APPENDIX A – SEARCH STRATEGY

Database: Ovid MEDLINE(R) <1946 to September 21, 2021>

Search Strategy:

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1 cohort analy*.tw. (9449)

2 Epidemiological studies/ (8808)

3 case control.tw. (136998)

4 exp case control studies/ (1225040)

5 exp cohort studies/ (2211634)

6 (cohort adj (study or studies)).tw. (247776)

7 (Follow up adj (study or studies)).tw. (51968)

8 (observational adj (study or studies)).tw. (128086)

9 Longitudinal.tw. (274877)

10 Retrospective.tw. (614669)

11 Cross sectional.tw. (414316)

12 Cross-sectional studies/ (387993)

13 or/1-12 (3337216)

14 (nonequivalent control group or posttesting or pretesting or pretest posttest design or pretest posttest control group design or quasi experimental methods or quasi experimental study or time series or time series analysis).tw. (44271)

15 (((nonequivalent or non equivalent) adj3 control$) or posttest$ or post test$ or pre test$ or pretest$ or quasi experiment$ or quasiexperiment$ or timeseries or time series).tw. (92294)

16 14 or 15 (92294)

17 randomized controlled trial.pt. (544294)

18 controlled clinical trial.pt. (94420)

19 randomized.ab. (534832)

20 placebo.ab. (221665)

21 clinical trials as topic.sh. (197449)

22 randomly.ab. (366348)

23 trial.ti. (248016)

24 or/17-23 (1395753)

25 exp animals/ not humans.sh. (4888733)

26 24 not 25 (1284503)

27 exp Vaccines/ (245006)

28 vaccin*.mp. (413246)

29 exp Vaccination/ (92729)

30 exp Mass Vaccination/ (3324)

31 exp Immunization Programs/ (14937)

32 exp Immunization/ (187349)

33 (immunization or immunisation).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (166853)

34 immuni*.mp. (483712)

35 or/27-34 (771806)

36 Coronaviridae Infections/ or Coronaviridae/ or SARS-CoV-2/ or COVID-19/ (110165)

37 Betacoronavirus 1/ or Betacoronavirus/ (33277)

38 ((sars-associated or sars-related) adj (cov or coronavirus)).mp. (375)

39 exp Coronavirus/ or exp Coronavirus Infections/ (124069)

40 (Coronavir* or nCov or covid or covid-19).ti,ab,kf. (180058)

41 Coronavirus OC43, Human/ (242)

42 HKU1.mp. (465)

43 HCV-OC43.mp. (37)

44 (("2019" adj (novel or new) adj corona*) or ("2019" adj (CoV or nCoV)) or (coronavirus adj (disease adj "2019")) or COVID19 or COVID-19 or ((Novel or New) adj Corona*) or SARS2 or SARS-CoV-2 or (SARS adj2 (coronaviridae or coronavirus)) or ((sars or Coronavirus) adj "2") or nCov or 2019ncov).mp. (182319)

45 or/36-44 (201273)

46 Healthcare Disparities/ or Inequality.mp. or Socioeconomic Factors/ or Health Status Disparities/ (207196)

47 Inequalities.mp. (23848)

48 Poverty Areas/ or Poverty/ or poverty.mp. (64975)

49 healthcare disparities.mp. (20644)

50 health services accessibility.mp. or Health Services Accessibility/ (81029)

51 income.mp. or Income/ (159356)

52 social class.mp. or Social Class/ (47770)

53 educational status.mp. or Educational Status/ (57723)

54 social determinants of health.mp. or "Social Determinants of Health"/ or Health Status/ (95215)

55 race.mp. or Continental Population Groups/ (135889)

56 ethnicity.mp. or Ethnic Groups/ (129118)

57 Adult/ or Male/ or European Continental Ancestry Group/ or African Americans/ or racial.mp. or Middle Aged/ or Female/ (12654076)

58 gender.mp. or Gender Identity/ (368712)

59 Employment, Supported/ or Employment/ or employment.mp. (95579)

60 education.mp. or Education/ (966748)

61 birth order.mp. or Birth Order/ (6195)

62 parity.mp. or Parity/ (52137)

63 family size.mp. or Family Characteristics/ (31024)

64 migrant.mp. or "Transients and Migrants"/ (19682)

65 Vulnerable Populations/ or Aged/ or vulnerable.mp. (3346735)

66 marital status.mp. or Marital Status/ (30107)

67 crowding.mp. (13488)

68 housing.mp. or Housing/ (55270)

69 exp Poverty/ or poverty.mp. (64975)

70 religion.mp. or Religion/ (42958)

71 social status.mp. (6395)

72 psychosocial deprivation.mp. or Psychosocial Deprivation/ (2112)

73 depriv*.mp. (112932)

74 occupation.mp. or Occupations/ (53352)

75 intellectual disability.mp. or Intellectual Disability/ (66250)

