



PPIC

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Health Coverage and Care for Undocumented Immigrants in California: An Update

Technical Appendices

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Appendix A. Estimates of the Undocumented Population and Health Insurance Coverage

There is neither a definitive source nor method for estimating the size of the undocumented immigrant population nationally or at the state-level. In past work, PPIC has relied on IRS tax data (along with estimates from the Center for Migration Studies (CMS) to develop county-level estimates for the undocumented population in California (see Hill and Johnson, 2011; McConville, Hill, Ugo & Hayes, 2015). The IRS data is no longer available and so we rely solely on other sources of estimates for undocumented immigrants in California (Table A1).

While each of the estimates highlighted in Table A1 use different methodologies, all of them rely on national survey data – most often the US Census Bureau American Community Survey (ACS)—as the base population data that is augmented through different means to produce estimates of undocumented immigrants. Most of these estimates also rely on information from the U.S. Department of Homeland Security to incorporate administrative totals of legal immigration and then proceed to make adjustments based on other information to identify noncitizens who are likely undocumented (Capps et al. 2020).

Pew Hispanic Center has the lowest estimate for California at 2 million undocumented immigrations, while the Migration Policy Institute has the highest at more than 2.6 million. CMS falls somewhere in between at about 2.3 million as of 2018—the latest year for which estimates are available.

TABLE A1
Estimates of undocumented immigrants vary across sources

	Pew (2017)	CMS (2018)	MPI (2018)	Uninsured (CMS)	Uninsured (MPI)
US	10,500,000	10,564,000	10,977,000	48%	52%
California	2,000,000	2,312,000	2,625,000	37%	40%
Los Angeles County	N/A	763,000	880,000	N/A	44%

SOURCES: Pew Hispanic Center; Center for Migration Studies (CMS); Migration Policy Institute (MPI)

NOTES: The Los Angeles County estimate from CMS is calculated using information on the share of undocumented immigrants across California counties from McConville, Hill, Ugo, & Hayes, 2015.

Large national surveys—like the ACS—which are designed to produce population estimates and are often used by researchers to assess basic demographic and socio-economic characteristics do not include detailed questions about immigration status. Other national surveys (for example, the Survey on Income and Program Participation (SIPP)) include more direct questions to identify undocumented immigrants, however the SIPP is not designed to produce state estimates and no longer collects detailed immigration data. The California Health Interview Survey (CHIS), which we use in this report to assess the health care needs and usage patterns among undocumented immigrants in California, also asks more detailed questions about legal permanent residency and offers a more direct way to identify many undocumented immigrants.

Appendix B. Analysis of the California Health Interview Survey

The analyses in this report rely on the California Health Interview Survey (CHIS). The CHIS is a state-representative survey of health, demographics, and related measures fielded by the Center for Health Policy Research at UCLA. There is a public version of the CHIS, but we accessed sensitive content under a data use agreement with UCLA.

The CHIS is a household survey that selects an adult respondent, a child interview (for ages 0 to 11; conducted by adult proxy), and a teen interview (for ages 12 to 17; with direct participation by teens). We refer to the CHIS household units as “families.” Although technically the child and adult respondents to the CHIS need only share a household, in practice, the proxy adult respondent for the child is typically both the child’s parent and the adult respondent to the CHIS, as described in a recent methodological brief (Wells 2020). A parent must also give permission for a teen to respond to the CHIS. The child sample is relatively difficult to recruit, since not all households have children and not all parents have the time to complete both a child proxy interview and an adult interview themselves, so CHIS has been employing a range of techniques to increase child participation.

Adult Models

The CHIS records whether immigrants are naturalized citizens or Legal Permanent Residents (LPRs) who hold “green cards.” The questions asked are, “[t]he next questions are about citizenship and immigration. Are you a citizen of the United States?” and, “[a]re you a permanent resident with a green card? Your answers are confidential and will not be reported to Immigration Services.” We use being a non-LPR immigrant as a proxy for likely undocumented status (see Technical Appendix D for more on non-LPRs). Although this is an imperfect measure of undocumented status, we use it because there are few up-to-date alternatives. Undocumented population sizes can be estimated using immigration flows (numbers of entries and exits), combined with data on visa and green card issuances. At the individual-level, however, proxies for undocumented status are frequently dependent on self-report, sometimes combined with other statistical methods (see Technical Appendix A for more details). The Survey of Income and Program Participation (SIPP) was previously a key resource for this type of approach, but its most recent redesign did not preserve detailed immigration questions. The CHIS is one of few remaining sources of quantitative data with in-depth immigration information.

The statistical models of adult health outcomes include immigrants aged 19 and above with incomes under 200 percent of the federal poverty level (FPL); in 2021, this translates to less than \$53,000 for a family of four. The analyses typically compare non-LPRs to immigrants who are able to reside in the US permanently through green cards or naturalized citizenship (Technical Appendix Tables C2–C12). We estimate the association of various health outcomes with non-LPR status while controlling for individual-level sex, age, and race (using dummies for Pacific Islander, Native American, Asian, African-American, White, and Latino; Other race excluded), and including fixed effects for year (excluding 2015) and county (excluding Orange County). We adjust for complex survey design and calculate jackknife standard errors for all of our estimates. We report all estimates, and denote when they meet the thresholds of $p < 0.10$ (+), $p < 0.05$ (*), $p < 0.01$ (**), or $p < 0.001$ (***)

Older Adult Models

We conduct models of health outcomes for older adults aged 50 and above (Appendix Tables C13–C16), using the same approaches in the main adult models. The older undocumented adult sample in the CHIS is quite sparse, so findings for this subgroup are not likely to be as reliable as the main adult models.

Child Models

Because a very small proportion (less than 4%) of low-income children in the CHIS are non-LPRs immigrants, LPR status is not the most important immigration factor for this group. Having a mixed-status family, in which some members are citizens or LPRs while others are neither, can be important in terms of how families navigate health care and social programs (Bernstein et al. 2021). We define a child as having an immigrant family if any household respondent in the CHIS is an immigrant. Similarly, we define a child as having a known mixed-status family if any household respondent in the CHIS is a non-LPR.

The statistical models of children's health outcomes include low-income children from immigrant families (Appendix Tables C17–C20). They compare children in known mixed-status families to children in other immigrant families. We estimate the association of various health outcomes with mixed-status family membership while controlling for individual-level sex, age, race (dummies for Asian American, African-American, white, and Latino; Other race excluded) and including fixed effects for years (excluding 2015) and counties (excluding Orange County). We calculate standard errors and present findings in the same manner as for the adult models.

These definitions of children's immigrant and mixed-status family membership have drawbacks. While they allow us to define a study sample of children in known immigrant families and estimate effects associated with being in a known mixed-status (including entirely undocumented) family, the measures underestimate both types of family membership. This is because we do not have immigration information on the full roster of household members. We have this information on the adult respondent to the survey, and on the child and/or teen in the survey. Other family members could be immigrants while the survey respondents are not, leading to an incorrectly subset study group of children in immigrant families. Similarly, nonrespondent family members could be undocumented while the survey respondents are not, leading to a mis-categorization of some children in mixed-status families into the reference group. Because this limitation can cause mixed-status families to be mistakenly assigned to the non-mixed-status group but it cannot cause non-mixed-status families to be assigned to the mixed-status group, our modeled associations will be underestimates of any true effects of being in a mixed-status family. Still, we caution against over-interpreting the findings for children.

