

Supplementary Online Appendix for “The Effects of Health Insurance within Families:
Experimental Evidence from Nicaragua”

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Supplementary Online Appendix S1: Predictors of Health Insurance Enrollment

Table S1.1. Predictors of Parent Insurance Enrollment

	Parent-Level	Child-Level	Parent-Level	Child-Level
	(1)	(2)	(3)	(4)
Subsidy	0.327*** (0.017)	0.296*** (0.018)	0.359*** (0.023)	0.309*** (0.021)
Ineligible			-0.012 (0.015)	0.002 (0.029)
Subsidy*Ineligible			-0.077** (0.034)	-0.046* (0.028)
Household Size	-0.012 (0.008)	-0.017** (0.008)	-0.009 (0.009)	-0.018** (0.008)
Household Size Squared	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.001)
Age	-0.007 (0.009)	0.002 (0.006)	-0.001 (0.009)	-0.001 (0.007)
Age-Squared	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.001)
Female	-0.002 (0.019)	-0.006 (0.012)	0.005 (0.019)	-0.006 (0.012)
Parent's Years of Education	0.002 (0.002)	0.004 (0.002)	0.002 (0.002)	0.003 (0.002)
Ever Sick in Past Year	0.000 (0.022)	0.022 (0.017)	0.000 (0.022)	0.022 (0.017)
Inv. Hyp Sin of Income	0.014* (0.007)	0.009 (0.007)	0.014* (0.007)	0.009 (0.007)
Forgone Treatment	0.076*** (0.022)	-0.072*** (0.024)	0.077*** (0.022)	0.072*** (0.025)
Constant	0.021 (0.177)	-0.050 (0.085)	-0.112 (0.182)	-0.052 (0.086)
R-squared	0.210	0.189	0.216	0.19
N	1614	2996	2996	1614
Round and Market Fixed Effects?	Y	Y	Y	Y

Source: Authors' analysis based on data described in paper.

Note: Sample in odd columns is all parents with at least one child age 15 and under at baseline; sample in even columns is all children under aged 15 years and under at baseline. Above are coefficients from OLS regressions of whether or not the child's parent enrolled in health insurance on baseline variables. Children are "Eligible" if they are age 11 or under; children age 12 and over are "Ineligible" for health insurance and therefore not enrolled. All regressions include market and round fixed effects. Missing income values are imputed to the mean, and an indicator variable is included in the regression. Robust standard errors in parentheses, clustered at the family level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.2. Baseline Characteristics of Children by Age Group

	-----Age 0-5-----			-----Age 6-11-----			-----Age 12-15-----		
	Mean	Difference (C-T)	Difference P-Value	Mean	Difference (C-T)	Difference P-Value	Mean	Difference (C-T)	Difference P-Value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Age	2.81	-0.13	0.18	8.36	-0.06	0.47	13.23	-0.03	0.64
Female	0.480	-0.031	0.340	0.473	0.011	0.700	0.504	-0.060	0.099
Ever sick	0.859	-0.001	0.951	0.752	0.027	0.304	0.672	0.011	0.855
Number of times sick	2.838	0.080	0.757	1.972	-0.100	0.486	1.691	0.069	0.639
Forgone treatment	0.197	-0.045	0.140	0.183	-0.029	0.273	0.165	0.010	0.835
Ever visit health provider	0.854	-0.010	0.677	0.741	0.028	0.302	0.665	0.014	0.699
Total number of visits, all providers	5.157	-0.181	0.689	3.469	-0.148	0.648	2.858	-0.026	0.845
Total health expenditures	869.31	204.72	0.33	448.8	75.90	0.17	417.6	27.85	0.85
Observations	919	--	--	1253	--	--	824	--	--

Source: Authors' analysis based on data described in paper.

Note: Above are sample averages of selected variables by age groups of children at baseline. Columns 1, 4, and 7 show averages for all children within the age category; columns 2, 5, and 8 show the difference in average characteristics between children in the Control group and children in the Treatment group; columns 3, 6, and 9 show the *p*-value of the difference, conditional on market and round fixed effects. Health providers consist of EMPs, public clinics, pharmacies, private hospitals, private doctors, public hospitals, and laboratory visits. All health and visit variables are reported to be during the past year. All income and expenditure data are in 2008 Cordobas. Children who were not sick in the past year are included as zeros for number of times sick and all visit/spending variables. Forgone treatment in past year due to lack of money was calculated to be zero for children who were not sick in the past year. *P*-values are based upon robust standard errors, clustered at the family level.