76 Developmental Disabilities/ or developmental delay.mp. or Epilepsy/ (109083)

77 mental retardation.mp. (30123)

78 learning disability.mp. or Learning Disabilities/ (16235)

79 neuro disability.mp. (30)

80 Disabled Persons/ or physical disability.mp. (48054)

81 (epileptic encephalopathy or hydranencephaly or microcephaly or schizencephaly or lissencephaly or polymicrogyria or cortical migration disorders or metabolic syndromes).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (17913)

82 Cerebral palsy.mp. or Cerebral Palsy/ (29340)

83 Autism Spectrum Disorders.mp. or Autism Spectrum Disorder/ (21392)

84 Prader-Willi Syndrome/ or Prader-Willi.mp. (4187)

85 Spina Bifida.mp. or Spinal Dysraphism/ (11775)

86 Cognitive impairment.mp. or Cognitive Dysfunction/ (76284)

87 (Dravet?s syndrome or Angelman syndrome or Fragile X or Ohtara or West syndrome or Infantile spasms).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word,

organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (13491)

88 neurodegenerative disorders.mp. or Neurodegenerative Diseases/ (37220)

89 Depressive Disorder, Major/ or Schizophrenia/ or Bipolar Disorder/ or neuroprogressive disorders.mp. or Fatigue Syndrome, Chronic/ (173368)

90 (Aicardi?Goutieres syndrome or Infantile neuroaxonal dystrophy or Pantothenate kinase 2 deficiency or Tuberos Sclerosis or Leukoencephalopathies or Rett Syndrome or Trisomy 21 or Trisomy 13 or Trisomy 18 or Cru?Du?Chat or Cornelia de Lange or Spinal muscular atrophy or Duchenne?s muscular dystrophy or Batten?s disease or Mitochondrial diseases or Neurofibromatosis or Turner?s syndrome or Noonan?s syndrome or PKU or Tay?Sachs disease or Beckwith?Wiedemann or 22q microdeletion or storage disorders or Fredrich?s ataxia or Leukodystrophy or Niemann?Pick).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (59553)

91 Dystonia/ or dystonia.mp. (17771)

92 (choreoathetosis or spasticity or quadriplegia or tetraplegia or diplegia).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (30092)

93 Fetal Alcohol Syndrome.mp. or Fetal Alcohol Spectrum Disorders/ (5190)

94 Brain Injuries/ or Cognition Disorders/ or Acquired brain injury.mp. or Brain Injuries, Traumatic/ (125281)

95 (genesis of the corpus collosum or Wilson?s disease or Familial Spastic Paraplegia or Charcot Marie Tooth disease or Cockayne syndrome or Alexander disease or Menkes kinky hair syndrome).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (12429)

96 or/46-95 (14124254)

97 35 and 45 and 96 (6804)

98 limit 97 to yr="2021" (4263)

99 13 or 16 or 26 (4386492)

100 98 and 99 (1340)

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Database: Embase <1974 to 2021 September 21>

Search Strategy:

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1 Clinical study/ (156138)

2 Case control study.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (226595)

3 Family study/ (25336)

4 Longitudinal study/ (161238)

5 Retrospective study/ (1135835)

6 Prospective study/ (714385)

7 (Follow up adj (study or studies)).tw. (67157)

8 Randomized controlled trials/ (211459)

9 Longitudinal.tw. (370537)

10 6 not 7 (707596)

11 Cohort analysis/ (754542)

12 (Cohort adj (study or studies)).mp. (366669)

13 (Case control adj (study or studies)).tw. (147265)

14 (follow up adj (study or studies)).tw. (67157)

15 (observational adj (study or studies)).tw. (199396)

16 (epidemiologic$ adj (study or studies)).tw. (112625)

17 (cross sectional adj (study or studies)).tw. (263753)

18 or/1-5,8-15 (3258561)

19 (nonequivalent control group or posttesting or pretesting or pretest posttest design or pretest posttest control group design or quasi experimental methods or quasi experimental study or time series or time series analysis).tw. (50743)

20 (((nonequivalent or non equivalent) adj3 control$) or posttest$ or post test$ or pre test$ or pretest$ or quasi experiment$ or quasiexperiment$ or timeseries or time series).tw. (117768)

21 19 or 20 (117768)

22 Randomized controlled trial/ (677007)

23 Controlled clinical study/ (464046)

24 random$.ti,ab. (1707693)

25 randomization/ (91871)

26 intermethod comparison/ (275304)

27 placebo.ti,ab. (329628)

28 (compare or compared or comparison).ti. (546885)

29 ((evaluated or evaluate or evaluating or assessed or assess) and (compare orcompared or comparing or comparison)).ab. (514377)

30 (open adj label).ti,ab. (91071)

31 ((double or single or doubly or singly) adj (blind or blinded or blindly)).ti,ab. (248538)

32 double blind procedure/ (187934)

33 parallel group$1.ti,ab. (28117)

