of governance. Moreover, we do so predominantly with regard to websites where the meaning of communication is negotiated in relation with the other forms of intervention that constitute the dynamic system within which it is embedded (additional communication tools, wider institutions, laws, professions, etc.). While perceptions of the population as the audience for public communication are important for understanding the decisions governments make, independent analysis of these populations' characteristics or their receipt and digestion of the public messaging under study is beyond the scope of this paper.

## METHODS AND MATERIALS

### Case Background

The Australian Government introduced a restrictive mandatory childhood vaccination regime in 2016. Prior to that, a "permissive" mandatory vaccination regime allowed Conscientious Objectors to access financial entitlements, including childcare subsidies (Attwell and Navin, 2019). Parents who did not want to vaccinate could submit a form signed by a medical professional attesting that they had counseled the parent about the risks. With the removal of this possibility, refusers joined disadvantaged, poorly reached and otherwise unvaccinated parents in facing financial loss for non-vaccination. The "No Jab, No Pay" law was passed in 2015 by a conservative government, which had previously applied its "mutual obligation" mantra to govern jobseekers and welfare recipients (Turnbull, 2015). Within days of announcing the policy in April 2015 (Abbott, 2015), the government announced an accompanying suite of measures costed at AUS \$26 million as part of what they called a "balanced 'carrot and

stick' approach." A central measure was a communications campaign to "provide Australians greater awareness of the benefits of vaccinations" (Ley, 2015). The new mandatory policy was implemented on January 1, 2016, and "Get the Facts," consisting predominantly but not exclusively of a website, followed 19 months later. Launched on August 13, 2017, it has remained an active and regularly updated program of work to the present day.

France expanded its mandatory childhood vaccination regime in 2018. Prior to this, three childhood vaccines were mandatory, with the threat of fines and prison for non-vaccination. However, in practice, these provisions had been almost entirely unenforced for decades (Senecat, 2017). President Macron's newly elected government passed a law in 2017 adding eight vaccines to the mandatory suite for children born after January 2018, and tying these mandates to kindergarten and school attendance (Ward et al., 2018). Like Australia, French authorities launched a complementary communications campaign with the new mandate. In early January 2018, the Ministry of Health announced the release of several new communication tools, including a revamped version of its recently created website: Vaccination-Info-Service.

## Analysis Strategy

To conduct our case studies, we assembled broadly equivalent datasets from Australia and France to compare vaccination campaign websites, related ephemeral communications, ongoing pro-vaccine official communications, and the infrastructures in which they are embedded.

Our inclusion criteria for the "public communications campaign dataset" consisted of campaign content with which the government speaks directly to the public, and which has left a lasting footprint. This dataset consists predominantly of the two websites, Get the Facts (GTF) (Australia) and Vaccination-Info-Service (VIS) (France). We included webpages based on their centrality to and identity within the campaign. So, for example, the Australian Government Department of Health features immunisation information and advocacy on its own website, which conducts two-way traffic with GTF. However, we only considered the GTF website and branded media content to be related to the campaign, and not those pages hosted on the Department of Health website. As we were privy to several revamps of the website, we also investigated changes over time using Wayback Machine. Decision-making about inclusion and exclusion was less of an issue in France, as there was very little vaccination information included on any government website either prior to or in conjunction with VIS. Moreover, modifications to the website have almost exclusively consisted of adding more content in the context of the impending new mandate.

We conducted qualitative content analysis of the GTF and VIS websites, coding data using NVivo 12 with a combination of inductive and deductive methods. ST was primary coder for the Australian data, with input from KA and JKW in developing the coding matrix. JKW coded the French data using the same coding matrix, further refining it. The Australian team machine-translated and checked the French coded data, with the three

authors further refining the coding tree via several meetings. These meetings also allowed the authors to resolve any language queries.

To ascertain the logics of production of the campaign websites and consider the direct ways in which authorities spoke to the population about vaccination and mandates in the context of the new restrictive mandates, we assembled a second dataset based on declarations of government officials in media releases and online news stories. We coded data from both jurisdictions using the same strategy as for the website dataset, employing a modified coding tree, and retained our results in a separate repository. Further, we augmented our findings with a third dataset comprising of publicly available documents and interview transcripts from key informants in government, advocacy, and academia with specific knowledge of the campaigns in Australia (8 informants) and France (9 informants). Interviews were conducted by the lead author between September 2019 and July 2020. The purpose of this third "strategic information" dataset was to make sense of the communication apparatus surrounding the campaigns and the new mandatory regimes. These supplementary datasets were comprehensively examined but not thematically coded, as they were predominantly used to compile answers to specific pre-existing questions about project initiation, budgets, rationale, and results.

## RESULTS

### Unpacking the Campaigns

#### Australia

As noted above, the Australian Government announced its pro-vaccine communication and information campaign within days of unveiling its "No Jab, No Pay" policy. Although ostensibly framed as a health policy, "No Jab, No Pay" was operationalised through the Department of Social Services, since this ministry was responsible for the financial benefits quarantined from vaccine refusers. Accordingly, only the communication campaign fell within the exclusive remit of the Commonwealth Department of Health.

GTF was outsourced to a private media company, Carbon Creative, and originally planned to run for three years from 2017. It was subsequently extended to six years, at a proclaimed cost of \$20 million AUD for the entire campaign (Hunt, 2019b). Phase One ran from August 13 until September 9, 2017, although its centrepiece, the GTF website, has remained consistently available and regularly updated. Phase One employed two main distribution channels: digital website and social media advertisements for its online communications, and posters and brochures for offline communications (Gardiner et al., 2017). Online static image advertisements and multiple videos directed parents to the website. Posters and brochures were distributed at medical centers, doctor's offices, hospitals, childcare centers, play groups, and YMCAs (Gardiner et al., 2017).

Phase Two ran from March 4 until April 14, 2018. This phase continued and built upon the aims and target audience from Phase One (Ffrench et al., 2018). Specific areas with low immunisation rates were targeted via social media and search

engine optimisation (Hansen, 2018), and advertisements were made visible “on screens in health clinics and GP surgeries” (Hunt, 2018).

Phase Three ran from January 20 to March 16, 2019. In this phase health professionals became a target audience (Hall and Partners, 2019), but were not addressed by any specific content. This phase focused on timeliness of vaccination and Aboriginal and Torres Strait Islander children (Australian Government Department of Health, 2019), and placed a greater emphasis on evidence-based information, safety (a reassurance focus), and the protection offered by vaccines (Hall and Partners, 2019). Phase Three continued to make significant use of social media and other aforementioned distribution methods (Hall and Partners, 2019). Much new media content was added to the website, including seven videos for Aboriginal and Torres Strait Islander audiences, four videos communicating key vaccination facts, one video of an immunisation expert on vaccine safety, and two new personal stories from bereaved parents.

