

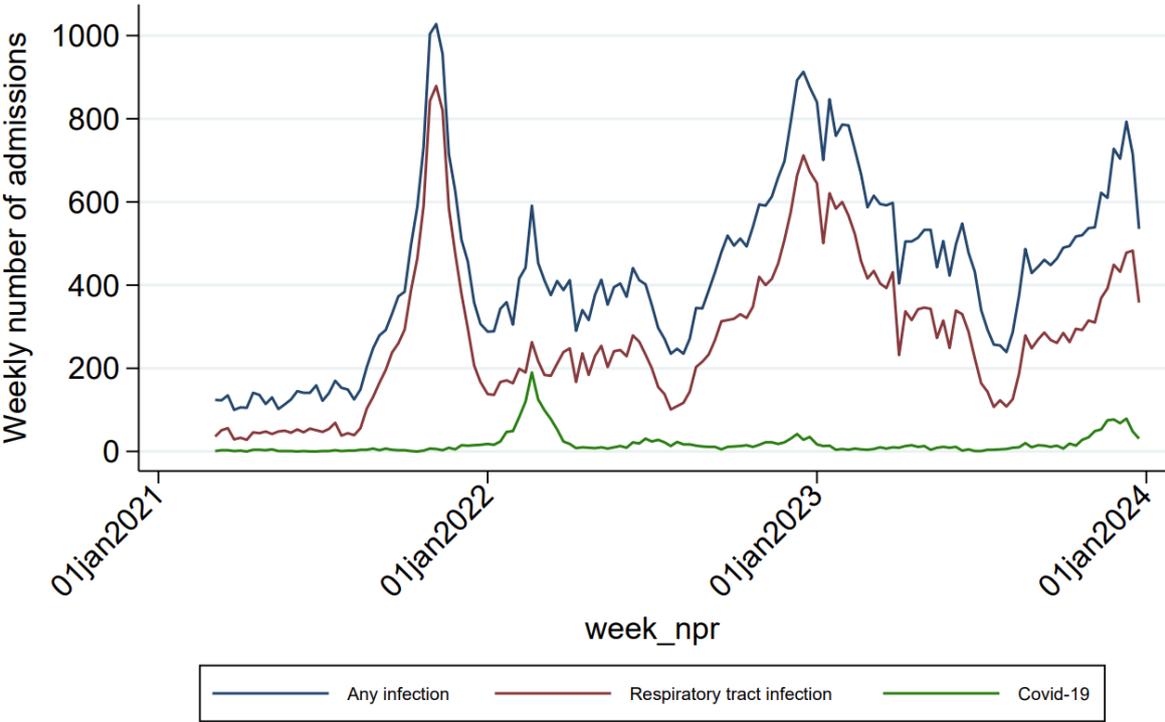
Supplemental Material

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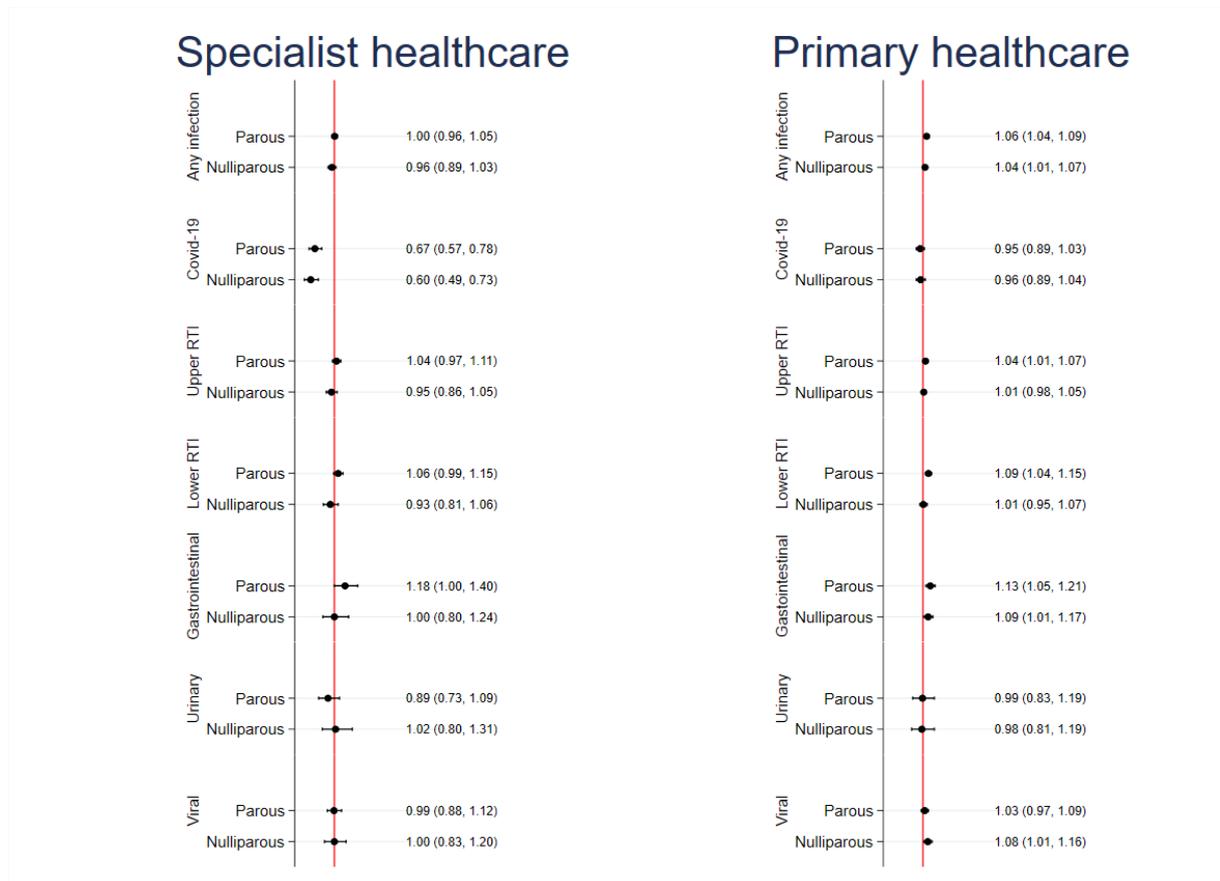
Supplemental Table 1. ICD-10 and ICPC-2 diagnostic codes used to define outcomes

	Abbreviation	Contact with primary healthcare services (ICPC-2)	Contact with specialist healthcare services (ICD-10)
Any infection	Any	A72; A75; A76; A77; A78; D09; D10; D11; D70; D73; H71; N71; R05; R07; R08; R09; R21; R72; R73; R74; R75; R76; R77; R78; R79; R80; R81; R82; R83; R991; R992; S71; S95; U70; U71; U72	A; B; G00-03; G04-05; H65-H68; H70; J00-J06; J09-J18; J20-J22; J36; J85; J86; M00-M01; M86; N10; N12; N30; N34; N39; R11; U07.1; U07.2
COVID-19 infection	COVID-19	R991; R992;	U07.1; U07.2
Respiratory tract infection (upper)	Upper RTI	H71; R05; R07; R08; R09; R21; R71; R72; R73; R74; R75; R76; R77	A38; H65-H68; H70; J00-J06; J36
Respiratory tract infection (lower)	Lower RTI	R78; R79; R80; R81; R82; R83	J09-J18; J20-J22; J85; J86
Gastrointestinal infections	Gastrointest	D09; D10; D11; D70; D73	A08; A09; R11
Urinary tract infections	UTI	U70; U71; U72	N10; N12; N30; N34; N39
Severe infections (sepsis, meningitis, encephalitis, osteomyelitis)	Severe	N.A.	A39; A40; A41; A85; A86; A87; G00-03; G04-05; M00-M01; M86
Perinatal infection	Perinatal		P35-P39
Viral infection (not including COVID-19)	Viral	A72; A75; A76; A77; A78; S71; S95	B00; B01; B08-09; B25; B27; B34; B97; B99

Supplemental Figure1. Trends in hospital contact for infectious diseases among infants aged 0-12 months over the study period



Supplemental Figure 2. Hazard ratios for contact with specialist or primary healthcare by exposure to maternal vaccination against COVID-19 during pregnancy stratified by parity



COVID-19: COVID-19 infection

Upper RTI: Respiratory tract infection (upper)