34 (crossover or cross over).ti,ab. (112699)

35 ((assign$ or match or matched or allocation) adj5 (alternate or group$1 orintervention$1 or patient$1 or subject$1 or participant$1)).ti,ab. (245035)

36 (assigned or allocated).ti,ab. (428215)

37 (controlled adj7 (study or design or trial)).ti,ab. (388451)

38 (volunteer or volunteers).ti,ab. (260738)

39 human experiment/ (554924)

40 trial.ti. (339447)

41 or/22-28 (2729241)

42 (random$ adj sampl$ adj7 (cross section$ or questionnaire$ or survey$ ordatabase$)).ti,ab. (6687)

43 comparative study/ or controlled study/ or randomi?ed controlled.ti,ab. or randomly assigned.ti,ab. (9207326)

44 42 not 43 (4662)

45 Cross-sectional study/ not (randomized controlled trial/ or controlled clinical study/ or controlled study/ or randomi?ed controlled.ti,ab. or control group$1.ti,ab.) (282869)

46 (((case adj control$) and random$) not randomi?ed controlled).ti,ab. (18935)

47 (Systematic review not (trial or study)).ti. (186819)

48 (nonrandom$ not random$).ti,ab. (17259)

49 Random field$.ti,ab. (2582)

50 (random cluster adj3 sampl$).ti,ab. (1381)

51 (review.ab. and review.pt.) not trial.ti. (927440)

52 we searched.ab. and (review.ti. or review.pt.) (38435)

53 update review.ab. (117)

54 (databases adj4 searched).ab. (45375)

55 (rat or rats or mouse or mice or swine or porcine or murine or sheep or lambs or pigsor piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine ormonkey or monkeys or trout or marmoset$1).ti. and animal experiment/ (1085869)

56 Animal experiment/ not (human experiment/ or human/) (2355253)

57 or/44-56 (3786577)

58 41 not 57 (2375150)

59 exp Vaccines/ (354789)

60 vaccin*.mp. (510291)

61 exp Vaccination/ (184060)

62 exp Mass Vaccination/ (3884)

63 exp Immunization Programs/ (29152)

64 exp Immunization/ (303733)

65 (immunization or immunisation).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (188312)

66 immuni*.mp. (640419)

67 or/59-66 (999261)

68 Coronaviridae Infections/ or Coronaviridae/ or SARS-CoV-2/ or COVID-19/ (53702)

69 Betacoronavirus 1/ or Betacoronavirus/ (7697)

70 ((sars-associated or sars-related) adj (cov or coronavirus)).mp. (872)

71 exp Coronavirus/ or exp Coronavirus Infections/ (183930)

72 (Coronavir* or nCov or covid or covid-19).ti,ab,kf. (181412)

73 Coronavirus OC43, Human/ (496)

74 HKU1.mp. (649)

75 HCV-OC43.mp. (34)

76 (("2019" adj (novel or new) adj corona*) or ("2019" adj (CoV or nCoV)) or (coronavirus adj (disease adj "2019")) or COVID19 or COVID-19 or ((Novel or New) adj Corona*) or SARS2 or SARS-CoV-2 or (SARS adj2 (coronaviridae or coronavirus)) or ((sars or Coronavirus) adj "2") or nCov or 2019ncov).mp. (193215)

77 or/68-76 (214189)

78 Healthcare Disparities/ or Inequality.mp. or Socioeconomic Factors/ or Health Status Disparities/ (178198)

79 Inequalities.mp. (26008)

80 Poverty Areas/ or Poverty/ or poverty.mp. (62194)

81 healthcare disparities.mp. (1851)

82 health services accessibility.mp. or Health Services Accessibility/ (58087)

83 income.mp. or Income/ (213998)

84 social class.mp. or Social Class/ (36619)

85 educational status.mp. or Educational Status/ (86588)

86 social determinants of health.mp. or "Social Determinants of Health"/ or Health Status/ (150246)

87 race.mp. or Continental Population Groups/ (231416)

88 ethnicity.mp. or Ethnic Groups/ (199577)

89 Adult/ or Male/ or European Continental Ancestry Group/ or African Americans/ or racial.mp. or Middle Aged/ or Female/ (14018587)

90 gender.mp. or Gender Identity/ (637223)

91 Employment, Supported/ or Employment/ or employment.mp. (125212)

92 education.mp. or Education/ (1248839)

93 birth order.mp. or Birth Order/ (5699)

94 parity.mp. or Parity/ (56336)

95 family size.mp. or Family Characteristics/ (20807)

96 migrant.mp. or "Transients and Migrants"/ (52465)

97 Vulnerable Populations/ or Aged/ or vulnerable.mp. (3333343)

98 marital status.mp. or Marital Status/ (72574)

99 crowding.mp. (17432)

100 housing.mp. or Housing/ (53963)

101 exp Poverty/ or poverty.mp. (62194)

