

1 **Supplementary Figure 1: Level of trust in information sources for each of the COVID-19 vaccine intention group**



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3 Data presented show the level of trust among the three the COVID-19 vaccine intention groups. The Likert scale was treated as a continuous variable, ranging from zero

4 (not at all) to three (extremely), which allowed for the calculation of the mean and standard errors of the scores for each source. Error bars present the 95% confidence

5 intervals of these means. Exact values are presented in Supplementary Table 3.

1 **Supplementary Table1: Health-related and psychological characteristics of the study participants by three COVID-**

2 **19 vaccine intention groups**

	Yes N = 16869	Not sure N = 9874	No N = 3310	P-value	Total N = 30053
<b>Health-related characteristics, including health literacy</b>					
Self-reported health status (SA)				<0.001	
Very good	5008 (29.7)	2586 (26.2)	1075 (32.5)		8669 (28.8)
Good	5423 (32.1)	2813 (28.5)	875 (26.4)		9111 (30.3)
Fair	4528 (26.8)	3103 (31.4)	921 (27.8)		8552 (28.5)
Poor	1620 (9.6)	1087 (11.0)	324 (9.8)		3031 (10.1)
Very poor	290 (1.7)	285 (2.9)	115 (3.5)		690 (2.3)
Have you ever received a COVID-19 test? (MA)					
No	15313 (90.8)	9123 (92.4)	3000 (90.6)	<0.001	27436 (91.3)
Yes – PCR test	1078 (6.4)	459 (4.6)	153 (4.6)	<0.001	1690 (5.6)
Yes – antigen test	222 (1.3)	79 (0.8)	51 (1.5)	<0.001	352 (1.2)
Yes – antibody testing	203 (1.2)	79 (0.8)	31 (0.9)	0.006	313 (1.0)
Yes – unsure about either of the three	188 (1.1)	182 (1.8)	89 (2.7)	<0.001	459 (1.5)
Presence of underlying diseases (e.g. diabetes, heart failure, respiratory disease, COPD, etc., or on dialysis, or using immunosuppressive or anticancer drugs) (SA)	14158 (83.9)	8913 (90.3)	3005 (90.8)	<0.001	26076 (86.8)
Living with family members who are elderly or have underlying diseases (SA)	13720 (81.3)	8525 (86.3)	2931 (88.5)	<0.001	25176 (83.8)
Preventive measures against COVID-19 (MA)					
Avoid going to places with poor ventilation	9389 (55.7)	4691 (47.5)	1289 (38.9)	<0.001	15369 (51.1)
Avoid going to places where there are many people gathered	13812 (81.9)	7309 (74.0)	1980 (59.8)	<0.001	23101 (76.9)
Avoiding talking or speaking in close proximity to other people	9566 (56.7)	4656 (47.2)	1237 (37.4)	<0.001	15459 (51.4)
Washing hands, gargling, and hand disinfection with alcohol.	14411 (85.4)	7714 (78.1)	2036 (61.5)	<0.001	24161 (80.4)
Etiquette (masks, handkerchiefs, etc.) in case of coughing or sneezing	12205 (72.4)	6447 (65.3)	1673 (50.5)	<0.001	20325 (67.6)
Telework	1437 (8.5)	701 (7.1)	257 (7.8)	<0.001	2395 (8.0)
Be conscious of social distancing	8638 (51.2)	4151 (42.0)	1069 (32.3)	<0.001	13858 (46.1)
Avoid going out unnecessarily.	11598 (68.8)	5964 (60.4)	1416 (42.8)	<0.001	18978 (63.1)
Other preventive measures	460 (2.7)	333 (3.4)	120 (3.6)	0.001	913 (3.0)
No preventive measures	368 (2.2)	602 (6.1)	462 (14.0)	<0.001	1432 (4.8)
Has anyone close to you ever been infected with COVID-19? (MA)					
Family or friends	628 (3.7)	242 (2.5)	100 (3.0)	<0.001	970 (3.2)
Colleagues at work	851 (5.0)	429 (4.3)	198 (6.0)	<0.001	1478 (4.9)
No/I don't know.	15453 (91.6)	9224 (93.4)	3016 (91.1)	<0.001	27693 (92.1)
Have you ever refrained from visiting a medical institution because you were anxious about being infected by the new coronavirus? (MA)					
Have refrained from regular hospital visits	2744 (16.3)	1217 (12.3)	357 (10.8)	<0.001	4318 (14.4)
Have refrained from visiting the hospital for sudden symptoms such as a cold, headache, or stomachache	1584 (9.4)	931 (9.4)	274 (8.3)	0.108	2789 (9.3)
Have refrained from medical checkups, physical examinations, or cancer screenings	1929 (11.4)	901 (9.1)	252 (7.6)	<0.001	3082 (10.3)
Have refrained from other medical examinations	1612 (9.6)	1015 (10.3)	319 (9.6)	0.149	2946 (9.8)
No	10425 (61.8)	6534 (66.2)	2311 (69.8)	<0.001	19270 (64.1)
How confident are you filling out medical forms by yourself? (health literacy) (SA)				<0.001	
Not at all	182 (1.1)	155 (1.6)	109 (3.3)		446 (1.5)
A little bit	645 (3.8)	504 (5.1)	250 (7.6)		1399 (4.7)
Somewhat	3128 (18.5)	2896 (29.3)	898 (27.1)		6922 (23.0)
Extremely	7814 (46.3)	4089 (41.4)	1150 (34.7)		13053 (43.4)
Quite a bit	5100 (30.2)	2230 (22.6)	903 (27.3)		8233 (27.4)

<b>Psychological characteristics</b>				
How anxious are you about COVID-19? (SA) – perceived risks of COVID-19				<0.001
Not at all anxious	951 (5.6)	735 (7.4)	878 (26.5)	2564 (8.5)
Vaguely anxious	10331 (61.2)	6317 (64.0)	1638 (49.5)	18286 (60.8)
Have a clear sense of anxiety	4560 (27.0)	2060 (20.9)	507 (15.3)	7127 (23.7)
Feel fear and have anxiety	1027 (6.1)	762 (7.7)	287 (8.7)	2076 (6.9)
What is your best guess as to whether you will get COVID-19 within the next 6 months? (SA) – perceived risks of COVID-19				<0.001
I don't think I will get COVID-19	9271 (55.0)	5279 (53.5)	1951 (58.9)	16501 (54.9)
I think I will get a mild case of COVID-19	5379 (31.9)	3279 (33.2)	962 (29.1)	9620 (32.0)
I think I will get seriously ill from COVID-19	2153 (12.8)	1158 (11.7)	323 (9.8)	3634 (12.1)
I have already had COVID-19	66 (0.4)	158 (1.6)	74 (2.2)	298 (1.0)
How do you think the disadvantages of the COVID-19 vaccine are? (SA) – perceived risks of a COVID-19 vaccine				<0.001
Very small	2275 (13.5)	150 (1.5)	99 (3.0)	2524 (8.4)
Small	7843 (46.5)	1684 (17.1)	373 (11.3)	9900 (32.9)
Medium	5327 (31.6)	6425 (65.1)	1651 (49.9)	13403 (44.6)
Large	1214 (7.2)	1388 (14.1)	774 (23.4)	3376 (11.2)
Very large	210 (1.2)	227 (2.3)	413 (12.5)	850 (2.8)
How do you feel are the benefits of the COVID-19 vaccine? (SA) – perceived benefits of a COVID-19 vaccine				<0.001
Very small	275 (1.6)	117 (1.2)	443 (13.4)	835 (2.8)
Small	783 (4.6)	627 (6.4)	598 (18.1)	2008 (6.7)
Medium	2674 (15.9)	5333 (54.0)	1646 (49.7)	9653 (32.1)
Large	10417 (61.8)	3493 (35.4)	517 (15.6)	14427 (48.0)
Very large	2720 (16.1)	304 (3.1)	106 (3.2)	3130 (10.4)
Do you think getting a COVID-19 vaccine will ease your anxiety? (SA) – perceived benefits of a COVID-19 vaccine				<0.001
Strongly disagree	159 (0.9)	353 (.6)	850 (25.7)	1362 (4.5)
Disagree	1360 (8.1)	2195 (22.2)	1046 (31.6)	4601 (15.3)
Neither agree nor disagree	4116 (24.4)	4978 (50.4)	1066 (32.2)	10160 (33.8)
Agree	9979 (59.2)	2240 (22.7)	313 (9.5)	12532 (41.7)
Strongly agree	1255 (7.4)	108 (1.1)	35 (1.1)	1398 (4.7)
If others have been vaccinated against COVID-19, do you think you should be vaccinated as well? (SA) – perceived norms about a COVID-19 vaccine				<0.001
Strongly disagree	136 (0.8)	147 (1.5)	889 (26.9)	1172 (3.9)
Disagree	665 (3.9)	1255 (12.7)	1136 (34.3)	3056 (10.2)
Neither agree nor disagree	2346 (13.9)	5462 (55.3)	1063 (32.1)	8871 (29.5)
Agree	10150 (60.2)	2891 (29.3)	194 (5.9)	13235 (44.0)
Strongly agree	3572 (21.2)	119 (1.2)	28 (0.8)	3719 (12.4)
Do you trust scientists in the field of vaccine development for COVID-19? (SA) – trusts about COVID-19 vaccine				<0.001
Strongly distrust	74 (0.4)	117 (1.2)	439 (13.3)	630 (2.1)
Distrust	409 (2.4)	705 (7.1)	653 (19.7)	1767 (5.9)
Neutral	4007 (23.8)	5935 (60.1)	1640 (49.5)	11582 (38.5)
Trust	11236 (66.6)	2982 (30.2)	533 (16.1)	14751 (49.1)
Strongly trust	1143 (6.8)	135 (1.4)	45 (1.4)	1323 (4.4)
Do you trust the public authorities to approve vaccines for COVID-19? (SA) – trusts about COVID-19 vaccine				<0.001
Strongly distrust	125 (0.7)	286 (2.9)	639 (19.3)	1050 (3.5)
Distrust	768 (4.6)	1414 (14.3)	838 (25.3)	3020 (10.0)
Neutral	4884 (29.0)	5804 (58.8)	1407 (42.5)	12095 (40.2)
Trust	10265 (60.9)	2267 (23.0)	392 (11.8)	12924 (43.0)
Strongly trust	827 (4.9)	103 (1.0)	34 (1.0)	964 (3.2)

Do you trust your healthcare provider about vaccination against COVID-19? (SA) – trusts about COVID-19 vaccine				<0.001
Strongly distrust	55 (0.3)	108 (1.1)	385 (11.6)	548 (1.8)
Distrust	288 (1.7)	487 (4.9)	528 (16.0)	1303 (4.3)
Neutral	2548 (15.1)	4632 (46.9)	1567 (47.3)	8747 (29.1)
Trust	12264 (72.7)	4373 (44.3)	750 (22.7)	17387 (57.9)
Strongly trust	1714 (10.2)	274 (2.8)	80 (2.4)	2068 (6.9)
Do you think that healthcare workers and employees of elderly care facilities should be vaccinated? (SA) – belief about COVID-19 vaccine				<0.001
Yes	15745 (93.3)	6023 (61.0)	1149 (34.7)	22917 (76.3)
No	199 (1.2)	279 (2.8)	682 (20.6)	1160 (3.9)
Can't say either	925 (5.5)	3572 (36.2)	1479 (44.7)	5976 (19.9)
Do you receive an influenza vaccine? (SA)				<0.001
Every year	8280 (49.1)	2362 (23.9)	432 (13.1)	11074 (36.8)
Every few years	3368 (20.0)	1700 (17.2)	419 (12.7)	5487 (18.3)
Rarely or never	5221 (31.0)	5812 (58.9)	2459 (74.3)	13492 (44.9)
Did you receive on routine immunization? (SA)				<0.001
All	4664 (27.6)	1321 (13.4)	300 (9.1)	6285 (20.9)
Partially	3660 (21.7)	1349 (13.7)	380 (11.5)	5389 (17.9)
None	5408 (32.1)	4826 (48.9)	2107 (63.7)	12341 (41.1)
Not sure	3137 (18.6)	2378 (24.1)	523 (15.8)	6038 (20.1)

- 1 SA: single-answer questions; MA: multiple-answer question; \* Statistical significance disappeared after Bonferroni
- 2 correction for multiple testing

# Supplementary Table 2: Sociodemographic, health-related, and psychological characteristics of the study participants by three COVID-19 vaccine intention groups and by Groups (A–D)

	Group (A) elderly with underlying diseases				Group (B) elderly without underlying diseases				Group (C) younger adults with underlying diseases				Group (D) younger adults without underlying diseases							
	Yes N = 1535	Not sure N = 571	No N = 80	P-value	Total N = 1986	Yes N = 661	Not sure N = 551	No N = 364	P-value	Total N = 6636	Yes N = 1276	Not sure N = 590	No N = 225	P-value	Total N = 1991	Yes N = 9497	Not sure N = 7802	No N = 2641	P-value	Total N = 19440
<b>Sociodemographic characteristics</b>																				
Gender (SA)																				
Women	512 (33.4)	182 (49.1)	43 (53.8)	<0.001	737 (37.1)	2517 (54.0)	1085 (67.3)	221 (60.7)	<0.001	3823 (57.6)	471 (40.1)	334 (56.6)	118 (52.4)	<0.001	923 (46.4)	4633 (48.8)	4176 (57.2)	1298 (49.1)	<0.001	10107 (52.0)
Men	1019 (66.4)	189 (50.9)	37 (46.2)		1245 (62.7)	2143 (84.0)	523 (22.5)	141 (38.7)		2807 (42.3)	704 (59.9)	253 (42.9)		1063 (53.4)	4833 (51.2)	3109 (42.6)	1333 (50.5)		9295 (47.8)	
Other	4 (0.3)	0 (0.0)	0 (0.0)		4 (0.2)	1 (0.0)	3 (0.2)	2 (0.5)		6 (0.1)	1 (0.1)	3 (0.5)		5 (0.3)	11 (0.1)	17 (0.2)	10 (0.4)		38 (0.2)	
Prefecture (SA)				0.195					0.269					0.129					0.015	
Hokkaido	91 (5.9)	27 (7.3)	6 (7.5)		124 (6.2)	282 (6.1)	108 (7.7)	24 (6.6)		414 (6.2)	75 (6.4)	41 (6.9)		12 (5.3)	128 (6.4)	467 (4.9)	378 (5.2)		125 (4.7)	970 (5.0)
Aomori	11 (0.7)	3 (0.8)	0 (0.0)		14 (0.7)	33 (0.7)	9 (0.6)	5 (1.4)		47 (0.7)	12 (1.0)	5 (0.8)		20 (1.0)	90 (0.9)	63 (0.9)	30 (1.1)		183 (0.9)	
Iwate	6 (0.4)	2 (0.5)	0 (0.0)		8 (0.4)	31 (0.7)	11 (0.7)	6 (1.6)		48 (0.7)	10 (0.9)	10 (1.7)		23 (1.2)	99 (1.0)	62 (0.8)	18 (0.7)		179 (0.9)	
Miyagi	33 (2.1)	7 (1.9)	3 (3.8)		43 (2.2)	94 (2.0)	18 (1.1)	6 (1.6)		118 (1.8)	28 (2.4)	19 (3.2)		55 (2.8)	193 (2.0)	144 (2.0)	42 (1.6)		379 (1.9)	
Akita	13 (0.8)	3 (0.8)	0 (0.0)		16 (0.8)	15 (0.3)	7 (0.4)	4 (1.1)		26 (0.4)	12 (1.0)	5 (0.8)		18 (0.9)	75 (0.8)	52 (0.7)	15 (0.6)		142 (0.7)	
Yamagata	15 (1.0)	3 (0.8)	0 (0.0)		18 (0.9)	29 (0.6)	11 (0.7)	2 (0.5)		42 (0.6)	13 (1.1)	3 (0.5)		18 (0.9)	73 (0.8)	47 (0.6)	14 (0.5)		134 (0.7)	
Fukushima	18 (1.2)	2 (0.5)	1 (1.3)		21 (1.1)	41 (0.9)	9 (0.6)	3 (0.8)		60 (0.9)	13 (1.1)	7 (1.2)		21 (1.0)	117 (1.2)	61 (0.8)	26 (1.0)		205 (1.2)	
Ibaraki	22 (1.4)	6 (1.6)	0 (0.0)		28 (1.4)	70 (1.5)	21 (1.3)	4 (1.1)		95 (1.4)	21 (1.8)	12 (2.0)		33 (1.6)	164 (1.7)	104 (1.4)	46 (1.7)		320 (1.7)	
Tochigi	14 (0.9)	0 (0.0)	0 (0.0)		14 (0.7)	36 (0.8)	16 (1.0)	1 (0.3)		53 (0.8)	15 (1.3)	5 (0.8)		26 (1.3)	107 (1.1)	86 (1.2)	22 (0.8)		215 (1.1)	
Gunma	21 (1.4)	3 (0.8)	0 (0.0)		24 (1.2)	25 (0.5)	15 (0.9)	3 (0.8)		43 (0.6)	19 (1.6)	4 (0.7)		2 (0.9)	103 (1.1)	65 (0.9)	26 (1.0)		194 (1.0)	
Saitama	78 (5.1)	22 (5.9)	3 (3.8)		103 (5.2)	234 (5.0)	94 (5.8)	18 (4.9)		346 (5.2)	53 (4.5)	29 (4.9)		12 (5.3)	493 (5.2)	401 (5.5)	144 (5.5)		1038 (5.3)	
Chiba	87 (5.7)	24 (6.5)	5 (6.3)		116 (5.8)	247 (5.3)	79 (4.9)	15 (4.2)		345 (5.2)	52 (4.4)	23 (3.9)		9 (4.0)	418 (4.2)	336 (4.6)	96 (4.4)		848 (4.4)	
Tokyo	150 (9.8)	36 (9.7)	11 (13.8)		197 (9.9)	508 (10.9)	167 (10.4)	47 (12.9)		722 (10.9)	129 (11.0)	59 (10.0)		33 (14.7)	1279 (13.7)	890 (12.6)	374 (14.2)		2521 (13.0)	
Kanagawa	121 (7.9)	30 (8.1)	6 (7.5)		157 (7.9)	423 (9.1)	143 (8.9)	24 (6.6)		590 (8.9)	91 (7.7)	36 (6.1)		13 (5.9)	723 (7.6)	593 (8.1)	153 (5.8)		1531 (7.9)	
Niigata	39 (2.5)	5 (1.3)	2 (2.5)		46 (2.3)	80 (1.7)	28 (1.7)	3 (0.8)		111 (1.7)	25 (2.1)	7 (1.2)		3 (1.3)	221 (2.3)	151 (2.1)	31 (1.2)		403 (2.1)	
Toyota	12 (0.8)	3 (0.8)	0 (0.0)		15 (0.8)	47 (1.0)	13 (0.8)	1 (0.3)		61 (0.9)	11 (0.9)	6 (1.0)		1 (0.5)	18 (0.9)	87 (0.9)	27 (1.0)		167 (0.9)	
Ishikawa	14 (0.9)	1 (0.3)	0 (0.0)		15 (0.8)	45 (1.0)	15 (0.9)	1 (0.3)		61 (0.9)	14 (1.2)	7 (1.2)		2 (0.9)	23 (1.2)	95 (1.0)	57 (0.8)		175 (0.9)	
Fukui	11 (0.7)	3 (0.8)	0 (0.0)		14 (0.7)	24 (0.5)	12 (0.7)	1 (0.3)		37 (0.6)	7 (0.6)	3 (0.5)		1 (0.5)	44 (0.5)	43 (0.6)	23 (0.9)		98 (0.5)	
Yamanashi	15 (1.0)	0 (0.0)	0 (0.0)		15 (0.8)	33 (0.7)	14 (0.9)	2 (0.5)		49 (0.7)	4 (0.3)	1 (0.2)		2 (0.9)	7 (0.4)	36 (0.5)	22 (0.8)		110 (0.6)	
Nagano	20 (1.3)	10 (2.7)	2 (2.5)		32 (1.6)	79 (1.6)	30 (1.9)	12 (3.3)		117 (1.8)	16 (1.4)	16 (2.7)		3 (1.3)	35 (0.8)	150 (1.6)	130 (1.8)		321 (1.7)	
Gifu	30 (1.9)	3 (0.8)	2 (1.3)		35 (1.7)	60 (1.3)	21 (1.3)	2 (0.5)		83 (1.3)	16 (1.4)	11 (1.9)		3 (1.3)	90 (1.5)	122 (1.6)	94 (1.3)		203 (1.3)	
Shizuoka	40 (2.6)	9 (2.4)	0 (0.0)		49 (2.5)	114 (2.4)	44 (2.7)	11 (3.0)		169 (2.5)	27 (2.3)	16 (2.7)		2 (0.9)	45 (2.3)	222 (2.3)	172 (2.4)		447 (2.3)	
Aichi	105 (6.8)	18 (4.9)	7 (8.8)		130 (6.5)	325 (7.0)	78 (4.8)	17 (4.7)		420 (6.3)	92 (7.8)	31 (5.3)		11 (4.9)	134 (6.7)	625 (6.6)	494 (6.8)		1309 (6.7)	
Mie	9 (0.6)	1 (0.3)	3 (3.8)		13 (0.7)	70 (1.5)	19 (1.2)	4 (1.1)		93 (1.4)	24 (2.0)	9 (1.5)		2 (0.9)	35 (1.4)	134 (1.4)	105 (1.4)		265 (1.4)	
Shiga	11 (0.7)	8 (2.2)	0 (0.0)		19 (1.0)	35 (0.8)	13 (0.8)	4 (1.1)		52 (0.8)	10 (0.9)	5 (0.8)		1 (0.4)	83 (0.9)	55 (0.8)	28 (1.1)		166 (0.9)	
Kyoto	33 (2.1)	9 (2.4)	2 (2.5)		44 (2.2)	100 (2.1)	38 (2.4)	11 (3.0)		149 (2.2)	17 (1.4)	10 (1.7)		9 (4.0)	175 (1.8)	143 (2.0)	55 (2.1)		373 (1.9)	
Osaka	103 (6.7)	36 (9.7)	4 (5.0)		143 (7.2)	367 (7.9)	25 (6.9)	5 (1.4)		522 (7.9)	65 (5.6)	39 (6.6)		12 (5.3)	117 (5.9)	638 (6.7)	555 (7.2)		1395 (7.2)	
Hyogo	86 (5.6)	11 (3.0)	2 (2.5)		99 (5.0)	226 (4.8)	86 (5.3)	21 (5.8)		333 (5.0)	46 (3.9)	20 (3.4)		13 (5.8)	79 (4.0)	388 (4.6)	125 (4.7)		852 (4.4)	
Nara	21 (1.4)	3 (0.8)	1 (1.3)		25 (1.3)	61 (1.3)	17 (1.1)	3 (0.8)		81 (1.2)	9 (0.8)	7 (1.2)		1 (0.4)	17 (0.9)	86 (0.9)	32 (1.2)		196 (1.0)	
Wakayama	8 (0.5)	2 (0.5)	1 (1.3)		11 (0.6)	17 (0.4)	7 (0.4)	3 (0.8)		27 (0.4)	4 (0.3)	5 (0.8)		0 (0.0)	49 (0.5)	26 (0.4)	10 (0.4)		85 (0.4)	
Tottori	7 (0.5)	3 (0.8)	1 (1.3)		11 (0.6)	16 (0.3)	3 (0.2)	1 (0.3)		20 (0.3)	5 (0.4)	2 (0.3)		0 (0.0)	39 (0.4)	32 (0.4)	11 (0.4)		82 (0.4)	
Shimane	13 (0.8)	1 (0.3)	0 (0.0)		14 (0.7)	19 (0.4)	6 (0.4)	1 (0.3)		26 (0.4)	10 (0.9)	2 (0.3)		0 (0.0)	38 (0.4)	32 (0.4)	5 (0.2)		83 (0.4)	
Okayama	20 (1.4)	11 (2.9)	1 (1.3)		32 (1.6)	88 (1.9)	29 (1.8)	11 (3.0)		119 (1.8)	14 (1.2)	7 (1.2)		5 (2.2)	160 (1.7)	134 (1.8)	42 (1.6)		336 (1.7)	
Hiroshima	36 (2.3)	7 (1.8)	4 (5.0)		47 (2.3)	112 (2.4)	58 (3.6)	8 (2.2)		178 (2.6)	31 (2.7)	18 (3.0)		4 (1.8)	229 (2.3)	168 (2.3)	48 (1.8)		445 (2.3)	
Yamaguchi	15 (1.0)	3 (0.8)	1 (1.3)		19 (1.0)	42 (0.9)	14 (0.9)	2 (0.5)		58 (0.9)	10 (0.9)	6 (1.0)		1 (0.4)	17 (0.9)	64 (0.9)	21 (0.8)		174 (0.9)	
Tokushima	6 (0.4)	4 (1.1)	0 (0.0)		10 (0.5)	30 (0.6)	6 (0.4)	4 (1.1)		40 (0.6)	4 (0.3)	8 (1.4)		0 (0.0)	12 (0.6)	58 (0.6)	36 (0.5)		109 (0.6)	
Kagawa	19 (1.2)	2 (0.5)	0 (0.0)		21 (1.1)	39 (0.8)	21 (1.3)	6 (1.6)		66 (1.0)	13 (1.1)	5 (0.8)		3 (1.3)	79 (0.8)	69 (0.8)	21 (0.8)		160 (0.8)	
Ehime	18 (1.2)	3 (0.8)	1 (1.3)		22 (1.1)	51 (1.1)	17 (1.1)	3 (0.8)		71 (1.1)	17 (1.4)	11 (1.9)		5 (2.2)	106 (1.1)	91 (1.2)	32 (1.2)		229 (1.2)	
Kochi	10 (0.7)	0 (0.0)	0 (0.0)		10 (0.5)	24 (0.5)	5 (0.3)	2 (0.5)		31 (0.5)	3 (0.3)	4 (0.7)		4 (1.8)	11 (0.6)	6 (0.4)	13 (0.5)		76 (0.4)	
Fukuoka	77 (5.0)	17 (4.6)	4 (5.0)		98 (4.9)	238 (5.1)	96 (6.0)	18 (4.9)		332 (5.3)	70 (6.0)	40 (6.7)		17 (7.6)	479 (5.0)	397 (4.6)	135 (5.8)		1029 (5.3)	
Saga	9 (0.6)	1 (0.3)	0 (0.0)		10 (0.5)	27 (0.6)	12 (0.7)	4 (1.1)		43 (0.6)	4 (0.3)	1 (0.2)		0 (0.0)	5 (0.3)	47 (0.6)	11 (0.4)		112 (0.6)	
Nagasaki	13 (0.8)	2 (0.5)	0 (0.0)		15 (0.8)	50 (1.1)	12 (0.7)	5 (1.4)		67 (1.0)	15 (1.3)	5 (0.8)		2 (0.9)	83 (0.9)	83 (1.1)	24 (0.9)		190 (1.0)	
Kumamoto	19 (1.2)	6 (1.6)	3 (3.8)		28 (1.4)	54 (1.2)	12 (0.7)	4 (1.1)		70 (1.1)	20 (1.7)	5 (0.8)		1 (0.4)	26 (1.3)	130 (1.4)	92 (1.3)		252 (1.3)	
Oita	18 (1.2)	3 (0.8)	1 (1.3)		22 (1.1)	31 (0.7)	8 (0.5)	2 (0.5)		41 (0.6)	6 (0.5)	7 (1.2)		1 (0.4)	14 (0.7)	74 (0.8)	55 (0.8)		148 (0.8)	
Miyazaki	12 (0.8)	4 (1.1)	0 (0.0)		16 (0.8)	27 (0.6)	9 (0.6)	0 (0.0)		36 (0.5)	13 (1.1)	9 (1.5)		0 (0.0)	22 (1.1)	57 (0.6)	49 (0.7)		126 (0.6)	
Kagoshima	11 (0.7)	5 (0.8)	1 (1.3)		15 (0.8)	42 (0.9)	18 (1.1)	4 (1.1)		64 (1.0)	12 (1.0)	5 (0.8)		4 (1.8)	21 (1.1)	50 (0.7)	29 (1.1)		186 (1.0)	
Okinawa	1 (0.1)	0 (0.0)	1 (1.3)		2 (0.1)	19 (0.4)	9 (0.6)	2 (0.5)		30 (0.5)	8 (0.7)	10 (1.7)		3 (1.3)	78 (0.8)	83 (1.1)	25 (0.9)		186 (1.0)	
Highest educational level (SA)																				
Middle school	52 (3.4)	21 (5.7)	3 (3.8)	<0.001	76 (3.8)	127 (2.7)	93 (5.8)	23 (6.3)	<0.001	243 (3.7)	30 (2.6)	22 (3.7)		9 (4.0)	61 (3.1)	135 (1.4)	240 (3.2)		89 (3.4)	464 (2.4)
High school	618 (40.3)	163 (43.9)	38 (47.5)		819 (41.2)	1889 (42.7)	735 (45.6)	148 (40.7)		2872 (43.3)	347 (29.5)	229 (38.1)		79 (35.1)	655 (6.9)	2549 (26.8)	2448 (33.5)		831 (41.5)	5828 (30.0)
Junior college	162 (10.6)	56 (15.1)	17 (21.3)		235 (11.8)	761 (16.3)	300 (18.6)	46 (17.4)		1125 (17.0)	231 (19.6)	46 (20.4)		406 (20.4)	1976 (20.8)	1400 (19.5)	4067 (20.9)			