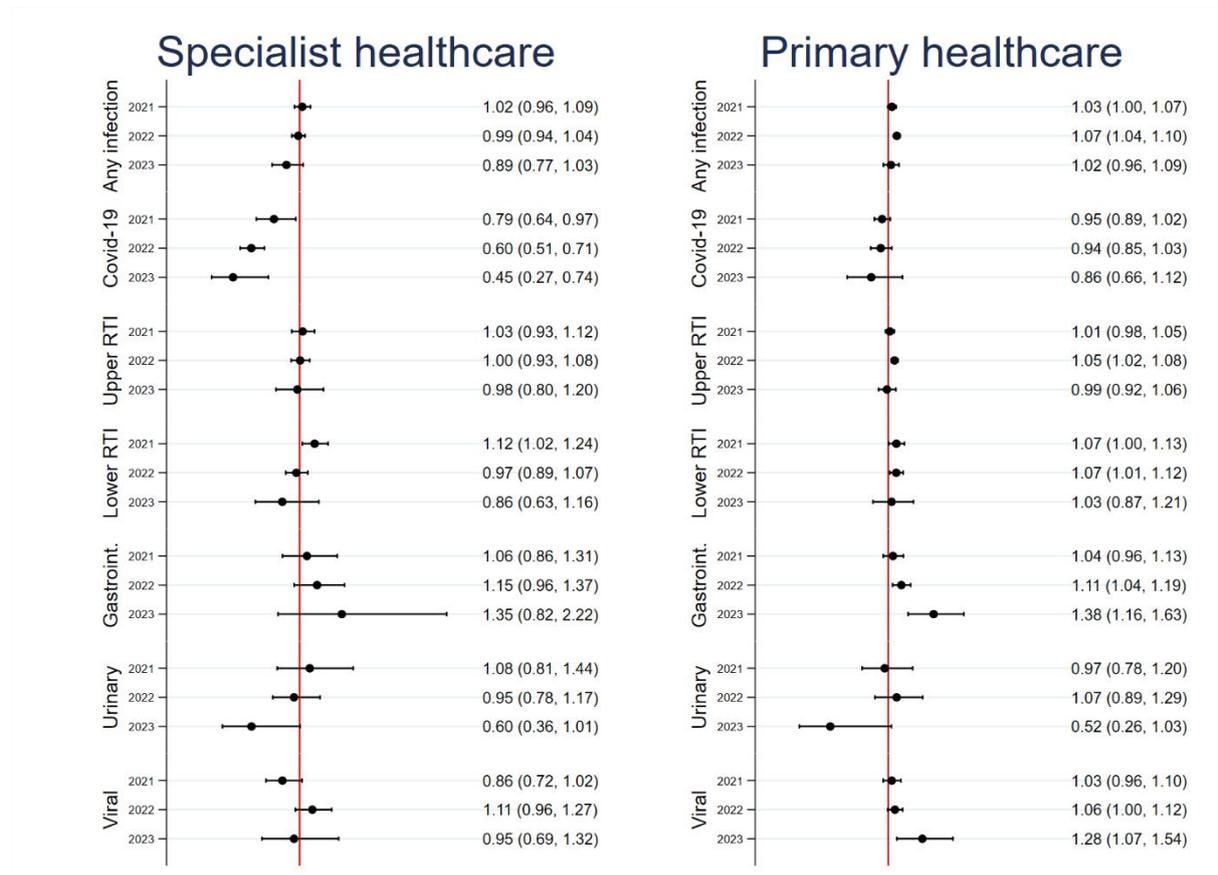
Lower RTI: Respiratory tract infection (lower)

Gastroint.: Gastrointestinal infections

Urinary: Urinary tract infections

Viral: Viral infection (not including COVID-19)

Supplemental Figure 3. Hazard ratios for contact with specialist or primary healthcare by exposure to maternal vaccination against COVID-19 during pregnancy stratified by year of birth



COVID-19: COVID-19 infection
 Upper RTI: Respiratory tract infection (upper)
 Lower RTI: Respiratory tract infection (lower)
 Gastroint.: Gastrointestinal infections
 Urinary: Urinary tract infections
 Viral: Viral infection (not including COVID-19)

Supplemental Table 2: Hazard ratios for contact with specialist or primary healthcare for an infection excluding preterm infants