102 religion.mp. or Religion/ (75409)

103 social status.mp. (104660)

104 psychosocial deprivation.mp. or Psychosocial Deprivation/ (26850)

105 depriv*.mp. (142417)

106 occupation.mp. or Occupations/ (72486)

107 intellectual disability.mp. or Intellectual Disability/ (30543)

108 Developmental Disabilities/ or developmental delay.mp. or Epilepsy/ (167829)

109 mental retardation.mp. (40150)

110 learning disability.mp. or Learning Disabilities/ (32600)

111 neuro disability.mp. (81)

112 Disabled Persons/ or physical disability.mp. (52858)

113 (epileptic encephalopathy or hydranencephaly or microcephaly or schizencephaly or lissencephaly or polymicrogyria or cortical migration disorders or metabolic syndromes).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (27784)

114 Cerebral palsy.mp. or Cerebral Palsy/ (43395)

115 Autism Spectrum Disorders.mp. or Autism Spectrum Disorder/ (57824)

116 Prader-Willi Syndrome/ or Prader-Willi.mp. (6662)

117 Spina Bifida.mp. or Spinal Dysraphism/ (13810)

118 Cognitive impairment.mp. or Cognitive Dysfunction/ (183587)

119 (Dravet's syndrome or Angelman syndrome or Fragile X or Ohtara or West syndrome or Infantile spasms).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (19890)

120 neurodegenerative disorders.mp. or Neurodegenerative Diseases/ (49504)

121 Depressive Disorder, Major/ or Schizophrenia/ or Bipolar Disorder/ or neuroprogressive disorders.mp. or Fatigue Syndrome, Chronic/ (239342)

122 (Aicardi/Goutieres syndrome or Infantile neuroaxonal dystrophy or Pantothenate kinase 2 deficiency or Tuberos Sclerosis or Leukoencephalopathies or Rett Syndrome or Trisomy 21 or Trisomy 13 or Trisomy 18 or Cru?Du?Chat or Cornelia de Lange or Spinal muscular atrophy or Duchenne?s muscular dystrophy or Batten?s disease or Mitochondrial diseases or Neurofibromatosis or Turner?s syndrome or Noonan?s syndrome or PKU or Tay?Sachs disease or Beckwith?Wiedemann or 22q microdeletion or storage disorders or Fredrich?s ataxia or Leukodystrophy or Niemann?Pick).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (80491)

123 Dystonia/ or dystonia.mp. (34993)

124 (choreoathetosis or spasticity or quadriplegia or tetraplegia or diplegia).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (52479)

125 Fetal Alcohol Syndrome.mp. or Fetal Alcohol Spectrum Disorders/ (7843)

126 Brain Injuries/ or Cognition Disorders/ or Acquired brain injury.mp. or Brain Injuries, Traumatic/ (152331)

127 (genesis of the corpus collosum or Wilson?s disease or Familial Spastic Paraplegia or Charcot Marie Tooth disease or Cockayne syndrome or Alexander disease or Menkes kinky hair syndrome).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] (15145)

128 or/78-127 (15987560)

129 67 and 77 and 128 (11951)

130 limit 129 to yr="2021" (7865)

131 18 or 21 or 58 (5271590)

130 and 131 (1755)

APPENDIX B – QUALITY APPRAISAL

Studies	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Khubchandani 2021	Unclear	Yes	No	No	Yes	Yes	Yes	Yes
Tram 2021	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Wang 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Perry 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gharpure 2021	Yes	Yes	No	Yes	No	No	Yes	Yes
Murthy 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Agarwal 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Barry 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Ryerson 2021	Yes	Yes	NO	No	Yes	Yes	Yes	Yes
Whiteman 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Brown 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Singh 2021	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Sun 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Glampson 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nguyen 2021	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Dolby 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Nafilyan 2021	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lindemer 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Kim 2021	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Dryden-Peterson 2021	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
MacKenna 2021	Yes	Yes	Yes	Yes	No	No	Yes	Yes

1. Were the criteria for inclusion in the sample clearly defined?
2. Were the study subjects and the setting described in detail?
3. Was the exposure measured in a valid and reliable way?
4. Were objective, standard criteria used for measurement of the condition?
5. Were confounding factors identified?
6. Were strategies to deal with confounding factors stated?
7. Were the outcomes measured in a valid and reliable way?
8. Was appropriate statistical analysis used?