Appendix C. Analysis Tables

Tables for Adult Findings

TABLE C1

Descriptive statistics for California’s non-LPR immigrants by income

	All	<=200% FPL	> 200% FPL
Female	0.471 (0.0169)	0.517 (0.0217)	0.363 (0.0297)
Age	38.11 (0.298)	38.62 (0.374)	36.87 (0.550)
Pacific Islander race	0.000809 (0.000661)	0.0000243 (0.0000385)	0.00268 (0.00218)
Native American race	0 N/A	0 N/A	0 N/A
Asian race	0.120 (0.00956)	0.0458 (0.00796)	0.297 (0.0241)
Black race	0.00746 (0.00279)	0.00362 (0.00202)	0.0166 (0.00819)
White race	0.0343 (0.00659)	0.0123 (0.00391)	0.0866 (0.0230)
Latino	0.836 (0.0104)	0.938 (0.00922)	0.595 (0.0325)
Lives in rural county	0.00677 (0.00129)	0.00702 (0.00158)	0.00619 (0.00239)
County indigent care covers undocumented immigrants	0.696 (0.0166)	0.684 (0.0185)	0.722 (0.0291)
Insured	0.612 (0.0165)	0.594 (0.0198)	0.653 (0.0319)
Medi-Cal	0.351 (0.0152)	0.453 (0.0192)	0.107 (0.0183)
Employer insurance	0.242 (0.0135)	0.134 (0.0139)	0.501 (0.0320)
Direct-purchase insurance	0.0168 (0.00298)	0.0109 (0.00281)	0.0308 (0.00796)
Medicare	0.0592 (0.00861)	0.0688 (0.0113)	0.0362 (0.0105)
N	3478	2,466	1012

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Mean and standard deviation shown for non-LPR immigrants by income as a percentage of the federal poverty level (FPL).

TABLE C2

Study adult descriptive statistics

	All immigrant adults	Non-LPR immigrants	LPRs or naturalized citizens
Female	0.552 (0.00904)	0.517 (0.0217)	0.567 (0.0139)
Age	48.17 (0.292)	38.62 (0.374)	52.18 (0.384)
Member of mixed-status family	0.296 (0.0112)	1 N/A	0.000598 (0.000335)
Lives in rural county	0.00837 (0.000858)	0.00702 (0.00158)	0.00894 (0.00119)
County indigent care covers undocumented immigrants	0.684 (0.0115)	0.684 (0.0185)	0.684 (0.0129)
Insured	0.800 (0.00904)	0.594 (0.0198)	0.887 (0.00987)
Medi-Cal	0.546 (0.0101)	0.453 (0.0192)	0.586 (0.0129)
Employer insurance	0.207 (0.0101)	0.134 (0.0139)	0.237 (0.0143)
Direct-purchase insurance	0.0378 (0.00548)	0.0109 (0.00281)	0.0490 (0.00728)
Medicare	0.248 (0.00915)	0.0688 (0.0113)	0.323 (0.0134)
Uninsured more than 1 yr	0.0322 (0.00428)	0.0650 (0.0116)	0.0185 (0.00345)
ED past 12 mo	0.199 (0.00805)	0.199 (0.0160)	0.199 (0.00939)
Number of ED visits, past 12 mo	0.362 (0.0217)	0.350 (0.0343)	0.367 (0.0273)
2+ ED visits, past 12 mo	0.0750 (0.00493)	0.0765 (0.00975)	0.0744 (0.00613)
Doctor, past 12 mo	0.744 (0.00862)	0.647 (0.0199)	0.785 (0.0100)
Routine physical, past 12 mo	0.694 (0.0102)	0.556 (0.0229)	0.752 (0.0114)
Excellent health	0.108 (0.00693)	0.109 (0.0130)	0.108 (0.00794)
Very good health	0.153 (0.00775)	0.144 (0.0146)	0.157 (0.0109)
Good health	0.352 (0.0100)	0.392 (0.0182)	0.335 (0.0120)
Fair/poor health	0.387 (0.0110)	0.356 (0.0201)	0.400 (0.0143)
Asthma diagnosis	0.0851	0.0546	0.0978

	All immigrant adults	Non-LPR immigrants	LPRs or naturalized citizens
	(0.00496)	(0.00859)	(0.00646)
Heart disease diagnosis	0.0711	0.0335	0.0868
	(0.00479)	(0.00813)	(0.00648)
Diabetes diagnosis*	0.185	0.115	0.216
	(0.00888)	(0.0140)	(0.0117)
Overweight	0.679	0.724	0.660
	(0.0110)	(0.0207)	(0.0119)
Obese	0.320	0.352	0.307
	(0.00924)	(0.0200)	(0.0102)
Missed Rx, past 12 mo	0.102	0.114	0.0971
	(0.00649)	(0.0123)	(0.00797)
Missed Rx due to cost, past 12 mo*	0.691	0.822	0.626
	(0.0297)	(0.0474)	(0.0413)
Missed health care, past 12 mo	0.117	0.132	0.111
	(0.00657)	(0.0160)	(0.00781)
Missed HC due to cost, past 12 mo*	0.621	0.782	0.540
	(0.0283)	(0.0450)	(0.0355)
No usual source of care	0.245	0.357	0.198
	(0.00866)	(0.0186)	(0.0100)
ED usual source	0.0228	0.0395	0.0158
	(0.00323)	(0.00742)	(0.00307)
Clinic usual source	0.385	0.469	0.350
	(0.0107)	(0.0197)	(0.0125)
Clinic, public hospital, or ED usual source	0.408	0.508	0.366
	(0.0113)	(0.0205)	(0.0131)
Has usual source of care	0.755	0.643	0.802
	(0.00866)	(0.0186)	(0.0100)
Had flu shot last year (2015–16 only)*	0.413	0.313	0.462
	(0.0140)	(0.0266)	(0.0179)
N	10869	2,466	8403

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Mean and standard deviation shown for immigrant adults ages 19 and older under 200 percent of federal poverty. Asterisk (*) indicates that a variable has missing values due to question universe, nonresponse, or unavailability in some years.

TABLE C3

Regression estimates of insurance types by non-LPR and LPR status, compared to citizen immigrants

	Insured	Medi-Cal	Employer insurance	Direct purchase	Medicare
Non-LPR	-0.270*** (0.025)	-0.086** (0.030)	-0.159*** (0.026)	-0.037*** (0.010)	-0.068** (0.024)
LPR	-0.047* (0.018)	0.018 (0.028)	-0.041+ (0.023)	0.007 (0.013)	-0.064** (0.022)
Female	0.069*** (0.018)	0.112*** (0.020)	-0.049** (0.016)	0.005 (0.008)	-0.035* (0.014)
Age	0.002*** (0.000)	0.001* (0.001)	-0.003*** (0.001)	-0.001* (0.000)	0.014*** (0.000)
Pacific Islander race	-0.009 (0.109)	-0.133 (0.334)	-0.157 (0.156)	0.006 (0.029)	-0.137 (0.167)
Native American race	0.095 (0.071)	0.287 (0.295)	0.295 (0.335)	-0.010 (0.022)	0.069 (0.137)
Asian race	0.004 (0.058)	0.035 (0.123)	-0.003 (0.116)	0.043** (0.015)	0.031 (0.093)
Black race	-0.002 (0.087)	-0.027 (0.173)	-0.075 (0.139)	0.126+ (0.065)	0.077 (0.111)
White race	0.036 (0.057)	-0.018 (0.127)	-0.012 (0.119)	0.078* (0.032)	-0.015 (0.095)
Latino	-0.053 (0.056)	-0.015 (0.123)	-0.037 (0.117)	0.031* (0.013)	-0.042 (0.093)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	0.028 (0.027)	0.049+ (0.027)	-0.045 (0.028)	-0.001 (0.010)	0.008 (0.018)
2017	0.036 (0.035)	0.045 (0.034)	-0.005 (0.040)	0.011 (0.023)	0.009 (0.034)
2018	0.023 (0.022)	0.066* (0.028)	-0.027 (0.026)	0.004 (0.012)	0.036+ (0.022)
2019	0.013 (0.024)	-0.009 (0.034)	0.016 (0.030)	-0.002 (0.012)	-0.001 (0.023)
Depvar mean	0.800	0.546	0.207	0.038	0.248
N	10869	10869	10869	10869	10869

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include immigrant adults ages 19 and older under 200 percent of federal poverty, and control for county differences using fixed effects. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C4

Regression estimates for non-LPR immigrants vs. LPR and citizen immigrants on usual source of care