	Infection	Maternal COVID-19 vaccination in pregnancy	N subjects	Follow-up time (days)	N Cases	Unadjusted HR (95% CI)	Adjusted HR (95% CI)
Contact with specialist healthcare	Any	No	101 652	46 914 176	13 902	Ref	Ref
		Yes	34 541	18 417 058	5292	0.98 (0.94-1.02)	1.00 (0.96-1.05)
	COVID-19	No	102 323	52 676 792	1391	Ref	Ref
		Yes	34 776	20 496 184	503	0.67 (0.59-0.76)	0.65 (0.57-0.74)
	Upper RTI	No	102 325	50 514 260	6985	Ref	Ref
		Yes	34 777	19 725 150	2770	1.02 (0.96-1.07)	1.01 (0.95-1.08)
	Lower RTI	No	102 327	50 857 232	4844	Ref	Ref
		Yes	34 777	19 944 244	1821	1.02 (0.96-1.09)	1.06 (0.98-1.13)
	Gastroint.	No	102 327	52 733 408	1169	Ref	Ref
		Yes	34 781	20 577 356	486	0.95 (0.83-1.09)	1.09 (0.94-1.25)
	UTI	No	102 330	52 736 020	1040	Ref	Ref
		Yes	34 779	20 593 388	359	0.93 (0.80-1.08)	0.96 (0.82-1.13)
	Severe	No	102 319	53 130 072	205	Ref	Ref
		Yes	34 777	20 736 736	60	1.01 (0.70-1.46)	0.96 (0.65-1.41)
	Viral	No	102 326	52 428 976	2115	Ref	Ref
		Yes	34 778	20 471 776	812	0.97 (0.88-1.08)	0.99 (0.89-1.11)
Perinatal	No	101 708	52 731 212	278	Ref	Ref	
	Yes	34 567	20 581 188	85	0.98 (0.73-1.33)	1.04 (0.76-1.42)	
Contact with primary healthcare	Any	No	102 335	27 097 618	59 045	Ref	Ref
		Yes	34 782	10 998 535	23 786	1.00 (0.99-1.02)	1.06 (1.03-1.08)
	COVID-19	No	102 331	47 806 056	9108	Ref	Ref
		Yes	34 781	19 095 020	2986	1.00 (0.95-1.06)	0.97 (0.91-1.02)
	Upper RTI	No	102 335	32 134 680	49 608	Ref	Ref
		Yes	34 782	13 134 952	19 794	0.97 (0.95-0.99)	1.03 (1.01-1.06)
	Lower RTI	No	102 332	46 978 712	14 889	Ref	Ref
		Yes	34 781	18632124	6077	1.05 (1.01-1.09)	1.07 (1.03-1.11)
	Gastroint.	No	102 331	49556696	9233	Ref	Ref
		Yes	34 781	19526964	3614	0.96 (0.91-1.00)	1.12 (1.06-1.18)
	UTI	No	102 331	52689744	1459	Ref	Ref
		Yes	34 781	20599016	506	0.96 (0.84-1.10)	1.00 (0.87-1.15)
	Viral	No	102 331	49413748	11223	Ref	Ref
		Yes	34 781	19452302	4853	1.01 (0.96-1.05)	1.05 (1.01-1.10)

Adjusted for maternal age, education, income, parity, country of birth, region of residence, registered COVID-19 infection in current pregnancy and household income. To account for differences in epidemic infections over time, both the unadjusted and adjusted analysis were stratified on calendar week of birth.

Supplemental Table 3: Hazard ratios for contact with specialist or primary healthcare for an infection excluding infants of mothers who remained unvaccinated against COVID-19 by the end of 2023