[6-7]	94 (6.1)	11 (3.0)	4 (5.0)		109 (5.5)	224 (4.8)	73 (4.5)	13 (3.6)	310 (4.7)	91 (7.7)	52 (8.8)	18 (8.0)	161 (8.1)	886 (9.3)	580 (7.9)	223 (8.4)	1688 (8.7)			
[7-8]	51 (3.3)	13 (3.5)	4 (5.0)		205 (4.4)	58 (3.4)	58 (3.4)	12 (3.3)	275 (4.1)	88 (7.5)	27 (4.6)	19 (8.4)	134 (6.7)	805 (8.5)	513 (7.0)	183 (6.9)	1501 (7.7)			
[8-9]	47 (3.1)	5 (1.3)	1 (1.3)		53 (2.7)	113 (2.4)	31 (1.9)	4 (1.1)	148 (2.2)	62 (5.3)	15 (2.5)	7 (3.1)	84 (4.2)	601 (6.3)	313 (4.0)	118 (4.5)	1032 (5.3)			
[9-10]	40 (2.6)	5 (1.3)	2 (2.5)		47 (2.4)	119 (2.6)	27 (1.7)	13 (3.6)	149 (2.4)	58 (4.9)	24 (4.1)	11 (4.9)	542 (5.7)	292 (4.0)	232 (4.6)	96 (4.8)	930 (4.8)			
[10-]	85 (5.5)	16 (4.3)	3 (3.8)		104 (5.2)	249 (5.3)	58 (3.6)	28 (7.9)	325 (4.9)	150 (12.8)	45 (7.6)	14 (6.2)	219 (10.5)	1242 (13.1)	632 (8.7)	245 (9.3)	2119 (10.9)			
Household size including respondent (SA)				<0.001																
1	203 (13.2)	71 (19.1)	22 (27.5)		296 (14.9)	647 (13.9)	344 (21.4)	93 (25.3)	1008 (16.3)	199 (16.9)	124 (21.0)	46 (20.0)	309 (18.5)	1729 (18.2)	1490 (20.4)	691 (26.3)	3919 (20.1)			
2	943 (61.4)	197 (53.1)	31 (38.8)		1171 (59.0)	2853 (61.2)	877 (54.4)	203 (55.8)	3933 (59.3)	391 (32.2)	182 (30.0)	45 (24.4)	275 (28.0)	1973 (27.0)	1973 (27.0)	486 (26.0)	5374 (27.6)			
3	268 (17.5)	68 (18.3)	19 (23.8)		355 (17.9)	808 (17.3)	248 (15.4)	52 (14.3)	1108 (16.7)	299 (25.4)	146 (24.7)	55 (25.9)	2468 (26.0)	1463 (25.1)	1463 (25.1)	503 (25.9)	5038 (25.9)			
4	72 (4.7)	21 (5.7)	7 (8.8)		100 (5.0)	219 (4.7)	97 (6.0)	5 (1.4)	321 (4.8)	199 (16.9)	87 (16.4)	22 (9.8)	318 (16.0)	1820 (19.2)	1369 (18.7)	424 (16.1)	3613 (18.6)			
5	24 (1.6)	3 (1.6)	0 (0.0)		31 (1.6)	68 (1.5)	19 (1.2)	6 (1.6)	93 (1.4)	50 (4.3)	32 (5.4)	9 (4.0)	573 (6.0)	389 (3.3)	131 (5.0)	1093 (5.6)	1093 (5.6)			
More than 6	25 (1.6)	7 (1.9)	1 (1.3)		33 (1.7)	66 (1.4)	26 (1.6)	6 (1.6)	98 (1.5)	38 (3.2)	9 (1.5)	6 (2.7)	192 (2.0)	174 (2.4)	46 (1.7)	412 (2.1)	412 (2.1)			
Marital size (SA)				<0.001																
Married (including de facto marriage)	1261 (82.1)	264 (71.2)	54 (67.5)		1579 (79.5)	3697 (79.3)	1071 (66.5)	223 (61.3)	4991 (75.2)	717 (61.0)	318 (53.9)	104 (46.2)	1139 (57.2)	5653 (59.5)	3591 (49.2)	1112 (42.1)	10356 (53.3)			
Not married (without partner)	63 (4.1)	24 (6.5)	5 (6.3)		180 (3.9)	326 (24.6)	123 (7.6)	36 (9.9)	173 (25.1)	286 (24.3)	173 (29.3)	76 (33.8)	2491 (26.2)	2491 (26.2)	535 (26.9)	6155 (31.7)	1080 (40.9)			
Not married (with a partner)	4 (0.3)	2 (0.5)	1 (1.3)		7 (0.4)	12 (0.3)	8 (0.5)	5 (1.4)	25 (0.4)	29 (0.9)	20 (8.9)	12 (5.4)	702 (7.4)	478 (2.4)	593 (8.1)	278 (10.5)	1573 (8.1)			
Widowed	124 (8.1)	59 (15.9)	11 (13.8)		194 (9.8)	459 (9.8)	232 (14.4)	49 (13.5)	740 (11.2)	18 (1.5)	12 (2.0)	3 (1.3)	112 (1.2)	72 (2.4)	33 (1.7)	21 (0.8)	211 (1.1)			
Divorced	83 (5.4)	22 (5.9)	9 (11.3)		114 (5.7)	313 (6.7)	177 (11.0)	51 (14.0)	331 (4.9)	176 (6.5)	58 (9.8)	22 (9.8)	539 (5.7)	22 (9.8)	156 (7.8)	437 (6.0)	1145 (5.9)			
To what extent did the COVID-19 pandemic affect your life, within the past year? (SA)				0.110																
Not at all	61 (4.0)	22 (5.9)	8 (10.0)		91 (4.4)	179 (3.8)	88 (5.4)	59 (16.2)	336 (4.9)	80 (6.8)	31 (5.3)	38 (16.9)	149 (17.5)	467 (4.9)	459 (6.0)	423 (16.6)	1342 (6.8)			
Not much	393 (25.6)	92 (24.8)	21 (26.3)		506 (25.5)	1298 (27.8)	480 (29.8)	131 (33.2)	1899 (28.6)	304 (25.9)	138 (23.4)	69 (30.7)	2298 (24.2)	1934 (20.5)	756 (29.0)	4998 (25.7)	4998 (25.7)			
Somewhat	824 (53.7)	204 (55.0)	42 (52.5)		1070 (51.9)	2609 (56.0)	859 (53.3)	149 (40.9)	3637 (54.5)	553 (47.0)	290 (49.2)	79 (35.1)	922 (46.3)	4975 (52.4)	322 (46.3)	1043 (39.5)	1178 (50.0)			
Quite a lot	257 (16.7)	53 (14.3)	9 (11.3)		319 (16.1)	575 (12.3)	184 (11.4)	35 (9.6)	794 (12.0)	239 (20.3)	131 (22.2)	39 (17.3)	409 (20.5)	1757 (18.5)	1229 (16.8)	409 (15.5)	3395 (17.5)			
Health-related characteristics, including health literacy																				
Self-reported health status (SA)				<0.001																
Very good	154 (10.0)	21 (7.7)	8 (10.0)		183 (9.2)	1254 (26.9)	361 (22.4)	127 (34.9)	1742 (26.3)	220 (17.7)	67 (11.4)	33 (14.7)	320 (16.1)	3380 (35.6)	2137 (29.3)	907 (34.3)	6424 (33.0)			
Good	449 (29.3)	92 (24.8)	22 (27.5)		563 (28.3)	1665 (35.7)	521 (32.3)	113 (31.0)	2299 (34.6)	303 (25.8)	120 (33.2)	55 (24.4)	478 (24.0)	3006 (31.7)	2080 (28.5)	685 (25.9)	5771 (29.7)			
Fair	553 (36.0)	109 (29.1)	20 (25.0)		1363 (39.2)	3382 (73.4)	538 (33.4)	90 (24.7)	1991 (30.0)	328 (27.6)	109 (32.4)	581 (29.2)	2284 (24.0)	4495 (47.5)	489 (26.4)	5288 (27.2)	749 (34.9)			
Poor	310 (20.2)	111 (29.9)	23 (28.8)		444 (22.4)	348 (7.5)	163 (10.1)	26 (7.1)	537 (8.1)	248 (21.1)	154 (26.1)	47 (20.9)	174 (7.5)	659 (6.9)	228 (8.6)	1601 (8.2)	2021 (11.2)			
Very poor	69 (4.5)	28 (7.5)	7 (8.8)		104 (5.2)	31 (0.7)	28 (1.7)	8 (2.2)	67 (1.0)	77 (6.5)	58 (9.8)	28 (12.4)	113 (1.2)	171 (1.3)	72 (2.7)	356 (1.8)	356 (1.8)			
Have you ever received a COVID-19 test? (MA)																				
Yes	1413 (92.1)	346 (93.3)	70 (87.5)	0.221	1829 (92.1)	4406 (94.5)	1509 (93.7)	346 (95.1)	6261 (94.3)	933 (79.3)	515 (97.3)	162 (72.0)	<0.001	1630 (90.9)	8561 (90.1)	6753 (92.5)	2422 (91.7)	<0.001	17736 (91.2)	
Yes - PCR test	93 (6.0)	17 (4.6)	4 (5.0)		117 (5.8)	217 (4.8)	8 (0.6)	0.164	81 (2.3)	289	246 (17.1)	56 (8.5)	247 (12.4)	645 (6.8)	321 (4.3)	109 (3.9)	1680 (6.6)			
Yes - antigen test	11 (0.7)	3 (0.8)	1 (1.3)		8 (0.4)	15 (0.4)	0 (0.0)	0.425	24 (0.4)	56 (4.8)	10 (1.7)	20 (8.9)	<0.001	86 (4.3)	136 (1.4)	61 (0.8)	36 (1.1)	0.002	227 (1.2)	
Yes - antibody testing	12 (0.8)	4 (1.1)	1 (1.3)		7 (0.4)	28 (0.6)	10 (0.6)	1 (0.3)	7 (0.2)	39 (0.6)	43 (2.3)	10 (1.7)	3 (1.3)	0.033*	54 (2.7)	12 (1.3)	55 (0.8)	26 (1.0)	0.003	203 (1.0)
Yes - unsure about either of the three	18 (1.2)	2 (0.5)	1 (1.3)		0 (0.0)	29 (0.6)	9 (0.5)	<0.001	78 (1.2)	22 (1.9)	11 (1.9)	11 (4.9)	0.015*	44 (2.2)	108 (1.1)	140 (1.9)	68 (2.4)	<0.001	316 (1.6)	
Presence of underlying diseases (e.g. diabetes, heart failure, respiratory disease, COPD, etc., or on dialysis, or using immunosuppressive or anticancer drugs) (SA)	1535 (100.0)	371 (100.0)	80 (100.0)	NA	1986 (100.0)	0 (100.0)	0 (100.0)	NA	0 (100.0)	1176 (100.0)	590 (100.0)	225 (100.0)	NA	1991 (100.0)	0 (100.0)	0 (100.0)	0 (100.0)	NA	0 (100.0)	
Living with family members who are elderly or have underlying diseases (SA)	878 (57.2)	214 (57.7)	52 (65.0)	0.388	1144 (57.6)	3844 (82.5)	1376 (85.4)	325 (89.3)	<0.001	5455 (83.6)	388 (46.7)	381 (16.0)	225 (100.0)	0.006	1185 (95.5)	833 (87.7)	6654 (99.8)	2417 (91.5)	<0.001	17302 (99.0)
Preventive measures against COVID-19 (MA)																				
Avoid going to places with poor ventilation	928 (60.5)	219 (59.0)	40 (50.0)	0.169	1187 (59.8)	2516 (62.6)	963 (59.8)	189 (51.9)	<0.001	4008 (61.3)	614 (52.2)	318 (53.9)	86 (38.2)	<0.001	1018 (51.1)	4931 (51.9)	3191 (43.7)	974 (36.9)	<0.001	9096 (46.8)
Avoid going to places where there are many people gathered	1344 (87.6)	312 (84.1)	57 (71.3)	<0.001	1713 (86.3)	4059 (87.1)	1318 (81.8)	260 (71.4)	<0.001	5637 (84.9)	937 (79.7)	458 (77.6)	141 (62.7)	<0.001	1536 (77.1)	7472 (78.7)	5221 (71.5)	1522 (57.6)	<0.001	14215 (73.1)
Avoiding talking or speaking in close proximity to other people	1029 (67.0)	228 (61.5)	45 (56.3)	0.026*	1303 (65.6)	3008 (64.5)	190 (52.2)	<0.001	4355 (64.9)	647 (55.0)	334 (53.2)	84 (36.9)	1044 (52.4)	<0.001	1044 (52.4)	4828 (51.4)	3157 (43.2)	1919 (34.8)	<0.001	8958 (46.1)
Washing hands, gargling, and hand disinfection with alcohol	1392 (90.7)	330 (89.9)	63 (78.8)	0.002	1768 (89.9)	4248 (91.1)	1364 (84.7)	257 (70.6)	<0.001	5869 (88.4)	930 (79.1)	480 (81.4)	128 (56.9)	<0.001	1538 (77.2)	7981 (82.6)	5340 (75.9)	1588 (60.1)	<0.001	14969 (77.0)
Etiquette (masks, handkerchiefs, etc.) in case of coughing or sneezing	1186 (76.0)	280 (75.3)	56 (70.0)	0.479	1502 (75.2)	3639 (78.1)	1177 (73.1)	246 (69.6)	<0.001	5562 (76.3)	837 (72.2)	427 (72.4)	180 (84.6)	<0.001	1568 (68.5)	6563 (69.5)	4568 (62.5)	1273 (48.1)	<0.001	12397 (65.8)
Taleness	61 (4.0)	21 (5.7)	1 (1.3)	0.392	74 (3.7)	155 (3.3)	33 (2.0)	9 (2.5)	0.020*	197 (3.0)	144 (12.3)	44 (19.5)	22 (9.8)	0.008	210 (10.5)	107 (11.3)	612 (8.4)	215 (8.4)	<0.001	1514 (8.0)
Be conscious of social distancing	873 (56.9)	188 (50.7)	43 (53.8)	0.092	1104 (56.3)	2598 (55.7)	803 (49.8)	174 (47.8)	<0.001	3575 (53.9)	555 (50.6)	292 (49.5)	65 (29.3)	<0.001	953 (47.9)	4572 (48.1)	2868 (39.3)	786 (29.8)	<0.001	8226 (42.3)
Avoid going out unnecessarily.	1232 (80.3)	284 (76.5)	56 (70.0)	0.015*	1572 (79.2)	3697 (79.3)	1202 (74.4)	229 (60.4)	<0.001	5151 (75.7)	738 (62.8)	380 (64.4)	98 (43.6)	<0.001	1216 (61.1)	5911 (62.5)	4098 (56.1)	1102 (39.5)	<0.001	11271 (56.9)
Other preventive measures	49 (3.2)	16 (4.3)	7 (8.8)	0.025*	72 (3.6)	129 (2.8)	64 (4.0)	15 (4.1)	0.911*	208 (3.1)	48 (4.1)	32 (14.4)	11 (4.9)	0.431	91 (4.4)	221 (0.0)	314 (2.5)	222 (0.0)	0.011*	542 (2.8)
No preventive measures	20 (1.3)	7 (1.9)	9 (11.3)	<0.001	36 (1.8)	63 (1.4)	70 (3.4)	41 (11.3)	<0.001	174 (2.6)	21 (1.8)	26 (4.4)	18 (8.0)	<0.001	65 (3.3)	264 (2.8)	894 (13.0)	87 (4.3)	<0.001	1157 (6.0)
Has anyone close to you ever been infected with COVID-19? (MA)																				
Family or friends	48 (3.1)	6 (1.6)	1 (1.3)	0.198	55 (2.8)	116 (2.5)	21 (1.3)	6 (1.6)	0.015	143 (2.2)	117 (9.9)	17 (7.9)	17 (7.6)	<0.001	151 (7.6)	347 (3.7)	188 (2.7)	76 (2.9)	0.002	621 (3.2)
Colleagues at work	22 (1.4)	1 (0.3)	0 (0.0)	0.105	23 (1.2)	36 (0.8)	17 (1.1)	4 (1.1)	0.500	57 (0.9)	30 (5.1)	32 (14.2)	<0.001	207 (10.4)	648 (6.8)	381 (2.2)	162 (6.1)	<0.001	1191 (6.1)	
No/ don't know	1467 (95.6)	364 (98.1)	79 (98.8)	0.034*	1910 (96.2)	4509 (96.7)	1574 (97.7)	354 (97.3)	0.141	6347 (97.0)	544 (92.2)	178 (79.1)	1660 (83.4)	8539 (89.9)	4672 (93.2)	2405 (91.1)	<0.001	17886 (91.0)		
Have you ever refrained from visiting a medical institution because you were anxious about being infected by the new coronavirus? (MA)																				
Have refrained from regular hospital visits	316 (20.6)	80 (21.6)	17 (21.3)	0.912	413 (20.8)	890 (17.8)	269 (16.7)	43 (11.8)	0.012*	1142 (17.2)	302 (25.7)	97 (36.4)	56 (24.9)	<0.001	455 (22.9)	1296 (13.6)	771 (10.6)	241 (9.1)	<0.001	2308 (11.9)
Have refrained from visiting the hospital for physical examinations, such as a cold, headache, or stomachache	103 (6.7)	26 (7.0)	6 (7.5)	0.948	135 (6.8)	291 (6.3)	93 (5.8)	13 (3.4)	0.099	399 (6.0)	184 (15.6)	68 (31.5)	43 (19.1)	0.011*	295 (14.4)	1004 (10.6)	510 (8.0)	212 (8.0)	<0.001	1560 (10.1)
Have refrained from medical checkups, sudden symptoms, or cancer screenings	136 (9.2)	31 (8.3)	10 (12.5)	0.188	151 (8.8)	327 (14.4)	208 (12.8)	39 (10.7)	0.066	519 (13.8)	152 (12.9)	64 (28.0)	30 (13.9)	0.367	254 (12.8)	919 (9.7)	744 (10.2)	310 (11.1)	<0.001	1640 (8.6)
Have refrained from other medical examinations	14 (0.9)	1 (0.3)	0 (0.0)		15 (0.7)	33 (0.7)	4 (1.1)	0.011*	70 (1.1)	15 (1.3)	21 (9.0)	7 (3.1)	18 (8.3)	<0.001	183 (9.3)	880 (9.3)	602 (8.3)	83 (4.3)	<0.001	2813 (14.5)