	Has usual source	ED is usual	Clinic/public hosp is usual	ED/clinic/public hosp is usual
Non-LPR	-0.109*** (0.022)	0.016+ (0.008)	0.052* (0.024)	0.068** (0.025)
Female	0.112*** (0.020)	-0.004 (0.006)	0.069*** (0.020)	0.066** (0.021)
Age	0.002*** (0.001)	-0.000 (0.000)	-0.002* (0.001)	-0.002** (0.001)
Pacific Islander race	-0.227 (0.302)	0.015+ (0.008)	-0.011 (0.303)	0.004 (0.301)
Native American race	-0.044 (0.354)	0.016 (0.011)	-0.408+ (0.220)	-0.392+ (0.217)
Asian race	-0.052 (0.102)	0.013* (0.006)	-0.125 (0.137)	-0.112 (0.136)
Black race	-0.077 (0.130)	0.024 (0.019)	0.019 (0.174)	0.043 (0.174)
White race	-0.025 (0.104)	0.030* (0.012)	-0.186 (0.144)	-0.156 (0.144)
Latino	-0.088 (0.102)	0.027*** (0.007)	0.031 (0.138)	0.058 (0.137)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.040+ (0.024)	0.008 (0.011)	-0.015 (0.029)	-0.007 (0.030)
2017	-0.008 (0.029)	-0.002 (0.012)	0.056 (0.037)	0.054 (0.042)
2018	0.014 (0.027)	-0.003 (0.008)	0.025 (0.026)	0.021 (0.027)
2019	-0.014 (0.032)	-0.019** (0.007)	0.001 (0.031)	-0.017 (0.032)
Depvar mean	0.755	0.023	0.385	0.408
N	10869	10869	10869	10869

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include immigrant adults ages 19 and older under 200 percent of federal poverty, and control for county fixed effects. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C5

Regression estimates for non-LPR immigrants vs. LPR and citizen immigrants on missed health care or prescription drugs

	Missed health care	Due to cost	Missed prescription	Due to cost
Non-LPR	0.005 (0.020)	0.212*** (0.062)	0.010 (0.017)	0.128+ (0.077)
Female	0.022+ (0.013)	0.047 (0.056)	0.017 (0.014)	0.043 (0.064)
Age	-0.001** (0.000)	0.000 (0.002)	0.000 (0.000)	0.002 (0.002)
Pacific Islander race	-0.099 (0.167)	-0.255 (0.568)	-0.090 (0.075)	omitted N/A
Native American race	0.016 (0.321)	0.267 (0.912)	0.045 (0.256)	0.343 (0.365)
Asian race	-0.101 (0.110)	-0.090 (0.409)	-0.036 (0.067)	-0.338 (0.361)
Black race	0.030 (0.159)	0.141 (0.442)	0.075 (0.137)	-0.052 (0.455)
White race	-0.052 (0.111)	-0.032 (0.413)	0.020 (0.070)	-0.179 (0.351)
Latino	-0.082 (0.110)	0.076 (0.390)	0.008 (0.066)	0.002 (0.347)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.030+ (0.018)	-0.042 (0.090)	-0.006 (0.020)	-0.043 (0.082)
2017	-0.019 (0.020)	-0.076 (0.098)	-0.013 (0.020)	-0.060 (0.087)
2018	-0.012 (0.019)	0.082 (0.083)	-0.018 (0.016)	-0.144+ (0.080)
2019	0.024 (0.023)	0.006 (0.090)	0.005 (0.020)	-0.062 (0.087)
Depvar mean	0.117	0.621	0.102	0.691
N	10869	1257	10869	1146

SOURCES: California Health Interview Survey 2015-2019 adult files.

NOTES: Models include immigrant adults ages 19 and older under 200 percent of federal poverty, and control for county fixed effects. Pacific Islander race was excluded when variation was insufficient to estimate a coefficient. The analyses of the outcomes "due to cost" are limited to respondents who missed health care or a prescription. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C6

Regression estimates for non-LPR immigrants vs. LPR and citizen immigrants on emergency department and preventive care

	Any ED visit	Number ED visits	2+ ED visits	Flu shot	Saw doctor	Routine exam
Non-LPR	0.005 (0.022)	-0.013 (0.051)	0.001 (0.013)	-0.049 (0.038)	-0.080** (0.025)	-0.136*** (0.033)
Female	0.034* (0.016)	0.078* (0.038)	0.013 (0.011)	0.069* (0.030)	0.127*** (0.018)	0.120*** (0.021)
Age	0.001 (0.001)	-0.000 (0.002)	0.000 (0.000)	0.008*** (0.001)	0.004*** (0.001)	0.003*** (0.001)
Pacific Islander race	-0.153 (0.218)	-0.223 (0.470)	-0.116 (0.134)	-0.526** (0.180)	-0.093 (0.315)	0.045 (0.335)
Native American race	-0.157 (0.211)	-0.275 (0.611)	-0.083 (0.165)	-0.405* (0.200)	0.278+ (0.149)	0.300 (0.204)
Asian race	-0.192 (0.141)	-0.313 (0.260)	-0.126 (0.099)	-0.063 (0.173)	-0.007 (0.125)	0.155 (0.128)
Black race	-0.139 (0.153)	-0.144 (0.328)	-0.108 (0.102)	-0.056 (0.211)	-0.126 (0.144)	0.033 (0.154)
White race	-0.055 (0.144)	-0.063 (0.274)	-0.077 (0.100)	-0.264 (0.179)	0.055 (0.127)	0.143 (0.134)
Latino	-0.156 (0.141)	-0.299 (0.258)	-0.108 (0.099)	-0.078 (0.169)	0.002 (0.126)	0.106 (0.130)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.021 (0.022)	-0.055 (0.052)	-0.015 (0.014)	-0.023 (0.028)	0.011 (0.024)	0.012 (0.029)
2017	-0.001 (0.027)	0.023 (0.079)	-0.006 (0.017)		0.007 (0.029)	0.011 (0.027)
2018	-0.023 (0.022)	-0.013 (0.060)	-0.004 (0.013)		0.013 (0.026)	0.035 (0.028)
2019	-0.026 (0.023)	-0.084 (0.059)	-0.009 (0.016)		0.022 (0.029)	-0.018 (0.033)
Depvar mean	0.199	0.362	0.075	0.413	0.744	0.694
N	10869	10869	10869	5603	10869	10869

SOURCES: California Health Interview Survey 2015–2019 adult files for most outcomes; 2015–16 for flu shot outcome.

NOTES: Models include immigrant adults ages 19 and older under 200 percent of federal poverty, and control for county fixed effects. All outcomes are reported for the previous 12 months. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C7

Regression estimates for non-LPR immigrants claiming Medi-Cal vs. LPR and citizen immigrants claiming Medi-Cal on usual source of care

	Has usual source	ED is usual	Clinic/public hosp is usual	ED/clinic/public hosp is usual
Non-LPR	-0.074*	0.024+	0.063+	0.087*
	(0.035)	(0.014)	(0.034)	(0.037)
Female	0.090**	-0.009	0.059*	0.050+
	(0.028)	(0.010)	(0.027)	(0.028)
Age	0.002**	-0.000	-0.002+	-0.002*
	(0.001)	(0.000)	(0.001)	(0.001)
Pacific Islander race	0.069	0.019	-0.016	0.003
	(0.152)	(0.016)	(0.537)	(0.543)
Native American race	-0.116	0.029*	-0.576*	-0.547*
	(0.303)	(0.014)	(0.256)	(0.255)
Asian race	-0.085	0.023+	-0.280	-0.257
	(0.146)	(0.012)	(0.200)	(0.199)
Black race	-0.202	0.036	-0.139	-0.104
	(0.198)	(0.033)	(0.237)	(0.237)
White race	-0.066	0.027+	-0.272	-0.245
	(0.150)	(0.014)	(0.208)	(0.208)
Latino	-0.109	0.038**	-0.080	-0.042
	(0.144)	(0.013)	(0.201)	(0.200)
2015	omitted	omitted	omitted	omitted
	N/A	N/A	N/A	N/A
2016	-0.025	0.008	-0.019	-0.011
	(0.031)	(0.017)	(0.043)	(0.044)
2017	-0.009	-0.005	0.051	0.046
	(0.032)	(0.014)	(0.040)	(0.042)
2018	0.025	-0.003	0.008	0.004
	(0.032)	(0.012)	(0.034)	(0.036)
2019	0.024	-0.026**	-0.011	-0.037
	(0.037)	(0.010)	(0.039)	(0.041)
Depvar mean	0.794	0.025	0.407	0.432
N	6312	6312	6312	6312