Phase Four ran in 2020 from February 16 until April 12, and has not yet been evaluated. At a cost of \$12 million AUD, this phase sought to target “areas of low vaccination rates” (Hunt, 2020), and for the first time the campaign aired nationally on television (Australian Government Department of Health, 2020b). Minor updates were made to the website, and it is this version that we analyse below.

## France

In France, the extension of mandatory vaccination was announced in June 2017, voted on in October and implemented on January 1, 2018. On January 5, the Ministry of Health, who drafted the mandatory vaccination law and promoted it in front of the parliament, announced an unprecedented effort regarding communication to accompany the mandate. It revealed the release of nine videos on the Ministry’s website, the co-production of two videos with two popular YouTubers specialised in debunking, and several documents for public and health professionals. In October that year, French authorities paid nine social media “influencers” to attend a seminar on vaccination in the hope that they would relay the messages to their parent and community audiences, and a highly polished video advertisement for vaccination aired on French television in April 2019.

Finally, and most importantly, a significant part of France’s communication effort went into adding content to the VIS website created in 2016, and into creating a mirror website for health professionals (launched in April 2018). VIS had been created in April 2016 by the Institut National de Prévention et d’Education pour la Santé (INPES), an agency dedicated to promoting awareness of health issues and healthy behaviors. In May 2016, INPES was merged with other institutions to create Santé Publique France. One of these merging institutions was the Institut de Veille Sanitaire (INVS), which oversaw the monitoring of a wide variety of threats to public health, including infectious diseases. Santé Publique France (SPF) therefore emerged as a state agency under the direct authority of the Ministry and specialising in public health issues. Its staff added content to VIS during 2017, especially during the second

part of the year as it became clear that the government would extend France’s mandate to cover more vaccines. Unlike the Australian Government, French authorities did not publicise the amount of money spent on their communications campaign. Our key informants advised that it was funded within the annual budget of SPF, which has a degree of internal choice about which health issues to campaign on.

Having offered this overview of both the Australian and French campaigns and their ecology, we now move to a comparative analysis drawing out three key results. First, we demonstrate how in both countries, persuasive “hearts and minds” communication approaches to vaccination intertwined with coercive policies (mandates) in complex and overlapping ways. Second, we examine how each country’s website reflects local constructions of under-vaccination, especially regarding social groups and motivations. Third, we consider the campaigns’ vastly different communication styles and how these reflect alternative ways of constructing the public, as well as differences in the use of communication expertise in the websites’ production. We then synthesise all these findings in our discussion to propose a framework for thinking about public communications as manufacturing consent for vaccination and vaccine mandates.

## Persuasion and Coercion: Intertwined

Our first finding regarding the Australian GTF campaign and French VIS campaign is that the implementation of strategies to persuade the public to agree with vaccination and the implementation of policies to coerce them into being vaccinated are intertwined in complex ways. Our data suggests three variants of this relationship, evident in varying degrees across both cases. The first we call “mandates *cause* communications.” In this variant, policymakers invest in communications to augment their mandatory vaccination policies and make them more effective in lifting vaccine coverage rates. The second variant we call “mandates *enable* communications.” Here, we identify that key local actors had long mobilised around the belief that a communications campaign could effectively govern vaccine uptake, perhaps negating the need for more restrictive mandates. New mandatory vaccination policies in both France and Australia belatedly unlocked resources for their campaigns. Finally, there is “mandates *are* communications.” In this variant, most explicit in the French case, government officials envisaged their country’s vaccine mandate as perhaps the most effective and important communication strategy of all in promoting public confidence and acceptance of vaccination.

The “mandates cause communications” relationship was most evident in Australia, where a change to the country’s mandatory vaccination policy effectively unlocked resources to promote vaccination’s benefits. With the announcement of the new mandatory policy, the Commonwealth Government allocated significant resources to pro-vaccine communications for the first time. Since financial modeling indicated that “No Jab, No Pay” could save the government \$508.3 million over five years in withheld benefits, a figure publicised in budget papers a mere month after the policy announcement (Government of Australia,

2015), the campaign represented a reinvestment into vaccination promotion as part of a multiple-mechanisms package for lifting vaccination. Government communications depicted the as-yet unnamed package – and later GTF – as “address[ing] parents’ concerns regarding immunisation, including dispelling common myths” (Ley, 2015). In “correcting” such misinformation, the government could position itself as not merely punishing resistant parents, but also as responsibly addressing the information ecosystem in which vaccine choices are made. An investment in resources to help primary health physicians talk about vaccines with parents was presented as another component of this package (Ley, 2015), illustrating how the new mandatory policy provided momentum for governments to invest in communication strategies to promote vaccination.

The “mandates cause communications” relationship was less evident in the French case, where both the mandate extension and the formal communications campaign arose from earlier and distinct processes. France’s new mandate concluded a decade of reflection on how to modernise vaccination policy, and particularly how to respond to the growing and measurable threat of vaccine hesitancy. This lengthy and bureaucratised engagement recommended a clearer policy regarding mandates (which should apply either all vaccines or none). It also identified that communication on vaccination was spread across too many actors, not unified enough, and that there should be one main website where the public could find all relevant vaccination information (Concertation Citoyenne Sur La Vaccination, 2016; Hurel, 2016). The VIS website was created out of this impetus and went live before the mandate extension of 2017–2018. However, it was subsequently greatly expanded as part of the communication push to accompany France’s new mandates.

Moreover, one of our informants suggested that a partial aim of France’s enhanced communications was to “convince ... people that [vaccination] is actually useful” so that in the future the government would not need to enforce it. A caveat of France’s new, extended mandate was that it would be temporary. Viewed from this perspective, then, mandates prompted French authorities to make a better case for vaccination’s benefits to the public, since the success of such an endeavor could restore an optimal setting of vaccine voluntarism.

Finally, the same informant also alluded to the idea that mandates prompt governments to make a strong public case for adopting more coercive policy. Addressing the query why governments would bother with public communications when mandates alone could change behavior, she concurred, “We could have thought: OK, it’s mandatory, we don’t have to do anything anymore, because [coverage rates are] going to go up mechanically. But,” she continued, “we just thought, OK, we still have to convince people that it was legitimate to make that decision.” Thus, promotion of vaccination’s benefits is also inherently a public justification of the decision to make it more mandatory, and both are regarded as necessary after governments have taken such decisions.