If others have been vaccinated against COVID-19, do you think you should be vaccinated as well? (SA) – perceived norms about a COVID-19 vaccine																
			<0.001					<0.001					<0.001		<0.001	
Strongly disagree	13 (0.8)	2 (0.5)	26 (32.5)	41 (2.1)	15 (0.3)	16 (1.0)	98 (26.9)	129 (1.9)	38 (3.2)	20 (1.4)	67 (29.8)	125 (6.3)	70 (0.7)	109 (1.5)	698 (26.4)	877 (4.5)
Disagree	55 (3.6)	62 (16.7)	32 (40.0)	149 (7.5)	159 (3.4)	274 (17.0)	173 (47.0)	604 (9.1)	73 (6.2)	71 (22.0)	73 (32.4)	217 (10.9)	378 (4.0)	848 (11.6)	860 (32.6)	2086 (10.7)
Neither agree nor disagree	133 (10.0)	186 (50.1)	17 (21.3)	356 (17.9)	481 (10.3)	839 (52.1)	85 (23.4)	1405 (21.2)	184 (15.6)	311 (52.7)	67 (29.8)	562 (28.2)	1528 (16.1)	4126 (36.5)	894 (33.9)	6548 (31.7)
Agree	962 (82.7)	116 (31.3)	4 (5.0)	1050 (54.5)	3052 (65.7)	466 (28.3)	5 (1.4)	3333 (53.2)	580 (49.3)	175 (29.7)	13 (5.8)	768 (38.6)	5546 (58.4)	2134 (29.2)	172 (6.5)	7852 (40.4)
Strongly agree	352 (22.9)	5 (1.3)	1 (1.3)	358 (18.0)	944 (20.3)	16 (1.0)	5 (1.4)	955 (14.5)	301 (25.6)	13 (2.2)	5 (2.2)	319 (16.0)	1975 (20.8)	85 (1.2)	17 (0.6)	2077 (10.7)
Do you trust scientists in the field of vaccine development for COVID-19? (SA) – trusts about COVID-19 vaccine																
			<0.001					<0.001					<0.001		<0.001	
Strongly distrust	5 (0.3)	4 (1.1)	10 (12.5)	19 (1.0)	2 (0.0)	9 (0.6)	39 (10.7)	50 (0.8)	24 (2.0)	17 (2.9)	35 (15.0)	76 (3.8)	43 (0.5)	87 (1.2)	355 (13.4)	485 (2.5)
Distrust	28 (1.8)	36 (9.7)	15 (18.8)	79 (4.0)	70 (1.5)	115 (7.1)	72 (19.8)	257 (1.9)	74 (6.3)	47 (8.0)	53 (23.6)	174 (8.7)	237 (2.5)	507 (6.9)	513 (19.4)	1257 (6.5)
Neutral	292 (19.0)	187 (50.4)	32 (40.0)	511 (25.7)	860 (18.5)	920 (57.1)	181 (49.7)	1961 (29.6)	302 (25.7)	342 (58.0)	102 (45.3)	746 (37.5)	2553 (26.9)	4486 (61.4)	1325 (50.2)	8364 (43.0)
Trust	1109 (72.2)	142 (38.3)	22 (27.5)	1273 (64.1)	3443 (73.9)	549 (34.1)	68 (18.7)	4060 (61.2)	672 (57.1)	172 (29.2)	31 (13.8)	875 (43.9)	6032 (63.3)	2119 (29.0)	412 (15.6)	8543 (43.9)
Strongly trust	101 (6.6)	2 (0.5)	1 (1.3)	104 (5.2)	286 (6.1)	18 (1.1)	4 (1.1)	308 (4.6)	104 (8.8)	12 (2.0)	4 (1.8)	120 (6.0)	652 (6.9)	103 (1.4)	36 (1.4)	791 (4.1)
Do you trust the public authorities to approve vaccines for COVID-19? (SA) – trusts about COVID-19 vaccine																
			<0.001					<0.001					<0.001		<0.001	
Strongly distrust	15 (1.0)	11 (3.0)	14 (17.5)	40 (2.0)	13 (0.3)	36 (2.2)	63 (17.3)	112 (1.7)	31 (2.6)	36 (6.1)	58 (25.8)	125 (6.3)	66 (0.7)	203 (2.8)	504 (19.1)	773 (4.0)
Distrust	72 (4.7)	63 (17.0)	25 (31.3)	160 (8.1)	149 (3.2)	255 (15.8)	117 (32.1)	521 (7.9)	100 (8.5)	100 (16.9)	51 (22.7)	251 (12.6)	447 (4.7)	996 (13.6)	645 (24.4)	2088 (10.7)
Neutral	373 (24.3)	189 (50.9)	26 (32.5)	588 (29.6)	1147 (24.6)	926 (57.5)	141 (38.7)	2214 (33.4)	364 (31.0)	311 (52.7)	84 (37.3)	759 (38.1)	3000 (31.6)	4378 (60.0)	1156 (43.8)	8534 (43.9)
Trust	1019 (66.4)	107 (28.8)	14 (17.5)	1140 (57.4)	3169 (68.0)	382 (23.7)	39 (10.7)	3390 (54.1)	601 (51.1)	131 (22.2)	28 (12.4)	760 (38.2)	5476 (57.7)	1647 (22.6)	311 (11.8)	7434 (38.2)
Strongly trust	56 (3.6)	1 (0.3)	1 (1.3)	58 (2.9)	183 (3.9)	12 (0.7)	4 (1.1)	199 (3.0)	80 (6.8)	12 (2.0)	4 (1.8)	96 (4.8)	508 (5.3)	78 (1.1)	25 (0.9)	611 (3.1)
Do you trust your healthcare provider about vaccination against COVID-19? (SA) – trusts about COVID-19 vaccine																
			<0.001					<0.001					<0.001		<0.001	
Strongly distrust	4 (0.3)	1 (0.3)	7 (8.8)	12 (0.6)	4 (0.1)	9 (0.6)	33 (9.1)	46 (0.7)	26 (2.2)	15 (2.5)	31 (13.8)	72 (3.6)	21 (0.2)	83 (1.1)	314 (11.9)	418 (2.2)
Distrust	25 (1.6)	13 (3.5)	12 (15.0)	50 (2.5)	42 (0.9)	84 (5.2)	70 (19.2)	196 (1.0)	53 (4.5)	34 (5.8)	44 (19.6)	131 (6.6)	168 (1.8)	356 (4.9)	402 (15.2)	926 (4.8)
Neutral	156 (10.2)	145 (39.1)	32 (40.0)	333 (16.8)	516 (11.1)	731 (45.4)	166 (45.6)	1413 (21.3)	191 (16.2)	247 (41.9)	100 (44.4)	1388 (27.0)	1685 (17.7)	3509 (48.1)	1269 (48.0)	6463 (31.2)
Trust	1225 (79.8)	206 (55.5)	27 (33.8)	1458 (73.4)	3711 (79.6)	766 (47.5)	89 (24.5)	4566 (68.8)	744 (63.3)	269 (45.6)	43 (19.1)	1056 (53.0)	6584 (69.3)	3132 (42.9)	591 (22.4)	10307 (53.0)
Strongly trust	125 (8.1)	6 (1.6)	2 (2.5)	133 (6.7)	388 (8.3)	21 (1.3)	6 (1.6)	415 (6.3)	162 (13.8)	25 (4.2)	7 (3.1)	194 (9.7)	1039 (10.9)	222 (3.0)	65 (2.5)	1326 (6.8)
Do you think that healthcare workers and employees of elderly care facilities should be vaccinated? (SA) – belief about COVID-19 vaccine																
			<0.001					<0.001					<0.001		<0.001	
Yes	1494 (97.3)	266 (71.7)	35 (43.8)	1795 (90.4)	4531 (97.2)	1071 (66.5)	138 (37.9)	5740 (86.5)	1067 (90.7)	380 (61.0)	75 (33.3)	1502 (75.4)	8653 (91.1)	4326 (59.2)	901 (34.1)	13880 (71.4)
No	6 (0.4)	3 (0.8)	13 (16.3)	22 (1.1)	18 (0.4)	15 (0.9)	44 (12.1)	77 (1.2)	37 (3.1)	16 (2.7)	48 (21.3)	101 (5.1)	138 (1.5)	245 (3.4)	577 (21.8)	960 (4.9)
Can't say either	35 (2.3)	102 (27.5)	32 (40.0)	169 (8.5)	112 (2.4)	525 (32.6)	182 (50.0)	819 (12.3)	72 (6.1)	214 (36.3)	102 (45.3)	388 (19.5)	706 (7.4)	2731 (37.4)	1163 (44.0)	4600 (23.7)
Do you receive an influenza vaccine? (SA)																
			<0.001					<0.001					<0.001		<0.001	
Every year	976 (63.6)	147 (39.6)	9 (11.3)	1132 (57.0)	2446 (52.5)	435 (27.0)	25 (6.9)	2906 (43.8)	591 (50.3)	159 (26.9)	26 (11.6)	776 (39.0)	4267 (44.9)	1621 (22.2)	372 (14.1)	6260 (32.2)
Every few years	281 (18.3)	60 (16.2)	11 (13.8)	352 (17.7)	912 (20.0)	285 (17.7)	36 (9.9)	1253 (18.9)	248 (21.1)	102 (17.3)	50 (22.2)	400 (20.1)	1258 (17.2)	322 (13.2)	3482 (17.9)	3482 (17.9)
Rarely or never	278 (18.1)	164 (44.2)	60 (75.0)	502 (25.3)	1283 (27.5)	891 (55.3)	303 (83.2)	2477 (37.3)	337 (28.7)	329 (55.8)	149 (66.2)	815 (40.9)	3323 (35.0)	4428 (60.6)	1947 (73.7)	9698 (49.9)
Did you receive on routine immunization? (SA)																
			<0.001					<0.001					<0.001		<0.001	
All	502 (32.7)	51 (13.7)	3 (3.8)	556 (28.0)	1312 (28.1)	192 (11.9)	21 (5.8)	1525 (23.0)	329 (28.0)	83 (14.1)	22 (9.8)	434 (21.8)	2522 (26.5)	996 (13.6)	254 (9.6)	3770 (19.4)
Partially	469 (30.6)	85 (22.9)	20 (25.0)	574 (28.9)	1300 (27.9)	353 (21.9)	36 (9.9)	1689 (25.5)	240 (22.1)	76 (12.9)	48 (21.3)	384 (19.3)	1631 (17.2)	835 (11.4)	276 (10.5)	2742 (14.1)
None	341 (22.2)	158 (42.6)	46 (57.5)	545 (27.4)	1304 (28.0)	772 (47.9)	281 (77.2)	2357 (35.5)	381 (32.7)	279 (47.3)	120 (53.3)	780 (39.2)	3382 (35.6)	3617 (49.5)	1660 (62.9)	8659 (44.5)
Not sure	223 (14.5)	77 (20.8)	11 (13.8)	311 (15.7)	745 (16.0)	294 (18.2)	26 (7.1)	1065 (16.0)	206 (17.5)	152 (25.8)	35 (15.6)	393 (19.7)	1963 (20.7)	1855 (25.4)	451 (17.1)	4269 (22.0)

1 SA: single-answer questions; MA: multiple-answer question; \* Statistical significance disappeared after Bonferroni correction for multiple testing

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### Supplementary Table 3: Sources of COVID-19 information by three COVID-19 vaccine intention groups for pooled and by Groups (A–D)

	Pooled					Group (A) elderly with underlying diseases					Group (B) elderly without underlying diseases					Group (C) younger adults with underlying diseases					Group (D) younger adults without underlying diseases				
	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total
	N = 18689	N = 9874	N = 3310		N = 30053	N = 1535	N = 371	N = 80		N = 1986	N = 4661	N = 1611	N = 364		N = 6636	N = 1176	N = 590	N = 225		N = 1991	N = 9497	N = 7302	N = 2641		N = 19440
<b>From what sources do you get information about COVID-19? (MA)</b>																									
Physicians	2415 (14.3)	804 (8.1)	249 (7.5)	<0.001	3468 (11.5)	388 (25.3)	89 (24.0)	25 (31.3)	0.399	502 (25.3)	623 (13.4)	175 (10.9)	25 (6.9)	<0.001	823 (12.4)	292 (24.8)	101 (17.1)	35 (15.6)	<0.001	428 (21.5)	1132 (11.7)	439 (6.0)	164 (6.2)	<0.001	1715 (8.8)
Nurses	896 (5.3)	300 (3.0)	115 (3.5)	<0.001	1311 (4.4)	91 (5.9)	20 (5.4)	6 (7.5)	0.762	117 (5.9)	175 (3.8)	46 (2.9)	8 (2.2)	0.094	229 (3.5)	143 (12.2)	42 (7.1)	17 (7.6)	0.002*	202 (10.1)	487 (5.1)	192 (2.6)	84 (3.2)	<0.001	763 (3.9)
Pharmacists	409 (2.4)	119 (1.2)	66 (2.0)	<0.001	594 (2.0)	52 (3.4)	16 (4.3)	4 (5.0)	0.554	72 (3.6)	92 (2.0)	21 (1.3)	5 (1.4)	0.179	118 (1.8)	80 (6.8)	16 (2.7)	13 (5.8)	0.002*	109 (5.5)	185 (1.9)	66 (0.9)	44 (1.7)	<0.001	295 (1.5)
Veterinarians	45 (0.3)	14 (0.1)	10 (0.3)	0.078	69 (0.2)	1 (0.1)	0 (0.0)	0 (0.0)	0.863	1 (0.1)	5 (0.1)	2 (0.1)	0 (0.0)	0.803	7 (0.1)	21 (1.8)	2 (0.3)	3 (1.3)	0.041*	26 (1.3)	18 (0.2)	10 (0.1)	7 (0.3)	0.394	35 (0.2)
Dentists	209 (1.2)	70 (0.7)	27 (0.8)	<0.001	306 (1.0)	29 (1.9)	8 (2.2)	0 (0.0)	0.428	37 (1.9)	76 (1.6)	14 (0.9)	5 (1.4)	0.085	95 (1.4)	20 (1.7)	8 (1.4)	4 (1.8)	0.843	32 (1.6)	84 (0.9)	40 (0.5)	18 (0.7)	0.038*	142 (0.7)
Health fairs and events	173 (1.0)	60 (0.6)	28 (0.8)	0.002*	261 (0.9)	17 (1.1)	2 (0.5)	2 (2.5)	0.275	21 (1.1)	45 (1.0)	14 (0.9)	4 (1.1)	0.900	63 (0.9)	26 (2.2)	5 (0.8)	3 (1.3)	0.102	34 (1.7)	85 (0.9)	39 (0.5)	19 (0.7)	0.025*	143 (0.7)
Newspapers	7153 (42.4)	2860 (29.0)	611 (18.5)	<0.001	10624 (35.4)	927 (60.4)	187 (50.4)	36 (45.0)	<0.001	1150 (57.9)	2859 (61.3)	813 (50.5)	144 (39.6)	<0.001	3816 (57.5)	411 (34.9)	183 (31.0)	32 (14.2)	<0.001	626 (31.4)	2956 (31.1)	1677 (23.0)	999 (15.1)	<0.001	5032 (25.9)
Magazines	975 (5.8)	351 (3.6)	107 (3.2)	<0.001	1433 (4.8)	91 (5.9)	21 (5.7)	4 (5.0)	0.930	116 (5.8)	297 (6.4)	71 (4.4)	18 (4.9)	0.011*	386 (5.8)	73 (6.2)	25 (4.2)	9 (4.0)	0.139	107 (5.4)	514 (5.4)	234 (3.2)	76 (2.9)	<0.001	824 (4.2)
Books	515 (3.1)	207 (2.1)	88 (2.7)	<0.001	810 (2.7)	39 (2.5)	11 (3.0)	2 (2.5)	0.898	52 (2.6)	117 (2.5)	43 (2.7)	13 (3.6)	0.465	173 (2.6)	57 (4.8)	17 (2.9)	11 (4.9)	0.139	85 (4.3)	302 (3.2)	136 (1.9)	62 (2.3)	<0.001	500 (2.6)
Scientific literature	260 (1.5)	85 (0.9)	61 (1.8)	<0.001	406 (1.4)	18 (1.2)	3 (0.8)	0 (0.0)	0.530	21 (1.1)	43 (0.9)	17 (1.1)	9 (2.5)	0.019*	69 (1.0)	27 (2.3)	3 (0.5)	7 (3.1)	0.011*	37 (1.9)	172 (1.8)	62 (0.8)	45 (1.7)	<0.001	279 (1.4)
Television	14634 (86.8)	7919 (80.2)	1960 (59.2)	<0.001	24513 (81.6)	1428 (93.0)	336 (90.6)	62 (77.5)	<0.001	1826 (91.9)	4369 (93.7)	1404 (87.2)	244 (67.0)	<0.001	6017 (90.7)	899 (76.4)	461 (78.1)	114 (50.7)	<0.001	1474 (74.0)	7938 (83.6)	5718 (78.3)	1540 (58.3)	<0.001	15196 (78.2)
Radio	2369 (14.0)	1050 (10.6)	287 (8.7)	<0.001	3706 (12.3)	239 (15.6)	44 (11.9)	15 (18.8)	0.126	298 (15.0)	870 (18.7)	288 (17.9)	47 (12.9)	0.022*	1205 (18.2)	166 (14.1)	62 (10.5)	20 (8.9)	0.022*	248 (12.5)	1094 (11.5)	656 (9.0)	205 (7.8)	<0.001	1955 (10.1)
Internet news sites	9234 (54.7)	5297 (53.6)	1485 (44.9)	<0.001	16016 (53.3)	836 (54.5)	200 (53.9)	46 (57.5)	0.842	1082 (54.5)	2446 (52.5)	854 (53.0)	197 (54.1)	0.799	3497 (52.7)	636 (54.1)	336 (56.9)	81 (36.0)	<0.001	1053 (52.9)	5316 (56.0)	3907 (53.5)	1161 (44.0)	<0.001	10384 (53.4)
Search engines (Google, Yahoo, etc.)	3626 (21.5)	2106 (21.3)	667 (20.2)	0.224	6399 (21.3)	268 (17.5)	69 (18.6)	12 (15.0)	0.723	349 (17.6)	805 (17.3)	240 (16.1)	59 (16.2)	0.539	1124 (16.9)	270 (23.0)	140 (23.7)	35 (15.5)	0.032*	445 (22.4)	2283 (24.0)	1637 (22.4)	561 (21.2)	0.003*	4481 (23.1)
LINE	1259 (7.5)	663 (6.7)	204 (6.2)	0.007*	2126 (7.1)	93 (6.1)	16 (4.3)	5 (6.3)	0.422	114 (5.7)	280 (6.0)	71 (4.4)	15 (4.1)	0.026*	366 (5.5)	113 (9.6)	56 (9.5)	17 (7.6)	0.618	186 (9.3)	773 (8.1)	520 (7.1)	167 (6.3)	0.002*	1460 (7.5)
Facebook	378 (2.2)	150 (1.5)	78 (2.4)	<0.001	606 (2.0)	35 (2.3)	7 (1.9)	5 (6.3)	0.060	47 (2.4)	91 (2.0)	19 (1.2)	16 (4.4)	<0.001	126 (1.9)	39 (3.3)	17 (2.9)	7 (3.1)	0.885	63 (3.2)	213 (2.2)	107 (1.5)	50 (1.9)	0.001	370 (1.9)
Twitter	1170 (6.9)	823 (8.3)	395 (11.9)	<0.001	2388 (7.9)	27 (1.8)	10 (2.7)	6 (7.5)	0.002*	43 (2.2)	77 (1.7)	36 (2.2)	16 (4.4)	<0.001	129 (1.9)	106 (9.0)	53 (9.0)	26 (11.6)	0.462	185 (9.3)	960 (10.1)	724 (9.9)	347 (13.1)	<0.001	2031 (10.4)
Instagram	228 (1.4)	137 (1.4)	66 (2.0)	0.016*	431 (1.4)	3 (0.2)	3 (0.8)	0 (0.0)	0.137	6 (0.3)	15 (0.3)	7 (0.4)	0 (0.0)	0.419	22 (0.3)	30 (2.6)	11 (1.9)	5 (2.2)	0.661	46 (2.3)	180 (1.9)	116 (1.6)	61 (2.3)	0.051	357 (1.8)
YouTube	737 (4.4)	553 (5.6)	317 (9.6)	<0.001	1607 (5.3)	59 (3.8)	22 (5.9)	10 (12.5)	<0.001	91 (4.6)	143 (3.1)	81 (5.0)	45 (12.4)	<0.001	269 (4.1)	78 (6.6)	40 (6.8)	15 (6.7)	0.993	133 (6.7)	457 (4.8)	410 (5.6)	247 (9.4)	<0.001	1114 (5.7)
TikTok	71 (0.4)	25 (0.3)	15 (0.5)	0.065	111 (0.4)	3 (0.2)	0 (0.0)	0 (0.0)	0.643	3 (0.2)	7 (0.2)	1 (0.1)	0 (0.0)	0.539	8 (0.1)	19 (1.6)	2 (0.3)	2 (0.9)	0.056	23 (1.2)	42 (0.4)	22 (0.3)	13 (0.5)	0.247	77 (0.4)
Medical information sites	516 (3.1)	161 (1.6)	79 (2.4)	<0.001	756 (2.5)	42 (2.7)	5 (1.3)	3 (3.8)	0.239	50 (2.5)	91 (2.0)	38 (2.4)	15 (4.1)	0.020*	144 (2.2)	58 (4.9)	19 (3.2)	8 (3.6)	0.209	85 (4.3)	325 (3.4)	99 (1.4)	53 (2.0)	<0.001	477 (2.5)
Blogs or web pages of celebrities and famous people	290 (1.7)	175 (1.8)	106 (3.2)	<0.001	571 (1.9)	17 (1.1)	2 (0.5)	4 (5.0)	0.003*	23 (1.2)	61 (1.3)	33 (2.0)	18 (4.9)	<0.001	112 (1.7)	38 (3.2)	13 (2.2)	8 (3.6)	0.416	59 (3.0)	174 (1.8)	127 (1.7)	76 (2.9)	<0.001	377 (1.9)
Local authorities such as prefectures and municipalities	5711 (33.9)	2436 (24.7)	525 (15.9)	<0.001	8672 (28.9)	683 (44.5)	135 (36.4)	29 (36.3)	0.009*	847 (42.6)	2007 (43.1)	599 (37.2)	103 (28.3)	<0.001	2709 (40.8)	386 (32.8)	179 (30.3)	38 (16.9)	<0.001	603 (30.3)	2635 (27.7)	1523 (20.9)	355 (13.4)	<0.001	4513 (23.2)
Government	3729 (22.1)	1400 (14.2)	354 (10.7)	<0.001	5483 (18.2)	412 (26.8)	74 (19.9)	15 (18.8)	0.009*	501 (25.2)	1203 (25.8)	316 (19.6)	60 (16.5)	<0.001	1579 (23.8)	272 (23.1)	87 (14.7)	24 (10.7)	<0.001	383 (19.2)	1842 (19.4)	923 (12.6)	255 (9.7)	<0.001	3020 (15.5)
Medical task-force advising the government, known as the Novel Coronavirus Expert Meeting (re-established as Novel Coronavirus Infectious Disease Control Subcommittee in July 2020)	1804 (10.7)	541 (5.5)	117 (3.5)	<0.001	2462 (8.2)	227 (14.8)	32 (8.6)	9 (11.3)	0.006*	268 (13.5)	580 (12.4)	132 (8.2)	27 (7.4)	<0.001	739 (11.1)	138 (11.7)	39 (6.6)	7 (3.1)	<0.001	184 (9.2)	859 (9.0)	338 (4.6)	74 (2.8)	<0.001	1271 (6.5)
Friends	2218 (13.1)	1263 (12.8)	323 (9.8)	<0.001	3804 (12.7)	225 (14.7)	58 (15.6)	17 (21.3)	0.262	300 (15.1)	785 (16.8)	299 (18.6)	55 (15.1)	0.163	1139 (17.2)	129 (11.0)	83 (14.1)	20 (8.9)	0.062	232 (11.7)	1079 (11.4)	823 (11.3)	231 (8.7)	<0.001	2133 (11.0)
Family members	3175 (18.8)	1725 (17.5)	427 (12.9)	<0.001	5327 (17.7)	369 (24.0)	79 (21.3)	20 (25.0)	0.510	468 (23.6)	1100 (23.6)	383 (23.8)	78 (21.4)	0.619	1563 (23.5)	187 (15.9)	118 (20.0)	28 (12.4)	0.018*	333 (16.7)	1519 (16.0)	1145 (15.7)	301 (11.4)	<0.001	2965 (15.3)
Scientists and researchers	518 (3.1)	196 (2.0)	110 (3.3)	<0.001	824 (2.7)	73 (4.8)	15 (4.0)	8 (10.0)	0.076	96 (4.8)	187 (4.0)	51 (3.2)	29 (8.0)	<0.001	267 (4.0)	37 (3.1)	16 (2.7)	8 (3.6)	0.796	61 (3.1)	221 (2.3)	114 (1.6)	65 (2.5)	<0.001	400 (2.1)
Pharmaceutical companies	212 (1.3)	69 (0.7)	23 (0.7)	<0.001	304 (1.0)	16 (1.0)	2 (0.5)	3 (3.8)	0.039*	21 (1.1)	35 (0.8)	15 (0.9)	4 (1.1)	0.647	54 (0.8)	21 (1.8)	8 (1.4)	2 (0.9)	0.545	31 (1.6)	140 (1.5)	44 (0.6)	14 (0.5)	<0.001	198 (1.0)
Other companies	264 (1.6)	396 (4.0)	239 (7.2)	<0.001	899 (3.0)	9 (0.6)	3 (0.8)	3 (3.8)	0.006*	15 (0.8)	37 (0.8)	34 (2.1)	11 (3.0)	<0.001	82 (1.2)	29 (2.5)	25 (4.2)	19 (8.4)	<0.001	73 (3.7)	189 (2.0)	334 (4.6)	206 (7.8)	<0.001	729 (3.8)