Table S1.3. Effects of Insurance Enrollment on Visits among Parents

	Any Provider	Pharmacy	EMP	Public Facilities	Private Facilities
	(1)	(2)	(3)	(4)	(5)
Panel A: Ever Visit					
Parent Enrolled	-0.053 (0.048)	-0.045 (0.061)	0.412 ^{***} (0.037)	-0.134 [*] (0.072)	-0.033 (0.072)
Constant	1.019 ^{***} (0.156)	1.173 ^{***} (0.198)	-0.064 (0.120)	1.071 ^{***} (0.239)	-0.419 [*] (0.223)
Observations	1614	1614	1614	1614	1614
R-squared	0.01	0.02	0.289	0.059	0.055
Panel B: Number of Visits					
Parent Enrolled	0.968 (1.000)	0.748 (0.563)	1.388 ^{***} (0.203)	-0.624 (0.411)	-0.190 (0.292)
Constant	6.163 [*] (3.199)	3.332 [*] (1.889)	-0.545 (0.625)	5.141 ^{***} (1.585)	-1.085 (0.982)
Observations	1614	1614	1614	1614	1614
R-squared	0.046	0.017	0.141	0.053	0.038

Source: Authors' analysis based on data described in paper.

Note: The sample is all parents ($N = 1,614$). Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status. The dependent variable in panel A is whether or not the parent has visited various providers over the past year. The dependent variable in panel B is the number of times the parent has visited various providers over the past year. Regressions control for household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, gender, whether the parent was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.4. Effects of Insurance Enrollment on Expenditures Among Parents

	All Providers	Pharmacy	Public Facilities	Private Facilities
<u>Panel A: Ever Spend</u>	(1)	(2)	(3)	(4)
Parent Enrolled	-0.074 (0.057)	-0.080 (0.062)	-0.017 (0.012)	-0.035 (0.072)
Constant	1.054*** (0.191)	1.175*** (0.201)	0.012 (0.035)	-0.419* (0.222)
Observations	1,614	1,614	1,614	1,614
R-squared	0.014	0.024	0.000	0.055
<u>Panel B: Inv. Hyperbolic Expenditures</u>	(1)	(2)	(3)	(4)
Parent Enrolled	-0.417 (0.425)	-0.465 (0.421)	-0.041 (0.049)	-0.150 (0.447)
Constant	4.413*** (1.370)	5.519*** (1.334)	0.081 (0.145)	-2.772** (1.399)
Observations	1,614	1,614	1,614	1,614
R-squared	0.036	0.036	0.005	0.061

Source: Authors' analysis based on data described in paper.

Note: The sample is all parents with at least one child aged 15 and under at baseline ($N = 1,614$). Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status. The dependent variable in panel A is whether or not the child had any health expenditures at various providers over the past year. The dependent variable in panel B is the inverse hyperbolic sine of expenditures at various providers over the past year. Note that this specification could not be estimated for EMP expenditures because the sample mean for parents was zero. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.5. Robustness of Results to Using Differences as Outcomes

	Any Provider	Pharmacy	EMP	Public Facilities	Private Facilities
<u>Panel A: Number of Visits</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	1.976** (1.006)	0.380 (0.451)	0.632*** (0.210)	0.199 (0.362)	0.773 (0.539)
Parent Enrolled*Ineligible	-3.818*** (1.458)	-0.501 (0.687)	-0.694*** (0.201)	-0.586 (0.556)	-1.952*** (0.733)
Ineligible	0.623 (0.551)	-0.073 (0.239)	0.071 (0.087)	0.240 (0.167)	0.535* (0.320)
Observations	2,996	2,996	2,996	2,996	2,996
R-squared	0.075	0.093	0.049	0.033	0.007
P-value of Enrolled + Enrolled*Ineligible	0.124	0.835	0.377	0.431	0.0239

Panel B: OOP Expenditures	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-256.345 (322.184)	-309.222 (271.928)	-0.227 (1.034)	7.215 (4.903)	16.148 (67.235)
Parent Enrolled*Ineligible	-224.738 (408.730)	220.549 (316.273)	0.287 (1.076)	-11.948 (8.590)	-299.724** (136.769)
Ineligible	-43.900 (158.980)	-104.597 (127.769)	0.358 (0.274)	2.816 (1.937)	62.639 (47.861)
Observations	2,996	2,996	2,996	2,996	2,996
R-squared	0.029	0.027	0.006	0.004	0.01
P-value of Enrolled + Enrolled*Ineligible	0.135	0.715	0.742	0.526	0.0201

Source: Authors' analysis based on data described in paper.