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include low-income immigrant adults aged 19 and older who report having Medi-Cal, and control for county fixed effects. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C8

Regression estimates for non-LPR immigrants claiming Medi-Cal vs. LPR and citizen immigrants claiming Medi-Cal on missed health care or prescription drugs

	Missed health care	Due to cost	Missed prescription	Due to cost
Non-LPR	-0.007 (0.024)	0.291** (0.091)	0.011 (0.019)	0.155+ (0.089)
Female	0.015 (0.017)	0.033 (0.078)	0.020 (0.015)	0.142 (0.089)
Age	-0.001* (0.001)	-0.001 (0.003)	0.000 (0.001)	0.002 (0.003)
Pacific Islander race	-0.217 (0.164)	omitted N/A	-0.131 (0.102)	omitted N/A
Native American race	0.025 (0.314)	0.170 (0.884)	0.045 (0.270)	0.249 (0.435)
Asian race	-0.111 (0.160)	-0.303 (0.602)	-0.052 (0.093)	-0.597 (0.416)
Black race	-0.005 (0.241)	0.059 (0.742)	0.140 (0.223)	-0.363 (0.618)
White race	-0.092 (0.159)	0.069 (0.610)	0.008 (0.095)	-0.248 (0.430)
Latino	-0.104 (0.159)	-0.096 (0.587)	-0.017 (0.092)	-0.270 (0.397)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.035 (0.025)	-0.118 (0.120)	-0.028 (0.023)	-0.132 (0.108)
2017	-0.014 (0.028)	-0.190 (0.119)	-0.035 (0.024)	-0.084 (0.109)
2018	-0.030 (0.027)	-0.023 (0.127)	-0.052* (0.021)	-0.077 (0.123)
2019	0.009 (0.034)	-0.070 (0.132)	-0.010 (0.025)	-0.125 (0.135)
Depvar mean	0.110	0.521	0.095	0.631
N	6312	699	6312	646

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include low-income immigrant adults aged 19 and older who report having Medi-Cal, and control for county fixed effects. Pacific Islander race was excluded when variation was insufficient to estimate a coefficient. The analyses of the outcomes “due to cost” are limited to respondents who missed health care or a prescription. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C9

Regression estimates for non-LPR immigrants claiming Medi-Cal vs. LPR and citizen immigrants claiming Medi-Cal on emergency department and preventive care

	Any ED visit	Number ED visits	2+ ED visits	Flu shot	Saw doctor	Routine exam
Non-LPR	0.015 (0.044)	0.023 (0.099)	0.013 (0.022)	0.003 (0.061)	-0.076* (0.033)	-0.128** (0.040)
Female	0.029 (0.025)	0.059 (0.061)	0.015 (0.015)	0.056 (0.044)	0.098*** (0.027)	0.112*** (0.026)
Age	0.000 (0.001)	-0.000 (0.002)	0.000 (0.001)	0.008*** (0.001)	0.003*** (0.001)	0.002*** (0.001)
Pacific Islander race	-0.168 (0.425)	-0.498 (0.560)	-0.173 (0.112)	-0.591+ (0.313)	0.223 (0.200)	0.328 (0.248)
Native American race	-0.188 (0.258)	-0.314 (0.748)	-0.048 (0.190)	-0.543 (0.342)	0.344+ (0.201)	0.353 (0.288)
Asian race	-0.219 (0.191)	-0.310 (0.333)	-0.086 (0.111)	-0.108 (0.298)	0.052 (0.189)	0.203 (0.206)
Black race	-0.176 (0.195)	0.067 (0.503)	-0.029 (0.122)	-0.159 (0.336)	-0.081 (0.210)	0.076 (0.231)
White race	-0.060 (0.195)	0.076 (0.366)	-0.009 (0.117)	-0.300 (0.294)	0.101 (0.191)	0.203 (0.206)
Latino	-0.183 (0.191)	-0.258 (0.327)	-0.064 (0.112)	-0.079 (0.293)	0.066 (0.189)	0.169 (0.206)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.042 (0.034)	-0.120 (0.089)	-0.038+ (0.022)	-0.054 (0.040)	0.038 (0.035)	0.033 (0.037)
2017	-0.013 (0.039)	-0.077 (0.101)	-0.032 (0.025)		-0.001 (0.037)	0.022 (0.042)
2018	-0.030 (0.032)	-0.054 (0.094)	-0.027 (0.022)		0.004 (0.035)	0.057 (0.036)
2019	-0.023 (0.036)	-0.142+ (0.084)	-0.038 (0.025)		0.044 (0.040)	0.046 (0.045)
Depvar mean	0.235	0.454	0.095	0.474	0.790	0.752
N	6312	6312	6312	3287	6312	6312

SOURCES: California Health Interview Survey 2015-2019 adult files for most outcomes; 2015-16 for flu shot outcome.

NOTES: Models include low-income immigrant adults aged 19 and older who report having Medi-Cal, and control for county fixed effects. All outcomes are reported for the previous 12 months. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C10

Regression estimates of associations between county health service availability to undocumented medically indigent adults and non-LPRs' usual source of care

	Has usual source	ED is usual	Clinic/public hosp is usual	ED/clinic/public hosp is usual
In county serving undocumented (except LA, SF)	-0.00230	-0.0119	0.0694	0.0575
	(0.05)	(0.75)	(1.39)	(1.17)
In LA or SF county	-0.0608	0.00388	-0.0307	-0.0268
	(1.18)	(0.23)	(0.64)	(0.58)
Female	0.155***	-0.00720	0.166***	0.159***
	(3.47)	(0.40)	(3.93)	(3.39)
Age	0.00491**	-0.000291	0.00514**	0.00485*
	(2.68)	(0.52)	(2.63)	(2.39)
Pacific Islander race	0.430	-0.00419	-0.573	-0.577
	(0.74)	(0.11)	(1.02)	(0.97)
Asian race	0.0235	-0.0202	-0.00426	-0.0244
	(0.04)	(0.61)	(0.01)	(0.04)
Black race	0.357	0.0981	-0.128	-0.0296
	(0.60)	(0.61)	(0.20)	(0.04)
White race	0.0762	0.0185	-0.207	-0.189
	(0.13)	(0.33)	(0.36)	(0.31)
Latino	0.106	0.0216	0.00966	0.0313
	(0.18)	(0.69)	(0.02)	(0.05)
2015	omitted	omitted	omitted	omitted
	N/A	N/A	N/A	N/A
2016	-0.0313	0.0235	-0.0377	-0.0143
	(0.60)	(1.03)	(0.68)	(0.24)
2017	-0.0134	-0.000631	0.0468	0.0462
	(0.24)	(0.03)	(0.85)	(0.77)
2018	0.0226	0.00527	0.0569	0.0621
	(0.42)	(0.25)	(1.09)	(1.14)
2019	0.00284	-0.0266+	0.0193	-0.00727
	(0.04)	(1.72)	(0.29)	(0.10)
Depvar mean	0.643	0.040	0.469	0.508
N	2,466	2,466	2,466	2,466

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include low-income undocumented (non-LPR) immigrant adults aged 19 and older. Residents in counties that do not offer health services to undocumented medically indigent adults are the excluded group. LA and San Francisco (SF) counties have especially robust local health programs that serve undocumented immigrants. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C11

Regression estimates of associations between county health service availability to undocumented medically indigent adults and non-LPRs' missed health care or prescription drugs

