

Table S1. Summary table of the factors associated with hesitancy or acceptance of COVID-19 vaccines.

First Author/ Year of Publication	Hesitancy (-) or Acceptance (+) of COVID-19 vaccine	Socio-demographics Shaping public Attitude towards COVID-19 Vaccine	Individual Factors Shaping Public Attitude Towards COVID-19 Vaccine	Social Networks and Organizational Factors (Family, Friends, HC Providers, Employers) and Media Shaping Public Attitude towards COVID-19 Vaccine	Characteristics of COVID-19 Vaccine Shaping Public Attitude towards COVID-19 Vaccine
Chen, T.E. 2021 [23]	+	-High education level -Increasing age		-Type of messages received, and message frames -Outcome uncertainty -Number format -Numeracy skills	
Chen, M.S. 2020 [24]	+	-Male gender -High income -Education level -The Han nationality	-Confidence, satisfaction and worry about risks. -Attention to relevant COVID-19 information -Perceived views of the severity of COVID-19 disease -Degree of concern regarding the COVID-19 pandemic		-If domestic vaccine and not imported vaccine
Lazarus, J. V. 2020 [25]	+	-Age older than 25 -Male gender -High income -High education level -Sick people or sick family members	-Trust in government.	-Accept their employer's recommendation to do so	-Vaccine approved safe and effective by the government
Bell, S. 2020 [26]	-	-Black, Asian, Chinese, Mixed or other ethnicity -Low income			
Coustasse, A. 2020 [27]	+	-60 years and older -Non-Hispanics Whites			-Effectiveness estimate of the vaccine

	+/-	<ul style="list-style-type: none"> -High education level -High income 			<ul style="list-style-type: none"> -Safety based on its newness and adverse effects -Lack of testing -Time frame for a vaccine -Who will have access to it -Cost to consumers, -How states and the federal government will determine vaccination methods -Catching COVID-19 from the shot -Fear side effects from an untested vaccine
Al-Mohaithef, M. 2020 [28]	-	<ul style="list-style-type: none"> -Older age -Being married -High education level -Non-Saudi -Employed in government sector 			
Robles, AS. 2020 [29]	+	<ul style="list-style-type: none"> -Age, -Ethnicity -Chronic disease -Education level -Employment status -Country 			<ul style="list-style-type: none"> -Perception of efficacy, safety, and adverse effects of vaccine, -Source of information -Conspiracy theory -Reactance and outrage to new information.
Wang, J. 2020 [30]	+	<ul style="list-style-type: none"> -Male gender -Being married 	<ul style="list-style-type: none"> -Perceiving a high risk of infection -Being vaccinated against influenza in the past season 	<ul style="list-style-type: none"> -Value doctor's recommendations 	<ul style="list-style-type: none"> -The efficacy of COVID-19 vaccination -Concerns about vaccine safety
	+/-				

	+			<ul style="list-style-type: none"> -Newness of COVID-19 vaccines -Inadequate information -Unknown/short duration of immunity -Cost -Country of vaccine origin -Fear of side effects, safety, and effectiveness
Lin, C. 2021 [31]		<ul style="list-style-type: none"> -College degrees -Income, -Insurance, -Living in rural or larger areas -Gender -Race. 	<ul style="list-style-type: none"> -Belief that vaccines are unnecessary -Inadequate information, -General anti-vaccine stand -Willingness to pay. 	
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		Irish sample vaccine hesitant <ul style="list-style-type: none"> -Female gender -Aged between 35 and 44 years, -Have no mental health problem. 		
		Irish sample vaccine resistant <ul style="list-style-type: none"> -Aged 35–44 years -Residing in a city -Non-Irish ethnicity -Lower income -Have an underlying health condition 	<ul style="list-style-type: none"> -Irish sample, more likely to have voted for the political party Sinn Féin or an independent political in the previous general election. 	
Murphy, J. 2021 [32]	-			
		UK sample vaccine hesitant <ul style="list-style-type: none"> -Female gender -Younger than 65 		
		UK sample vaccine resistant <ul style="list-style-type: none"> -Age younger -More likely to reside in a suburb -In the three lowest income brackets -Being pregnant 		
Akarsu, B. 2020 [33]	-	<ul style="list-style-type: none"> -Female gender -Unemployed 	<ul style="list-style-type: none"> -“Afraid of the side effects of vaccine” 	