Note: The sample is all children age 15 and under ($N = 2,996$). Children age 12–15 are considered "Ineligible" and children under 11 are considered "Eligible." Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status and Parent Enrolled*Ineligible is instrumented with random assignment status*Ineligible. The dependent variable in panel A is the difference in utilization at a given provider between baseline and follow-up. The dependent variable in panel B is the difference in expenditures at various providers over the past year between baseline and follow-up. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.6. Effects of Parent Insurance on Out-of-Pocket Expenditures by Child Eligibility

	Any Provider	Pharmacy	EMP	Public Facilities	Private Facilities
<u>Panel A: Ever Spend</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-0.048 (0.079)	-0.030 (0.081)	0.006 (0.004)	-0.012 (0.009)	-0.032 (0.073)
Parent Enrolled*Ineligible	-0.115 (0.148)	-0.132 (0.149)	-0.006 (0.004)	0.014 (0.010)	-0.298** (0.117)
Ineligible	0.004 (0.048)	-0.003 (0.049)	0.001 (0.001)	-0.002 (0.001)	0.045 (0.038)
Observations	2996	2996	2996	2996	2996
R-squared	0.07	0.066	0.009	0.001	0.074
P-value of Enrolled + Enrolled*Ineligible	0.242	0.244	0.812	0.332	0.001

<u>Panel B: Inv. Hyperbolic Sine Expenditures</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-0.401 (0.532)	-0.224 (0.521)	0.031 (0.022)	-0.024 (0.034)	-0.288 (0.439)
Parent Enrolled*Ineligible	-1.256 (0.969)	-1.139 (0.931)	-0.030 (0.021)	0.029 (0.037)	-1.858*** (0.711)
Ineligible	0.274 (0.321)	0.217 (0.309)	0.005 (0.005)	-0.008 (0.005)	0.295 (0.233)
Observations	2996	2996	2996	2996	2996
R-squared	0.094	0.09	0.009	0.005	0.081
P-value of Enrolled + Enrolled*Ineligible	0.066	0.114	0.812	0.398	0.001

Source: Authors' analysis based on data described in paper.

Note: The sample is all children age 15 and under ($N = 2,996$). Children age 12–15 are considered "Ineligible" and children under 11 are considered "Eligible." Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status and Parent Enrolled*Ineligible is instrumented with random assignment status*Ineligible. The dependent variable in panel A is whether or not the child had any health expenditures at various providers over the past year. The dependent variable in panel B is the inverse hyperbolic sine of expenditures at various providers over the past year. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.7. GLS Estimates (Robustness for Expenditures)

	All Providers	Pharmacy	EMP	Public Providers	Private Providers
<u>Panel A: Nonlinear Least Squares Estimates of Expenditures</u>	(1)	(2)	(3)	(4)	(5)
6-Month Subsidy	0.043 (0.115)	0.049 (0.113)	11.267 0.000	2.107* (1.243)	-0.130 (0.155)
6-Month Subsidy*Ineligible	-0.562*** (0.213)	-0.327* (0.184)	-11.267 0.000	-2.107 0.000	-1.167*** (0.366)
Ineligible	-0.298** (0.143)	-0.538*** (0.125)	-13.000 0.000	-23.506 0.000	0.102 (0.270)
Observations	2,996	2,996	2,996	2,996	2,996
R-squared	0.152	0.154	0.001	0	0.071

<u>Panel B: Tobit Estimates of Expenditures</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-15.987 (241.807)	20.026 (182.123)	-	-	-158.181 (150.165)
Parent Enrolled*Ineligible	-945.9498*** (458.040)	-461.187 (306.545)	-	-	-1171.151*** (417.655)
Ineligible	172.445 (141.860)	71.945 (100.934)	-	-	212.1187* (123.173)
Observations	2996	2996	-	-	2996
P-value of Enrolled + Enrolled*Ineligible	0.019	0.102	-	-	0.001

Source: Authors' analysis based on data described in paper.