The alternative “mandates enable communications” relationship fits both the Australian and French cases well. In

this model, mandates build momentum to push existing communication aspirations and strategies to the top of the policy agenda. In Australia, in the years prior to “No Jab, No Pay,” public health advocates, including academic experts and bereaved parents from high-refuser areas whose children had died from vaccine preventable diseases, had lobbied state and Commonwealth governments to invest in such a campaign amidst growing public controversy about vaccine refusing communities (Chambers, 2015). This group can be regarded as an “instrument constituency” (Béland and Howlett, 2016) committed to “hearts and minds” public communication campaigns. The constituency was repeatedly thwarted, however. One key informant advised that she found state government officials leery of offending vaccine refusing parents with a pro-vaccine campaign, while her sense was that the Commonwealth was not even attuned to the need for one in early 2015 when she began advocating this strategy with them. Another informant suggested that the high vaccination coverage rates at the time made it “hard to imagine why they bothered” doing a communications campaign even after the mandate. However, he supported the Health Department’s “good fight” to “push the line” with their long-favoured approach of educating the public, and suggested that the Department would have presented the communications proposal for the Minister in a way that made it appear a useful strategy alongside the mandate. The need for a communications campaign, then, circulated policy networks for some time, but with low interest or uptake from decision-makers. The announcement of the new mandatory policy finally provided the impetus to fund it, when coupled with the cost-saving measures of withdrawing vaccine refusers’ entitlements.

“Mandates enable communications” also fits the French case – not in terms of constructing VIS, as we have discussed above, but in terms of unlocking political support for additional campaigning. Public health and communication experts at SPF predecessor INPES had long sought to address unsatisfactory vaccine coverage rates and vaccine confidence with a public communications campaign utilising media channels. However, French authorities had weathered numerous controversies relating to specific vaccines, including hepatitis B and influenza, and so vaccination was a bad news story for governments. INPES’s campaign proposals were blocked by executive government as recently as 2015, but staff continued to push for this option, including when interviewed by Mme Hurel, whose influential report would ultimately drive France’s vaccination policy forward (Hurel, 2016). France’s new mandate, implemented by a newly elected government, thus provided the impetus to promote vaccination actively through and beyond these channels. At last, SPF were able to move ahead with their media campaigns.

The final “mandates are communications” dynamic is recognisable only in the French case. As noted above, successive French governments and technical public health experts had struggled with widespread hesitancy and sub-optimal coverage rates. Dogged by scandals and distrust from the public, French authorities faced a confidence problem, and they saw mandates as a unique way of tackling it. Health Minister

Agnes Buzyn stated publicly that “[her] goal is not to sanction. The goal of this mandate is to give confidence to the French” (Hecketsweiler and Béguin, 2017). Accordingly, France’s new mandate was publicly framed as an attempt to restore trust in vaccines and science more generally by re-affirming the state’s confidence in vaccines. Relatedly, influential analyses in the lead up to the mandate found that medical professionals had difficulties explaining the difference between mandatory and recommended vaccines, and in dealing with hesitant patients more generally (Ministre des Affaires Sociales, de la Santé et des Droits des Femmes, 2016; Ward et al., 2019a). In employing “mandate as communication,” then, the French government also sought to provide support to medical professionals, and orient the doctor-patient communication dyad toward more straightforward conversations about vaccination’s necessity.

The idea that mandates themselves would be a form of communication was not evident in Australia, perhaps because the policy in place prior to “No Jab, No Pay” already exacted compliance from most of the population (McCoy, 2019). The policy change in Australia targeted the small group who actively refused some or all vaccines. The new mandate would “speak” to them about their newly deviant status, but was not intended to win hearts and minds. The latter, by contrast, was the designated purpose of GTF.

### **Constructing the Problem of Under-Vaccination: Access and Activation vs. Vaccine Hesitancy**

Our second finding is that the Australian and French websites reflect distinctly different ways of making sense of under-vaccination, particularly regarding social groups and motivations. These differences reflect the type of data available to public health officials, as well as the evolution of attitudes toward vaccination in each country. Both elements had a direct consequence on each website’s messages and on public officials’ attempts to manufacture consent for vaccination and vaccine mandates, as we discuss in subsequent sections of the paper.

### **What the Available Data Allows us to See**

In both Australia and France, government authorities were sensitised to the issue of sub-optimal vaccine coverage, and this would inform the methods and discourses they would employ to communicate the rationale for vaccines and vaccine mandates. In Australia, postcode level data on vaccine coverage that became publicly available in 2013 alerted Commonwealth and State governments, as well as the population, to areas of very low coverage amidst generally high vaccination rates (National Health Performance Authority, 2013). In France, government studies attributed continued sub-optimal uptake of recommended vaccines, including MMR, as well as measles epidemics and low vaccine uptake for pandemic influenza (H1N1) and HPV to unacceptably high levels of hesitancy and doubt in the population (Santé Publique France, 2017; Ward et al., 2018).

Despite both governments having an awareness of sub-optimal vaccination coverage, there were several important

differences. The first lay in the magnitude of under-vaccination. In 2014–2015, when Australian state and Commonwealth governments began tightening vaccination requirements, coverage for all recommended vaccines for children at one, two and five years old was 91%, reasonably close to the 95% threshold (National Health Performance Authority, 2016). In France, however, when the 2017 mandate extension was decided, the three mandatory childhood vaccines (Diphtheria, Tetanus, Polio) were the only ones for which more than 95% of 2-year-olds were fully vaccinated. For MMR, the rate was 80% for full 2-dose vaccination (Santé Publique France, 2017; Ward et al., 2018). The fact that France was struck by a deadly outbreak of measles between 2008 and 2011 reinforced the problem with this unsatisfactory coverage.

In addition to differences in vaccination behaviors, we also find important differences in the spread of doubts regarding the efficacy and/or safety of vaccines in each country. In Australia, vaccine refusal was associated with specific pockets of “alternative lifestyles,” (Attwell et al., 2017) but the population was largely compliant with the schedule, especially following a range of non-mandatory strategies to boost access and uptake (Attwell et al., 2020). In France, however, doubts about vaccines were thought to be widely diffused in the French public. This was due both to the multiplication of debates in the mainstream press over the safety of vaccines since the influenza A pandemic of 2009 – over the use of aluminium-based adjuvants, HPV vaccines and multivalent vaccines – and to the publication of several studies showing that between 25 and 45% of the French population displayed some distrust of vaccines (Ward et al., 2019b). These differences between vaccine refusers in Australia and France connected to how public health authorities explained their country’s unsatisfactory coverage, and how precise an explanation was possible according to the available data.

In Australia, precise data on under-vaccination has been available since the establishment of a national electronic register in 1996, which records overall and individualised vaccine coverage aggregated at the national, state, and district level (Hull et al., 2009). Until the end of 2015, it also recorded Conscientious Objections, enabling some understanding of hesitancy/refusal or access barriers. The establishment of the register was accompanied with the emergence of a strong social research community led by the National Centre for Immunisation Research and Surveillance and eminent vaccination social scientist Julie Leask. Ongoing investment into social research on vaccination aggregated specialist knowledge and established corporate memory within government and university research sectors. This knowledge enabled sophisticated understandings of the drivers of undervaccination to emerge and disseminate through policy communities. Drawing on precise data, researchers publicised the view that that Australia’s relatively small vaccine uptake problem could be improved by optimising service delivery and activating parents who were late with their children’s vaccines. Relatedly, several Australian studies identified the sociodemographic profile of non-vaccinators (see Beard et al., 2016). Such data allowed researchers to identify sub-optimal

coverage in low-income and Aboriginal and Torres Strait Islander communities as well as alternative lifestyle communities (Gidding et al., 2017).