		<ul style="list-style-type: none"> -Have SSI or private health insurance -Have children -Those who were thinking about getting their child COVID-19 vaccine were more willing to get vaccinated. -High level of education 	<ul style="list-style-type: none"> -“Don't think it can be reliable as it will be a new vaccine” -“COVID-19 infection is a biological weapon -“The vaccine will serve those who produce this virus” -Got seasonal flu vaccine -High level of anxiety
	+		
Seale, H. 2021 [34]	+	<ul style="list-style-type: none"> -Female gender. -Ged 70 years and above -Reported chronic disease -Held private health insurance. 	-Decision to vaccinate would be supported by family and friends.
Hursh, S.R. 2020 [35]	-	-Male gender	-Greater conspiracy beliefs and political conservatism
Biasio, L.R. 2020 [36]	Attitudes to a COVID-19 vaccine		-Health literacy
Kourlaba, G. 2021 [37]	+	<ul style="list-style-type: none"> -Aged > 65 years old -Those who either they or a member of their household belonged to a vulnerable group. 	<ul style="list-style-type: none"> -Those believing that the COVID-19 virus was not developed in laboratories by humans -Those believing that coronavirus is far more contagious and lethal compared to the H1N1 virus -Those believing that next waves are coming -Higher knowledge score re-

			garding symptoms, transmission routes and prevention and control measures against COVID-19.	
Fisher, K. 2020 [38]	-	-Young age -Black race -Low educational attainment.	-Vaccine-specific concerns -A need for more information -General anti-vaccine beliefs -A lack of trust.	-Vaccine-specific concerns -A need for more information.
Guidry, J. P.D. 2021 [39]	+	-Education -Having insurance -Age -Race/ethnicity	-Positive subjective norms -A positive attitude toward the vaccines in general -Perceived susceptibility to COVID-19 -High perceived benefits of the vaccine -Scoring low on barriers to the vaccine -Scoring high on self-efficacy - High perceived behavioral control.	
Jung, H. 2020 [40]	+		Prosocial concern for vaccination motivates vaccination in more and less populated regions	
Popa, G.L. 2020 [41]	-		-Lack of information -Fear of adverse reactions -Fears of toxicity and poor quality related to vaccine components -Doubts about the technology used to produce the vaccine. -Personal reasons to refuse vaccines (which included religious conviction)	-Disinformation (through classic media, social media and the Internet) -Fear of adverse reactions -Fear of toxicity and poor quality related to vaccine components -Doubts about the technology used to produce the vaccine -Price.

			-Lack of trust in the healthcare system.	
Detoc, M. 2020 [42]	+	-Older age, -Male gender	Fear about COVID-19, and individual perceived risk	
Prati, G. 2021 [43]	-	Attitudes to a COVID-19 vaccine	-Being worried about the non-natural origin of the virus, and the role of institutional trust	
Marco-Franco, J. E. 2021[44]	-			Worry about the side effects, safety and effectiveness of vaccine.
Caserotti, M. 2021 [45]	+		-Likelihood of getting the infection -Perceived severity for the disease.	
Bogart, L.M. 2021 [46]	+			-Social service and health care providers
Alley, S.J. 2021 [47]	-	-Low education -Female gender.		-Infrequent users of traditional media
Puri, N. 2020 [48]	-			-Anti vaccination messages on social platforms.
Reiter, P.L. 2020 [49]	+		-Likelihood getting a COVID-19 infection in the future, -Perceived severity of COVID-19 infection	-Healthcare provider would recommend vaccination -Effectiveness of a COVID-19 vaccine
Feleszko, W. 2021 [50]	+			-Recommended by a family doctor -Someone from /family/friends was vaccinated

			-Need a vaccination certificate to enter some countries	
Danchin, M. 2020 [51]	-	<ul style="list-style-type: none"> -Low education -Low income -Potentially more prone to infectious diseases -Women aged <35 years -People aged >75 years, who are at higher risk of disease from COVID-19. 	-Adequate health literacy.	-Vaccine safety and effectiveness.
Harapan, H. 2020 [52]	+		- Perceived risk of COVID-19 infection	-The baseline effectiveness of the vaccine.
Lin, Y. 2020 [53]	+	-Self-employed and in a service occupation	<ul style="list-style-type: none"> -Perceived overall health as very good -Perceived the benefit of feeling less worry of contracting the coronavirus after getting the vaccine, -Perceived the benefit of the COVID-19 vaccine in reducing the risk of infection and resultant complications. -If given adequate information and if taken by many in the public. 	<ul style="list-style-type: none"> -Concerns about faulty/fake vaccine, -Affordability and high price, -Safety and efficacy. -Confidence and preference of domestically-made vaccines
Williams, L. 2020 [54]	+	<ul style="list-style-type: none"> -White ethnicity -High education level -High income -High-risk/shielding 	<ul style="list-style-type: none"> COVID-19 will persist over time, -Perceiving the media to have over-exaggerated the risk. -The 'beliefs about consequences' TDF domain, with 	-Personal concerns of vaccine safety.