	Missed health care	Due to cost	Missed prescription	Due to cost
Counties serve undocumented (except LA, SF)	0.00586	-0.0449	-0.0169	0.0185
	(0.18)	(0.44)	(0.43)	(0.16)
LA or SF county	-0.0266	-0.124	-0.0355	0.0197
	(1.02)	(1.20)	(1.17)	(0.19)
Female	0.0279	0.00359	0.0214	0.0493
	(1.25)	(0.04)	(0.80)	(0.50)
Age	0.000874	0.000351	0.000230	0.00349
	(0.71)	(0.10)	(0.16)	(1.10)
Pacific Islander race	-0.578	omitted	-0.355	omitted
	(0.92)	N/A	(0.49)	N/A
Asian race	-0.521	-0.556	-0.298	0.601*
	(0.83)	(0.72)	(0.41)	(1.99)
Black race	-0.566	omitted	0.129	0.355
	(0.90)	N/A	(0.17)	(0.82)
White race	-0.500	-0.510	-0.130	0.687*
	(0.79)	(0.45)	(0.18)	(2.42)
Latino	-0.443	0.0486	-0.243	0.780***
	(0.71)	(0.07)	(0.34)	(6.40)
2015	omitted	omitted	omitted	omitted
	N/A	N/A	N/A	N/A
2016	-0.0239	-0.0726	-0.0418	-0.0841
	(0.69)	(0.72)	(1.21)	(0.65)
2017	-0.00958	-0.104	-0.0251	-0.0739
	(0.26)	(0.62)	(0.44)	(0.47)
2018	-0.00612	-0.196	-0.0264	0.0690
	(0.16)	1.18)	(0.62)	(0.61)
2019	-0.0000692	0.0512	0.0755	0.0639
	(0.00)	(0.45)	(1.38)	(0.56)
Depvar mean	0.114	0.822	0.132	0.782
N	2,466	308	2,466	337

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include low-income undocumented (non-LPR) immigrant adults aged 19 and older. Residents in counties that do not offer health services to undocumented medically indigent adults are the excluded group. LA and San Francisco (SF) counties have especially robust local health programs that serve undocumented immigrants. Pacific Islander or Black race was excluded when variation was insufficient to estimate a coefficient. The analyses of the outcomes "due to cost" are limited to respondents who missed health care or a prescription. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C12

Regression estimates of associations between county health service availability to undocumented medically indigent adults and non-LPRs' emergency department and preventive care

	Any ED visit	Number ED visits	2+ ED visits	Flu shot	Saw doctor	Routine exam
Counties serve undocumented (except LA, SF)	-0.0187	-0.0903	-0.00602	-0.00183	0.0583	-0.0534
	(0.42)	(0.95)	(0.22)	(0.03)	(1.26)	(1.19)
LA or SF county	-0.0390	-0.121	-0.0179	-0.0599	0.0322	0.0122
	(0.93)	(1.33)	(0.75)	(1.05)	(0.62)	(0.23)
Female	0.0606	0.153+	0.0286	0.110*	0.173***	0.138*
	(1.43)	(1.79)	(1.31)	(2.24)	(4.61)	(2.35)
Age	-0.0000575	0.000481	-0.000560	0.00199	0.00279+	0.000463
	(0.04)	(0.12)	(0.52)	(0.81)	(1.70)	(0.25)
Pacific Islander race	-0.994***	-2.886*	-0.959***	omitted	0.0465	1.025***
	(12.38)	(2.32)	(20.85)	N/A	(0.51)	(6.56)
Asian race	-0.823***	-2.576*	-0.948***	-0.691**	-0.366***	0.429*
	(8.50)	(2.05)	(19.51)	(2.90)	(3.53)	(2.56)
Black race	-0.855***	-2.764*	-1.003***	-0.939***	-0.0403	0.371
	(3.78)	(2.17)	(35.68)	(9.76)	(0.37)	(1.22)
White race	-0.773***	-2.476+	-0.945***	-0.637*	-0.161	0.442*
	(7.93)	(1.95)	(19.19)	(2.54)	(1.40)	(2.48)
Latino	-0.801***	-2.508*	-0.906***	-0.703***	-0.283***	0.508***
	(16.00)	(2.01)	(30.73)	(12.26)	(4.66)	(3.69)
2015	omitted	omitted	omitted	omitted	omitted	omitted
	N/A	N/A	N/A	N/A	N/A	N/A
2016	-0.0272	-0.0830	0.000752	0.00697	-0.0280	-0.00440
	(0.64)	(1.04)	(0.03)	(0.13)	(0.50)	(0.07)
2017	0.00543	0.0979	0.00741		0.0344	0.0379
	(0.10)	(0.75)	(0.30)		(0.68)	(0.43)
2018	-0.0130	0.0259	0.0359		0.0238	0.0659
	(0.29)	(0.25)	(1.07)		(0.40)	(1.17)
2019	-0.0745	-0.127	0.0171		0.0134	-0.0493
	(1.40)	(1.34)	(0.48)		(0.20)	(0.72)
Depvar mean	0.199	0.350	0.077	0.313	0.647	0.556
N	2,466	2,466	2,466	1,451	2,466	2,466

SOURCES: California Health Interview Survey 2015–2019 adult files for most outcomes; 2015–16 for flu shot outcome.

NOTES: Models include low-income undocumented (non-LPR) immigrant adults aged 19 and older. Residents in counties that do not offer health services to undocumented medically indigent adults are the excluded group. LA and San Francisco (SF) counties have especially robust local health programs that serve undocumented immigrants. All outcomes are reported for the previous 12 months. Pacific Islander race was excluded when variation was insufficient to estimate a coefficient. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

Tables for Older Adult Findings

TABLE C13

Summary statistics for older immigrants 50+

	All older immigrants	Non-LPR older immigrants	Older LPRs or naturalized citizens
Female	0.545 (0.0140)	0.449 (0.0573)	0.555 (0.0166)
Age	63.41 (0.262)	56.14 (0.559)	64.16 (0.287)
Member of mixed-status family	0.0935 (0.00795)	1 N/A	0.000149 (0.000154)
Lives in rural county	0.00821 (0.00141)	0.00704 (0.00354)	0.00833 (0.00151)
County indigent care covers undocumented immigrants	0.711 (0.0163)	0.735 (0.0449)	0.709 (0.0173)
Insured	0.870 (0.0121)	0.505 (0.0501)	0.907 (0.0110)
Medi-Cal	0.578 (0.0147)	0.376 (0.0404)	0.599 (0.0159)
Employer insurance	0.184 (0.0133)	0.110 (0.0346)	0.192 (0.0156)
Direct-purchase insurance	0.0479 (0.0104)	0.0145 (0.0142)	0.0514 (0.0115)
Medicare	0.464 (0.0168)	0.0766 (0.0222)	0.504 (0.0171)
Uninsured more than 1 yr	0.0187 (0.00398)	0.0509 (0.0172)	0.0154 (0.00402)
ED past 12 mo	0.210 (0.0114)	0.204 (0.0365)	0.211 (0.0117)
Number of ED visits, past 12 mo	0.363 (0.0278)	0.361 (0.0982)	0.364 (0.0283)
2+ ED visits, past 12 mo	0.0749 (0.00744)	0.0731 (0.0227)	0.0751 (0.00789)
Doctor, past 12 mo	0.824 (0.00998)	0.694 (0.0406)	0.838 (0.0104)
Routine physical, past 12 mo	0.775 (0.0121)	0.557 (0.0493)	0.798 (0.0127)
Excellent health	0.0732 (0.00853)	0.0614 (0.0229)	0.0744 (0.00934)
Very good health	0.106 (0.0100)	0.103 (0.0370)	0.106 (0.0119)
Good health	0.302 (0.0156)	0.336 (0.0472)	0.298 (0.0163)