APPENDIX C – RESULTS

SUPPLEMENTARY TABLE 1. PLACE OF RESIDENCE/HOUSING AND HOUSEHOLD COMPOSITION

Study	Place of residence/housing	Household composition / marital status
Agarwal et al., 2021 (16)	***Percentage point change in vaccination disparity associated with one SD increase in the predictor*** Urban Coeff. = 0.19, p>0.05	
Barry et al., 2021 (17)	***Percentage of housing structures with >=10 units:*** Counties below median: 40.9% vaccinated Counties at or above median: 55.4% vaccinated ***Percentage of houses that are mobile home units*** Counties below median: 56.4% vaccinated Counties at or above median: 42% vaccinated	***Households with single parents:*** Counties below median: 58% vaccinated Counties at or above median: 51.5% vaccinated ***Living with persons with a disability:*** Counties below median: 56.3% vaccinated Counties at or above median: 43.9% vaccinated
Brown et al., 2021 (18)		**Age: 18-64** Housing type, transportation, household composition, and disability: Marginal effect= -1.7, p=<0.001 Q1: 53.5% vaccinated Q2: 51.6% vaccinated Q3: 48.0% vaccinated Q4: 44.9% vaccinated Q5: 40.2% vaccinated **Age: >65** Housing type, transportation, household composition, and disability: Marginal effect= -1.3, p=<0.001 Q1: 75.9% vaccinated Q2: 73.7% vaccinated Q3: 71.1% vaccinated

		Q4: 69.0% vaccinated Q5: 65.2% vaccinated
Gharpure, et al., 2021 (21)	***Social Vulnerability Index*** ***Housing type/transportation: Residents in assisted living*** Q1: 75% vaccine uptake per 100beds Q2: 75% vaccine uptake per 100beds Q3: 68% vaccine uptake per 100beds ***Housing type/transportation: Residents in assisted living: Residents in residential care*** Q1: 10/10 vaccine uptake per ten beds Q2: 9/10 vaccine uptake per ten beds Q3: 8/10 vaccine uptake per ten beds	***Social Vulnerability Index*** ***Household composition/disability: Residents in assisted living*** Q1: 75% vaccine uptake per 100beds Q2: 75% vaccine uptake per 100beds Q3: 68% vaccine uptake per 100beds ***Household composition/disability: Residents in assisted living*** Q1: 10/10 vaccine uptake per ten beds Q2: 9/10 vaccine uptake per ten beds Q3: 8/10 vaccine uptake per ten beds
Khubchandani et al., 2021 (23)	Rural: 428/495 (86%) Urban: 635/802 (79%) Suburban: 202/289 (70%)	Single/never married: 212/317 (66.9%) Married: 993/1174 (84.6%) Engaged/living with a partner: 25/46 (54.3%) Divorced/separated: 35/49 (71.4%)
Kim et al., 2021 (24)		**6-18/1/2021** Married: Ref Widowed: aOR= 0.81 (0.61-1.08) Divorced/Separated: aOR= 0.99 (0.85-1.16) Never Married: aOR= 0.80 (0.68-0.94) **17-29/3/2021** Married: Ref Widowed: aOR= 0.78 (0.65-0.94) Divorced/Separated: aOR= 0.82 (0.74-0.91) Never Married: aOR= 0.82 (0.73-0.92)
Lindemer et al., 2021 (25)	Difference in rate, by Quartile of vaccinated counties (Q1 vs. Q4)	Difference in rate, by Quartile of vaccinated counties (Q1 vs. Q4)

	Homeownership: RR= **1.042** (1.041 - 1.043)	Children in single-parent households: RR= **0.909** (0.908 - 0.91)
Murthy et al., 2021 (27)	Rural: 38.9% Urban: 45.7%	
Nafilyan et al., 2021 (28)	Rural: Ref Urban: OR= 0.89 (0.88 – 0.89) ***Housing Tenure*** Owned: Ref Private rented: OR= 0.55 (0.55-0.56) Social rented: OR= 0.63 (0.62-0.63) Other (eg, live rent free): OR= 0.67 (0.66-0.68)	2 elderlies: Ref 1 elderly: OR= 0.75 (0.75 - 0.76) Care home: OR= 1.12 (1.10-1.16) Multigenerational: OR= 0.71 (0.71-0.72) Other (3+ adults): OR= 0.65 (0.63 -0.67)
Perry et al., 2021 (30)	Rural: Ref Urban: aOR= **0.86** (0.84–0.87)	
Ryerson et al., 2021 (31)	Urbanicity (no disability vs. disability) MSA, Principle city: 68% vs. 68.7% MSA, Non principle city: 65.1% vs. 67.4% Non MSA: 54.4% vs. 61.4%	
Singh et al., 2021 (32)	***Housing tenure*** Owner: Ref Renter: aOR= 0.92 (0.86-0.99)	Married: Ref Widowed: aOR= 1.06 (0.95-1.18) Divorced/separated: aOR= 0.95 (0.88-1.03) Single: aOR= 0.86 (0.79-0.94)
Sun et al., 2021 (33)	Large urban (>=1 million): Ref Medium urban (250,000-1 million): Coeff. = 1.22, p= 0.077 Small urban: <250,000): Coeff. = -0.13, p= 0.858 Large rural adjacent to metro (<=20,000): Coeff. = 0.26, p= 0.757 Large rural remote (<=20,000): Coeff. = 0.46, p= 0.684 Medium rural adjacent to metro (2,500-19,999): Coeff. = 0.18, p= 0.805 Medium rural remote (2,500-19,999): Coeff. = 0.17, p= 0.835	