Government agencies in Australia keenly focus on health outcomes for Aboriginal and Torres Strait Islanders, who have been subjected to systemic and structural racism since Australia's colonisation and still experience significantly poorer health, income and quality of life than non-Indigenous Australians (Higgins, 2020). Consequently, these populations are recommended a more comprehensive vaccination schedule, with coverage recorded separately. This makes Indigenous Australians stand out within all the data pertaining to coverage, and for reasons widely recognised to be very distinct from vaccine hesitancy. Government understanding of the significance of this population's vaccine uptake is reflected in communication strategies specifically targeting them in GTF, as we elaborate below.

Finally, Australia's rigid age-based vaccine mandate determines whether an individual child is up to date on their vaccines in real-time (Attwell, 2019). This has allowed authorities to concentrate on the timeliness of vaccination as a specific and measurable factor, and to recognise lateness as a cause of under-vaccination.<sup>1</sup> In Australia, then, data on coverage has been precise enough to identify specific targetable groups, for whom the causes of under-vaccination could be different (not just hesitancy, but access barriers and lateness). Launching GTF, Health Minister Sussan Ley acknowledged this when she depicted busy parents as an equal "threat to immunisation rates and the safety of our children as conscientious objections" (Ley, 2015).

In France, questions of undervaccination have been understood quite differently. Undervaccination was identified as a crucial problem during the 2010s but was framed primarily as hesitancy. While France had struggled with coverage in earlier years, immunisation rates had steadily increased throughout the 1990s and 2000s. The emergence of the first major public controversy on vaccine safety in France's history – Hepatitis B vaccination in 1998–2000 – did not influence early childhood vaccine coverage (Santé Publique France, 2017; Ward et al., 2019b). While several reports from the 2000s sought to provide guidance on "modernising" France's vaccine policies to improve vaccine coverage rates, attitudes only became a major concern in public health and political worlds after the 2009 pandemic flu vaccination campaign (Ward et al., 2018). A major debate emerged over the safety of this vaccine, and this precedent changed the landscape of vaccine criticism, leading to a proliferation of controversies in the following years (Ward et al., 2019b). Debates emerged over the safety of aluminium-based adjuvants (starting in 2010), the HPV vaccine (starting in 2011), and multivalent vaccines (starting in 2014). Again, these controversies did not affect early childhood coverage, but vaccination rates for HPV and seasonal flu declined

significantly. Data relating to attitudes was much more worrying, however.

The French State has monitored attitudes toward vaccination via national surveys every 4–5 years since 2000, through the same agency that produced the VIS website (INPES-SPF). This data showed a significant increase in distrust of vaccines after the 2009 pandemic. Data produced by researchers abroad also showed a high prevalence of hesitancy (Larson et al., 2016), reinforcing the idea that France was one of the most vaccine-hesitant countries in the world. Academic research in France has largely focused on hesitancy, drawing on these INPES/SPF surveys (Ward et al., 2019b).

The combination of factors described in the previous paragraphs has led to a widespread belief that France's undervaccination problem is mainly due to hesitancy. The idea commonly shared in France's health community that France's universal health insurance system somewhat minimises the effects of social inequality (vaccines are provided free of charge for the poorest via multiple pathways) has also likely reinforced this focus on the public's attitudes rather than the health system's reach and any potential access barriers. Still, the data available also bore heavily on who public health authorities saw as the main target for their intervention. This data did not allow them to identify specific sub-groups where non-vaccination was more prevalent, and it could not uncover the social profile of hesitants and refusers. There are many reasons for this shortcoming: changes in data collection, the availability of databases to academic researchers who can devote more time to fine-grained analysis of socioeconomic factors, investment of academics on the issue of vaccination, etc. One reason stands out, however. The first fine-grained analysis of the 2009–2010 survey showed that the social group who doubted vaccines in general was very broad, yet different from those who had doubts regarding only some vaccines such as the pandemic flu vaccine, which was also quite broad (Peretti-Watel et al., 2014). This finding was later confirmed in the study of the 2016 edition of the survey (Bocquier et al., 2018). Therefore, French public health authorities could not identify a specific set of subgroups responsible for low vaccination coverage, but were aware of the very complex landscape of vaccine hesitancy.

Unlike in Australia, in France the identification of specific sub-publics to target did not come from data on actual vaccination behaviors. The mandatory vaccination laws passed following the Second World War compelled municipalities to keep a local vaccine registry, but these have never been connected together to form a national database (Bertrand and Torny, 2004). Hence, to assess compliance with vaccine recommendations, public health authorities and researchers have had to resort to the analysis of indirect or less reliable data (Guthmann et al., 2012), which cannot be easily coupled with other databases containing information on socio-economic conditions. Public health authorities in 2016 therefore had little knowledge of the social profile of non-vaccinators, and French coverage data could not highlight to authorities that issues of access or complacency could play a major role in under-vaccination in France. The fact that VIS was designed primarily as an answer to hesitancy can be seen in the fact that in all the press packs and briefs published from

<sup>1</sup>By contrast, French vaccination policy only penalises parents once they seek to enroll their children in public institutions, which is a less effective way of governing timeliness (Attwell and Navin, 2019), and does not encourage authorities to focus on the factors that might inhibit parents from vaccinating on time.

2016 to 2018, distrust or misunderstanding of vaccines is the only explanation explicitly put forward for the unsatisfactory immunisation rates (with the exception of a short reference, in the 2016 press pack, to the shortages of some vaccines that was a major national issue in 2015).

In conclusion, then, Australia lacks a strong history of tracking vaccine hesitancy directly, but its vaccination social research community has proved adept at building a knowledge base through coverage data and studies. This allowed researchers to understand, then to translate to government, that hesitancy or refusal was merely one factor in undervaccination, even if it would ultimately become politically important. By contrast, France has monitored vaccine attitudes for two decades, but this has obscured why children may not be up to date with their vaccines. These distinctions would go on to be highly influential in public officials' messaging around vaccination and under-vaccination.

### From Data to Message

Differences in the understanding of undervaccination – which in Australia is seen to arise from access barriers, complacency, and pockets of refusal, and in France from widespread hesitancy – are reflected in the content of each country's vaccine-promoting website. Three main differences stand out: 1) the audience; 2) the framing of vaccination; and 3) the representation of vaccination policy, especially mandates.