	All older immigrants	Non-LPR older immigrants	Older LPRs or naturalized citizens
Fair/poor health	0.519 (0.0175)	0.500 (0.0462)	0.521 (0.0184)
Asthma diagnosis	0.101 (0.00793)	0.0646 (0.0264)	0.105 (0.00829)
Heart disease diagnosis	0.131 (0.00990)	0.0805 (0.0244)	0.136 (0.0107)
Diabetes diagnosis*	0.316 (0.0165)	0.251 (0.0410)	0.323 (0.0177)
Overweight	0.683 (0.0167)	0.784 (0.0361)	0.673 (0.0178)
Obese	0.317 (0.0132)	0.361 (0.0552)	0.312 (0.0140)
Missed Rx, past 12 mo	0.102 (0.00953)	0.155 (0.0370)	0.0970 (0.0102)
Missed Rx due to cost, past 12 mo*	0.672 (0.0498)	0.833 (0.0878)	0.646 (0.0540)
Missed health care, past 12 mo	0.101 (0.00935)	0.133 (0.0325)	0.0978 (0.00980)
Missed HC due to cost, past 12 mo*	0.565 (0.0411)	0.903 (0.0590)	0.517 (0.0447)
No usual source of care	0.186 (0.0115)	0.281 (0.0395)	0.177 (0.0118)
ED usual source	0.0129 (0.00311)	0.0225 (0.00992)	0.0120 (0.00321)
Clinic usual source	0.340 (0.0146)	0.554 (0.0468)	0.318 (0.0150)
Clinic, public hospital, or ED usual source	0.353 (0.0147)	0.577 (0.0471)	0.330 (0.0151)
Has usual source of care	0.814 (0.0115)	0.719 (0.0395)	0.823 (0.0118)
Had flu shot last year (2015-16 only)*	0.526 (0.0233)	0.363 (0.0654)	0.547 (0.0270)
N	6,172	460	5,712

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Mean and standard deviation shown for immigrant adults ages 50+ under 200 percent of federal poverty. Asterisk (*) indicates that a variable has missing values due to question universe, nonresponse, or unavailability in some years.

TABLE C14

Selected health statistics for older non-LPR immigrants by age band

	Ages 50–55	Ages 55–60	Ages 60–65	Ages 65+
Insured	0.476	0.505	0.570	0.584
	(0.0666)	(0.108)	(0.106)	(0.171)
Medi-Cal	0.310	0.424	0.410	0.554
	(0.0572)	(0.0973)	(0.115)	(0.166)
Employer insurance	0.136	0.0569	0.172	0.0419
	(0.0565)	(0.0292)	(0.0968)	(0.0499)
Direct-purchase insurance	0.0188	0.00735	0.0253	0
	(0.0252)	(0.0119)	(0.0356)	(.)
Medicare	0.0294	0.0806	0.135	0.244
	(0.0196)	(0.0398)	(0.0789)	(0.123)
ED past 12 mo	0.196	0.206	0.228	0.211
	(0.0487)	(0.0823)	(0.0947)	(0.109)
Number of ED visits, past 12 mo	0.356	0.231	0.447	0.626
	(0.112)	(0.0896)	(0.332)	(0.503)
2+ ED visits, past 12 mo	0.0850	0.0492	0.0619	0.0838
	(0.0332)	(0.0277)	(0.0515)	(0.0676)
Doctor, past 12 mo	0.669	0.755	0.653	0.711
	(0.0647)	(0.0667)	(0.113)	(0.128)
Routine physical, past 12 mo	0.438	0.671	0.610	0.813
	(0.0694)	(0.0749)	(0.119)	(0.105)
Excellent health	0.0805	0.0341	0.0555	0.0398
	(0.0382)	(0.0263)	(0.0405)	(0.0687)
Very good health	0.149	0.0445	0.0655	0.0560
	(0.0595)	(0.0370)	(0.0585)	(0.0707)
Good health	0.340	0.326	0.229	0.450
	(0.0701)	(0.0743)	(0.0975)	(0.165)
Fair/poor health	0.431	0.595	0.650	0.454
	(0.0638)	(0.0831)	(0.110)	(0.150)
Asthma diagnosis	0.0737	0.0761	0.00647	0.0508
	(0.0361)	(0.0692)	(0.00931)	(0.0488)
Heart disease diagnosis	0.0826	0.0756	0.0941	0.0678
	(0.0423)	(0.0437)	(0.0736)	(0.0772)
Diabetes diagnosis*	0.207	0.253	0.291	0.434
	(0.0571)	(0.0694)	(0.117)	(0.137)
Overweight	0.817	0.751	0.700	0.790
	(0.0427)	(0.0886)	(0.0981)	(0.106)
Obese	0.428	0.256	0.309	0.338
	(0.0805)	(0.0734)	(0.104)	(0.132)
No usual source of care	0.348	0.222	0.261	0.117
	(0.0635)	(0.0708)	(0.0999)	(0.0779)
ED usual source	0.0209	0.0101	0.0475	0.0350
	(0.00869)	(0.0147)	(0.0539)	(0.0480)

Clinic usual source	0.477 (0.0686)	0.597 (0.101)	0.634 (0.107)	0.756 (0.121)
Clinic, public hospital, or ED usual source	0.498 (0.0687)	0.607 (0.102)	0.681 (0.0999)	0.791 (0.111)
Has usual source of care	0.652 (0.0635)	0.778 (0.0708)	0.739 (0.0999)	0.883 (0.0779)
N	213	123	64	60

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Mean and standard deviation shown for non-LPR immigrant adults ages 50+ under 200 percent of federal poverty. Asterisk (*) indicates that a variable has missing values due to question universe, nonresponse, or unavailability in some years.

TABLE C15

Selected health statistics for older LPR and citizen immigrants by age band

	Ages 50–55	Ages 55–60	Ages 60–65	Ages 65+
Insured	0.774 (0.0381)	0.853 (0.0273)	0.917 (0.0185)	0.987 (0.00485)
Medi-Cal	0.499 (0.0377)	0.520 (0.0412)	0.574 (0.0338)	0.688 (0.0197)
Employer insurance	0.229 (0.0326)	0.275 (0.0344)	0.267 (0.0293)	0.108 (0.0270)
Direct-purchase insurance	0.0696 (0.0259)	0.0853 (0.0284)	0.107 (0.0264)	0.00475 (0.00294)
Medicare	0.16 (0.0571)	0.153 (0.0298)	0.233 (0.0337)	0.924 (0.0114)
ED past 12 mo	0.182 (0.0261)	0.250 (0.0305)	0.213 (0.0296)	0.207 (0.0179)
Number of ED visits, past 12 mo	0.31 (0.0482)	0.440 (0.0721)	0.353 (0.0647)	0.363 (0.0471)
2+ ED visits, past 12 mo	0.0626 (0.0162)	0.0880 (0.0268)	0.0743 (0.0163)	0.0762 (0.0117)
Doctor, past 12 mo	0.79 (0.0304)	0.817 (0.0307)	0.808 (0.0287)	0.882 (0.0143)
Routine physical, past 12 mo	0.71 (0.0404)	0.775 (0.0338)	0.789 (0.0324)	0.853 (0.0183)
Excellent health	0.116 (0.0254)	0.0759 (0.0205)	0.0731 (0.0177)	0.0549 (0.0159)
Very good health	0.124 (0.0217)	0.0996 (0.0215)	0.113 (0.0343)	0.0975 (0.0154)
Good health	0.326 (0.0426)	0.279 (0.0389)	0.294 (0.0325)	0.295 (0.0211)
Fair/poor health	0.434 (0.0404)	0.546 (0.0469)	0.520 (0.0387)	0.553 (0.0322)
Asthma diagnosis	0.0864 (0.0193)	0.114 (0.0238)	0.119 (0.0204)	0.104 (0.0123)
Heart disease diagnosis	0.0517 (0.0161)	0.100 (0.0231)	0.121 (0.0209)	0.197 (0.0224)
Diabetes diagnosis*	0.203 (0.0357)	0.315 (0.0392)	0.384 (0.0425)	0.355 (0.0241)
Overweight	0.754 (0.035)	0.735 (0.0310)	0.705 (0.0378)	0.596 (0.0229)
Obese	0.419 (0.0364)	0.337 (0.0412)	0.360 (0.0379)	0.231 (0.0188)
No usual source of care	0.206 (0.0341)	0.183 (0.0305)	0.200 (0.0322)	0.150 (0.0208)
ED usual source	0.0146 (0.00722)	0.0137 (0.0118)	0.0141 (0.00880)	0.00907 (0.00518)

Clinic usual source	0.424 (0.0373)	0.376 (0.0363)	0.327 (0.0380)	0.242 (0.0227)
Clinic, public hospital, or ED usual source	0.439 (0.038)	0.390 (0.0355)	0.341 (0.0357)	0.251 (0.0211)
Has usual source of care	0.794 (0.0341)	0.817 (0.0305)	0.800 (0.0322)	0.850 (0.0208)
N	859	849	1,012	2,992

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Mean and standard deviation shown for LPR and citizen immigrant adults ages 50+ under 200 percent of federal poverty. Asterisk (*) indicates that a variable has missing values due to question universe, nonresponse, or unavailability in some years.