	Infection	Maternal COVID-19 vaccination in pregnancy	N subjects	Follow-up time in days	N Cases	Unadjusted HR (95% CI)	Adjusted HR (95% CI)
Contact with specialist healthcare	Any	No	88 647	40 036 624	12 664	Ref	Ref
		Yes	36 647	19 482 932	5743	0.92 (0.88-0.96)	0.96 (0.92-1.01)
	COVID-19	No	89 461	45 440 120	1192	Ref	Ref
		Yes	36 966	21 787 010	555	0.70 (0.61-0.80)	0.70 (0.60-0.81)
	Upper RTI	No	89 452	43 359 464	6492	Ref	Ref
		Yes	36 964	20 935 786	3033	0.94 (0.88-0.99)	0.97 (0.91-1.04)
	Lower RTI	No	89 457	43 627 400	4580	Ref	Ref
		Yes	36 970	21 162 150	2040	0.94 (0.88-1.01)	0.99 (0.92-1.07)
	Gastroint.	No	89 463	45 430 656	1030	Ref	Ref
		Yes	36 974	21 870 984	547	0.97 (0.84-1.13)	1.09 (0.93-1.28)
	UTI	No	89 463	45 407 016	959	Ref	Ref
		Yes	36 972	21 900 348	385	0.84 (0.71-0.99)	0.89 (0.75-1.06)
	Severe	No	89 447	45 769 208	196	Ref	Ref
		Yes	36 969	22 051 286	70	0.95 (0.65-1.39)	0.92 (0.62-1.36)
	Viral	No	89 448	45 113 740	1967	Ref	Ref
		Yes	36 972	21 757 392	908	0.90 (0.80-1.00)	0.94 (0.84-1.06)
Perinatal	No	88 742	45 329 692	287	Ref	Ref	
	Yes	36 684	21 843 240	104	0.95 (0.69-1.32)	1.01 (0.72-1.42)	
Contact with primary healthcare	Any	No	89 470	23 011 104	51 535	Ref	Ref
		Yes	36 976	11 697 271	25 332	0.95 (0.93-0.97)	1.01 (0.99-1.03)
	COVID-19	No	89 466	41 172 496	7972	Ref	Ref
		Yes	36 975	20 308 008	3183	0.98 (0.93-1.05)	0.96 (0.90-1.02)
	Upper RTI	No	89 470	27 325 354	43 325	Ref	Ref
		Yes	36 976	13 959 548	21 108	0.92 (0.90-0.94)	0.99 (0.96-1.01)
	Lower RTI	No	89 467	40 183 512	13 363	Ref	Ref
		Yes	36 975	19 789 892	6553	0.97 (0.93-1.01)	1.01 (0.97-1.05)
	Gastroint.	No	89 466	42 666 224	7933	Ref	Ref
		Yes	36 975	20 757 842	3861	0.96 (0.91-1.01)	1.08 (1.02-1.14)
	UTI	No	89 466	45 386 672	1272	Ref	Ref
		Yes	36 975	21 909 720	533	0.98 (0.84-1.14)	1.04 (0.89-1.21)
	Viral	No	89 466	42 524 940	9711	Ref	Ref
		Yes	36 975	20 693 414	5149	0.99 (0.94-1.04)	1.04 (0.99-1.09)

Adjusted for maternal age, education, income, parity, country of birth, region of residence, registered COVID-19 infection in current pregnancy and household income. To account for differences in epidemic infections over time, both the unadjusted and adjusted analysis were stratified on calendar week of birth.

Supplemental Table 4: Hazard ratios for contact with specialist or primary healthcare for an infection excluding infants of mothers who were only vaccinated 14 days prior to delivery

	Infection	Maternal COVID-19 vaccination in pregnancy	N subjects	Follow-up time in days	N Cases	Unadjusted HR (95% CI)	Adjusted HR (95% CI)
Contact with specialist healthcare	Any	No	107 925	49 541 016	15232	Ref	Ref
		Yes	36 039	19 183 556	5620	0.97(0.93-1.00)	0.98 (0.94-1.03)
	COVID-19	No	108 904	55 968 428	1546	Ref	Ref
		Yes	36 352	21 426 278	542	0.66 (0.58-0.74)	0.63 (0.55-0.72)
	Upper RTI	No	108 903	53 582 968	7730	Ref	Ref
		Yes	36 351	20 596 216	2976	1.01 (0.95-1.06)	1.00 (0.95-1.06)
	Lower RTI	No	108 906	53 922 640	5454	Ref	Ref
		Yes	36 356	20 827 452	1981	1.00 (0.94-1.07)	1.02 (0.96-1.10)
	Gastroint.	No	108 912	56 043 880	1285	Ref	Ref
		Yes	36360	21 505 928	539	0.98 (0.86-1.12)	1.12 (0.97-1.29)
	UTI	No	108 914	56 050 912	1128	Ref	Ref
		Yes	36 358	21 534 648	380	0.9 (0.79-1.06)	0.93 (0.80-1.09)
	Severe	No	108 895	56 473 884	227	Ref	Ref
		Yes	36 355	21 683 552	69	1.05 (0.75-1.49)	1.00 (0.70-1.44)
	Viral	No	108 897	55 698 168	2325	Ref	Ref
		Yes	36 358	21 394 760	892	0.99 (0.89-1.09)	0.99 (0.89-1.11)
Perinatal	No	108 048	55 941 496	337	Ref	Ref	
	Yes	36 075	21 480 222	102	0.99 (0.74-1.32)	1.03 (0.76-1.39)	
Contact with primary healthcare	Any	No	108 921	28 805 816	62 900	Ref	Ref
		Yes	36 362	11 535 761	24 942	1.00 (0.98-1.02)	1.05 (1.03-1.07)
	COVID-19	No	108 917	50 825 936	9703	Ref	Ref
		Yes	36 361	19 998 572	3091	0.98 (0.93-1.04)	0.95 (0.90-1.01)
	Upper RTI	No	108 921	34 155 672	52 882	Ref	Ref
		Yes	36 362	13 760 674	20772	0.97 (0.95-0.99)	1.03 (1.01-1.05)
	Lower RTI	No	108 918	49 890 712	16 010	Ref	Ref
		Yes	36 361	19 479 720	6433	1.04 (1.00-1.08)	1.06 (1.02-1.10)
	Gastroint.	No	108 917	52 651 432	9893	Ref	Ref
		Yes	36 361	20 411 496	3805	0.96 (0.91-1.00)	1.11 (1.06-1.17)
	UTI	No	108 917	56 008 756	1559	Ref	Ref
		Yes	36 361	21 544 758	523	0.95 (0.83-1.09)	0.99 (0.86-1.13)
	Viral	No	108 917	52 540 564	11930	Ref	Ref
		Yes	36 358	20 354 854	5064	1.01 (0.96-1.05)	1.05 (1.01-1.10)