2

MA: multiple-answer question; \* Statistical significance disappeared after Bonferroni correction for multiple testing



1

## Supplementary Table 4: Trust in sources of COVID-19 information by three COVID-19 vaccine intention groups for pooled and by Groups (A–D), mean (95% confidence intervals)

	Pooled					Group (A) elderly with underlying diseases					Group (B) elderly without underlying diseases					Group (C) younger adults with underlying diseases					Group (D) younger adults without underlying diseases					
	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	Yes	Not sure	No	P-value	Total	
	N = 16869	N = 9874	N = 3310		N = 30053	N = 1535	N = 371	N = 80		N = 1986	N = 4661	N = 1611	N = 364		N = 6636	N = 1176	N = 590	N = 225		N = 1991	N = 9497	N = 7302	N = 2541		N = 19440	
<b>How much do you trust the information from each of these sources?</b>																										
Physicians	1.85 (1.84–1.86)	1.64 (1.63–1.66)	1.41 (1.38–1.44)	<0.001	1.73 (0.75)	1.92 (1.89–1.96)	1.77 (1.70–1.83)	1.59 (1.43–1.75)	<0.001	1.88 (0.68)	1.86 (1.84–1.88)	1.65 (1.61–1.68)	1.38 (1.30–1.45)	<0.001	1.78 (0.70)	1.84 (1.79–1.88)	1.70 (1.64–1.76)	1.41 (1.29–1.53)	<0.001	1.75 (0.83)	1.83 (1.81–1.84)	1.63 (1.61–1.65)	1.41 (1.38–1.44)	<0.001	1.70 (0.77)	
Nurses	1.69 (1.68–1.70)	1.53 (1.52–1.54)	1.34 (1.32–1.37)	<0.001	1.60 (0.73)	1.70 (1.66–1.73)	1.60 (1.53–1.67)	1.45 (1.29–1.61)	<0.001	1.67 (0.67)	1.69 (1.67–1.71)	1.53 (1.50–1.56)	1.30 (1.22–1.37)	<0.001	1.63 (0.68)	1.69 (1.64–1.73)	1.58 (1.52–1.64)	1.40 (1.30–1.51)	<0.001	1.62 (0.78)	1.69 (1.67–1.70)	1.52 (1.51–1.54)	1.34 (1.31–1.37)	<0.001	1.58 (0.75)	
Pharmacists	1.55 (1.54–1.56)	1.41 (1.40–1.42)	1.26 (1.23–1.28)	<0.001	1.47 (0.73)	1.55 (1.52–1.58)	1.43 (1.36–1.50)	1.33 (1.17–1.48)	<0.001	1.52 (0.68)	1.54 (1.52–1.56)	1.40 (1.37–1.43)	1.21 (1.14–1.28)	<0.001	1.49 (0.68)	1.57 (1.53–1.62)	1.46 (1.40–1.52)	1.29 (1.18–1.39)	<0.001	1.51 (0.78)	1.56 (1.54–1.57)	1.41 (1.39–1.42)	1.26 (1.23–1.29)	<0.001	1.46 (0.74)	
Veterinarians	1.12 (1.11–1.13)	1.05 (1.04–1.06)	0.96 (0.94–0.98)	<0.001	1.08 (0.76)	1.02 (0.98–1.06)	0.99 (0.91–1.06)	0.84 (0.69–0.98)	0.125	1.00 (0.75)	1.10 (1.07–1.12)	1.00 (0.96–1.03)	0.90 (0.83–0.98)	<0.001	1.06 (0.71)	1.12 (1.07–1.17)	1.07 (1.01–1.14)	1.09 (0.98–1.20)	0.737	1.10 (0.81)	1.15 (1.13–1.16)	1.06 (1.05–1.08)	0.96 (0.93–0.99)	<0.001	1.09 (0.77)	
Dentists	1.27 (1.26–1.29)	1.16 (1.15–1.18)	1.04 (1.01–1.06)	<0.001	1.21 (0.75)	1.24 (1.21–1.28)	1.20 (1.12–1.28)	1.13 (0.96–1.29)	0.301	1.23 (0.75)	1.31 (1.29–1.33)	1.18 (1.15–1.22)	1.01 (0.94–1.08)	<0.001	1.27 (0.71)	1.25 (1.21–1.30)	1.18 (1.12–1.24)	1.12 (1.01–1.22)	0.023*	1.22 (0.80)	1.26 (1.25–1.28)	1.15 (1.14–1.17)	1.03 (1.00–1.06)	<0.001	1.19 (0.76)	
Health fairs and events	1.04 (1.03–1.05)	0.95 (0.94–0.97)	0.84 (0.82–0.87)	<0.001	0.99 (0.71)	0.97 (0.94–1.01)	0.89 (0.82–0.96)	0.70 (0.54–0.86)	<0.001	0.95 (0.69)	1.05 (1.03–1.07)	0.92 (0.89–0.95)	0.75 (0.68–0.82)	<0.001	1.00 (0.66)	1.04 (0.99–1.08)	0.94 (0.88–1.00)	0.88 (0.77–0.98)	0.002*	0.99 (0.76)	1.05 (1.04–1.07)	0.96 (0.95–0.98)	0.86 (0.83–0.89)	<0.001	0.99 (0.72)	
Newspapers	1.38 (1.37–1.39)	1.20 (1.19–1.22)	0.98 (0.95–1.01)	<0.001	1.28 (0.74)	1.45 (1.42–1.49)	1.30 (1.22–1.37)	1.08 (0.92–1.23)	<0.001	1.41 (0.71)	1.48 (1.46–1.49)	1.29 (1.26–1.32)	0.98 (0.90–1.06)	<0.001	1.40 (0.69)	1.29 (1.25–1.34)	1.13 (1.07–1.19)	0.96 (0.85–1.07)	<0.001	1.21 (0.77)	1.33 (1.31–1.34)	1.19 (1.17–1.20)	0.98 (0.95–1.01)	<0.001	1.23 (0.75)	
Magazines	0.99 (0.98–1.00)	0.90 (0.89–0.92)	0.81 (0.79–0.84)	<0.001	0.94 (0.71)	0.93 (0.89–0.96)	0.82 (0.75–0.88)	0.71 (0.57–0.86)	<0.001	0.90 (0.67)	0.98 (0.96–1.01)	0.86 (0.83–0.90)	0.70 (0.64–0.77)	<0.001	0.94 (0.68)	0.92 (0.91–0.99)	0.79 (0.68–0.80)	0.70 (0.68–0.80)	<0.001	0.80 (0.73)	1.00 (0.99–1.02)	0.92 (0.91–0.94)	0.83 (0.80–0.86)	<0.001	0.95 (0.71)	
Books	1.09 (1.08–1.10)	0.99 (0.98–1.01)	0.91 (0.89–0.94)	<0.001	1.04 (0.68)	1.02 (0.99–1.06)	0.92 (0.86–0.99)	0.81 (0.66–0.96)	<0.001	1.00 (0.66)	1.09 (1.07–1.11)	0.97 (0.93–1.00)	0.88 (0.82–0.95)	<0.001	1.05 (0.65)	1.03 (0.99–1.07)	0.94 (0.88–0.99)	0.92 (0.81–1.02)	0.004*	0.99 (0.72)	1.11 (1.10–1.12)	1.01 (0.99–1.02)	0.92 (0.89–0.95)	<0.001	1.05 (0.70)	
Scientific literature	1.48 (1.46–1.49)	1.26 (1.24–1.27)	1.13 (1.10–1.16)	<0.001	1.37 (0.73)	1.53 (1.49–1.57)	1.33 (1.26–1.40)	1.23 (1.06–1.39)	<0.001	1.48 (0.72)	1.52 (1.50–1.54)	1.30 (1.26–1.33)	1.20 (1.12–1.27)	<0.001	1.45 (0.71)	1.45 (1.40–1.49)	1.21 (1.15–1.27)	1.08 (0.97–1.20)	<0.001	1.34 (0.79)	1.45 (1.43–1.46)	1.25 (1.23–1.27)	1.12 (1.09–1.15)	<0.001	1.33 (0.73)	
Television	1.31 (1.30–1.33)	1.17 (1.16–1.18)	0.92 (0.89–0.95)	<0.001	1.22 (0.73)	1.41 (1.37–1.44)	1.29 (1.21–1.36)	1.05 (0.91–1.19)	<0.001	1.37 (0.70)	1.40 (1.38–1.42)	1.23 (1.20–1.26)	0.86 (0.78–0.93)	<0.001	1.33 (0.68)	1.29 (1.24–1.33)	1.11 (1.05–1.17)	0.96 (0.84–1.08)	<0.001	1.20 (0.78)	1.26 (1.25–1.28)	1.16 (1.14–1.17)	0.92 (0.89–0.95)	<0.001	1.18 (0.74)	
Radio	1.23 (1.22–1.24)	1.08 (1.07–1.10)	0.88 (0.85–0.90)	<0.001	1.14 (0.70)	1.30 (1.27–1.34)	1.19 (1.12–1.25)	1.03 (0.89–1.16)	<0.001	1.27 (0.68)	1.31 (1.30–1.33)	1.16 (1.13–1.19)	0.85 (0.78–0.92)	<0.001	1.25 (0.66)	1.18 (1.14–1.22)	1.00 (0.94–1.06)	0.91 (0.80–1.01)	<0.001	1.09 (0.73)	1.18 (1.17–1.20)	1.07 (1.05–1.08)	0.88 (0.85–0.90)	<0.001	1.10 (0.70)	
Internet news sites	1.12 (1.11–1.13)	1.04 (1.03–1.06)	0.93 (0.91–0.96)	<0.001	1.08 (0.67)	1.12 (1.08–1.15)	1.01 (0.94–1.07)	0.95 (0.80–1.10)	0.002*	1.09 (0.67)	1.14 (1.12–1.16)	1.04 (1.01–1.07)	0.92 (0.86–0.99)	<0.001	1.10 (0.65)	1.11 (1.07–1.16)	1.04 (0.98–1.09)	0.95 (0.86–1.05)	0.002*	1.07 (0.71)	1.12 (1.10–1.13)	1.05 (1.03–1.06)	0.93 (0.91–0.96)	<0.001	1.06 (0.68)	
Search engines (Google, Yahoo, etc.)	1.06 (1.05–1.07)	0.99 (0.97–1.00)	0.93 (0.91–0.96)	<0.001	1.02 (0.67)	1.04 (1.00–1.07)	0.91 (0.85–0.98)	0.93 (0.77–1.08)	0.002*	1.01 (0.66)	1.05 (1.04–1.07)	0.95 (0.92–0.98)	0.87 (0.81–0.94)	<0.001	1.02 (0.65)	1.08 (1.04–1.12)	0.97 (0.92–1.03)	0.93 (0.83–1.04)	<0.001	1.01 (0.71)	1.07 (1.06–1.08)	1.00 (0.98–1.01)	0.94 (0.91–0.97)	<0.001	1.02 (0.67)	
LINE	0.74 (0.73–0.75)	0.70 (0.69–0.72)	0.65 (0.62–0.67)	<0.001	0.72 (0.71)	0.68 (0.65–0.72)	0.53 (0.47–0.60)	0.51 (0.37–0.65)	<0.001	0.65 (0.68)	0.68 (0.66–0.70)	0.61 (0.58–0.64)	0.49 (0.43–0.56)	<0.001	0.65 (0.68)	0.78 (0.73–0.82)	0.65 (0.59–0.70)	0.70 (0.59–0.80)	0.006*	0.73 (0.75)	0.77 (0.76–0.79)	0.74 (0.72–0.75)	0.67 (0.64–0.70)	<0.001	0.75 (0.71)	
Facebook	0.57 (0.56–0.58)	0.56 (0.55–0.57)	0.57 (0.54–0.59)	0.382	0.57 (0.68)	0.51 (0.47–0.54)	0.40 (0.34–0.46)	0.46 (0.32–0.60)	0.023*	0.49 (0.66)	0.50 (0.49–0.52)	0.47 (0.44–0.50)	0.43 (0.37–0.49)	0.031*	0.49 (0.63)	0.62 (0.57–0.66)	0.51 (0.46–0.56)	0.60 (0.50–0.70)	0.129	0.58 (0.74)	0.61 (0.60–0.63)	0.59 (0.58–0.61)	0.59 (0.56–0.61)	0.046*	0.60 (0.69)	
Twitter	0.56 (0.55–0.57)	0.58 (0.56–0.59)	0.61 (0.59–0.64)	0.001	0.57 (0.69)	0.47 (0.43–0.50)	0.39 (0.33–0.45)	0.45 (0.32–0.58)	0.203	0.45 (0.65)	0.47 (0.45–0.49)	0.45 (0.42–0.48)	0.43 (0.36–0.49)	0.314	0.46 (0.62)	0.61 (0.57–0.66)	0.54 (0.48–0.59)	0.64 (0.54–0.75)	0.338	0.59 (0.74)	0.62 (0.60–0.63)	0.62 (0.60–0.63)	0.64 (0.61–0.67)	0.608	0.62 (0.71)	
Instagram	0.53 (0.52–0.54)	0.54 (0.53–0.55)	0.55 (0.53–0.58)	0.130	0.54 (0.68)	0.44 (0.41–0.47)	0.37 (0.31–0.43)	0.39 (0.25–0.52)	0.264	0.43 (0.64)	0.46 (0.44–0.48)	0.44 (0.41–0.47)	0.38 (0.32–0.44)	0.033*	0.45 (0.62)	0.57 (0.52–0.63)	0.48 (0.43–0.53)	0.57 (0.47–0.68)	0.216	0.54 (0.72)	0.57 (0.56–0.59)	0.57 (0.56–0.59)	0.58 (0.55–0.61)	0.489	0.58 (0.69)	
YouTube	0.58 (0.57–0.59)	0.59 (0.58–0.60)	0.67 (0.64–0.69)	<0.001	0.59 (0.69)	0.51 (0.48–0.55)	0.47 (0.40–0.53)	0.56 (0.41–0.71)	0.319	0.51 (0.66)	0.52 (0.50–0.54)	0.51 (0.48–0.54)	0.57 (0.50–0.63)	0.343	0.52 (0.63)	0.63 (0.59–0.67)	0.55 (0.50–0.61)	0.66 (0.56–0.77)	0.253	0.61 (0.74)	0.62 (0.60–0.63)	0.62 (0.60–0.63)	0.69 (0.66–0.71)	0.002*	0.63 (0.70)	
TikTok	0.44 (0.43–0.45)	0.44 (0.42–0.45)	0.45 (0.42–0.47)	0.359	0.44 (0.64)	0.39 (0.35–0.42)	0.33 (0.27–0.39)	0.34 (0.21–0.47)	0.293	0.37 (0.62)	0.39 (0.37–0.41)	0.39 (0.36–0.42)	0.33 (0.27–0.39)	0.053	0.39 (0.60)	0.48 (0.44–0.52)	0.37 (0.33–0.42)	0.52 (0.41–0.62)	0.101	0.45 (0.72)	0.46 (0.45–0.47)	0.46 (0.44–0.47)	0.46 (0.43–0.49)	0.285	0.46 (0.67)	
Medical information sites	1.26 (1.25–1.27)	1.10 (1.09–1.12)	0.96 (0.93–0.99)	<0.001	1.18 (0.73)	1.32 (1.28–1.35)	1.14 (1.07–1.21)	1.03 (0.86–1.19)	<0.001	1.27 (0.71)	1.29 (1.27–1.31)	1.14 (1.10–1.17)	0.95 (0.88–1.02)	<0.001	1.23 (0.70)	1.31 (1.27–1.36)	1.07 (1.01–1.13)	1.00 (0.88–1.12)	<0.001	1.21 (0.79)	1.23 (1.22–1.25)	1.10 (1.08–1.11)	0.96 (0.93–0.99)	<0.001	1.15 (0.74)	
Blogs or web pages of celebrities and famous people	0.65 (0.64–0.66)	0.64 (0.62–0.65)	0.59 (0.57–0.62)	<0.001	0.64 (0.68)	0.60 (0.56–0.63)	0.52 (0.46–0.58)	0.56 (0.41–0.72)	0.221	0.58 (0.67)	0.61 (0.60–0.63)	0.55 (0.52–0.58)	0.42 (0.36–0.48)	<0.001	0.59 (0.65)	0.69 (0.64–0.73)	0.59 (0.54–0.64)	0.60 (0.49–0.70)	0.035*	0.65 (0.72)	0.67 (0.66–0.69)	0.66 (0.65–0.68)	0.61 (0.59–0.64)	<0.001	0.66 (0.71)	
Local authorities such as prefectures and municipalities	1.52 (1.51–1.54)	1.30 (1.28–1.31)	1.05 (1.02–1.08)	<0.001	1.40 (0.75)	1.59 (1.56–1.63)	1.40 (1.32–1.47)	1.18 (1.00–1.35)	<0.001	1.54 (0.72)	1.59 (1.57–1.61)	1.37 (1.31–1.40)	1.07 (1.00–1.15)	<0.001	1.51 (0.70)	1.52 (1.48–1.57)	1.25 (1.19–1.30)	1.02 (0.91–1.14)	<0.001	1.38 (0.79)	1.48 (1.47–1.50)	1.28 (1.26–1.30)	1.04 (1.01–1.07)	<0.001	1.35 (0.76)	
Government	1.36 (1.35–1.37)	1.11 (1.09–1.12)	0.90 (0.87–0.92)	<0.001	1.23 (0.79)	1.39 (1.35–1.42)	1.11 (1.04–1.18)	0.95 (0.77–1.13)	<0.001	1.32 (0.78)	1.40 (1.38–1.42)	1.12 (1.09–1.16)	0.85 (0.77–0.92)	<0.001	1.30 (0.76)	1.35 (1.30–1.39)	1.04 (0.98–1.11)	0.90 (0.79–1.01)	<0.001	1.21 (0.82)	1.34 (1.33–1.36)	1.11 (1.09–1.13)	0.90 (0.87–0.93)	<0.001	1.19 (0.79)	
Medical task-force advising the government, known as the Novel Coronavirus Expert Meeting (re-established as Novel Coronavirus Infectious Disease Control Subcommittee in July 2020)	1.59 (1.58–1.60)	1.32 (1.31–1.34)	1.05 (1.02–1.07)	<0.001	1.44 (0.81)	1.67 (1.64–1.71)	1.45 (1.37–1.53)	1.18 (0.98–1.37)	<0.001	1.61 (0.79)	1.67 (1.65–1.69)	1.41 (1.38–1.45)	1.08 (1.00–1.17)	<0.001	1.58 (0.78)	1.56 (1.51–1.61)	1.29 (1.23–1.35)	1.03 (0.91–1.14)	<0.001	1.42 (0.85)	1.54 (1.52–1.56)	1.30 (1.28–1.32)	1.04 (1.01–1.07)	<0.001	1.38 (0.80)	
Friends	1.00 (0.99–1.01)	0.96 (0.95–0.98)	0.91 (0.88–0.93)	<0.001	0.98 (0.69)	0.95 (0.92–0.98)	0.93 (0.87–1.00)	0.79 (0.64–0.93)	0.081	0.94 (0.65)	1.01 (0.99–1.0															

1 **Supplementary Table 5: Odds ratios (95% confidence intervals) for responding ‘not sure’ or ‘no’ regarding**  
 2 **intention to be vaccinated**