TABLE C16

Regression estimates for non-LPR older immigrants vs. LPR and citizen older immigrants on health outcomes

	Good or better health	Asthma diagnosis	Heart disease diagnosis	Overweight	Obesity
Non-LPR	0.014 (0.048)	-0.031 (0.029)	-0.007 (0.028)	-0.014 (0.041)	-0.062 (0.060)
Female	-0.038 (0.031)	0.056*** (0.017)	-0.031 (0.028)	-0.038 (0.028)	0.049 (0.034)
Age	-0.005* (0.002)	0.001 (0.001)	0.006*** (0.001)	-0.002+ (0.001)	-0.005*** (0.001)
Pacific Islander race	0.278 (0.215)	-0.122 (0.169)	-0.232 (0.183)	-0.239 (0.522)	-0.433+ (0.248)
Native American race	-0.168 (0.328)	0.123 (0.339)	-0.055 (0.362)	-0.352 (0.348)	-0.421+ (0.236)
Asian race	-0.057 (0.178)	-0.072 (0.139)	-0.166 (0.160)	-0.348* (0.141)	-0.323 (0.204)
Black race	0.284 (0.206)	0.003 (0.167)	-0.240 (0.168)	0.012 (0.177)	-0.283 (0.223)
White race	0.052 (0.188)	-0.049 (0.141)	-0.147 (0.160)	-0.067 (0.140)	-0.159 (0.206)
Latino	-0.115 (0.179)	-0.055 (0.136)	-0.177 (0.158)	0.017 (0.140)	-0.062 (0.203)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.040 (0.049)	-0.014 (0.026)	0.036 (0.027)	-0.008 (0.042)	0.011 (0.039)
2017	-0.008 (0.065)	0.001 (0.026)	0.023 (0.033)	-0.012 (0.072)	0.007 (0.040)
2018	0.025 (0.040)	-0.033 (0.025)	-0.004 (0.026)	-0.046 (0.039)	-0.049 (0.033)
2019	0.193*** (0.046)	-0.020 (0.027)	0.032 (0.029)	-0.049 (0.042)	-0.024 (0.040)
Depvar mean	0.481	0.101	0.131	0.683	0.317
N	6,172	6,172	6,172	6,172	6,172

SOURCES: California Health Interview Survey 2015–2019 adult files.

NOTES: Models include immigrant adults ages 50 and older under 200 percent of federal poverty, and control for county and year fixed effects. "Good or better" health refers to self-reported excellent, very good, or good health; this contrasts with fair or poor health. Asthma and heart disease diagnoses are self-reported and can be affected by health care access. We define overweight as body mass index (BMI) over 25 and obesity as BMI over 30. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

Tables for Child Findings

TABLE C17

Study children summary statistics

	All children in known immigrant families	Children in known mixed-status families	Children not in known mixed-status families
Female	0.535 (0.0180)	0.554 (0.0307)	0.520 (0.0254)
Age	9.289 (0.175)	8.615 (0.301)	9.824 (0.278)
Child is immigrant	0.163 (0.0158)	0.154 (0.0221)	0.170 (0.0218)
Lives in rural county	0.00975 (0.00256)	0.00507 (0.00188)	0.0135 (0.00452)
County indigent care covers undocumented immigrants	0.671 (0.0187)	0.685 (0.0296)	0.660 (0.0269)
Insured	0.958 (0.00780)	0.952 (0.0113)	0.963 (0.0109)
Medi-Cal	0.828 (0.0149)	0.872 (0.0203)	0.794 (0.0227)
Employer insurance	0.158 (0.0154)	0.0864 (0.0201)	0.214 (0.0239)
ED past 12 mo.	0.169 (0.0160)	0.165 (0.0241)	0.172 (0.0214)
Doctor past 12 mo	0.823 (0.0161)	0.815 (0.0247)	0.830 (0.0221)
Missed Rx, past 12 mo	0.0592 (0.00989)	0.0525 (0.0148)	0.0646 (0.0138)
Missed Rx due to cost*	0.498 (0.0879)	0.480 (0.150)	0.509 (0.117)
Missed health care, past 12 mo	0.0389 (0.00837)	0.0475 (0.0154)	0.0320 (0.00944)
Missed HC due to cost*	0.565 (0.113)	0.562 (0.167)	0.569 (0.169)
No usual source	0.151 (0.0155)	0.190 (0.0266)	0.120 (0.0184)
ED usual source	0.0130 (0.00477)	0.0192 (0.00887)	0.00815 (0.00478)
Clinic usual source	0.472 (0.0224)	0.516 (0.0336)	0.437 (0.0317)
Clinic, safety net hospital, ED usual source	0.485 (0.0226)	0.535 (0.0344)	0.445 (0.0317)
Excellent health*	0.351 (0.0217)	0.364 (0.0297)	0.341 (0.0308)

	All children in known immigrant families	Children in known mixed-status families	Children not in known mixed-status families
Very good health*	0.281 (0.0194)	0.243 (0.0285)	0.311 (0.0279)
Good health*	0.287 (0.0204)	0.295 (0.0304)	0.280 (0.0275)
Fair/poor health*	0.0813 (0.0128)	0.0984 (0.0188)	0.0678 (0.0176)
ED for dental issues, past 12 mo*	0.00975 (0.00418)	0.0129 (0.00658)	0.00689 (0.00510)
Dentist, past 12 mo (children to age 11 only)*	0.847 (0.0187)	0.849 (0.0255)	0.846 (0.0251)
Has usual dentist*	0.905 (0.0236)	0.914 (0.0335)	0.898 (0.0319)
Dentist, past 12 mo (2017-19 only)*	0.855 (0.0234)	0.838 (0.0396)	0.868 (0.0265)
Last dentist visit 2+ yrs ago (2017-19 only)*	0.0722 (0.0296)	0.109 (0.0620)	0.0517 (0.0359)
Routine physical, past 12 mo (teens only)*	0.908 (0.0191)	0.915 (0.0315)	0.903 (0.0249)
Overweight*	0.314 (0.0368)	0.340 (0.0582)	0.299 (0.0468)
Obese*	0.141 (0.0292)	0.161 (0.0410)	0.128 (0.0392)
N	2,383	979	1,404

SOURCES: California Health Interview Survey 2015–2019 child, teen, and adult (for 18-year-olds) files.

NOTES: Mean and standard deviation shown for children in low-income immigrant families ages 0–18. Asterisk (*) indicates that a variable has missing values due to question universe, nonresponse, or unavailability in some years.

TABLE C18

Regression estimates for children in mixed-status families versus children in other immigrant families on usual source of care

	Has usual source	Emergency department (ED) is usual	Clinic/public hospital is usual	ED/clinic/public hospital is usual
Mixed-Status Family	-0.092**	0.014	-0.000	0.014
	(0.034)	(0.009)	(0.049)	(0.049)
Female	0.017	0.001	-0.003	-0.002
	(0.027)	(0.010)	(0.038)	(0.038)
Age	-0.012***	-0.001	-0.008+	-0.008*
	(0.003)	(0.001)	(0.004)	(0.004)
Asian race	-0.127+	0.033	-0.162	-0.128
	(0.064)	(0.024)	(0.212)	(0.212)
Black race	-0.035	-0.010	-0.088	-0.098
	(0.073)	(0.013)	(0.320)	(0.326)
White race	-0.032	-0.001	-0.134	-0.135
	(0.060)	(0.012)	(0.213)	(0.213)
Latino	-0.059	-0.003	0.103	0.100
	(0.049)	(0.009)	(0.218)	(0.217)
2015	omitted	omitted	omitted	omitted
	N/A	N/A	N/A	N/A
2016	0.030	-0.015	0.034	0.019
	(0.047)	(0.020)	(0.063)	(0.062)
2017	-0.009	-0.032*	0.150*	0.117+
	(0.051)	(0.013)	(0.063)	(0.065)
2018	0.043	-0.025	-0.014	-0.039
	(0.044)	(0.015)	(0.063)	(0.064)
2019	0.056	-0.027+	0.034	0.007
	(0.041)	(0.016)	(0.053)	(0.052)
Depvar mean	0.849	0.013	0.472	0.485
N	2383	2383	2383	2383

SOURCES: California Health Interview Survey 2015–2019 child (ages 0–11) teen (ages 12–17) and adult (age 18) files.