	Small rural adjacent (<2,500): Coeff. = 1.05, p= 0.259 Small rural remote (<2,500): Coeff. = 0.68, p= 0.442	
Tram et al., 2021 (34)		Married= 28.5% (28.2–28.7) Not married= 19.8% (19.5–20.2)
Wang et al., 2021 (35)	Mobile homes Age 65-74: Q1: 76.36 (11.53) Q4: 76.14 (10.32) Diff: 0.22 (-4.54 – 4.96) Age > 75: Q1: 89.94 (16.57) Q4: 87.49 (12.69) Diff: 2.45 (-3.96 – 8.87)	Household disability Age: 65-74 Q1: 78.54 (9.47) Q4: 70.69 (11.59) Diff: 7.85 (3.25-12.45) Age: >75 Q1: 96.80 (15.31) Q4: 80.52 (17.03) Diff: 16.28 (9.25-23.31)
Whiteman et al., 2021 (36)		Average percentage of older adults living alone in counties with <50% vaccination rates: 14.3% (95% CI = 13.8%–14.9%) ≥75% vaccination initiation rates : 12.2% (95% CI = 11.8%–12.6%)

SUPPLEMENTARY TABLE 2. RESULTS ON EDUCATION, INCOME/DEPRIVATION, OCCUPATION/EMPLOYMENT AND COVID-19 VACCINE UPTAKE

Study	Education	Income / Deprivation / Poverty	Occupation / Occupational setting/ Employment
Agarwal et al., 2021 (16)	***Percentage point change in vaccination disparity associated with one SD increase in the predictor*** County High school graduation rate: Coeff. = 1.22, p> 0.05 County High school disparity: Coeff. = **2.01**, p< 0.001	***Percentage point change in vaccination disparity associated with one SD increase in the predictor*** County Median income: Coeff. = **-2.2**, p <0.05 County Median income disparity: Coeff. = 0.89, p >0.05	
Barry et al., 2021 (17)	***No high school diploma*** Counties below median: 56.5% vaccinated Counties above median: 50.40% vaccinated	**Income per capita** Counties below median: 42.7% vaccinated Counties at or above median: 56.7% vaccinated **Percentage of people living in poverty** Counties below median: 57.4% vaccinated Counties at or above median: 49.8% vaccinated	***Unemployment:*** Counties below median: 56.6% vaccinated Counties at or above median: 51.9% vaccinated
Brown et al., 2021 (18)		**COVID-19 Community Vulnerability Index[2]** **Age: 18-65** Socioeconomical status: Effect of a 10point increase= -1.2, p <0.001 Q1: 53.8% vaccinated Q2: 53.0% vaccinated Q3: 48.3% vaccinated Q4: 44.6% vaccinated Q5: 45.2% vaccinated **Age: >65** Socioeconomical status: Effect of a 10point increase = -1.4, p <0.001 Q1: 76.7% vaccinated Q2: 76.0% vaccinated	

		Q3: 72.7% vaccinated Q4: 69.0% vaccinated Q5: 66.9% vaccinated	
Dryden-Peterson et al., 2021(20)		Decreased VIR per Quartile increase aRR 0.82; 95%C.I: (0.77-0.87)	
Gharpure et al., 2021 (21)		***Social Vulnerability Index*** ***Socioeconomical status Residents in assisted living*** Q1: 75% vaccine uptake per 100beds Q2: 74% vaccine uptake per 100beds Q3: 71% vaccine uptake per 100beds ***Socioeconomical status: Residents in residential care*** Q1: 10/10 vaccine uptake per ten beds Q2: 9/10 vaccine uptake per ten beds Q3: 8/10 vaccine uptake per ten beds	
Glampson et al., 2021 (22)		***Deprivation and rate of declining vaccination*** Overall association: r=–0.94; P=.002) ***By Postcodes*** Most deprived 13.5% (1980/14,571) declining vaccination Least deprived 0.98% (869/9609) declining vaccination	
Khubchandani et al., 2021 (23)	High school or less: 44/90 (49%) College: 93/149 (62%) Bachelor's degree: 822/992 (83%) >=Master's degree: 306/355 (86%)		Full-time: 1121/1393 vaccinated (80.5%) Part-time: 91/116 vaccinated (78.4%) Not employed: 53/77 vaccinated (68.8%)
Kim et al., 2021 (24)	**6-18/1/2021** ≥College: Ref <High school: aOR= **0.41** (0.27–0.63) High school: aOR= **0.40** (0.34–0.48)	**Income** **6-18/1/2021** ≥$200,000: Ref $150,000-$199,999: aOR= 1.06 (0.83, 1.34)	