	Not sure, N = 9874	P value	No, N = 3310	P value
<b>COVID-19 pandemic situation</b>				
Total number of COVID-19 infected cases in residential prefectures as of February 16, 2021	1.00 (1.00–1.00)	0.779	1.00 (1.00–1.00)	0.291
Number of COVID-19 infected cases in residential prefectures between 16 January and February 16, 2021	1.00 (1.00–1.00)	0.421	1.00 (1.00–1.00)	0.268
<b>Sociodemographic characteristics</b>				
Age (SA)	0.98 (0.98–0.99)	<0.001	0.97 (0.96–0.97)	<0.001
<b>Gender (SA)</b>				
Women	1.53 (1.41–1.66)	<0.001	1.56 (1.37–1.78)	<0.001
Men	1.00 (1.00–1.00)	<0.001	1.00 (reference)	NA
Other	1.92 (0.81–4.57)	0.141	1.41 (0.44–4.45)	0.563
<b>Prefecture (SA)</b>				
Hokkaido	1.08 (0.93–1.26)	0.296	0.99 (0.77–1.27)	0.937
Aomori	0.88 (0.61–1.27)	0.497	1.39 (0.82–2.36)	0.217
Iwate	1.09 (0.77–1.54)	0.641	1.09 (0.61–1.97)	0.764
Miyagi	0.93 (0.73–1.18)	0.554	1.02 (0.69–1.52)	0.909
Akita	1.05 (0.71–1.55)	0.818	1.38 (0.71–2.68)	0.346
Yamagata	1.05 (0.71–1.55)	0.814	1.07 (0.57–2.01)	0.838
Fukushima	0.88 (0.64–1.22)	0.450	0.80 (0.48–1.34)	0.397
Ibaraki	1.02 (0.79–1.32)	0.867	0.97 (0.64–1.47)	0.885
Tochigi	1.12 (0.81–1.55)	0.495	0.80 (0.45–1.40)	0.429
Gunma	0.70 (0.50–0.99)	0.047	0.69 (0.39–1.20)	0.187
Saitama	1.20 (1.05–1.37)	0.007	1.25 (1.01–1.56)	0.043
Chiba	1.02 (0.90–1.16)	0.775	0.97 (0.79–1.21)	0.813
Tokyo	1.00 (reference)	NA	1.00 (reference)	NA
Kanagawa	1.05 (0.92–1.19)	0.483	0.98 (0.80–1.21)	0.876
Niigata	1.04 (0.82–1.31)	0.745	0.80 (0.52–1.25)	0.330
Toyama	0.77 (0.55–1.09)	0.143	1.16 (0.66–2.03)	0.599
Ishikawa	0.77 (0.54–1.10)	0.155	0.75 (0.41–1.36)	0.344
Fukui	1.58 (1.00–2.49)	0.050	0.75 (0.31–1.83)	0.527
Yamanashi	0.78 (0.51–1.19)	0.246	1.62 (0.86–3.05)	0.135
Nagano	1.08 (0.84–1.38)	0.565	1.10 (0.73–1.66)	0.654
Gifu	1.04 (0.78–1.39)	0.779	1.37 (0.87–2.14)	0.170
Shizuoka	0.99 (0.80–1.23)	0.931	0.83 (0.57–1.20)	0.320
Aichi	0.95 (0.83–1.09)	0.446	0.98 (0.79–1.23)	0.893
Mie	0.83 (0.63–1.10)	0.206	0.87 (0.53–1.44)	0.599
Shiga	0.99 (0.69–1.44)	0.966	1.23 (0.70–2.15)	0.478
Kyoto	0.93 (0.74–1.17)	0.532	1.06 (0.73–1.52)	0.770
Osaka	1.16 (1.02–1.32)	0.026	1.01 (0.82–1.25)	0.896
Hyogo	1.01 (0.86–1.18)	0.936	1.23 (0.96–1.58)	0.102
Nara	1.21 (0.88–1.68)	0.240	1.42 (0.86–2.36)	0.171
Wakayama	0.54 (0.33–0.89)	0.016	0.42 (0.19–0.94)	0.035
Tottori	0.99 (0.59–1.64)	0.954	1.24 (0.56–2.76)	0.601
Shimane	0.81 (0.51–1.30)	0.386	0.11 (0.03–0.38)	<0.001
Okayama	1.26 (0.98–1.61)	0.073	1.75 (1.17–2.60)	0.006
Hiroshima	1.11 (0.90–1.38)	0.331	1.37 (0.97–1.94)	0.070
Yamaguchi	0.95 (0.67–1.35)	0.772	0.62 (0.34–1.15)	0.129
Tokushima	0.99 (0.64–1.52)	0.958	1.68 (0.86–3.30)	0.132
Kagawa	1.26 (0.89–1.80)	0.196	1.09 (0.60–1.98)	0.786
Ehime	0.91 (0.68–1.22)	0.541	1.21 (0.76–1.94)	0.415
Kochi	1.26 (0.73–2.19)	0.402	1.78 (0.77–4.12)	0.179

Fukuoka	1.06 (0.92–1.23)	0.425	1.14 (0.90–1.44)	0.290
Saga	1.14 (0.75–1.73)	0.546	1.36 (0.65–2.86)	0.416
Nagasaki	1.10 (0.79–1.53)	0.577	0.93 (0.53–1.64)	0.807
Kumamoto	0.86 (0.64–1.16)	0.324	0.86 (0.53–1.40)	0.535
Oita	0.96 (0.65–1.40)	0.823	1.40 (0.75–2.61)	0.291
Miyazaki	0.94 (0.62–1.43)	0.781	0.98 (0.50–1.93)	0.950
Kagoshima	0.73 (0.51–1.03)	0.074	1.48 (0.88–2.51)	0.142
Okinawa	1.40 (0.97–2.03)	0.069	1.07 (0.60–1.91)	0.824
<b>Highest educational level (SA)</b>	<b>0.97 (0.93–1.00)</b>	<b>0.066</b>	<b>1.00 (0.94–1.06)</b>	<b>0.936</b>
<b>Occupation type (SA)</b>				
Agriculture, forestry and fisheries	2.23 (1.43–3.49)	<0.001	0.54 (0.26–1.13)	0.102
Construction	1.55 (1.22–1.99)	<0.001	1.22 (0.84–1.76)	0.291
Manufacturing	1.74 (1.45–2.09)	<0.001	0.97 (0.73–1.30)	0.860
Information and communications	1.90 (1.47–2.44)	<0.001	1.00 (0.68–1.47)	0.999
Transportation and postal services	2.33 (1.81–3.01)	<0.001	1.37 (0.93–2.02)	0.113
Wholesale and retail trade	1.98 (1.63–2.41)	<0.001	0.99 (0.72–1.35)	0.926
Finance and insurance	2.12 (1.63–2.77)	<0.001	1.67 (1.12–2.50)	0.012
Real estate and goods rental and leasing	1.94 (1.41–2.67)	<0.001	1.02 (0.61–1.69)	0.945
Scientific research, professional and technical services	1.69 (1.22–2.34)	0.002	1.01 (0.60–1.69)	0.981
Accommodations, food and beverage services	1.65 (1.27–2.15)	<0.001	0.82 (0.54–1.26)	0.370
Living-related and personal services and amusement services	2.03 (1.50–2.73)	<0.001	1.47 (0.93–2.33)	0.100
Education and learning support	1.72 (1.36–2.18)	<0.001	1.19 (0.82–1.71)	0.362
Healthcare and welfare	1.00 (reference)	NA	1.00 (reference)	NA
Combined services	1.33 (0.87–2.03)	0.186	1.57 (0.88–2.80)	0.123
Services (not elsewhere classified)	1.63 (1.35–1.97)	<0.001	1.13 (0.84–1.50)	0.423
Public service (not elsewhere classified)	1.69 (1.32–2.16)	<0.001	1.43 (0.99–2.09)	0.060
Students	2.32 (1.76–3.06)	<0.001	1.06 (0.70–1.58)	0.794
Homemaker	1.83 (1.55–2.17)	<0.001	1.14 (0.87–1.50)	0.325
Others	2.06 (1.72–2.46)	<0.001	1.30 (0.99–1.72)	0.059
<b>Annual household income in 2020 (SA)</b>	<b>0.99 (0.98–1.00)</b>	<b>0.217</b>	<b>1.01 (0.99–1.03)</b>	<b>0.548</b>
<b>Healthcare-related characteristics, including health literacy</b>				
<b>Self-reported health status (SA)</b>				
Very good	0.95 (0.86–1.05)	0.318	0.94 (0.80–1.10)	0.459
Good	1.00 (0.91–1.09)	0.998	1.00 (0.86–1.16)	0.957
Fair	1.00 (reference)	NA	1.00 (reference)	NA
Poor	1.23 (1.08–1.39)	0.001	1.15 (0.94–1.41)	0.186
Very poor	1.36 (1.06–1.73)	0.015	1.07 (0.74–1.53)	0.722
<b>Have you ever received a COVID-19 test? (SA)</b>				
No	1.35 (0.82–2.23)	0.235	0.61 (0.27–1.36)	0.224
Yes – PCR test	1.08 (0.67–1.77)	0.745	0.41 (0.19–0.90)	0.025
Yes – antigen test	0.80 (0.51–1.27)	0.352	0.72 (0.34–1.53)	0.393
Yes – antibody testing	0.89 (0.54–1.46)	0.651	0.57 (0.25–1.30)	0.181
Yes – unsure about either of the three	1.37 (0.77–2.44)	0.282	0.68 (0.28–1.65)	0.392
Absence of underlying diseases (e.g. diabetes, heart failure, respiratory disease, COPD, etc., or on dialysis, or using immunosuppressive or anticancer drugs) (SA)	1.22 (1.09–1.37)	<0.001	1.20 (0.99–1.45)	0.068
<b>Preventive measures against COVID-19 (MA)</b>				
Avoid going to places with poor ventilation	0.90 (0.83–0.97)	0.009	0.95 (0.83–1.09)	0.455
Avoid going to places where there are many people gathered	1.08 (0.98–1.19)	0.122	1.09 (0.94–1.26)	0.274
Avoid talking or speaking in close proximity to other people	0.96 (0.88–1.04)	0.287	1.06 (0.92–1.22)	0.426
Washing hands, gargling, and hand disinfection with alcohol.	1.06 (0.95–1.18)	0.311	0.84 (0.71–0.98)	0.027
Etiquette (masks, handkerchiefs, etc.) in case of coughing or sneezing	1.09 (1.00–1.19)	0.055	0.93 (0.80–1.07)	0.285
Telework	0.97 (0.84–1.11)	0.645	0.99 (0.79–1.23)	0.898
Be conscious of social distancing	1.01 (0.93–1.10)	0.789	0.99 (0.86–1.15)	0.942
Avoid going out unnecessarily.	1.08 (0.99–1.17)	0.074	0.89 (0.78–1.02)	0.099

Other preventive measures	1.03 (0.84–1.27)	0.767	1.02 (0.74–1.41)	0.902
No preventive measures	0.94 (0.76–1.16)	0.562	0.96 (0.73–1.24)	0.733
Have you ever refrained from visiting a medical institution because you were anxious about being infected by the new coronavirus? (MA)				
Have refrained from regular hospital visits	0.96 (0.83–1.11)	0.599	0.80 (0.63–1.03)	0.080
Have refrained from visiting the hospital for sudden symptoms such as a cold, headache, or stomachache	1.06 (0.91–1.23)	0.445	0.93 (0.72–1.19)	0.544
Have refrained from medical checkups, physical examinations, or cancer screenings	1.05 (0.91–1.21)	0.481	1.07 (0.83–1.36)	0.605
Have refrained from other medical examinations	1.08 (0.92–1.26)	0.341	1.05 (0.81–1.36)	0.730
No	1.21 (1.04–1.41)	0.012	1.09 (0.85–1.41)	0.485
How confident are you filling out medical forms by yourself? (health literacy) (SA)				
Not at all	1.06 (0.78–1.44)	0.707	1.25 (0.85–1.85)	0.257
A little bit	0.99 (0.83–1.17)	0.868	1.25 (0.98–1.60)	0.072
Somewhat	1.00 (reference)	NA	1.00 (reference)	NA
Extremely	1.05 (0.96–1.15)	0.279	1.14 (0.99–1.32)	0.076
Quite a bit	1.10 (0.99–1.23)	0.086	1.38 (1.16–1.64)	<0.001
<b>Psychological characteristics</b>				
How anxious are you about COVID-19? (SA) – perceived risks of COVID-19				
Not at all anxious	0.87 (0.71–1.06)	0.167	1.58 (1.20–2.07)	<0.001
Vaguely anxious	0.98 (0.85–1.15)	0.838	0.97 (0.77–1.21)	0.769
Have a clear sense of anxiety	0.82 (0.70–0.96)	0.012	0.83 (0.65–1.05)	0.122
Feel fear and have anxiety	1.00 (reference)	NA	1.00 (reference)	NA
What is your best guess as to whether you will get COVID-19 within the next 6 months? (SA) – perceived risks of COVID-19				
I don't think I will get COVID-19	1.20 (1.07–1.35)	0.002	1.35 (1.12–1.64)	0.002
I think I will get a mild case of COVID-19	0.97 (0.87–1.10)	0.672	0.91 (0.74–1.11)	0.340
I think I will get seriously ill from COVID-19	1.00 (reference)	NA	1.00 (reference)	NA
I have already had COVID-19	4.25 (2.79–6.47)	<0.001	2.62 (1.55–4.42)	<0.001
How do you think the disadvantages of the COVID-19 vaccine are? (SA) – perceived risks of a COVID-19 vaccine				
Very small	0.24 (0.20–0.29)	<0.001	0.15 (0.10–0.21)	<0.001
Small	0.45 (0.41–0.49)	<0.001	0.44 (0.37–0.52)	<0.001
Medium	1.00 (reference)	NA	1.00 (reference)	NA
Large	1.21 (1.08–1.36)	<0.001	1.91 (1.63–2.24)	<0.001
Very large	2.53 (1.84–3.49)	<0.001	3.90 (2.66–5.72)	<0.001
Do you think getting a COVID-19 vaccine will ease your anxiety? (SA) – perceived benefits of a COVID-19 vaccine				
Strongly disagree	1.55 (1.18–2.03)	0.002	2.81 (2.07–3.81)	<0.001
Disagree	1.24 (1.12–1.38)	<0.001	1.77 (1.52–2.06)	<0.001
Neither agree nor disagree	1.00 (reference)	NA	1.00 (reference)	NA
Agree	0.57 (0.53–0.62)	<0.001	0.61 (0.52–0.73)	<0.001
Strongly agree	0.74 (0.54–1.00)	0.050	1.09 (0.63–1.89)	0.761
If others have been vaccinated against COVID-19, do you think you should be vaccinated as well? (SA) – perceived norms about a COVID-19 vaccine				
Strongly disagree	0.40 (0.29–0.54)	<0.001	5.67 (4.16–7.73)	<0.001
Disagree	0.80 (0.70–0.91)	<0.001	3.55 (3.03–4.16)	<0.001
Neither agree nor disagree	1.00 (reference)	NA	1.00 (reference)	NA
Agree	0.27 (0.25–0.29)	<0.001	0.14 (0.12–0.17)	<0.001
Strongly agree	0.03 (0.02–0.04)	<0.001	0.03 (0.02–0.05)	<0.001
Do you trust scientists in the field of vaccine development for COVID-19? (SA) – trusts about COVID-19 vaccine				

Strongly distrust	0.71 (0.44–1.16)	0.177	0.76 (0.44–1.30)	0.315
Distrust	0.89 (0.74–1.07)	0.196	1.01 (0.80–1.27)	0.945
Neutral	1.00 (reference)	NA	1.00 (reference)	NA
Trust	0.71 (0.64–0.78)	<0.001	0.89 (0.74–1.06)	0.178
Strongly trust	0.71 (0.51–0.99)	0.047	0.55 (0.31–0.99)	0.048
<b>Do you trust the public authorities to approve vaccines for COVID-19? (SA) – trusts about COVID-19 vaccine</b>				
Strongly distrust	2.19 (1.54–3.13)	<0.001	3.54 (2.36–5.29)	<0.001
Distrust	1.44 (1.26–1.65)	<0.001	1.79 (1.48–2.16)	<0.001
Neutral	1.00 (reference)	NA	1.00 (reference)	NA
Trust	0.64 (0.58–0.70)	<0.001	0.77 (0.64–0.92)	0.006
Strongly trust	0.82 (0.56–1.19)	0.291	0.74 (0.39–1.40)	0.353
<b>Do you trust your healthcare provider about vaccination against COVID-19? (SA) – trusts about COVID-19 vaccine</b>				
Strongly distrust	0.80 (0.46–1.38)	0.429	0.66 (0.37–1.18)	0.164
Distrust	0.86 (0.69–1.06)	0.155	0.93 (0.72–1.20)	0.588
Neutral	1.00 (reference)	NA	1.00 (reference)	NA
Trust	0.96 (0.87–1.06)	0.421	0.66 (0.56–0.77)	<0.001
Strongly trust	0.88 (0.70–1.11)	0.281	0.74 (0.49–1.11)	0.141
<b>Do you think that healthcare workers and employees of elderly care facilities should be vaccinated? (SA) – belief about COVID-19 vaccine</b>				
Yes	0.78 (0.62–0.99)	0.037	0.17 (0.13–0.21)	<0.001
No	1.00 (reference)	NA	1.00 (reference)	NA
Can't say either	2.67 (2.11–3.38)	<0.001	0.66 (0.51–0.84)	<0.001
<b>Do you receive an influenza vaccine? (SA)</b>				
Every year	1.00 (reference)	NA	1.00 (reference)	NA
Every few years	1.46 (1.33–1.61)	<0.001	1.83 (1.52–2.21)	<0.001
Rarely or never	2.83 (2.61–3.07)	<0.001	5.73 (4.93–6.67)	<0.001
<b>Information sources about COVID-19 (MA)</b>				
Physicians	0.82 (0.72–0.92)	0.001	0.70 (0.56–0.87)	0.001
Nurses	0.79 (0.65–0.96)	0.018	0.66 (0.48–0.91)	0.010
Pharmacists	0.81 (0.61–1.08)	0.150	1.20 (0.79–1.83)	0.400
Dentists	–	–	–	–
Newspapers	1.01 (0.93–1.09)	0.870	0.87 (0.75–1.01)	0.064
Books	0.91 (0.72–1.16)	0.453	0.75 (0.51–1.11)	0.153
Scientific literature	0.94 (0.66–1.33)	–	1.43 (0.86–2.38)	0.169
Television	1.06 (0.96–1.18)	0.244	0.81 (0.70–0.93)	0.004
Radio	0.96 (0.86–1.07)	0.439	1.07 (0.89–1.30)	0.472
Internet news sites	1.21 (1.12–1.31)	<0.001	1.07 (0.94–1.21)	0.290
Search engines (Google, Yahoo, etc.)	1.06 (0.97–1.16)	0.216	1.03 (0.88–1.19)	0.727
LINE	0.87 (0.75–1.01)	0.060	0.80 (0.63–1.02)	0.066
Facebook	0.81 (0.61–1.08)	0.148	0.79 (0.51–1.22)	0.287
Twitter	0.89 (0.77–1.03)	0.128	0.95 (0.76–1.19)	0.663
Instagram	0.84 (0.61–1.16)	0.283	0.97 (0.60–1.56)	0.898
YouTube	1.36 (1.14–1.61)	<0.001	1.09 (0.84–1.41)	0.525
Medical information sites	0.64 (0.50–0.83)	<0.001	0.63 (0.42–0.95)	0.026
Blogs or web pages of celebrities and famous people	1.19 (0.90–1.56)	0.225	1.33 (0.88–2.00)	0.176
Local governments such as prefectures and municipalities	0.95 (0.87–1.05)	0.328	0.86 (0.73–1.02)	0.084
Government	0.93 (0.83–1.05)	0.233	0.92 (0.75–1.13)	0.410
Medical task-force advising the government, known as the Novel Coronavirus Expert Meeting (re-established as Novel Coronavirus Infectious Disease Control Subcommittee in July 2020)	0.89 (0.77–1.04)	0.151	0.75 (0.56–1.02)	0.066
Friends	1.13 (1.00–1.28)	0.052	1.07 (0.86–1.33)	0.538
Family members	1.13 (1.02–1.26)	0.021	1.11 (0.92–1.34)	0.288

Scientists and researchers	1.19 (0.93–1.52)	0.168	1.80 (1.24–2.63)	0.002
Other companies	1.32 (1.04–1.67)	0.021	1.30 (0.97–1.74)	0.085

**Trust levels in information sources (MA)**

Physicians	1.08 (0.98–1.18)	0.103	0.99 (0.86–1.14)	0.919
Nurses	1.02 (0.92–1.13)	0.743	1.02 (0.86–1.19)	0.854
Pharmacists	1.03 (0.95–1.13)	0.460	1.23 (1.06–1.42)	0.005
Veterinarians	0.95 (0.88–1.03)	0.188	0.87 (0.77–0.98)	0.026
Dentists	0.91 (0.84–0.99)	0.028	0.90 (0.79–1.03)	0.131
Health fairs and events	1.04 (0.97–1.12)	0.293	1.08 (0.96–1.21)	0.218
Newspapers	–	–	–	–
Magazines	0.99 (0.90–1.08)	0.832	1.09 (0.94–1.26)	0.240
Books	1.03 (0.93–1.13)	0.601	1.12 (0.96–1.30)	0.140
Scientific literature	0.95 (0.88–1.02)	0.125	0.89 (0.80–1.00)	0.059
Television	1.11 (1.01–1.21)	0.022	1.02 (0.90–1.16)	0.755
Radio	0.93 (0.85–1.02)	0.118	0.87 (0.75–1.00)	0.048
Internet news sites	1.06 (0.97–1.16)	0.190	0.98 (0.84–1.13)	0.733
Search engines (Google, Yahoo, etc.)	0.96 (0.88–1.05)	0.379	1.13 (0.98–1.30)	0.085
LINE	0.95 (0.87–1.04)	0.247	0.85 (0.74–0.98)	0.024
Facebook	0.93 (0.82–1.05)	0.230	1.05 (0.87–1.26)	0.640
Twitter	1.03 (0.91–1.17)	0.648	1.02 (0.85–1.23)	0.805
Instagram	1.10 (0.95–1.26)	0.195	1.00 (0.82–1.23)	0.997
YouTube	1.03 (0.93–1.14)	0.527	1.21 (1.04–1.41)	0.015
TikTok	0.90 (0.81–1.00)	0.046	0.85 (0.72–0.99)	0.038
Medical information sites	0.97 (0.91–1.04)	0.350	0.97 (0.87–1.08)	0.575
Blogs or web pages of celebrities and famous people	1.00 (0.92–1.08)	0.926	0.92 (0.81–1.05)	0.199
Local governments such as prefectures and municipalities	1.04 (0.96–1.12)	0.359	0.95 (0.84–1.08)	0.443
Government	0.99 (0.92–1.07)	0.802	1.06 (0.94–1.19)	0.346
Medical task-force advising the government	1.04 (0.96–1.12)	0.322	1.04 (0.92–1.17)	0.534
Friends	1.06 (0.97–1.15)	0.183	1.19 (1.04–1.36)	0.009
Family members	1.02 (0.95–1.10)	0.618	1.02 (0.91–1.15)	0.727
Scientists and researchers	1.04 (0.96–1.13)	0.320	0.98 (0.86–1.12)	0.768
Pharmaceutical companies	1.07 (0.98–1.16)	0.142	0.96 (0.83–1.11)	0.608
Other companies	1.01 (0.93–1.10)	0.865	1.11 (0.97–1.28)	0.139

1 The estimates were derived from the multinomial logistic regression, in reference to the COVID-19 vaccine  
2 acceptance group. An en-dash indicates that the variable was not included in the model. Blank indicates no samples.  
3 SA: single-answer questions; MA: multiple-answer question. Highest education levels and annual household income  
4 in 2020 (ordinal scale questions) were also treated as continuous variables. Variables that are not on the tables were  
5 dropped in the process of optimal variable selection and were not statistically significant.