Regarding the audience, GTF communicates broadly about the benefits of vaccination, but addresses certain subgroups directly. In Phase One, all content was in English and most videos contained only Caucasian speakers, but from Phase Three authorities came to see underprivileged Australians as an important audience, and their campaign as addressing not only vaccine doubts but also timeliness and motivation in specific groups. Greater attention is now paid to minorities, with brochures altered for Aboriginal and Torres Strait Islander audiences and translated into Vietnamese, Chinese, and Arabic. Indigenous Australians are a key target audience. While Phase One only included one video targeted toward an Indigenous audience, a significant amount of content, including seven videos, was added between phases Two and Three. Government press releases attributed an increase in Aboriginal and Torres Strait Islander children's vaccination rates to GTF (Hunt, 2019a; 2020), although such claims lack veracity.

Australia's explicit sub-group appeals contrast with VIS, which never explicitly or implicitly refers to social, cultural, or ethnic groups. Instead, the website appears to speak to French people in general. VIS abstracts the population and uses minimalistic but racially varied graphics, with no depiction of families. In comparison, GTF employs real people through the use of photos and videos. Further, VIS only divides the population into subgroups when broaching particular risks of contracting a given disease or suffering complications. For instance, there is a whole subsection of the website dedicated to, respectively, "infants and children (from birth to the age of 13)," "adolescents (14–19 years old)," "adults (20–64 years old)," "seniors (starting at 65 years old)," "pregnancy and planning for pregnancy," and "recommendations to travellers." These

categories are medical, not social. Some factors from the previous section help to explain this universalist view, including the lack of data on socioeconomic conditions and minimisation of social inequalities. Additionally, the doctrine of SPF, the agency in charge of producing VIS, views communication as the voice of the State, which therefore must speak to everyone. SPF's universalist view of prevention promotes "republican values" and social integration. Communication should not target any specific subgroups to avoid the risk of stigmatisation<sup>2</sup> (Bouabal, 2019).

The second difference between the Australian and French websites relates to how each speaks about vaccination. The Australian GTF website treats vaccination as an abstract practice. It mentions specific diseases and vaccines at times, but mostly engages with vaccination as a behavior. Relatedly, our combined analysis of the website, declarations of public officials, and the additional strategic dataset, found significant emphasis on the concept of herd immunity to diseases in general, whether implied or explicitly stated. Such messaging was present on the website in three main areas. First, many pieces of text mention vaccinating to help one's community, and some pages suggest that herd immunity can result in eradication of diseases. Further, statements repeated in campaign materials such as brochures, motion graphics, and videos involve various iterations of "low immunisation rates put everyone/the whole community/all our kids at risk." Third, the personal story videos explicitly utilise emotional rhetoric, suggesting that community members' undervaccination caused children's deaths. For instance, the Hughes' personal story states that "Riley was only four weeks old so he was too young for his own vaccinations, so he sort of relied on protection from our community" (Australian Government Department of Health, 2017a). In another video, the McCaffery family explains that not only did their local area have low vaccination rates, but the neighboring area had the lowest rates in the country (Australian Government Department of Health, 2017b). Australian content, then, appeals to the audience's sense of community, wherein everyone benefits from vaccination, and promotes vaccination in general rather than any specific vaccine. Bereaved mother Toni McCaffery, who offered her considerable expertise in policy, media and issues management to the design of the campaign, advocated for including more videos of bereaved parents because a focus only on whooping cough (pertussis) could leave the campaign open to critiques of that specific vaccine. Educating parents about the potentially deadly ramifications of diseases such as measles and chicken pox (varicella) through additional personal stories would help amplify the "key message" that "we needed to get herd immunity up to a certain level to protect one another" – in other words, a general message about vaccination as a whole.

Political communications, right from the initial funding announcement by Minister Ley, similarly signal the construction of a joint enterprise in which community

<sup>2</sup>They also favor positive messages and avoid the use of fear, as it does not fit with their vision of communication as education and as promoting empowerment.

members can rightly expect compliance from each other. Ms Ley (2015) stated:

“I believe most parents have genuine concerns about those who deliberately choose not to vaccinate their children and put the wider community at risk ... Immunisations don't just protect your child, but others as well - it's known in medical terms as “herd immunity.” Vaccination is therefore one area of life where it pays to be part of the crowd.”

As part of its “herd immunity” focus, GTF places significant emphasis on timeliness, whether delays are deliberate or inadvertent, with statements such as “Skipping or delaying vaccinations puts your child and those around you at risk of contracting serious diseases” (Australian Government Department of Health, 2020a) and “make sure you vaccinate your child on time” (Australian Government Department of Health, 2020c) being repeated across campaign material. This emphasis on timeliness has been scaled up over the life of the campaign, reflecting an understanding that inadvertent lateness contributes to under-vaccination (as described above), but also that some parents deliberately delay vaccines (Attwell, 2019).

The contrast regarding herd immunity is quite stark with the French website. VIS dedicates a few pages to explaining the principle of herd immunity, how vaccines have benefited people, and each person's responsibility toward others. Yet these messages are much less present than on the Australian website. More importantly, whenever the subject of vaccination in general is broached on VIS, specific vaccines are evoked as examples. This is a significant difference from GTF. For instance, in one of the three videos posted on VIS's landing page, a doctor is asked questions about vaccination in general. He responds by speaking about a variety of specific vaccines. There are practically no paragraphs that only present an argument on vaccination as a principle, despite the richness of material on the website (comparable to 300 pages in a Word document). Instead, it is filled with references to a great number of vaccines and products contained in vaccines.

VIS is also much more oriented toward addressing common hesitations, which is evident in the great volume of content presented as Q&As about vaccine safety. Lengthy pages are dedicated to whether aluminium-based adjuvants are dangerous, whether the hepatitis B vaccine causes multiple sclerosis, whether multivalent vaccines are more dangerous than monodose vaccines, and most other vaccine-critical arguments that have surfaced in France over the past ten years. A whole section is devoted to the subject of adjuvants.

In comparison, GTF contains much less detail and little attempt to address specific misconceptions, instead reiterating that vaccines are tested and are safe. However, GTF does link to a PDF booklet named *Questions about vaccination* (Australian Government Department of Health, 2018), which addresses specific concerns not dealt with on the GTF website. *Questions about vaccination* replaced an earlier publication named *Myths and realities: responding to arguments about vaccination*

(Australian Government Department of Health and Aging, 2013). As the titles suggest, the older *Myths and realities* booklet presented myths that were then debunked, while the new booklet frames parents' concerns as general questions about vaccination. Research demonstrates that specifically challenging falsehoods about vaccination is relatively ineffective (Schmid and Betsch, 2019), and so this would suggest that the Australian government has improved its communication strategy. Still, the Australian website contains a striking lack of detail regarding specific and practicable information.

A third distinction between the two websites pertains to their treatment of each country's vaccination policies. Their tackling of this issue could not be more different. A significant portion of VIS tackles issues pertaining to trust in public health institutions more generally. Two whole subsections (as well as other pages in the Q&A section) are dedicated to the institutional processes leading to market authorisation and recommendation of vaccines, including that experts must declare their conflicts of interests. One page is dedicated to why recommendations change over time, and another is dedicated to how to assess the quality of the information found on the internet. A series of pages cover how and why the mandate extension was decided, with emphasis on the role of the citizen consultation set up in 2016, and implications for the population in terms of no-fault compensation for vaccine injuries.