	Some college: aOR= **0.76** (0.69–0.85) **17-29/3/2021** ≥College: Reference <High school: aOR= **0.29** (0.24–0.36) High school: aOR= **0.41** (0.37–0.45) Some college: aOR= **0.58** (0.54–0.62)	$100,000-$149,999: aOR= 0.96 (0.78, 1.17) $75,000-$99,999: aOR= 0.79 (0.63, 0.997) $50,000-$74,999: aOR= 0.78 (0.62, 0.98) $35,000-$49,999: aOR= 0.68 (0.51, 0.91) $25,000-$34,999: aOR= 0.63 (0.46, 0.87) <$25,000: aOR= 0.53 (0.36, 0.77) **17-29/3/2021** ≥$200,000: Ref $150,000-$199,999: aOR= 0.98 (0.82, 1.18) $100,000-$149,999: aOR= 1.00 (0.87, 1.16) $75,000-$99,999: aOR= 0.91 (0.77, 1.08) $50,000-$74,999: aOR= 0.91 (0.78, 1.07) $35,000-$49,999: aOR= 0.87 (0.73, 1.04) $25,000-$34,999: aOR= 0.86 (0.71, 1.04) <$25,000: aOR= **0.66** (0.54, 0.81) **Financial hardship:** **6-18/1/2021** Not at all difficult: Ref A little difficult: aOR= **0.89** (0.78 - 1.00) Somewhat difficult: aOR= **0.69** (0.59 - 0.80) Very difficult: aOR= **0.56** (0.44 - 0.70) **17-29/3/2021** Not at all difficult: Ref A little difficult: aOR= 0.95 (0.87 - 1.03) Somewhat difficult: aOR= **0.85** (0.73 - 0.99) Very difficult: aOR= **0.76** (0.63 - 0.90)	

Lindemer et al., 2021 (25)	Difference in rate, by Quartile of vaccinated counties (Q1 vs. Q4) High school graduation: RR= **1.019** (1.017–1.021) Some college: RR= **1.143** (1.143–1.144)		Difference in rate, by Quartile of vaccinated counties (Q1 vs. Q4) Unemployment: RR= **0.87** (0.867–0.872)
MacKena et al., 2021 (26)		***Index of Multiple Deprivation*** IMD: 5 (Least deprived): 612,731/634,340 (96.6%) IMD: 4: 564,410/588,546 (95.9%) IMD: 3: 514,682/541,737 (95%) IMD: 2: 402,836/433,622 (92.9%) IMD: 1 (Most deprived): 309,190/340,928 (90.7%) Unknown: 18,613/19,691 (94.5%)	
Nafilyan et al., 2021 (28)		IMD: 5 (least deprived): Ref IMD 4: OR= 0.92 (0.91 – 0.93) IMD 3: OR= 0.85 (0.85 - 0.86) IMD 2: OR= 0.75 (0.74 – 0.75) IMD 1 (most deprived): OR= 0.63 (0.62-0.64)	
Nguyen et al., 2021 (29)	**US** Lower education (Quartile 1): 3991/17936 vaccinated White: 1.0 (ref.) Black: aOR = 0.65 (0.54 to 0.78) Hispanic: aOR = 1.06 (0.90 to 1.26) Asian: aOR = 1.10 (0.92 to 1.31) Other: aOR = 0.86 (0.64 to 1.14) Higher education (Quartile 4): 4153/17851 vaccinated	**US** Lower income (Quartile 1): 4094/17865 vaccinated White: 1.0 (ref.) Black: aOR = 0.73 (0.61 to 0.86) Hispanic: aOR = 0.94 (0.79 to 1.14) Asian: aOR = 0.90 (0.70 to 1.16) Other: aOR = 1.08 (0.81 to 1.44) Higher income (Quartile 4): 4111/17845 vaccinated White: 1.0 (ref.) Black: aOR = 0.83 (0.62 to 1.11)	