1 **Supplementary Table 6: Odds ratios (95% confidence intervals) for responding ‘not sure’ regarding intention to be vaccinated by Groups (A–D)**

	Group (A) elderly with underlying diseases N = 1986	P value	Group (B) elderly without underlying diseases N = 6636	P value	Group (C) younger adults with underlying diseases N = 1991	P value	Group (D) younger adults without underlying diseases N = 19940	P value
<b>COVID-19 pandemic situation</b>								
Total number of COVID-19 infected cases in residential prefectures as of February 16, 2021	1.00 (1.00–1.00)	0.598	1.00 (1.00–1.00)	0.471	1.00 (1.00–1.00)	0.554	1.00 (1.00–1.00)	0.966
Number of COVID-19 infected cases in residential prefectures between 16 January and February 16, 2021	–	–	1.00 (1.00–1.00)	0.600	1.00 (1.00–1.00)	0.522	1.00 (1.00–1.00)	0.668
<b>Sociodemographic characteristics</b>								
<b>Gender (SA)</b>								
Women	1.27 (0.89–1.82)	0.190	1.86 (1.48–2.33)	<0.001	1.29 (0.91–1.82)	0.148	1.51 (1.37–1.66)	<0.001
Men	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Other	[Blank]	[Blank]	43.42 (0.61–3066.43)	0.083	7.73 (0.43–140.42)	0.167	1.23 (0.44–3.42)	0.695
<b>Prefecture (SA)</b>								
Hokkaido	–	–	–	–	–	–	1.06 (0.88–1.27)	0.566
Aomori	–	–	–	–	–	–	0.92 (0.60–1.41)	0.714
Iwate	–	–	–	–	–	–	0.97 (0.65–1.46)	0.903
Miyagi	–	–	–	–	–	–	0.90 (0.67–1.20)	0.467
Akita	–	–	–	–	–	–	0.99 (0.63–1.56)	0.974
Yamagata	–	–	–	–	–	–	1.09 (0.68–1.75)	0.716
Fukushima	–	–	–	–	–	–	0.88 (0.61–1.27)	0.495
Ibaraki	–	–	–	–	–	–	1.11 (0.82–1.52)	0.492
Tochigi	–	–	–	–	–	–	1.21 (0.83–1.77)	0.321
Gunma	–	–	–	–	–	–	0.68 (0.45–1.02)	0.064
Saitama	–	–	–	–	–	–	1.22 (1.04–1.43)	0.016
Chiba	–	–	–	–	–	–	1.02 (0.88–1.19)	0.780
Tokyo	–	–	–	–	–	–	1.00 (reference)	NA
Kanagawa	–	–	–	–	–	–	1.14 (0.97–1.33)	0.106
Niigata	–	–	–	–	–	–	1.01 (0.77–1.32)	0.956
Toyama	–	–	–	–	–	–	0.79 (0.52–1.21)	0.280
Ishikawa	–	–	–	–	–	–	0.65 (0.43–1.00)	0.051
Fukui	–	–	–	–	–	–	1.30 (0.75–2.27)	0.353
Yamanashi	–	–	–	–	–	–	0.74 (0.43–1.27)	0.270
Nagano	–	–	–	–	–	–	0.98 (0.72–1.33)	0.892
Gifu	–	–	–	–	–	–	1.08 (0.76–1.54)	0.653
Shizuoka	–	–	–	–	–	–	1.06 (0.82–1.38)	0.643

Aichi	–	–	–	–	–	–	1.08 (0.92–1.27)	0.360
Mie	–	–	–	–	–	–	0.85 (0.61–1.18)	0.323
Shiga	–	–	–	–	–	–	0.84 (0.54–1.31)	0.442
Kyoto	–	–	–	–	–	–	1.03 (0.77–1.37)	0.864
Osaka	–	–	–	–	–	–	1.20 (1.03–1.41)	0.021
Hyogo	–	–	–	–	–	–	1.03 (0.85–1.25)	0.777
Nara	–	–	–	–	–	–	1.35 (0.90–2.03)	0.143
Wakayama	–	–	–	–	–	–	0.49 (0.27–0.89)	0.020
Tottori	–	–	–	–	–	–	1.19 (0.67–2.13)	0.544
Shimane	–	–	–	–	–	–	0.91 (0.53–1.57)	0.731
Okayama	–	–	–	–	–	–	1.19 (0.88–1.62)	0.255
Hiroshima	–	–	–	–	–	–	0.95 (0.73–1.24)	0.730
Yamaguchi	–	–	–	–	–	–	0.96 (0.63–1.45)	0.838
Tokushima	–	–	–	–	–	–	0.85 (0.50–1.43)	0.535
Kagawa	–	–	–	–	–	–	1.08 (0.69–1.68)	0.734
Ehime	–	–	–	–	–	–	0.91 (0.64–1.31)	0.617
Kochi	–	–	–	–	–	–	1.35 (0.68–2.68)	0.384
Fukuoka	–	–	–	–	–	–	1.10 (0.92–1.32)	0.293
Saga	–	–	–	–	–	–	1.22 (0.75–1.98)	0.432
Nagasaki	–	–	–	–	–	–	1.38 (0.93–2.04)	0.112
Kumamoto	–	–	–	–	–	–	0.84 (0.59–1.19)	0.323
Oita	–	–	–	–	–	–	0.86 (0.55–1.36)	0.523
Miyazaki	–	–	–	–	–	–	0.85 (0.51–1.43)	0.543
Kagoshima	–	–	–	–	–	–	0.54 (0.36–0.83)	0.005
Okinawa	–	–	–	–	–	–	1.18 (0.78–1.78)	0.426
Highest educational level (SA)	0.89 (0.75–1.05)	0.164	0.91 (0.83–1.00)	0.040	0.93 (0.80–1.09)	0.385	1.00 (0.96–1.04)	0.975
Occupation type (SA)								
Agriculture, forestry and fisheries	–	–	0.52 (0.15–1.78)	0.301	2.78 (0.74–10.44)	0.131	3.50 (1.99–6.17)	<0.001
Construction	–	–	0.62 (0.25–1.54)	0.303	1.42 (0.55–3.68)	0.466	1.63 (1.24–2.13)	<0.001
Manufacturing	–	–	1.39 (0.62–3.10)	0.422	0.90 (0.43–1.92)	0.794	1.93 (1.58–2.36)	<0.001
Information and communications	–	–	0.79 (0.23–2.77)	0.717	1.49 (0.50–4.40)	0.473	2.02 (1.54–2.64)	<0.001
Transportation and postal services	–	–	0.98 (0.30–3.21)	0.974	1.65 (0.64–4.27)	0.303	2.65 (2.01–3.49)	<0.001
Wholesale and retail trade	–	–	0.75 (0.37–1.52)	0.423	1.83 (0.82–4.04)	0.138	2.15 (1.74–2.67)	<0.001
Finance and insurance	–	–	0.69 (0.17–2.86)	0.611	1.02 (0.35–2.95)	0.974	2.41 (1.82–3.20)	<0.001
Real estate and goods rental and leasing	–	–	1.20 (0.51–2.80)	0.674	3.03 (0.93–9.87)	0.065	1.86 (1.26–2.73)	0.002
Scientific research, professional and technical services	–	–	0.46 (0.14–1.52)	0.203	4.65 (1.16–18.56)	0.030	1.82 (1.27–2.61)	0.001
Accommodations, food and beverage services	–	–	0.68 (0.26–1.78)	0.431	1.30 (0.39–4.33)	0.664	1.88 (1.41–2.51)	<0.001
Living-related and personal services and amusement services	–	–	2.42 (0.91–6.43)	0.076	1.66 (0.45–6.17)	0.447	2.02 (1.46–2.81)	<0.001



Education and learning support	–	–	1.00 (0.44–2.27)	0.995	1.98 (0.80–4.89)	0.137	1.70 (1.31–2.20)	<0.001
Healthcare and welfare	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Combined services	–	–	0.06 (0.01–0.38)	0.003	1.01 (0.28–3.70)	0.985	1.83 (1.13–2.96)	0.013
Services (not elsewhere classified)	–	–	0.59 (0.31–1.13)	0.109	1.21 (0.57–2.56)	0.627	1.86 (1.51–2.30)	<0.001
Public service (not elsewhere classified)	–	–	0.57 (0.21–1.58)	0.279	1.30 (0.52–3.26)	0.576	1.91 (1.46–2.50)	<0.001
Students	–	–			0.34 (0.07–1.74)	0.195	3.50 (2.63–4.65)	<0.001
Homemaker	–	–	0.75 (0.43–1.31)	0.314	1.99 (1.01–3.91)	0.046	1.99 (1.64–2.42)	<0.001
Others	–	–	0.99 (0.57–1.74)	0.976	1.59 (0.79–3.22)	0.194	2.30 (1.86–2.86)	<0.001
Annual household income in 2020 (SA)	1.02 (0.95–1.09)	0.575	0.99 (0.96–1.03)	0.589	0.98 (0.93–1.04)	0.494	0.98 (0.97–1.00)	0.020
<b>Healthcare-related characteristics, including health literacy</b>								
Self-reported health status (SA)								
Very good	0.85 (0.43–1.68)	0.645	0.96 (0.76–1.22)	0.749	0.99 (0.60–1.61)	0.953	0.98 (0.87–1.10)	0.727
Good	1.26 (0.83–1.91)	0.270	1.05 (0.86–1.29)	0.639	0.90 (0.61–1.35)	0.621	1.00 (0.90–1.12)	0.975
Fair	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Poor	2.29 (1.51–3.46)	<0.001	1.70 (1.25–2.31)	<0.001	1.16 (0.79–1.72)	0.446	0.98 (0.83–1.15)	0.786
Very poor	1.63 (0.83–3.20)	0.153	1.44 (0.64–3.25)	0.380	1.00 (0.53–1.87)	0.991	1.33 (0.94–1.88)	0.106
Have you ever received a COVID-19 test? (SA)								
No	–	–	–	–	0.82 (0.21–3.28)	0.783	1.90 (1.04–3.48)	0.037
Yes – PCR test	–	–	–	–	0.67 (0.18–2.54)	0.555	1.52 (0.85–2.74)	0.160
Yes – antigen test	–	–	–	–	0.52 (0.14–1.87)	0.316	1.08 (0.63–1.86)	0.773
Yes – antibody testing	–	–	–	–	0.55 (0.15–2.12)	0.388	1.20 (0.66–2.19)	0.554
Yes – unsure about either of the three	–	–	–	–	0.28 (0.05–1.54)	0.143	2.12 (1.06–4.24)	0.033
Preventive measures against COVID-19 (MA)								
Avoid going to places with poor ventilation	0.83 (0.57–1.21)	0.345	1.02 (0.84–1.25)	0.824	1.16 (0.83–1.61)	0.386	0.87 (0.79–0.96)	0.004
Avoid going to places where there are many people gathered	0.87 (0.53–1.45)	0.596	0.96 (0.74–1.25)	0.753	0.95 (0.63–1.42)	0.792	1.13 (1.01–1.27)	0.028
Avoid talking or speaking in close proximity to other people	0.94 (0.64–1.38)	0.739	1.05 (0.86–1.29)	0.619	1.10 (0.78–1.54)	0.601	0.91 (0.82–1.00)	0.062
Washing hands, gargling, and hand disinfection with alcohol.	1.43 (0.79–2.60)	0.243	0.93 (0.69–1.25)	0.632	1.05 (0.66–1.68)	0.827	1.07 (0.94–1.21)	0.297
Etiquette (masks, handkerchiefs, etc.) in case of coughing or sneezing	1.23 (0.79–1.90)	0.357	1.11 (0.89–1.38)	0.364	1.00 (0.68–1.48)	0.990	1.06 (0.96–1.18)	0.239
Telework	1.43 (0.58–3.51)	0.437	0.91 (0.51–1.64)	0.763	0.77 (0.44–1.34)	0.353	0.97 (0.84–1.13)	0.733
Be conscious of social distancing	0.85 (0.59–1.23)	0.393	0.98 (0.81–1.18)	0.807	0.97 (0.68–1.36)	0.842	1.02 (0.92–1.12)	0.714
Avoid going out unnecessarily.	1.27 (0.83–1.96)	0.270	1.02 (0.82–1.26)	0.886	0.96 (0.67–1.37)	0.818	1.06 (0.97–1.17)	0.211
Other preventive measures	0.80 (0.34–1.89)	0.607	0.95 (0.58–1.54)	0.824	1.29 (0.63–2.66)	0.485	1.07 (0.82–1.39)	0.627
No preventive measures	0.58 (0.15–2.24)	0.430	0.75 (0.41–1.37)	0.348	0.79 (0.30–2.09)	0.639	0.95 (0.75–1.21)	0.686
Have you ever refrained from visiting a medical institution because you were anxious about being infected by the new coronavirus? (MA)								
Have refrained from regular hospital visits	–	–	1.14 (0.83–1.57)	0.407	0.74 (0.45–1.23)	0.253	0.96 (0.80–1.16)	0.672

Have refrained from visiting the hospital for sudden symptoms such as a cold, headache, or stomachache	–	–	0.96 (0.65–1.42)	0.833	0.95 (0.57–1.57)	0.835	1.18 (0.98–1.42)	0.075
Have refrained from medical checkups, physical examinations, or cancer screenings	–	–	1.28 (0.93–1.75)	0.132	0.97 (0.58–1.62)	0.904	0.97 (0.81–1.17)	0.786
Have refrained from other medical examinations	–	–	1.25 (0.89–1.75)	0.193	1.79 (1.01–3.17)	0.045	1.00 (0.82–1.23)	0.978
No	–	–	1.24 (0.88–1.75)	0.214	1.72 (1.00–2.95)	0.049	1.22 (1.00–1.47)	0.047
<b>How confident are you filling out medical forms by yourself? (health literacy) (SA)</b>								
Not at all	–	–	0.88 (0.21–3.72)	0.860	0.77 (0.33–1.79)	0.544	1.38 (0.95–2.00)	0.091
A little bit	–	–	0.79 (0.43–1.47)	0.457	0.60 (0.35–1.04)	0.067	1.14 (0.93–1.39)	0.219
Somewhat	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Extremely	–	–	1.08 (0.86–1.37)	0.498	0.70 (0.49–1.00)	0.052	1.06 (0.96–1.18)	0.261
Quite a bit	–	–	1.33 (1.01–1.74)	0.039	0.60 (0.38–0.95)	0.030	1.09 (0.96–1.24)	0.198
<b>Psychological characteristics</b>								
<b>How anxious are you about COVID-19? (SA) – perceived risks of COVID-19</b>								
Not at all anxious	0.43 (0.14–1.28)	0.128	0.80 (0.46–1.40)	0.435	0.48 (0.21–1.13)	0.093	0.95 (0.75–1.20)	0.654
Vaguely anxious	0.88 (0.44–1.75)	0.716	0.63 (0.42–0.95)	0.027	0.91 (0.54–1.51)	0.707	1.08 (0.90–1.30)	0.409
Have a clear sense of anxiety	0.83 (0.42–1.66)	0.606	0.50 (0.33–0.75)	0.001	1.31 (0.77–2.21)	0.318	0.84 (0.70–1.02)	0.077
Feel fear and have anxiety	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
<b>What is your best guess as to whether you will get COVID-19 within the next 6 months? (SA) – perceived risks of COVID-19</b>								
I don't think I will get COVID-19	–	–	1.49 (1.13–1.96)	0.005	1.78 (1.24–2.55)	0.002	1.13 (0.97–1.31)	0.111
I think I will get a mild case of COVID-19	–	–	1.25 (0.92–1.71)	0.155	1.07 (0.70–1.63)	0.743	0.95 (0.82–1.11)	0.526
I think I will get seriously ill from COVID-19	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
I have already had COVID-19	–	–	6.82 (1.48–31.35)	0.014	1.85 (0.41–8.43)	0.424	4.56 (2.82–7.38)	<0.001
<b>How do you think the disadvantages of the COVID-19 vaccine are? (SA) – perceived risks of a COVID-19 vaccine</b>								
Very small	0.32 (0.14–0.76)	0.010	0.19 (0.12–0.31)	<0.001	0.14 (0.06–0.34)	<0.001	0.27 (0.21–0.34)	<0.001
Small	0.53 (0.36–0.76)	<0.001	0.45 (0.37–0.54)	<0.001	0.37 (0.26–0.52)	<0.001	0.45 (0.41–0.50)	<0.001
Medium	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Large	1.98 (1.18–3.33)	0.010	0.91 (0.68–1.21)	0.512	1.68 (1.07–2.63)	0.024	1.23 (1.07–1.40)	0.003
Very large	3.09 (0.70–13.65)	0.136	2.46 (0.99–6.08)	0.051	2.38 (0.93–6.10)	0.072	2.41 (1.62–3.57)	<0.001
<b>Do you think getting a COVID-19 vaccine will ease your anxiety? (SA) – perceived benefits of a COVID-19 vaccine</b>								
Strongly disagree	3.70 (0.86–15.87)	0.078	2.56 (1.02–6.42)	0.044	2.77 (1.07–7.15)	0.036	1.45 (1.05–1.99)	0.023
Disagree	1.07 (0.65–1.74)	0.800	1.22 (0.96–1.55)	0.099	1.14 (0.74–1.73)	0.557	1.30 (1.15–1.48)	<0.001
Neither agree nor disagree	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA

Agree	0.48 (0.33–0.69)	<0.001	0.51 (0.42–0.62)	<0.001	0.90 (0.63–1.29)	0.562	0.58 (0.52–0.64)	<0.001
Strongly agree	0.39 (0.09–1.70)	0.211	0.86 (0.39–1.92)	0.718	1.48 (0.44–4.95)	0.526	0.71 (0.49–1.03)	0.069
If others have been vaccinated against COVID-19, do you think you should be vaccinated as well? (SA) – perceived norms about a COVID-19 vaccine								
Strongly disagree	0.05 (0.01–0.41)	0.005	0.45 (0.16–1.26)	0.129	0.43 (0.16–1.17)	0.100	0.47 (0.32–0.69)	<0.001
Disagree	0.77 (0.44–1.33)	0.344	0.81 (0.61–1.09)	0.164	0.71 (0.42–1.20)	0.196	0.78 (0.66–0.91)	0.002
Neither agree nor disagree	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Agree	0.17 (0.12–0.25)	<0.001	0.20 (0.16–0.24)	<0.001	0.25 (0.18–0.36)	<0.001	0.29 (0.26–0.32)	<0.001
Strongly agree	0.04 (0.01–0.11)	<0.001	0.02 (0.01–0.04)	<0.001	0.03 (0.01–0.09)	<0.001	0.03 (0.02–0.04)	<0.001
Do you trust scientists in the field of vaccine development for COVID-19? (SA) – trusts about COVID-19 vaccine								
Strongly distrust	6.15 (0.57–66.11)	0.134	2.92 (0.34–24.78)	0.326	0.72 (0.16–3.22)	0.671	0.63 (0.34–1.15)	0.132
Distrust	1.46 (0.65–3.27)	0.363	1.31 (0.82–2.11)	0.260	0.54 (0.28–1.07)	0.076	0.85 (0.67–1.07)	0.157
Neutral	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Trust	0.65 (0.44–0.97)	0.033	0.65 (0.53–0.82)	<0.001	0.70 (0.47–1.04)	0.079	0.71 (0.63–0.80)	<0.001
Strongly trust	0.28 (0.05–1.61)	0.155	0.89 (0.35–2.25)	0.801	0.62 (0.17–2.33)	0.483	0.73 (0.49–1.09)	0.121
Do you trust the public authorities to approve vaccines for COVID-19? (SA) – trusts about COVID-19 vaccine								
Strongly distrust	0.52 (0.13–2.05)	0.351	6.84 (2.07–22.55)	0.002	2.79 (0.94–8.27)	0.064	1.96 (1.26–3.05)	0.003
Distrust	0.87 (0.47–1.61)	0.667	1.39 (1.00–1.93)	0.048	1.33 (0.79–2.24)	0.277	1.53 (1.29–1.82)	<0.001
Neutral	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Trust	0.67 (0.44–1.00)	0.051	0.56 (0.45–0.70)	<0.001	0.67 (0.45–1.00)	0.049	0.64 (0.57–0.72)	<0.001
Strongly trust	0.42 (0.03–5.07)	0.494	0.70 (0.21–2.36)	0.562	3.22 (0.86–12.10)	0.083	0.75 (0.48–1.16)	0.199
Do you trust your healthcare provider about vaccination against COVID-19? (SA) – trusts about COVID-19 vaccine								
Strongly distrust	–	–	0.12 (0.02–1.02)	0.053	0.38 (0.08–1.74)	0.213	1.55 (0.74–3.23)	0.241
Distrust	–	–	0.97 (0.55–1.70)	0.913	0.84 (0.41–1.70)	0.621	0.89 (0.68–1.15)	0.364
Neutral	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Trust	–	–	0.81 (0.64–1.03)	0.081	0.82 (0.55–1.22)	0.330	1.01 (0.90–1.14)	0.874
Strongly trust	–	–	0.38 (0.18–0.80)	0.010	0.58 (0.24–1.42)	0.231	1.08 (0.83–1.40)	0.567
Do you think that healthcare workers and employees of elderly care facilities should be vaccinated? (SA) – belief about COVID-19 vaccine								
Yes	1.19 (0.21–6.69)	0.842	1.69 (0.71–4.03)	0.236	1.07 (0.48–2.38)	0.868	0.65 (0.50–0.84)	0.001
No	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Can't say either	9.17 (1.54–54.54)	0.015	7.80 (3.20–19.00)	<0.001	4.45 (1.93–10.27)	<0.001	2.05 (1.57–2.69)	<0.001
Do you receive an influenza vaccine? (SA)								
Every year	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA

Every few years	1.59 (1.03–2.45)	0.036	1.55 (1.24–1.95)	<0.001	1.41 (0.94–2.12)	0.093	1.49 (1.32–1.67)	<0.001
Rarely or never	3.49 (2.41–5.05)	<0.001	3.46 (2.85–4.19)	<0.001	2.67 (1.90–3.75)	<0.001	2.66 (2.41–2.93)	<0.001

**Information sources about COVID-19 (MA)**

Physicians	1.09 (0.75–1.60)	0.651	0.89 (0.67–1.18)	0.410	0.55 (0.37–0.83)	0.004	0.75 (0.63–0.88)	<0.001
Nurses	–	–	–	–	0.79 (0.45–1.40)	0.417	0.86 (0.67–1.11)	0.243
Pharmacists	–	–	0.64 (0.32–1.30)	0.219	–	–	0.91 (0.61–1.34)	0.619
Dentists	–	–	0.46 (0.21–1.01)	0.053	–	–	–	–
Newspapers	–	–	0.95 (0.80–1.14)	0.606	1.02 (0.73–1.42)	0.907	0.98 (0.88–1.08)	0.678
Books	–	–	–	–	–	–	0.79 (0.59–1.04)	0.096
Scientific literature	–	–	–	–	0.06 (0.01–0.33)	0.001	–	–
Television	–	–	0.80 (0.59–1.08)	0.139	0.99 (0.66–1.50)	0.970	1.02 (0.91–1.15)	0.743
Radio	–	–	0.98 (0.79–1.22)	0.857	0.92 (0.58–1.46)	0.739	0.94 (0.81–1.08)	0.377
Internet news sites	1.26 (0.88–1.79)	0.206	1.13 (0.94–1.36)	0.191	1.10 (0.80–1.53)	0.545	1.19 (1.09–1.31)	<0.001
Search engines (Google, Yahoo, etc.)	1.52 (0.98–2.35)	0.062	0.94 (0.74–1.20)	0.641	1.31 (0.90–1.90)	0.153	1.08 (0.97–1.20)	0.161
LINE	–	–	0.71 (0.47–1.07)	0.102	–	–	0.91 (0.77–1.08)	0.281
Facebook	–	–	0.64 (0.29–1.38)	0.251	–	–	0.70 (0.50–0.97)	0.032
Twitter	–	–	–	–	0.84 (0.48–1.46)	0.534	0.95 (0.81–1.11)	0.510
Instagram	–	–	–	–	–	–	–	–
YouTube	–	–	1.46 (0.93–2.30)	0.099	–	–	1.34 (1.10–1.64)	0.005
Medical information sites	–	–	–	–	–	–	0.52 (0.38–0.71)	<0.001
Blogs or web pages of celebrities and famous people	–	–	–	–	–	–	1.34 (0.97–1.86)	0.080
Local governments such as prefectures and municipalities	0.85 (0.60–1.22)	0.387	1.07 (0.89–1.29)	0.461	1.12 (0.76–1.64)	0.569	0.90 (0.79–1.01)	0.081
Government	–	–	–	–	0.71 (0.45–1.11)	0.130	0.96 (0.83–1.11)	0.591
Medical task-force advising the government, known as the Novel Coronavirus Expert Meeting (re-established as Novel Coronavirus Infectious Disease Control Subcommittee in July 2020)	–	–	0.83 (0.62–1.12)	0.229	–	–	0.88 (0.73–1.08)	0.225
Friends	–	–	1.31 (1.02–1.67)	0.034	1.63 (0.95–2.80)	0.075	1.04 (0.88–1.22)	0.655
Family members	–	–	1.05 (0.84–1.31)	0.664	1.33 (0.84–2.10)	0.225	1.20 (1.04–1.38)	0.010
Scientists and researchers	–	–	–	–	3.22 (1.17–8.86)	0.024	–	–
Other companies	–	–	–	–	2.12 (0.87–5.15)	0.099	1.29 (0.99–1.68)	0.056