By contrast, the Australian GTF site only refers to vaccination policies in a section called “Why Get Immunised.” Listed alongside “protect yourself” and the ubiquitous herd immunity invocations of “protect your community” and “help eradicate diseases” are baldly written descriptions – with no justification – of vaccine requirements for national entitlements and links to state-based childcare entry requirements. Framed here, mandates are just one more reason to vaccinate your child (i.e., because otherwise you will be punished). Further, on the “Protect your child from disease” and “How do I immunise my child?” pages, it is noted that “recommended” vaccines are funded through the National Immunisation Program. However, it is not explicitly stated that most “recommended” vaccines are mandatory, and it is not clear on the website which ones are. This striking difference in format leads us to our third main result.

## From Substance to Style

The third crucial difference between the two websites rests in the style of their communications. The French and Australian campaign websites each utilise very different modes of communication – high and low style respectively. Such different approaches to speaking to the public indicates divergent aims in constructing and appealing to those publics, as outlined above.

VIS is encyclopedic and defensive, taking the view that website visitors will be vaccine hesitant and in need of information, a view reinforced by one of our key informants:

“People who are against or for vaccination don't have this position based on rational arguments. They just tend to be, like, in favor based on family history ... so it's not rational. So we're trying to increase the level of

knowledge on vaccination, because we know that's the trigger toward adhesion [compliance]."

Because there is no attempt to divide visitors into target audiences, the site provides so much information that a visitor will surely find what they are looking for! Seeking to be exhaustive, VIS contains pages dedicated to twenty-four infectious diseases. Each includes a summary of the disease, scientific information on the vaccines available, who should be vaccinated and why; effectiveness and impact; trade names, price and reimbursement information; contraindications; side effects; prescription, delivery, availability, administration information; and links to further information. The website also contains detailed information on the history of vaccination, vaccination policy in France, vaccination goals, and the quality, safety, and efficacy of vaccines, as outlined above.

All this content is written in an objective manner, designed to inform without emotional persuasion, and to adhere to scientific knowledge. It is striking that when the site debunks the famous claims that the MMR vaccine causes autism, it formulates it as this link "having never been confirmed." This framing mirrors the way that scientific articles are written, rather than the common framing used by debunkers that the link has been proven non-existent. The paragraph also describes the latest study testing this link (how many children included in the study, for how long, whether at-risk children were included), as well as a reference to the irregularities in the original infamous Wakefield story. Even when it comes to debunking long-term hesitations within the community, then, VIS takes the "more is better" approach.

In comparison, GTF takes a decidedly "less is more" approach. It draws heavily on a narrative style of communication, using short, repetitive sentences with simple words. There is plenty of "space" and visual material. Pages on fifteen infectious diseases – the twelve mandatory vaccines as well as rotavirus, hepatitis A (recommended for Indigenous Australians) and influenza – contain disease information, symptoms, who is at risk, how it spreads, how to prevent infection, how to know if one has the disease, how to get treated, more information, and a contact list. Yet this information is much shorter and simpler than the comparable pages on VIS, and contains no specific information about vaccinations.

Also unlike VIS, GTF is designed to be highly emotive, largely driven by video content shared on social media, and reinforced over time after positive evaluations (Gardiner et al., 2017; French et al., 2018). Given the key message of GTF regarding vaccines protecting the community, the visceral emotion of bereaved parents is a prominent feature. In contrast, the French VIS website contains only a handful of videos containing either animation-based explanations or interviews with experts, and no personal testimonies.

Such differences can be partly accounted for by communication doctrines. The Australian Government enforces the use of a certain style of communication that is simple, clear, and "fast" (Australian Government Digital Transformation Agency, 2020). In France, as we have seen above, the INPES-SPF applies an alternative conception of

communication centered on education, empowerment, avoidance of stigma and recourse to emotions. While they also emphasise understandability, this communication strategy entails a balancing act that avoids oversimplification of information, but also forbids some of the most tried and tested communication strategies relying on emotions.

The style differences also reflect the institutional processes leading to each website's inception, and the role played by communication experts in these processes. As noted above, the impetus for VIS was to create a single website presenting all information relevant to vaccination. This logic, centered on completeness but also reliability, was reinforced by the heavy involvement of experts and scientific societies in constructing the content. This is explicitly stated in the website's press pack:

"To guarantee the reliability of the information provided, all the contents of the site have been developed and scientifically validated by institutional partners and experts in the fields concerned."

The fact that communication experts must comply with the heavy constraints imposed by medical experts is a feature of most campaigns at the INPES-SPF (Bouhal, 2019), but it has also been an issue for other agencies specialising in communication, such as the Service d'Information du Gouvernement during the 2009 pandemic flu campaign (Ward, 2015). The fact that this agency is under the direct authority of the Ministry via the Direction Générale de la Santé means that medical experts have the final say when it comes to their production, and communication expertise is given free rein to vet or simplify scientific communication only when a media agency is involved in producing content for the public. While this occurred for some of the ephemeral communications in France (see below), it did not happen for VIS.

By contrast, GTF was produced by a private media company with considerable input into its content, and with each phase evaluated by an external agency, learnings fed iteratively into the next one. Carbon Creative approached the Hughes family prior to pitching for the contract and asked if they could include them in the campaign, demonstrating the intent of using emotional resonance from the outset. The evaluations found these "personal stories" of bereaved parents to be highly motivating and credible (Gardiner et al., 2017), and "the strongest aspect and emotional core of the Campaign" (French et al., 2018), and so, with encouragement from McCaffery as mentioned earlier, more were added and shared on social media. The large budget invested into these exercises reflects a continued commitment to using evaluations and external communications expertise to craft a motivational message. In direct contrast to France, one of our Australian informants explained that technical experts only reviewed the content of GTF to ensure it was factually correct. These experts deferred to the style guide and remit of communications experts, including those from the private sector, regarding them as having special skills in constructing understandable messages.

The VIS website, unlike GTF, has not had a long and iterative communication life, although it continues to exist for those who

search for vaccine information in France. The main transformations occurred between 2016 and the end of 2017, when much content was added during European Vaccination Week and in the lead up to the new mandate. (The additional communication effort was then put in designing a website for health professionals in 2018). SPF's main assessment of VIS's efficacy involves following the traffic on the website. Ongoing engagement was therefore much less extensive when compared to Australia, but does not necessarily reflect less expertise. SPF's website developers conducted focus groups with key audiences, and the institution also made use of a media agency they keep on retainer in developing and executing the social media influencer strategy. This strategy also drew on research indicating that this would be an effective way to reach poorer French parents with lower qualifications who engaged with blogs and lifestyle websites. French authorities have analysed the impact of these communication tools deployed with the new mandates: assessing the reach of the influencers that SPF paid to attend a seminar on mandatory vaccination in 2018, and the impact of the videos that the Ministry of Health commissioned two prominent debunkers to produce. The distinction between the two countries mainly reflects the resources at their disposal. While they had different levels of funding and assessment, both campaigns demonstrate a need to continually manufacture consent for vaccination for new audiences over time, which is particularly significant for ephemeral social media content such as the use of influencers in France, but also a feature of some Australian campaign materials.