NOTES: Models include children in low-income immigrant families ages 0–18, and control for county and year fixed effects. + p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C19

Regression estimates for children in mixed-status families versus children in other immigrant families on missed health care or prescription drugs

	Missed health care	Due to cost	Missed prescription	Due to cost
Mixed-Status Family	0.027	-0.046	-0.007	-0.083
	(0.020)	(0.191)	(0.022)	(0.250)
Female	0.016	0.413*	-0.010	0.008
	(0.017)	(0.188)	(0.014)	(0.224)
Age	0.003	0.005	0.003	-0.028
	(0.002)	(0.024)	(0.002)	(0.024)
Asian race	0.022	-0.273	0.082*	-0.387
	(0.022)	(1.274)	(0.034)	(0.298)
Black race	0.070	0.124	0.050	-0.205
	(0.072)	(1.071)	(0.082)	(0.427)
White race	-0.001	-0.402	0.106	-0.394
	(0.027)	(1.254)	(0.101)	(0.290)
Latino	0.026	-0.129	0.039+	omitted
	(0.020)	(0.956)	(0.023)	(.)
2015	omitted	omitted	omitted	omitted
	N/A	N/A	N/A	N/A
2016	-0.012	-0.104	-0.003	-0.142
	(0.024)	(0.282)	(0.031)	(0.266)
2017	-0.016	-0.505	-0.031	0.307
	(0.019)	(0.564)	(0.024)	(0.383)
2018	-0.040**	0.214	-0.043+	-0.321
	(0.015)	(0.699)	(0.024)	(0.332)
2019	0.054	-0.173	-0.013	0.046
	(0.037)	(0.233)	(0.030)	(0.321)
Depvar mean	0.039	0.565	0.059	0.498
N	2,383	105	2,383	124

SOURCES: California Health Interview Survey 2015–2019 child (ages 0–11) teen (ages 12–17) and adult (age 18) files.

NOTES: Models include children in low-income immigrant families ages 0–18, and control for county and year fixed effects. Latino race was excluded when variation was insufficient to estimate a coefficient. The analyses of the outcomes “due to cost” are limited to respondents who missed health care or a prescription. +p<0.10 *p<0.05 **p<0.01 ***p<0.001

TABLE C20

Regression estimates for children in mixed-status families versus children in other immigrant families on emergency department and preventive care use

	Any ED visit	Saw doctor	Routine exam	Saw dentist
Mixed-Status Family	-0.018 (0.034)	-0.014 (0.035)	0.006 (0.047)	-0.015 (0.031)
Female	-0.011 (0.033)	0.018 (0.030)	0.083+ (0.043)	0.013 (0.034)
Age	-0.001 (0.003)	-0.001 (0.003)	-0.016 (0.013)	0.029*** (0.007)
Asian race	-0.169 (0.241)	-0.166* (0.070)	-0.068 (0.138)	0.005 (0.198)
Black race	-0.004 (0.314)	0.017 (0.105)	-0.004 (0.167)	-0.228 (0.309)
White race	-0.127 (0.245)	-0.172 (0.105)	-0.296 (0.239)	0.169 (0.193)
Latino	-0.136 (0.234)	-0.113* (0.053)	-0.096 (0.117)	0.100 (0.185)
2015	omitted N/A	omitted N/A	omitted N/A	omitted N/A
2016	-0.008 (0.051)	-0.072+ (0.043)	0.010 (0.060)	0.040 (0.056)
2017	-0.012 (0.044)	-0.071 (0.050)	0.101+ (0.056)	0.017 (0.055)
2018	0.032 (0.053)	-0.033 (0.045)	-0.013 (0.075)	0.010 (0.053)
2019	-0.014 (0.049)	0.031 (0.032)	0.037 (0.059)	-0.009 (0.048)
Depvar mean	0.169	0.823	0.908	0.847
N	2,383	2,383	705	1,623

SOURCES: California Health Interview Survey 2015–2019 child (ages 0–11) teen (ages 12–17) and adult (age 18) files.

NOTES: Models include children in low-income immigrant families ages 0-18, and control for county fixed effects.

+ p<0.10 *p<0.05 **p<0.01 ***p<0.001

Appendix D. Non-Legal-Permanent Residents

Immigrants are foreign-born individuals (not born to a US citizen parent) who later come to the US to live. They can be categorized as naturalized US citizens; Legal Permanent Residents (LPRs), who hold green cards; and non-LPRs. LPRs most often gain their status through family members, and they are the only group eligible to become naturalized US citizens (Hill 2010).

Non-LPRs include undocumented immigrants, who are permanently residing in the US without permission. There are two ways for an immigrant to be undocumented: entering the country without inspection, or overstaying a previously valid visa (Hill 2010). Some groups that prefer less lenient treatment of undocumented immigrants contrast documented immigrants who “wait their turn” positively against undocumented immigrants, who “cut in line.”¹ However, the two are not completely separate groups of people. Nationally, many LPRs have previous undocumented experience in the US (Massey and Malone 2002; Jasso et al. 2008), and past work has found this to be true for most LPRs in California (Hayes and Hill 2008).

In addition to undocumented immigrants, Non-LPRs include legal nonimmigrants—individuals with valid visas, but no permission to remain permanently. Examples include international students, recent graduates receiving on-the-job training, and foreign workers—in California, the agricultural and tech industries are notable beneficiaries of H-1A and H-1B work visa programs.

Some non-LPRs have quasi-legal statuses that protect them from deportation. A well-known example is Deferred Action for Childhood Arrivals (DACA), which allows undocumented immigrants who were brought to the US as children to remain in the country and work. Another is Temporary Protected Status (TPS), which allows nationals of specific countries to remain in the US due to poor humanitarian conditions in their home countries—in California, a large proportion of TPS recipients are from El Salvador. Statuses like these, being temporary, must be regularly renewed.

Eligibility for Medi-Cal and Covered California

Some non-LPRs can be defined as Permanently Residing Under Color of Law (PRUCOL) for the purposes of full-scope Medi-Cal eligibility. PRUCOL is an umbrella term of 16 statuses² in which federal immigration authorities are aware an immigrant is in the country and have no intention of deporting that person (Immigrant Legal Resource Center 2020). These include DACA, TPS, refugee status, and asylee status, among others (California Health and Human Services Agency 2009). In California, low-income non-LPRs who are eligible for full-scope Medi-Cal include PRUCOLs, survivors of trafficking, applicants for and holders of U visas (who are victims of certain crimes), and pregnant women (Broder 2021). In addition, recent state policy changes have made low-income children and young adults up to age 26 eligible for full-scope Medi-Cal, regardless of immigration status. Limited versions of Medi-Cal are available to non-LPRs with certain health care needs, including medical emergencies (see [main report](#)).

Some non-LPRs are eligible to purchase private health insurance through Covered California, and can qualify for premium subsidies depending on their income. Lawful temporary residents, refugees, asylees, humanitarian immigrants (including TPS recipients), and holders of student and work visas may purchase through Covered California (Covered California 2021b). DACA recipients and other immigrants not “lawfully present” are not eligible to purchase coverage on the exchange (Covered California 2021a).

¹ For an example of this type of argument, see an article in a prominent conservative-leaning magazine (Murdock 2018).

² This is for Medi-Cal; PRUCOL definitions can differ by program. PRUCOL is not an immigration status but an administration designation used in the determination of eligibility for public programs.

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