**Trust levels in information sources (MA)**

Physicians	–	–	1.06 (0.84–1.33)	0.618	1.18 (0.85–1.64)	0.326	1.08 (0.97–1.21)	0.150
Nurses	1.70 (1.14–2.53)	0.009	1.06 (0.81–1.38)	0.680	1.09 (0.74–1.62)	0.662	0.96 (0.85–1.09)	0.528
Pharmacists	0.65 (0.43–0.99)	0.043	1.18 (0.95–1.47)	0.140	1.05 (0.74–1.50)	0.770	1.02 (0.92–1.14)	0.668
Veterinarians	0.92 (0.70–1.22)	0.580	0.81 (0.68–0.97)	0.022	1.41 (1.05–1.90)	0.023	0.97 (0.88–1.07)	0.522
Dentists	–	–	0.93 (0.77–1.13)	0.485	0.84 (0.61–1.16)	0.295	0.89 (0.81–0.99)	0.026
Health fairs and events	1.07 (0.79–1.45)	0.668	0.87 (0.73–1.04)	0.129	–	–	1.09 (0.99–1.19)	0.069
Newspapers	–	–	1.10 (0.91–1.33)	0.309	0.87 (0.64–1.17)	0.343	0.97 (0.88–1.07)	0.588

Magazines	–	–	–	–	0.89 (0.61–1.31)	0.563	1.02 (0.91–1.14)	0.723
Books	–	–	1.00 (0.82–1.20)	0.959	1.42 (0.96–2.10)	0.076	0.99 (0.88–1.11)	0.891
Scientific literature	0.81 (0.60–1.09)	0.162	0.96 (0.81–1.14)	0.642	0.94 (0.70–1.25)	0.659	0.96 (0.88–1.05)	0.408
Television	1.11 (0.80–1.55)	0.514	0.94 (0.73–1.20)	0.607	–	–	1.16 (1.04–1.29)	0.006
Radio	–	–	1.05 (0.82–1.34)	0.723	0.94 (0.68–1.31)	0.712	0.90 (0.81–1.01)	0.064
Internet news sites	0.78 (0.53–1.14)	0.204	1.21 (0.97–1.49)	0.088	1.41 (0.97–2.05)	0.075	1.02 (0.92–1.14)	0.691
Search engines (Google, Yahoo, etc.)	0.96 (0.66–1.40)	0.833	0.88 (0.71–1.09)	0.239	0.86 (0.59–1.24)	0.405	0.99 (0.89–1.10)	0.831
LINE	0.89 (0.58–1.35)	0.578	0.90 (0.72–1.12)	0.357	0.85 (0.63–1.16)	0.316	0.99 (0.89–1.10)	0.858
Facebook	0.55 (0.33–0.93)	0.027	1.12 (0.78–1.62)	0.528	–	–	0.92 (0.80–1.06)	0.229
Twitter	–	–	–	–	–	–	1.04 (0.90–1.20)	0.589
Instagram	–	–	1.18 (0.80–1.74)	0.402	–	–	1.07 (0.91–1.26)	0.394
YouTube	1.58 (1.00–2.51)	0.051	0.95 (0.72–1.25)	0.710	0.82 (0.60–1.11)	0.194	1.07 (0.95–1.20)	0.282
TikTok	–	–	–	–	–	–	0.87 (0.78–0.99)	0.028
Medical information sites	0.96 (0.70–1.30)	0.776	1.00 (0.86–1.18)	0.968	0.89 (0.67–1.17)	0.390	0.95 (0.88–1.03)	0.259
Blogs or web pages of celebrities and famous people	1.10 (0.76–1.57)	0.618	0.96 (0.79–1.17)	0.702	1.01 (0.74–1.39)	0.928	1.01 (0.92–1.11)	0.896
Local governments such as prefectures and municipalities	1.03 (0.72–1.48)	0.854	–	–	0.83 (0.60–1.16)	0.276	1.09 (0.99–1.21)	0.068
Government	0.85 (0.61–1.18)	0.321	0.96 (0.81–1.13)	0.601	0.88 (0.66–1.18)	0.396	1.01 (0.93–1.10)	0.812
Medical task-force advising the government	1.17 (0.85–1.61)	0.328	1.14 (0.96–1.36)	0.130	1.25 (0.94–1.67)	0.127	0.98 (0.89–1.07)	0.602
Friends	1.42 (0.98–2.08)	0.067	1.03 (0.85–1.25)	0.794	1.43 (1.03–1.99)	0.032	1.05 (0.95–1.16)	0.353
Family members	0.72 (0.52–0.99)	0.043	1.10 (0.93–1.29)	0.275	1.02 (0.76–1.38)	0.888	1.01 (0.92–1.11)	0.843
Scientists and researchers	–	–	–	–	0.78 (0.56–1.10)	0.155	1.11 (1.00–1.22)	0.043
Pharmaceutical companies	1.09 (0.77–1.56)	0.619	1.20 (0.99–1.46)	0.063	0.96 (0.68–1.34)	0.796	1.03 (0.93–1.15)	0.571
Other companies	1.43 (0.98–2.08)	0.065	1.09 (0.89–1.33)	0.402	–	–	0.95 (0.86–1.06)	0.375

1 The estimates were derived from the multinomial logistic regression, in reference to the COVID-19 vaccine acceptance group. An en-dash indicates that the variable was not  
2 included in the model. Blank indicates no samples. SA: single-answer questions; MA: multiple-answer question. Highest education levels and annual household income in  
3 2020 (ordinal scale questions) were also treated as continuous variables. Variables that are not on the tables were dropped in the process of optimal variable selection and  
4 were not statistically significant.

1 **Supplementary Table 7: Odds ratios (95% confidence intervals) for responding 'no' regarding intention to be vaccinated by Groups (A–D)**

	Group (A) elderly with underlying diseases N = 1986	P value	Group (B) elderly without underlying diseases N = 6636	P value	Group (C) younger adults with underlying diseases N = 1991	P value	Group (D) younger adults without underlying diseases N = 19940	P value
<b>COVID-19 pandemic situation</b>								
Total number of COVID-19 infected cases in residential prefectures as of February 16, 2021	1.00 (1.00–1.00)	0.700	1.00 (1.00–1.00)	0.301	1.00 (1.00–1.00)	0.595	1.00 (1.00–1.00)	0.601
Number of COVID-19 infected cases in residential prefectures between 16 January and February 16, 2021	–	–	1.00 (1.00–1.00)	0.389	1.00 (1.00–1.00)	0.602	1.00 (1.00–1.00)	0.518
<b>Sociodemographic characteristics</b>								
<b>Gender (SA)</b>								
Women	1.94 (0.81–4.68)	0.139	2.10 (1.33–3.30)	0.001	1.76 (1.04–2.98)	0.035	1.59 (1.37–1.84)	<0.001
Men	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Other	[Blank]	[Blank]	49.22 (0.38–6426.23)	0.117	0.82 (0.02–29.67)	0.913	1.01 (0.27–3.79)	0.990
<b>Prefecture (SA)</b>								
Hokkaido	–	–	–	–	–	–	0.96 (0.71–1.29)	0.794
Aomori	–	–	–	–	–	–	1.58 (0.87–2.86)	0.135
Iwate	–	–	–	–	–	–	0.75 (0.36–1.54)	0.432
Miyagi	–	–	–	–	–	–	0.79 (0.50–1.26)	0.317
Akita	–	–	–	–	–	–	1.33 (0.62–2.84)	0.467
Yamagata	–	–	–	–	–	–	1.10 (0.52–2.31)	0.799
Fukushima	–	–	–	–	–	–	0.69 (0.39–1.25)	0.222
Ibaraki	–	–	–	–	–	–	1.08 (0.68–1.72)	0.744
Tochigi	–	–	–	–	–	–	0.86 (0.45–1.65)	0.648
Gunma	–	–	–	–	–	–	0.64 (0.34–1.21)	0.173
Saitama	–	–	–	–	–	–	1.29 (1.01–1.66)	0.043
Chiba	–	–	–	–	–	–	0.86 (0.67–1.11)	0.246
Tokyo	–	–	–	–	–	–	1.00 (reference)	NA
Kanagawa	–	–	–	–	–	–	1.10 (0.87–1.40)	0.411
Niigata	–	–	–	–	–	–	0.73 (0.45–1.20)	0.215
Toyama	–	–	–	–	–	–	1.36 (0.74–2.50)	0.317
Ishikawa	–	–	–	–	–	–	0.66 (0.34–1.28)	0.214
Fukui	–	–	–	–	–	–	0.71 (0.27–1.90)	0.495
Yamanashi	–	–	–	–	–	–	1.60 (0.76–3.39)	0.218
Nagano	–	–	–	–	–	–	0.78 (0.47–1.28)	0.329
Gifu	–	–	–	–	–	–	1.65 (1.00–2.72)	0.052
Shizuoka	–	–	–	–	–	–	0.93 (0.61–1.43)	0.754

Aichi	–	–	–	–	–	–	1.02 (0.80–1.32)	0.849
Mie	–	–	–	–	–	–	0.74 (0.41–1.31)	0.298
Shiga	–	–	–	–	–	–	1.24 (0.67–2.30)	0.502
Kyoto	–	–	–	–	–	–	1.05 (0.68–1.62)	0.841
Osaka	–	–	–	–	–	–	1.06 (0.83–1.35)	0.661
Hyogo	–	–	–	–	–	–	1.19 (0.89–1.59)	0.243
Nara	–	–	–	–	–	–	1.64 (0.93–2.91)	0.090
Wakayama	–	–	–	–	–	–	0.38 (0.15–0.95)	0.040
Tottori	–	–	–	–	–	–	1.72 (0.73–4.07)	0.214
Shimane	–	–	–	–	–	–	0.15 (0.04–0.60)	0.007
Okayama	–	–	–	–	–	–	1.47 (0.92–2.34)	0.110
Hiroshima	–	–	–	–	–	–	1.17 (0.78–1.76)	0.438
Yamaguchi	–	–	–	–	–	–	0.66 (0.33–1.33)	0.246
Tokushima	–	–	–	–	–	–	1.73 (0.82–3.67)	0.151
Kagawa	–	–	–	–	–	–	0.91 (0.45–1.86)	0.805
Ehime	–	–	–	–	–	–	1.19 (0.69–2.07)	0.526
Kochi	–	–	–	–	–	–	1.56 (0.56–4.36)	0.400
Fukuoka	–	–	–	–	–	–	1.19 (0.91–1.57)	0.204
Saga	–	–	–	–	–	–	1.16 (0.48–2.81)	0.738
Nagasaki	–	–	–	–	–	–	1.15 (0.61–2.15)	0.667
Kumamoto	–	–	–	–	–	–	0.69 (0.40–1.19)	0.182
Oita	–	–	–	–	–	–	1.24 (0.62–2.47)	0.548
Miyazaki	–	–	–	–	–	–	1.13 (0.54–2.35)	0.748
Kagoshima	–	–	–	–	–	–	1.17 (0.64–2.14)	0.606
Okinawa	–	–	–	–	–	–	0.76 (0.40–1.47)	0.419
Highest educational level (SA)	0.79 (0.52–1.22)	0.293	0.88 (0.74–1.05)	0.163	0.96 (0.76–1.21)	0.718	1.06 (1.00–1.14)	0.069
Occupation type (SA)								
Agriculture, forestry and fisheries	–	–	0.22 (0.02–2.55)	0.228	0.17 (0.02–1.56)	0.117	1.30 (0.53–3.22)	0.566
Construction	–	–	0.41 (0.07–2.52)	0.336	4.04 (1.03–15.91)	0.046	1.16 (0.78–1.74)	0.467
Manufacturing	–	–	0.76 (0.16–3.74)	0.738	0.71 (0.21–2.35)	0.569	1.11 (0.82–1.50)	0.505
Information and communications	–	–	1.75 (0.24–12.51)	0.578	1.53 (0.30–7.76)	0.609	1.05 (0.70–1.58)	0.816
Transportation and postal services	–	–	0.36 (0.03–4.41)	0.421	0.80 (0.16–3.96)	0.782	1.64 (1.08–2.49)	0.019
Wholesale and retail trade	–	–	0.28 (0.07–1.14)	0.076	0.59 (0.15–2.39)	0.459	1.13 (0.81–1.58)	0.468
Finance and insurance	–	–	2.48 (0.24–25.18)	0.443	0.62 (0.09–4.12)	0.620	1.89 (1.24–2.90)	0.003
Real estate and goods rental and leasing	–	–	0.67 (0.13–3.44)	0.627	2.98 (0.52–17.13)	0.221	0.98 (0.54–1.75)	0.932
Scientific research, professional and technical services	–	–	0.12 (0.01–1.52)	0.101	2.32 (0.22–24.35)	0.484	1.14 (0.65–1.99)	0.639
Accommodations, food and beverage services	–	–	0.06 (0.00–0.80)	0.033	1.31 (0.14–11.96)	0.813	1.03 (0.66–1.61)	0.888
Living-related and personal services and amusement services	–	–	3.21 (0.48–21.62)	0.231	1.55 (0.21–11.43)	0.665	1.59 (0.97–2.59)	0.065

Education and learning support	–	–	0.60 (0.11–3.18)	0.545	2.28 (0.55–9.38)	0.254	1.12 (0.75–1.68)	0.567
Healthcare and welfare	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Combined services	–	–	0.00 (0.00–0.00)	<0.001	3.93 (0.73–21.10)	0.111	2.05 (1.06–3.96)	0.032
Services (not elsewhere classified)	–	–	0.39 (0.11–1.32)	0.128	1.22 (0.36–4.07)	0.752	1.19 (0.87–1.64)	0.270
Public service (not elsewhere classified)	–	–	0.38 (0.05–2.84)	0.344	0.87 (0.17–4.41)	0.864	1.69 (1.13–2.52)	0.011
Students	–	–			0.41 (0.07–2.57)	0.340	2.13 (1.40–3.23)	<0.001
Homemaker	–	–	0.31 (0.11–0.91)	0.033	1.33 (0.42–4.19)	0.628	1.12 (0.83–1.52)	0.445
Others	–	–	0.43 (0.15–1.27)	0.128	1.42 (0.46–4.39)	0.546	1.49 (1.09–2.05)	0.014
Annual household income in 2020 (SA)	1.17 (1.00–1.38)	0.055	0.99 (0.92–1.06)	0.745	1.04 (0.96–1.14)	0.344	0.99 (0.97–1.01)	0.480
<b>Healthcare-related characteristics, including health literacy</b>								
Self-reported health status (SA)								
Very good	0.74 (0.15–3.53)	0.702	1.31 (0.80–2.16)	0.281	0.73 (0.33–1.59)	0.427	0.97 (0.81–1.16)	0.706
Good	1.67 (0.56–4.95)	0.357	1.24 (0.79–1.95)	0.342	0.81 (0.41–1.58)	0.534	0.97 (0.81–1.15)	0.701
Fair	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Poor	2.05 (0.70–5.96)	0.190	1.75 (0.88–3.47)	0.109	1.42 (0.72–2.80)	0.313	0.87 (0.68–1.11)	0.265
Very poor	2.14 (0.37–12.53)	0.397	1.00 (0.24–4.14)	0.996	1.29 (0.51–3.25)	0.593	0.95 (0.59–1.53)	0.825
Have you ever received a COVID-19 test? (SA)								
No	–	–	–	–	0.24 (0.04–1.35)	0.106	0.82 (0.30–2.24)	0.704
Yes – PCR test	–	–	–	–	0.20 (0.04–1.00)	0.050	0.55 (0.21–1.45)	0.227
Yes – antigen test	–	–	–	–	1.57 (0.33–7.41)	0.567	0.69 (0.27–1.74)	0.428
Yes – antibody testing	–	–	–	–	0.19 (0.03–1.33)	0.094	0.94 (0.34–2.54)	0.896
Yes – unsure about either of the three	–	–	–	–	0.14 (0.02–1.04)	0.055	0.94 (0.32–2.78)	0.907
Preventive measures against COVID-19 (MA)								
Avoid going to places with poor ventilation	0.36 (0.14–0.93)	0.035	0.83 (0.54–1.27)	0.381	1.04 (0.60–1.81)	0.890	0.98 (0.84–1.13)	0.749
Avoid going to places where there are many people gathered	0.15 (0.04–0.51)	0.003	1.22 (0.72–2.07)	0.453	0.80 (0.45–1.42)	0.439	1.17 (0.99–1.38)	0.061
Avoid talking or speaking in close proximity to other people	1.52 (0.53–4.32)	0.435	1.33 (0.86–2.08)	0.204	0.91 (0.51–1.64)	0.758	1.00 (0.85–1.17)	1.000
Washing hands, gargling, and hand disinfection with alcohol.	0.80 (0.20–3.21)	0.753	0.55 (0.33–0.94)	0.030	0.62 (0.32–1.20)	0.155	0.91 (0.76–1.08)	0.280
Etiquette (masks, handkerchiefs, etc.) in case of coughing or sneezing	1.27 (0.40–4.06)	0.682	1.27 (0.79–2.03)	0.323	0.78 (0.42–1.45)	0.431	0.85 (0.72–1.00)	0.048
Telework	1.52 (0.10–22.27)	0.762	0.98 (0.31–3.05)	0.968	1.01 (0.43–2.33)	0.988	1.00 (0.79–1.28)	0.981
Be conscious of social distancing	2.63 (0.95–7.29)	0.063	1.24 (0.82–1.87)	0.315	0.78 (0.42–1.47)	0.446	0.93 (0.79–1.09)	0.384
Avoid going out unnecessarily.	1.92 (0.62–5.97)	0.260	0.88 (0.57–1.37)	0.579	1.28 (0.71–2.30)	0.417	0.83 (0.72–0.97)	0.016
Other preventive measures	1.89 (0.31–11.53)	0.492	1.04 (0.44–2.46)	0.926	0.69 (0.19–2.55)	0.576	1.06 (0.72–1.57)	0.766
No preventive measures	5.18 (0.52–51.26)	0.160	0.54 (0.20–1.43)	0.213	0.31 (0.09–1.07)	0.063	1.04 (0.78–1.39)	0.774
Have you ever refrained from visiting a medical institution because you were anxious about being infected by the new coronavirus? (MA)								
Have refrained from regular hospital visits	–	–	0.57 (0.27–1.22)	0.148	1.05 (0.50–2.24)	0.891	0.82 (0.60–1.12)	0.221



Have refrained from visiting the hospital for sudden symptoms such as a cold, headache, or stomachache	–	–	0.69 (0.27–1.80)	0.450	2.27 (1.08–4.78)	0.031	1.07 (0.79–1.46)	0.649
Have refrained from medical checkups, physical examinations, or cancer screenings	–	–	1.24 (0.59–2.62)	0.577	1.61 (0.76–3.40)	0.216	0.86 (0.63–1.18)	0.359
Have refrained from other medical examinations	–	–	0.80 (0.37–1.73)	0.570	1.47 (0.61–3.55)	0.394	1.02 (0.73–1.42)	0.920
No	–	–	0.80 (0.36–1.77)	0.584	2.27 (1.00–5.16)	0.051	1.15 (0.83–1.58)	0.398
<b>How confident are you filling out medical forms by yourself? (health literacy) (SA)</b>								
Not at all	–	–	1.33 (0.13–13.72)	0.810	0.60 (0.18–1.94)	0.389	2.11 (1.33–3.35)	0.001
A little bit	–	–	0.49 (0.12–1.95)	0.311	1.60 (0.73–3.47)	0.239	1.51 (1.14–1.99)	0.004
Somewhat	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Extremely	–	–	1.15 (0.70–1.89)	0.579	1.49 (0.81–2.74)	0.201	1.11 (0.94–1.31)	0.224
Quite a bit	–	–	1.80 (1.03–3.15)	0.038	0.87 (0.39–1.94)	0.728	1.29 (1.06–1.58)	0.011
<b>Psychological characteristics</b>								
<b>How anxious are you about COVID-19? (SA) – perceived risks of COVID-19</b>								
Not at all anxious	0.03 (0.00–0.26)	0.001	1.30 (0.50–3.39)	0.586	3.83 (1.34–10.94)	0.012	1.62 (1.19–2.20)	0.002
Vaguely anxious	0.10 (0.03–0.43)	0.002	0.45 (0.20–1.00)	0.050	1.52 (0.66–3.52)	0.325	1.03 (0.79–1.33)	0.852
Have a clear sense of anxiety	0.22 (0.05–0.93)	0.039	0.22 (0.09–0.54)	<0.001	2.51 (1.05–5.95)	0.037	0.86 (0.65–1.13)	0.277
Feel fear and have anxiety	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
<b>What is your best guess as to whether you will get COVID-19 within the next 6 months? (SA) – perceived risks of COVID-19</b>								
I don't think I will get COVID-19	–	–	1.66 (0.89–3.12)	0.112	1.52 (0.83–2.79)	0.178	1.32 (1.04–1.66)	0.021
I think I will get a mild case of COVID-19	–	–	0.87 (0.41–1.81)	0.705	1.07 (0.54–2.10)	0.853	0.97 (0.76–1.22)	0.775
I think I will get seriously ill from COVID-19	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
I have already had COVID-19	–	–	2.35 (0.20–27.73)	0.498	2.56 (0.44–14.79)	0.292	2.96 (1.64–5.35)	<0.001
<b>How do you think the disadvantages of the COVID-19 vaccine are? (SA) – perceived risks of a COVID-19 vaccine</b>								
Very small	1.09 (0.09–13.36)	0.943	0.35 (0.11–1.07)	0.066	0.08 (0.02–0.26)	<0.001	0.16 (0.10–0.24)	<0.001
Small	0.65 (0.21–1.98)	0.448	0.38 (0.23–0.63)	<0.001	0.23 (0.11–0.46)	<0.001	0.47 (0.39–0.57)	<0.001
Medium	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Large	3.72 (1.23–11.28)	0.020	1.44 (0.90–2.30)	0.128	2.00 (0.97–4.11)	0.060	1.94 (1.61–2.34)	<0.001
Very large	16.08 (1.49–173.60)	0.022	1.42 (0.34–5.96)	0.630	2.83 (0.87–9.26)	0.084	3.91 (2.47–6.18)	<0.001
<b>Do you think getting a COVID-19 vaccine will ease your anxiety? (SA) – perceived benefits of a COVID-19 vaccine</b>								
Strongly disagree	2.10 (0.26–17.08)	0.486	6.78 (2.25–20.43)	<0.001	2.72 (0.88–8.42)	0.082	2.84 (1.99–4.04)	<0.001
Disagree	1.30 (0.49–3.41)	0.597	2.06 (1.34–3.17)	<0.001	1.55 (0.81–3.00)	0.189	1.83 (1.53–2.19)	<0.001
Neither agree nor disagree	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA

Agree	0.10 (0.02–0.42)	0.002	0.51 (0.29–0.90)	0.020	1.06 (0.48–2.34)	0.877	0.65 (0.54–0.79)	<0.001
Strongly agree	0.10 (0.00–23.95)	0.409	0.23 (0.03–1.99)	0.181	4.60 (0.45–46.76)	0.197	1.22 (0.65–2.28)	0.539
If others have been vaccinated against COVID-19, do you think you should be vaccinated as well? (SA) – perceived norms about a COVID-19 vaccine								
Strongly disagree	16.86 (2.27–125.13)	0.006	9.76 (3.25–29.28)	<0.001	10.55 (3.73–29.81)	<0.001	6.28 (4.31–9.14)	<0.001
Disagree	14.74 (4.76–45.67)	<0.001	4.16 (2.69–6.42)	<0.001	4.51 (2.30–8.81)	<0.001	3.41 (2.82–4.12)	<0.001
Neither agree nor disagree	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Agree	0.10 (0.03–0.42)	0.001	0.03 (0.01–0.07)	<0.001	0.07 (0.03–0.16)	<0.001	0.17 (0.14–0.20)	<0.001
Strongly agree	0.03 (0.00–3.71)	0.148	0.10 (0.03–0.37)	<0.001	0.04 (0.01–0.28)	0.001	0.02 (0.01–0.04)	<0.001
Do you trust scientists in the field of vaccine development for COVID-19? (SA) – trusts about COVID-19 vaccine								
Strongly distrust	0.14 (0.01–3.42)	0.225	10.74 (0.82–140.41)	0.070	0.30 (0.06–1.45)	0.135	0.76 (0.39–1.49)	0.429
Distrust	1.10 (0.27–4.50)	0.893	1.33 (0.65–2.70)	0.433	0.70 (0.30–1.62)	0.403	1.03 (0.78–1.35)	0.858
Neutral	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Trust	0.73 (0.24–2.17)	0.570	0.89 (0.53–1.49)	0.657	0.61 (0.28–1.35)	0.220	0.87 (0.71–1.07)	0.192
Strongly trust	0.19 (0.00–53.36)	0.561	0.45 (0.04–4.62)	0.504	0.19 (0.02–1.72)	0.139	0.72 (0.37–1.39)	0.324
Do you trust the public authorities to approve vaccines for COVID-19? (SA) – trusts about COVID-19 vaccine								
Strongly distrust	13.57 (1.30–141.86)	0.029	12.07 (2.81–51.85)	<0.001	4.52 (1.35–15.17)	0.015	2.97 (1.82–4.85)	<0.001
Distrust	2.61 (0.74–9.19)	0.134	2.55 (1.52–4.29)	<0.001	0.78 (0.36–1.69)	0.532	1.90 (1.52–2.38)	<0.001
Neutral	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Trust	1.92 (0.54–6.80)	0.312	0.62 (0.34–1.13)	0.118	1.26 (0.57–2.80)	0.573	0.76 (0.61–0.94)	0.011
Strongly trust	1.37 (0.00–466.17)	0.915	3.22 (0.33–31.35)	0.313	9.23 (0.84–101.67)	0.069	0.55 (0.26–1.16)	0.116
Do you trust your healthcare provider about vaccination against COVID-19? (SA) – trusts about COVID-19 vaccine								
Strongly distrust	–	–	0.09 (0.01–1.05)	0.055	0.74 (0.15–3.68)	0.708	1.28 (0.59–2.76)	0.526
Distrust	–	–	1.44 (0.66–3.14)	0.358	1.85 (0.80–4.31)	0.153	0.84 (0.62–1.15)	0.280
Neutral	–	–	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Trust	–	–	0.74 (0.45–1.21)	0.231	0.38 (0.19–0.75)	0.005	0.68 (0.57–0.82)	<0.001
Strongly trust	–	–	0.45 (0.09–2.34)	0.344	0.24 (0.05–1.13)	0.071	0.81 (0.51–1.28)	0.372
Do you think that healthcare workers and employees of elderly care facilities should be vaccinated? (SA) – belief about COVID-19 vaccine								
Yes	0.02 (0.00–0.19)	<0.001	0.21 (0.07–0.60)	0.004	0.23 (0.10–0.51)	<0.001	0.14 (0.10–0.18)	<0.001
No	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA
Can't say either	0.23 (0.02–2.34)	0.214	1.19 (0.40–3.53)	0.759	1.01 (0.43–2.35)	0.986	0.51 (0.39–0.68)	<0.001
Do you receive an influenza vaccine? (SA)								
Every year	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA	1.00 (reference)	NA

Every few years	3.72 (1.01–13.68)	0.048	3.55 (1.78–7.08)	<0.001	2.48 (1.18–5.22)	0.017	1.68 (1.36–2.09)	<0.001
Rarely or never	19.17 (6.60–55.68)	<0.001	15.92 (9.12–27.81)	<0.001	8.00 (4.04–15.86)	<0.001	4.64 (3.91–5.50)	<0.001
<b>Information sources about COVID-19 (MA)</b>								
Physicians	2.14 (0.87–2.34)	0.097	0.58 (0.29–1.16)	0.122	0.48 (0.24–0.93)	0.029	0.64 (0.49–0.84)	0.001
Nurses	–	–	–	–	0.20 (0.08–0.51)	<0.001	0.85 (0.58–1.25)	0.408
Pharmacists	–	–	1.33 (0.34–5.26)	0.681	–	–	1.40 (0.80–2.45)	0.237
Dentists	–	–	1.92 (0.39–9.56)	0.425	–	–	–	–
Newspapers	–	–	0.87 (0.60–1.28)	0.493	0.40 (0.21–0.78)	0.007	0.80 (0.67–0.95)	0.012
Books	–	–	–	–	–	–	0.71 (0.46–1.11)	0.132
Scientific literature	–	–	–	–	0.68 (0.11–4.32)	0.683	–	–
Television	–	–	0.45 (0.28–0.75)	0.002	0.62 (0.34–1.15)	0.132	0.76 (0.65–0.90)	0.001
Radio	–	–	0.82 (0.50–1.34)	0.428	1.87 (0.86–4.03)	0.112	1.02 (0.81–1.29)	0.836
Internet news sites	1.60 (0.65–3.88)	0.304	0.88 (0.59–1.31)	0.533	0.83 (0.47–1.45)	0.509	1.04 (0.90–1.20)	0.612
Search engines (Google, Yahoo, etc.)	0.41 (0.12–1.35)	0.143	0.61 (0.36–1.04)	0.069	1.23 (0.61–2.47)	0.569	1.17 (0.99–1.38)	0.068
LINE	–	–	0.55 (0.22–1.36)	0.198	–	–	0.89 (0.68–1.17)	0.408
Facebook	–	–	2.05 (0.64–6.57)	0.230	–	–	0.43 (0.25–0.74)	0.002
Twitter	–	–	–	–	1.37 (0.59–3.19)	0.463	1.11 (0.88–1.39)	0.398
Instagram	–	–	–	–	–	–	–	–
YouTube	–	–	0.96 (0.43–2.16)	0.926	–	–	1.11 (0.83–1.50)	0.481
Medical information sites	–	–	–	–	–	–	0.59 (0.37–0.96)	0.035
Blogs or web pages of celebrities and famous people	–	–	–	–	–	–	1.66 (1.02–2.72)	0.042
Local governments such as prefectures and municipalities	2.08 (0.82–5.31)	0.124	0.84 (0.56–1.27)	0.420	0.66 (0.32–1.34)	0.249	0.77 (0.63–0.95)	0.016
Government	–	–	–	–	1.08 (0.48–2.46)	0.845	1.00 (0.78–1.28)	0.990
Medical task-force advising the government, known as the Novel Coronavirus Expert Meeting (re-established as Novel Coronavirus Infectious Disease Control Subcommittee in July 2020)	–	–	1.28 (0.66–2.48)	0.473	–	–	0.66 (0.46–0.96)	0.031
Friends	–	–	0.99 (0.58–1.72)	0.981	2.34 (0.78–7.02)	0.129	0.93 (0.71–1.21)	0.568
Family members	–	–	1.27 (0.78–2.07)	0.328	0.83 (0.32–2.18)	0.710	1.15 (0.91–1.45)	0.239
Scientists and researchers	–	–	–	–	7.97 (1.81–35.14)	0.006	–	–
Other companies	–	–	–	–	3.93 (1.30–11.92)	0.016	1.24 (0.89–1.71)	0.197
<b>Trust levels in information sources (MA)</b>								
Physicians	–	–	1.46 (0.90–2.36)	0.124	0.75 (0.47–1.20)	0.230	1.02 (0.86–1.20)	0.840
Nurses	1.49 (0.54–4.10)	0.438	0.74 (0.42–1.29)	0.286	2.35 (1.32–4.17)	0.004	0.93 (0.77–1.12)	0.438
Pharmacists	1.08 (0.41–2.86)	0.874	1.48 (0.92–2.38)	0.107	0.86 (0.50–1.47)	0.584	1.26 (1.07–1.49)	0.006
Veterinarians	0.51 (0.24–1.08)	0.079	0.98 (0.66–1.47)	0.928	1.18 (0.73–1.88)	0.499	0.86 (0.74–1.00)	0.046
Dentists	–	–	0.66 (0.43–1.00)	0.052	1.00 (0.60–1.68)	0.992	0.89 (0.76–1.03)	0.115
Health fairs and events	1.26 (0.57–2.75)	0.567	0.95 (0.64–1.41)	0.793	–	–	1.12 (0.97–1.28)	0.121
Newspapers	–	–	0.86 (0.58–1.27)	0.459	1.31 (0.81–2.12)	0.274	0.95 (0.82–1.11)	0.525

Magazines	–	–	–	–	1.17 (0.67–2.05)	0.581	1.19 (1.00–1.42)	0.049
Books	–	–	1.34 (0.88–2.04)	0.171	1.62 (0.92–2.87)	0.097	1.04 (0.87–1.24)	0.665
Scientific literature	0.85 (0.40–1.79)	0.661	1.16 (0.81–1.67)	0.413	0.72 (0.46–1.13)	0.153	0.91 (0.79–1.04)	0.149
Television	1.03 (0.40–2.61)	0.956	0.76 (0.45–1.29)	0.308	–	–	1.10 (0.95–1.29)	0.214
Radio	–	–	0.84 (0.50–1.42)	0.519	0.89 (0.56–1.41)	0.610	0.82 (0.70–0.96)	0.017
Internet news sites	0.78 (0.26–2.35)	0.660	1.55 (0.98–2.45)	0.060	0.90 (0.53–1.52)	0.688	0.90 (0.76–1.07)	0.229
Search engines (Google, Yahoo, etc.)	2.35 (0.82–6.77)	0.114	1.00 (0.63–1.57)	0.999	1.20 (0.70–2.04)	0.503	1.15 (0.97–1.36)	0.100
LINE	0.61 (0.20–1.89)	0.394	0.64 (0.39–1.06)	0.083	1.25 (0.78–2.00)	0.354	0.89 (0.75–1.04)	0.146
Facebook	1.60 (0.43–5.96)	0.483	1.22 (0.57–2.59)	0.612	–	–	1.04 (0.84–1.29)	0.689
Twitter	–	–	–	–	–	–	1.03 (0.84–1.26)	0.783
Instagram	–	–	1.25 (0.58–2.70)	0.565	–	–	0.98 (0.78–1.23)	0.852
YouTube	1.14 (0.38–3.47)	0.813	1.18 (0.69–2.04)	0.549	0.57 (0.36–0.91)	0.018	1.30 (1.09–1.55)	0.003
TikTok	–	–	–	–	–	–	0.80 (0.67–0.95)	0.013
Medical information sites	0.71 (0.31–1.62)	0.419	0.60 (0.43–0.84)	0.003	1.11 (0.73–1.68)	0.619	0.99 (0.87–1.12)	0.840
Blogs or web pages of celebrities and famous people	1.87 (0.71–4.89)	0.204	0.80 (0.53–1.22)	0.301	0.80 (0.50–1.28)	0.343	0.94 (0.81–1.08)	0.372
Local governments such as prefectures and municipalities	0.45 (0.17–1.15)	0.095	–	–	0.84 (0.52–1.36)	0.488	1.01 (0.87–1.17)	0.938
Government	2.80 (1.13–6.96)	0.027	1.05 (0.74–1.49)	0.789	0.76 (0.48–1.22)	0.259	1.06 (0.92–1.21)	0.420
Medical task-force advising the government	0.75 (0.31–1.83)	0.532	1.16 (0.81–1.67)	0.407	1.33 (0.84–2.10)	0.230	1.00 (0.87–1.16)	0.956
Friends	0.64 (0.26–1.57)	0.329	1.27 (0.85–1.89)	0.238	1.47 (0.89–2.43)	0.133	1.23 (1.05–1.44)	0.009
Family members	0.85 (0.41–1.77)	0.671	1.07 (0.76–1.50)	0.708	0.61 (0.37–1.00)	0.048	1.02 (0.88–1.17)	0.805
Scientists and researchers	–	–	–	–	0.51 (0.30–0.88)	0.015	1.04 (0.89–1.21)	0.625
Pharmaceutical companies	1.35 (0.58–3.12)	0.484	0.93 (0.61–1.41)	0.732	1.65 (0.99–2.75)	0.053	0.90 (0.76–1.06)	0.206
Other companies	1.22 (0.45–3.31)	0.689	1.23 (0.80–1.90)	0.351	–	–	1.11 (0.94–1.31)	0.217

1 The estimates were derived from the multinomial logistic regression, in reference to the COVID-19 vaccine acceptance group. An en-dash indicates that the variable was not  
2 included in the model. Blank indicates no samples. SA: single-answer questions; MA: multiple-answer question. Highest education levels and annual household income in  
3 2020 (ordinal scale questions) were also treated as continuous variables. Variables that are not on the tables were dropped in the process of optimal variable selection and  
4 were not statistically significant.

1

Supplementary Table 8: Reasons for responding 'not sure' or 'no' regarding intention to be vaccinated by Groups (A–D)

	Group (A) elderly with underlying diseases				Group (B) elderly without underlying diseases				Group (C) younger adults with underlying diseases				Group (D) younger adults without underlying diseases			
	Not sure	No	P-value	Total	Not sure	No	P-value	Total	Not sure	No	P-value	Total	Not sure	No	P-value	Total
	N = 371	N = 80		N = 451	N = 1611	N = 364		N = 1975	N = 590	N = 225		N = 815	N = 7302	N = 2641		N = 9943
<b>What are reasons for refusing or being unsure to receive a COVID-19 vaccine? (MA)</b>																
Specific anxiety about the COVID-19 vaccine																
Side effects and safety	321 (86.5)	67 (83.8)	0.638	388 (86.0)	1355 (84.1)	268 (73.6)	<0.001	1623 (82.2)	487 (82.5)	142 (63.1)	<0.001	629 (77.2)	5646 (77.3)	1781 (67.4)	<0.001	7427 (74.7)
Effectiveness	113 (30.5)	26 (32.5)	0.822	139 (30.8)	590 (36.6)	149 (40.9)	0.140	739 (37.4)	182 (30.8)	64 (28.4)	0.560	246 (30.2)	2224 (30.5)	750 (28.4)	0.051	2974 (29.9)
Not wanting to be the first to get a new vaccine	94 (25.3)	25 (31.3)	0.343	119 (26.4)	420 (26.1)	111 (30.5)	0.098	531 (26.9)	131 (22.2)	52 (23.1)	0.854	183 (22.5)	1630 (22.3)	766 (29.0)	<0.001	2396 (24.1)
Rigor of clinical trials	75 (20.2)	25 (31.3)	0.045	100 (22.2)	354 (22.0)	99 (27.2)	0.038*	453 (22.9)	132 (22.4)	38 (16.9)	0.104	170 (20.9)	1122 (15.4)	494 (18.7)	<0.001	1616 (16.3)
Contents of the vaccine	37 (10.0)	19 (23.8)	0.001	56 (12.4)	198 (12.3)	89 (24.5)	<0.001	287 (14.5)	87 (14.7)	35 (15.6)	0.857	122 (15.0)	777 (10.6)	451 (17.1)	<0.001	1228 (12.4)
Others	10 (2.7)	8 (10.0)	0.007	18 (4.0)	22 (1.4)	11 (3.0)	0.045*	33 (1.7)	14 (2.4)	11 (4.9)	0.102	25 (3.1)	85 (1.2)	64 (2.4)	<0.001	149 (1.5)
More information is needed to decide whether or not to get a COVID-19 vaccine																
Compatibility with personal health conditions (e.g., allergies, comorbidities)	245 (66.0)	47 (58.8)	0.268	292 (64.7)	848 (52.6)	168 (46.2)	0.029*	1016 (51.4)	363 (61.5)	85 (37.8)	<0.001	448 (55.0)	2886 (39.5)	777 (29.4)	<0.001	3663 (36.8)
Doctors' recommendations	137 (36.9)	19 (23.8)	0.034*	156 (34.6)	450 (27.9)	38 (10.4)	<0.001	488 (24.7)	174 (29.5)	31 (13.8)	<0.001	205 (25.2)	1331 (18.2)	243 (9.2)	<0.001	1574 (15.8)
Depends on the pandemic situation	55 (14.8)	10 (12.5)	0.718	65 (14.4)	275 (17.1)	67 (18.4)	0.595	342 (17.3)	87 (14.7)	32 (14.2)	0.938	119 (14.6)	1129 (15.5)	334 (12.6)	<0.001	1463 (14.7)
Whether other people have been vaccinated or not	51 (13.7)	4 (5.0)	0.048*	55 (12.2)	284 (17.6)	24 (6.6)	<0.001	308 (15.6)	95 (16.1)	25 (11.1)	0.092	120 (14.7)	1469 (20.1)	297 (11.2)	<0.001	1766 (17.8)
Others	6 (1.6)	3 (3.8)	0.426	9 (2.0)	21 (1.3)	8 (2.2)	0.298	29 (1.5)	3 (0.5)	1 (0.4)	1.000	4 (0.5)	30 (0.4)	28 (1.1)	<0.001	58 (0.6)
Attitude toward a vaccine in general, not limited to the COVID-19 vaccine																
Religious beliefs	1 (0.3)	0 (0.0)	1.000	1 (0.2)	2 (0.1)	5 (1.4)	0.002	7 (0.4)	5 (0.8)	2 (0.9)	1.000	7 (0.9)	41 (0.6)	22 (0.8)	0.173	63 (0.6)
Vaccines are not necessary	11 (3.0)	2 (2.5)	1.000	13 (2.9)	51 (3.2)	43 (11.8)	<0.001	94 (4.8)	15 (2.5)	15 (6.7)	0.010	30 (3.7)	161 (2.2)	261 (9.9)	<0.001	422 (4.2)
I don't think the vaccine is effective	19 (5.1)	8 (10.0)	0.159	27 (6.0)	114 (7.1)	79 (21.7)	<0.001	193 (9.8)	31 (5.3)	38 (16.9)	<0.001	69 (8.5)	359 (4.9)	454 (17.2)	<0.001	813 (8.2)
I am anxious about side effects and safety of vaccines	261 (70.4)	48 (60.0)	0.094	309 (68.5)	941 (58.4)	211 (58.0)	0.923	1152 (58.3)	316 (53.6)	87 (38.7)	<0.001	403 (49.4)	3057 (41.9)	1011 (38.3)	0.001	4068 (40.9)
I have a fear of vaccines	61 (16.4)	15 (18.8)	0.737	76 (16.9)	248 (15.4)	52 (14.3)	0.652	300 (15.2)	100 (16.9)	32 (14.2)	0.402	132 (16.2)	1019 (14.0)	449 (17.0)	<0.001	1468 (14.8)
Others	8 (2.2)	4 (5.0)	0.294	12 (2.7)	19 (1.2)	8 (2.2)	0.207	27 (1.4)	5 (0.8)	2 (0.9)	1.000	7 (0.9)	48 (0.7)	23 (0.9)	0.326	71 (0.7)
Lack of trust																
Vaccines in general	109 (29.4)	23 (28.8)	1.000	132 (29.3)	414 (25.7)	135 (37.1)	<0.001	549 (27.8)	143 (24.2)	53 (23.6)	0.911	196 (24.0)	1500 (20.5)	742 (28.1)	<0.001	2242 (22.5)
Government	133 (35.8)	30 (37.5)	0.880	163 (36.1)	546 (33.9)	138 (37.9)	0.163	684 (34.6)	169 (28.6)	52 (23.1)	0.134	221 (27.1)	1492 (20.4)	676 (25.6)	<0.001	2168 (21.8)
Pharmaceutical companies	63 (17.0)	24 (30.0)	0.012*	87 (19.3)	267 (16.6)	98 (26.9)	<0.001	365 (18.5)	72 (12.2)	45 (20.0)	0.006	117 (14.4)	658 (9.0)	429 (16.2)	<0.001	1087 (10.9)
Medical care in general	15 (4.0)	10 (12.5)	0.006	25 (5.5)	127 (7.9)	55 (15.1)	<0.001	182 (9.2)	33 (5.6)	23 (10.2)	0.029*	56 (6.9)	354 (4.8)	247 (9.4)	<0.001	601 (6.0)
Vaccine development or testing process	127 (34.2)	31 (38.8)	0.523	158 (35.0)	456 (28.3)	122 (33.5)	0.056	578 (29.3)	131 (22.2)	49 (21.8)	0.971	180 (22.1)	1197 (16.4)	530 (20.1)	<0.001	1727 (17.4)
Others	7 (1.9)	2 (2.5)	1.000	9 (2.0)	12 (0.7)	3 (0.8)	1.000	15 (0.8)	5 (0.8)	0 (0.0)	0.377	5 (0.6)	39 (0.5)	15 (0.6)	0.961	54 (0.5)
Other reasons																
I want high-risk people to be vaccinated first	94 (25.3)	14 (17.5)	0.179	108 (23.9)	406 (25.2)	66 (18.1)	0.005	472 (23.9)	110 (18.6)	37 (16.4)	0.530	147 (18.0)	1606 (22.0)	432 (16.4)	<0.001	2038 (20.5)
I am afraid to go to a medical institution for vaccination	43 (11.6)	10 (12.5)	0.970	53 (11.8)	190 (11.8)	30 (8.2)	0.064	220 (11.1)	58 (9.8)	20 (8.9)	0.783	78 (9.6)	656 (9.0)	223 (8.4)	0.425	879 (8.8)
It may not be effective for mutants	130 (35.0)	23 (28.8)	0.343	153 (33.9)	487 (30.2)	123 (33.8)	0.206	610 (30.9)	122 (20.7)	47 (20.9)	1.000	169 (20.7)	1380 (18.9)	491 (18.6)	0.751	1871 (18.8)
I don't like needles.	30 (8.1)	9 (11.3)	0.488	39 (8.6)	173 (10.7)	39 (10.7)	1.000	212 (10.7)	56 (9.5)	29 (12.9)	0.197	85 (10.4)	828 (11.3)	407 (15.4)	<0.001	1235 (12.4)
Others	17 (4.6)	7 (8.8)	0.218	24 (5.3)	52 (3.2)	23 (6.3)	0.008	75 (3.8)	15 (2.5)	15 (6.7)	0.010	30 (3.7)	171 (2.3)	106 (4.0)	<0.001	277 (2.8)

2

MA: multiple-answer question; \* Statistical significance disappeared after Bonferroni correction for multiple testing