## DISCUSSION AND CONCLUSION

This article has compared the communication campaigns that French and Australian authorities instigated to support their new, restrictive mandatory vaccination regimes. We have demonstrated similarities and differences across three key domains: governance, problem construction and message framing, and communication style. Regarding governance, we demonstrated three possible readings of the relationship between mandates and the communication campaign in each country – mandates *enable* communications, mandates *cause* communications, and mandates *are* communications. Regarding problem construction, we demonstrated how data on undervaccination in France, informed by cultural avoidance of social categories, lent itself to regarding hesitancy as the problem, while in Australia, more robust and diverse data in the hands of motivated researchers painted a complex picture of the social determinants of undervaccination. These understandings of the undervaccination problem fed into one communication campaign that exhaustively tackled vaccine hesitancy (France), and another that addressed multiple reasons for non-vaccination with a strong focus on vaccination's collective benefits (Australia). Each website also reflected the challenges and opportunities faced in each country. For instance, the French site responded to critiques of adjuvants and scares regarding specific vaccines, while the Australian site emphasised the importance of vaccinating on time, since late

vaccination threatens herd immunity. These framings also reflect differences in the institutional processes leading to their inception, their complexity: the various agents, networks and behaviors, involved in their inception.

In what follows, we develop three key considerations arising from our analysis. First, we reflect upon the approach taken by both websites in light of the deficit model of communication. Second, we theorise the notion of “manufacturing consent” for vaccination and mandates. Finally, we consider the normative implications of governments communicating about vaccination in the context of restrictive mandates and offer some key lessons for the future.

## Deficit Models and Deficient Communication

The issue of how to get the public to hold scientifically accurate beliefs and act accordingly has been an object of much academic debate for the past 30 years. This debate has largely centered on the “deficit model” of explaining and communicating on scientific issues. The “deficit model,” when applied to vaccination behaviors, usually explains public doubts as people's misunderstanding or lack of knowledge on this issue, which should be tackled by providing more scientific information (Goldenberg, 2016). This model has been the object of two distinct forms of criticism. First, providing information is not enough to change people's beliefs, as people's spontaneous treatment of information is plagued by a variety of cognitive biases which prevents them from reaching the correct conclusions. To overcome this, communicators can make these biases work in favor of vaccination, or double down by trying to educate the public about the types of errors it spontaneously makes. The debunking of common misconceptions about vaccination is one form of this approach. The second criticism of the deficit model emphasises that scientific belief is not only about the understanding of scientific information, but is also (and mostly) about trust in the people who provide it, as well as moral and political judgment on the implications of scientific discoveries. In the case of vaccination, this has meant highlighting how vaccination behaviors reflect the levels of trust in health providers and in public health authorities (Dubé et al., 2013). For instance, much doubt about vaccination programs is based on the idea that official recommendations can reflect economic and political interests (Attwell et al., 2017).

GTF and VIS present very different solutions to this classical problem of scientific information. Both provide a lot of scientific content, but the likelihood that a user will come across it is very different. On GTF, most scientific content is located in the *Questions about vaccination* PDF, only accessible on the landing page and framed as a resource for those who have questions the site cannot answer. For the core of the website, creators have clearly opted for persuasion based on emotional communication and simple messages. This is likely to be effective for the majority, but runs the risk of antagonising some hesitants who may feel that they are being infantilised. As bereaved parent

Toni McCaffery describes, “we need to respect parents that have questions and address those questions with facts, explain what vaccination is and how it works...we need to protect them from misinformation.” Such an attitude avoids treating questions about vaccination as deviant, which is laudable, but may be perceived as paternalistic. As another bereaved parent, Catherine Hughes, points out, even the name of the campaign can be “a bit insulting to parents . . . because it insinuates that you don’t have the facts.” In addition to this emotional reaction, people coming to GTF with common hesitations concerning a specific vaccine or a substance contained in a vaccine might be frustrated at not finding answers easily.

In comparison, VIS proposes a very different balance between information and persuasion. Creators have clearly strived to make the content as understandable as possible, designing pathways so that people can find their desired information in just a few clicks. The website nevertheless presents an overwhelming quantity of scientific information. It emphasises common hesitations much more than GTF, evident in content on the safety of adjuvants presented on the landing page. As we have seen, this relates to several institutional factors that presided over the inception of both websites. For VIS, the goal of creating a website containing *all* information that could be useful to *all* members of the public seems to have pushed this logic even further. However, the high level of scientific detail on the website presupposes that everyone has mastery over the French language and is comfortable enough with written material to decipher scientific jargon and statistical abstraction. Moreover, such a strategy is risky, as research has found that drawing people’s attention to myths, even to debunk them, can suggest on a deep unconscious level that there *is* a real risk (Schmid and Betsch, 2019). While GTF may come across as infantilising due to its promise to provide facts but its actual provision of statements, the incredibly detailed information on VIS may alienate or even cue hesitancy in some audiences.

Another crucial difference between the two websites relates to the issue of trust-building. VIS presents ample content on market authorisations, pharmacovigilance, the role of pharmaceutical companies in this process, etc. This emphasis on institutions to build trust clearly responds to the rise of vaccine hesitancy in the period leading up to the creation of VIS and the new mandates, with vaccine critics questioning the independence of authorities. By contrast, GTF contains little information on this issue, only at times mentioning AusVaxSafety (a government-funded system that monitors the safety of vaccines distributed in Australia). Unfortunately, since the effect of these discourses on the public has not been measured, we cannot comment on the efficacy of either approach. Do texts written by public health authorities defending their own probity convince doubters? The question remains open.

This difference of emphasis on institutional processes can also be seen when it comes to the information provided on vaccine mandates themselves. VIS presents descriptions of the process leading to the mandate extension as well as the justifications for this extension, while GTF does not. This leads us to our next consideration of how consent is manufactured, not only for vaccination but also for mandates.

## Manufacturing Consent

Our introduction posited that while communications campaigns manufacture consent for vaccination, which is the theory that McCoy (2019) proposed, communications in the context of a restrictive mandate may also seek to manufacture consent for the *mandatory policy itself*.

When it comes to manufacturing consent for vaccination, our case studies demonstrate how local pressures generate specific talking points and styles as governments pursue population level compliance with a governance goal (acceptance of vaccines to protect public health). For instance, due to previous scares, the French campaign uses scientific language to convince the audience that specific vaccines are safe for oneself, emphasising institutional processes. By contrast, the Australian campaign eschews detailed information in favor of addressing key sub-groups, using emotion to persuade the audience that the practice of vaccination prevents harm to others.