	Attitudes to a COVID-19 vaccine		themes relating to personal health, health consequences to others, and severity of COVID-19.	
Yin, F. 2021 [55]	+			-Majority thought price in- expensive -Positive views on side ef- fects -Information about inacti- vated vaccines (inactivated vaccines are more ac- cepted)
Alqudeimat, Y. 2021 [56]	+ -	-Male gender	-Likelihood of infection, -Viewed vaccines in general to have health-related risks	
Sallam, M. 2021 [57]	+ -	-Male gender -High education levels, -History of chronic disease	-Beliefs that COVID-19 vac- cines are intended to inject microchips into recipients and that the vaccines are related to infertility	
Wong, L.P. 2020 [58]	+	-Higher education levels -Professional and managerial oc- cupations -High income		
Nguyen, K.H. 2020 [59]	-	-Young adults -Female gender -Non-Hispanic Black (Black) per- sons		

		-Adults living in nonmetropolitan areas, -Adults with lower educational attainment, -Low income -No health insurance		
Wang, K.L. 2021 [60]	+	-Young age -Male gender -Being married	-Influenza vaccine uptake last year	effectiveness -Thought of vaccine as unnecessary -More accepted in the first wave compared to third wave
	-			
Largent, E.A. 2020 [61]	+	-Non-Black respondents to get vaccinated, 40.9% of respondents found state -Respondents with a bachelor's degree or higher	-Republicans and Independents were less likely to get vaccinated than Democrats.	
	-			
LaVecchia, K. 2020 [62]	+		-Age above 55. -Workers, professionals, managers, teachers and manual workers.	
Ward, J.K. 2020 [63]	Attitudes to a COVID-19 vaccine		-Political partisanship and engagement with the political system	
Romer, D. 2020 [64]	-		-Belief in three COVID-19-related conspiracy theories.	

<p>Sherman, S.M. 2020 [65]</p> <p>+</p>		<ul style="list-style-type: none"> -Having been vaccinated for influenza last winter -Perceiving a great risk of COVID-19 -Positive general COVID-19 vaccination beliefs and attitudes -Weak beliefs that the vaccination would cause side effects -Greater perceived information sufficiency to make an informed decision about COVID-19 vaccination. -Lower endorsement of the notion that only people who are at risk of serious illness should be vaccinated for COVID-19
<p>McCaffery, K.J. 2020 [66]</p> <p>-</p>		<ul style="list-style-type: none"> -Beliefs and misinformation about COVID-19/ vaccine, -Inadequate health literacy.
<p>Pogue, K. 2020 [67]</p> <p>+</p>		<ul style="list-style-type: none"> -Respondents who routinely got vaccines were more likely to be receptive to receiving the COVID-19 vaccine. -The greater the perceived impact of COVID-19 on America, the more receptive the respondent was to receive a potential COVID-19 vaccine.

Taylor, S. 2020 [68]	-	<ul style="list-style-type: none"> -Mistrust of vaccine benefit -Worry about unforeseen future negative effects -Concerns about commercial profiteering -Preference for natural immunity
Reuben, R. C. 2020 [69]	-	No confidence in the present intervention by Chinese doctors
Corpuz, R. 2020 [70]	+	<ul style="list-style-type: none"> -Those exhibiting a slow life history orientation were more likely to endorse mandatory vaccination for COVID-19. -Social and political conservatism
Bertin, P. 2020 [71]	-	-Covid-19 conspiracy beliefs
Ling, R. 2020 [72]	-	-Confirmation bias, consume only news that confirms our pre-existing attitudes and beliefs.
Dube, E. 2020 [73]	-	<ul style="list-style-type: none"> The vaccine development is being pushed -COVID-19 vaccine antigen carrying platforms have never been used -The production of new COVID-19 vaccines will not meet demand -Conspiracy theories -More than one type of COVID vaccine is likely to

be used within a country.
Thus, the safety and efficacy profiles may vary.