	White: 1.0 (ref.) Black: aOR = 0.93 (0.70 to 1.24) Hispanic: aOR = 0.95 (0.75 to 1.19) Asian: aOR = 1.19 (1.00 to 1.42) Other: aOR = 1.09 (0.80 to 1.50) **UK** Lower education (Quartile 1): 40794/284004 vaccinated White: 1.0 (ref.) Black: aOR = 1.08 (0.97 to 1.20) Hispanic: aOR = 1.06 (0.97 to 1.17) Asian: aOR = 1.09 (0.94 to 1.27) Other: aOR = 0.94 (0.83 to 1.05) Higher education (Quartile 4): 37191/226383 vaccinated White: 1.0 (ref.) Black: aOR = 0.96 (0.81 to 1.12) Hispanic: aOR = 1.13 (1.03 to 1.23) Asian: aOR = 0.93 (0.81 to 1.06) Other: aOR = 0.96 (0.86 to 1.07)	Hispanic: aOR = 1.05 (0.86 to 1.28) Asian: aOR = 0.97 (0.84 to 1.12) Other: aOR = 1.09 (0.81 to 1.45) **UK** Lower income (Quartile 1): 43709/299277 vaccinated White: 1.0 (ref.) Black: aOR = 0.97 (0.89 to 1.07) Hispanic: aOR = 1.12 (1.04 to 1.21) Asian: aOR = 1.05 (0.94 to 1.18) Other: aOR = 0.90 (0.82 to 0.99) Higher income (Quartile 4): 30809/198904 vaccinated White: 1.0 (ref.) Black: aOR = 1.08 (0.90 to 1.31) Hispanic: aOR = 1.19 (1.07 to 1.33) Asian: aOR = 0.91 (0.77 to 1.08) Other: aOR = 1.01 (0.88 to 1.15)	
Perry et al., 2021 (30)		IMD: 5 (least deprived): Ref IMD 4: aOR= **0.81** (0.79 – 0.83) IMD 3: aOR= **0.78** (0.76 – 0.79) IMD 2: aOR= **0.71** (0.70 – 0.73), IMD 1 (most deprived): aOR= **0.59** (0.57–0.60)	
Ryerson et al., 2021 (31)		SVI (No disability vs. disability) Low: 69.9% vs. 68%	

		Moderate: 65.1% vs. 68.6% High: 60.4% vs. 64.8% Poverty status and household income (No disability vs. disability) Above poverty >75K: 72.5% vs. 78.0% Above poverty <75K: 61.1% vs. 68.9% Below poverty: 48.6% vs. 55.5% Unknown: 64.3% vs. 66.6%	
Singh et al., 2021 (32)	Graduate degree or higher (>=17 y.o.): Ref College degree, (16 y.o.): aOR= 0.71 (0.68-0.75) Some college (13-15 y.o.): aOR= 0.59 (0.56-0.62) High school (12 y.o.): aOR= 0.39 (0.36-0.42) High school (<12 y.o.): aOR= 0.36 (0.30-0.43)	>= 200,000 (in 2019): Ref 150,000-199,999 (in 2019): aOR= 1.07 (0.97-1.17) 100,000-149,999 (in 2019): aOR= 0.97 (0.90-1.04) 75,000-99,999 (in 2019): aOR= 0.95 (0.87-1.03) 50,000-74,999 (in 2019): aOR= 0.92 (0.84-1.00) 35,000-49,999 (in 2019): aOR= **0.87 (0.78-0.97)** 25,000-34,999 (in 2019): aOR= **0.81 (0.72-0.91)** <25,000 (in 2019): aOR= **0.67 (0.59-0.77)** Unknown: aOR= 0.98 (0.88-1.10)	Employed: Ref Unemployed: aOR= **0.5 (0.47-0.54)**
Sun et al., 2021 (33)	Rural & urban % with Bachelor or higher: Coeff. = 0.13, p= 0.713 Urban % with Bachelor or higher: Coeff. = 2.33, p< 0.001	County Median household income: Coeff. = 2.78, p< 0.001	
Tram et al., 2021 (34)	High school or less= 18.8% (18.4 -19.2) Some college or associate's degree= 23.1% (22.9–23.4) Bachelor's degree or higher= 33.6% (33.4–33.9)	**Income** <25,000$ =15.4% (14.6 -16.2) 25,000–34,999$ = 20.3 (19.6–21.2) 35,000–49,999$ = 22.6% (22.0–23.2) 50,000–74,999$ =26.1% (25.4–26.8)	

		75,000–99,999$ =27.7% (26.9–28.5) 100,000–149,999$ = 29.4% (28.8–30.0) 150,000–199,999$ =32.0% (31.0–32.9) ≥200,000$ = 33.0% (32.2–33.8)	
Wang et al., 2021 **(35)**	Without highschool diploma Age 65-74: Q1: 79.77 (8.19) Q4: 66.86 (10.14) Diff: 12.91 (8.91-16.92) Age > 75: Q1: 98.62 (13.53) Q4: 74.47 (14.91) Diff: 24.15 (17.97-30.33)	Below poverty Age: 65-74 Q1: 79.58 (9.99) Q4: 69.12 (12.37) Diff: 10.46 (5.59-15.35) Age: >75 Q1: 98.01 (14.92) Q4: 73.87 (13.70) Diff: 24.14 (17.92-30.35)	Unemployed Age: 65-74 Q1: 75.60 (9.39) Q4: 70.99 (12.43) Diff: 4.61 (0.14-9.36) Age: >75 Q1: 88.75 (15.64) Q4: 83.72 (19.24) Diff: 5.03 (2.54-12.58)
Whiteman et al., 2021 (36)		Counties with <50% vaccination initiation rates: 10.3% (95% CI= 9.2% – 11.4%) in poverty Counties with >=75% vaccination initiation rates: 7.6% (95% CI = 7.0%–8.2%) in poverty	