This second feature of the Australian approach integrates the manufacturing of consent for vaccination with the manufacturing of consent for the mandate itself. Frequent invocations of herd immunity emphasise the deliberate choices of vaccine refusers and render them deviant. By orienting the population’s hearts and minds toward the collective benefits vaccination provides, the website and associated communications elicit the vaccinating mainstream’s tacit or active support for imposing consequences on those who choose not to participate.

This is strikingly different from the French approach to manufacturing consent for the mandatory policy. While the Australian model emotively invokes a scientific construct (herd immunity) through visceral video content to get people on board with vaccines being mandatory, the French approach replicates the detached and verbose model of the rest of the website. Here, vaccinations are not only mandatory because epidemics are resurgent. Vaccines are mandatory in France also because technical experts and deeply consulted citizens decided that they should be, through a clearly-laid-out process. This interpretation was also reinforced by the key informant who saw France’s communication’s campaign as needing to explain the rationale for mandates. Such transparency regarding the policy is completely lacking on the Australian website, which does not even clearly explain which “recommended” vaccines are mandatory, or why. The pro-social messaging of herd immunity sways the audience toward an implicit endorsement of mandates without ever explaining why such a policy is justifiable on civic grounds. Such engagement would likely breach the “style guide” and perhaps the intent of the campaign.

## Where to From Here?

Based on our analysis of France’s Vaccination-Info-Service and Australia’s Get the Facts campaigns, we draw several conclusions regarding optimal methods of manufacturing consent for vaccine mandates, and more broadly, why manufacturing consent is an important step *before* mandating vaccines.

First, communication to persuade the public on the importance of vaccination should ideally occur *before* restrictive vaccine mandates are implemented. If communication is effective it can manufacture sufficient levels

of consent for vaccination, which may mean that there is no need to implement mandates to attain sufficient levels of coverage. This can then avoid some of the concerns and pitfalls related to this policy option (Navin and Attwell, 2019; Omer et al., 2019). None of the countries that recently introduced mandates invested substantially in communications prior to doing so, instead only escalating communications afterward. It is certainly “better late than never,” and as we have explored in this article, there are strong reasons to accompany mandates with communications. However, it would be optimal to persuade populations *before* coercing them.

Our second recommendation refers to the communications themselves. When producing communications to manufacture consent for mandates, should governments adopt the Australian or French model? There are pros and cons for each. One particularly commendable element of VIS is the extensive explanation on why the government decided upon the mandate, and how this decision was made. This strategy is ethical because it addresses trust in institutions and provides transparency in government decisions. The website also addresses some possible consequences of the mandate, such as stating that people who experience side effects from vaccinations will be compensated. However, as noted throughout this paper, VIS contains an immense amount of information which, alongside its style, can impede effective communication to the public. One can imagine a middle ground between GTF and VIS, where specific information is present but not necessarily everything that is known about vaccination.

In comparison to VIS, GTF appeals to emotion in utilising the scientific construct of herd immunity to manufacture consent for both vaccines and the mandate. This approach was effective and evocative for users. However, a distinct lack of specific information, including regarding which vaccines are mandatory, may fail to instill trust in government processes and reasoning, particularly when a site hails parents to “Get the Facts!” Campaign evaluations illustrate that the GTF website did not meet about a third of visitors’ expectations, as they sought for information on specific vaccines or vaccine preventable diseases during Phase One (Gardiner et al., 2017), and information on the flu vaccine, areas of low immunisation rates, where to get vaccinated, and some guidance on how to approach someone who does not support vaccination during Phase Two (Ffrench et al., 2018). The GTF brochures have also been met with criticism, with Catherine Hughes, who featured in a GTF “Personal Story” video, describing the resources as “unappealing and unpopular” at the pregnancy and baby expos where she conducts her vaccine advocacy work, describing them as lacking “content relevant to anyone,” “empty,” and “devoid.” A possible related risk to insufficient information provision is parents’ subsequent searching for further information. While the Phase Three evaluation found that 35% of people in geo-targeted areas were likely to visit the GTF website for more information on immunisation, 39% “searched online for more information on childhood immunisation” (Hall and Partners, 2019). Although we cannot draw too much from this data, it is possible that some people in the latter group, having not found the information they wanted on the GTF website, may find misinformation elsewhere.

As for the effectiveness of the campaigns in manufacturing consent for vaccines and mandates, it is difficult to tease out their

impact given that, as for most interventions happening in environments marked by complexity (Braithwaite et al., 2017) they were wrapped up in a range of interventions which were successful in lifting coverage rates (Attwell et al., 2020). There was no attempt to record public sentiment toward a vaccination mandate prior to its implementation in Australia, and, in France, differences in study methodology makes it difficult to diagnose evolution. A study conducted in 2006 showed that 56.5% of the French population supported a general mandate and 35.4% a selective mandate, while 7.1% rejected any form of coercion (Nicolay et al., 2006). A study conducted in 2011 found that 26% of respondents were against the mandates in place at the time (Boy, 2012). Data from after the implementation of the French mandate suggest that 67% of parents support the mandate extension (Santé Publique France, 2019). This overall support of the new legal framework was also found in Australia, with 85% support (Smith et al., 2020). Strong movements of resistance did not appear in either case.

It is possible that the higher support for the mandate in Australia means that GTF and the associated public communications proved more successful in manufacturing consent for the mandate than the exhaustive and transparent French approach. However, as we have indicated, French authorities were always facing a population more hesitant and critical than the Australian public when it came to vaccination, perhaps in part because they eschewed or were restrained from extolling its benefits for many years.

In sum, manufacturing consent for mandatory vaccination does not just consist of convincing people to vaccinate, or providing the related legal information, but can involve either emotional persuasion or appeals to civic rationalities in imposing the behavior on the population. Rather than viewing government communications as simply the best way to *persuade* the public, it is important to acknowledge that such communications are important on a citizenship level as well. Although transparency (as a component of the second approach) is not necessarily the most effective communication strategy, the GTF website lacks substantial explicit justification as to why the mandate is necessary. VIS’s “education to health” ethos, in comparison, provides the public with the tools they need to make decisions, without simplifying the message, but risks being incomprehensible or cuing hesitancy in its attempt to be exhaustive. It is likely that an optimal communication strategy for manufacturing consent for both vaccination and mandates would lie somewhere between the two.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/Supplementary Material, further inquiries can be directed to the corresponding author.

## AUTHOR CONTRIBUTIONS

KA conceptualised the research project with JW, conducted the key informant interviews, and led the research and writing

process. JW was the primary coder for the French data, conceptualised the research project with KA, and contributed to writing and editing the manuscript. ST was the primary coder for the Australian data and contributed to writing and editing the manuscript.

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