Adjusted for maternal age, education, income, parity, country of birth, region of residence, registered COVID-19 infection in current pregnancy and household income. To account for differences in epidemic infections over time, both the unadjusted and adjusted analysis were stratified on calendar week of birth.

Supplemental Table 5: Hazard ratios for hospital contact for COVID-19 by exposure to maternal COVID-19 vaccination in pregnancy and infant age excluding infants of mothers who were only vaccinated 14 days prior to delivery

	Infant age	N subjects	Follow-up time in days	N cases	Unadjusted HR (95 % ci)	Adjusted HR (95 % ci)
Unexposed		108 904	55 968 427	1546	Ref.	Ref.
Exposed to maternal vaccination in pregnancy	0-2 months	36 352	3 237 378	273	0.50 (0.42-0.58)	0.46 (0.39-0.55)
	3-5 months	34 561	3 172 080	120	0.78 (0.61-0.99)	0.75 (0.59-0.97)
	6-11 months	35 032	6 114 151	91	1.11 (0.82-1.52)	1.14 (0.82-1.57)
	After 12 months	32 088	8 902 669	58	1.10 (0.72-1.67)	1.16 (0.73-1.85)

Adjusted for maternal age, education, parity, country of birth, region of residence, registered COVID-19 infection in current pregnancy and household income. To account for differences in epidemic infections over time, both the unadjusted and adjusted analysis were stratified on calendar week of birth.

Supplemental Table 6: Hazard ratios for hospital contact for COVID-19 by trimester of exposure to maternal COVID-19 vaccination in pregnancy and infant age

	Infant age	N subjects	Follow-up time in days	N cases	Unadjusted HR (95 % ci)	Adjusted HR (95 % ci)
Unexposed		108 904	55 968 427	1546	Ref.	Ref.
Last exposed to maternal vaccination in first trimester of pregnancy	0-2 months	6267	567 339	33	0.50 (0.34-0.72)	0.46 (0.32-0.67)
	3-5 months	6199	559 072	15	0.89 (0.51-1.54)	0.83 (0.47-1.46)
	6-11 months	6071	1 088 452	16	1.71 (0.94-3.10)	1.71 (0.93-3.17)
	After 12 months	5850	1 031 899	9	0.92 (0.41-2.07)	0.90 (0.39-2.06)
Last exposed to maternal vaccination in second trimester of pregnancy	0-2 months	18 469	1 664 578	151	0.53 (0.43-0.65)	0.50 (0.40-0.62)
	3-5 months	18 165	1 640 485	44	0.70 (0.48-1.02)	0.65 (0.44-0.96)
	6-11 months	17 847	3 106 089	43	1.08 (0.69-1.70)	1.09 (0.68-1.74)
	After 12 months	16 148	4 166 453	30	1.11 (0.60-2.05)	1.12 (0.58-2.16)
Last exposed to maternal vaccination in third trimester of pregnancy	0-2 months	12 230	1 055 080	98	0.49 (0.39-0.62)	0.47 (0.37-0.59)
	3-5 months	11 223	1 015 815	64	0.82 (0.61-1.12)	0.81 (0.59-1.11)
	6-11 months	11 114	2 005 099	33	0.93 (0.63-1.40)	0.94 (0.62-1.42)
	After 12 months	10 548	3 886 649	19	1.22 (0.69-2.16)	1.20 (0.66-2.17)

Adjusted for maternal age, education, parity, country of birth, region of residence, registered COVID-19 infection in current pregnancy and household income. To account for differences in epidemic infections over time, both the unadjusted and adjusted analysis were stratified on calendar week of birth.