Note: The sample is all children age 15 and under ($N = 2,996$). Children age 12–15 are considered "Ineligible" and children under 11 are considered "Eligible." Panel A presents estimated coefficients from non-linear least square specifications where "6-Month Subsidy" is the parent's random assignment status and 6-Month Subsidy*Ineligible is the interaction of these two variables. Panel B presents estimates from an IV Tobit specification where "Parent Enrolled" is instrumented with parent's random assignment status and "Parent Enrolled*Ineligible" is instrumented with the interaction of the parent's six-month subsidy and Ineligible. The dependent variable is the expenditures at various providers over the past year. EMP and public health sector facilities are omitted from panel B because estimates would not converge. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.8. Reporting of Primary Results According to CONSORT Guidelines

	-----Eligible Kids-----					-----Ineligible Kids-----					
	Treatment (N=1131)		Control(N=1041)		Adjusted Difference* (95% CI)	Treatment (N=442)		Control(N=382)		Adjusted Difference* (95% CI)	Adjusted Dif-in-Dif* (95% CI)
	Baseline	Follow- Up	Baseline	Follow- Up		Baseline	Follow- Up	Baseline	Follow- Up		
<u>Panel A:</u>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<u>Visits</u>											
Total	4.09	3.75	4.28	3.36	0.403 (0.013, 0.792) p= 0.043	2.85	1.94	2.87	2.39	-0.467 (-0.915,- 0.018) p=0.041	-0.857 (-1.414, - 0.300) p=0.003
EMP	0.11	0.33	0.13	0.16	0.175 (0 .080, 0.270) p=0.000	0.02	0.02	0.00	0.01	0.013 (- 0.011,0.037) p= 0.302	-0.164 (-0.258, - 0.070) p= 0.001
Private Providers	0.96	0.72	1.12	0.66	0.062 (-0.100, 0.224) p=0.455	0.64	0.20	0.57	0.44	-0.248 (-0.394, - 0.102) p=0.001	-0.304 (-0.514,- 0.093) p=0.005

Panel B: Inv.
Hyperbolic
Expenditures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Total	4.82	4.02	4.59	4.13	-0.077 (-0.412, 0.257)	3.81	2.71	3.82	3.13	-0.437 (-0.903,0.029)	-0.340 (-0.865, 0.184)
	(3.169)	(3.317)	(3.238)	(3.288)	p=0.650	(3.236)	(3.121)	(3.261)	(3.334)	p=0.066	p=0.203
EMP	0.01	0.01	0.01	0.00	0.01 (-0.004, 0.023)	0.00	0.00	0.00	0.00	--	-0.01 (-0.022,0.004)
	(0.239)	(0.223)	(0.164)	--	p=0.158	--	--	--	--	--	p=0.159
Private Providers	2.07	1.62	1.98	1.67	-0.021 (-0.300, 0.258)	1.34	0.65	1.27	1.19	-0.547 (-0.854,- 0.239)	-0.508 (-0.892,- 0.125)
	(2.884)	(2.673)	(2.869)	(2.723)	p=0.881	(2.469)	(1.849)	(2.458)	(2.472)	p=0.001	p=0.009

Source: Authors' analysis based on data described in paper.

Note: "Treatment" refers to whether or not the parent respondent was randomly allocated a six-month subsidy for health insurance. Columns 1–4 and 6–9 contain unconditional mean estimates (and sd) for each sample listed for the visits overall, to EMPs, and to private providers (panel A) or the inverse hyperbolic sine overall, at EMPs, and at private providers (panel B). Columns 5 and 10 contain the regression-adjusted differences of follow-up measures between the treatment and control group, adjusted for round and market fixed effects (i.e., the sampling strategy). Column 11 contains the difference-in-difference estimate between eligible and ineligible children across the treatment and the control groups, adjusted for round and market fixed effects; 95% confidence intervals are displayed between each difference and are calculated based upon standard errors clustered at the family level. The *p*-value of the *t*-test on the displayed coefficient is below the 95% confidence interval.

Table S1.9. Treatment Effect Estimates Using Baseline Variables as Outcomes (Visits)

	Any Provider	Pharmacy	EMP	Public Facilities	Private Facilities
<u>Panel A: Ever Visit</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-0.011 (0.014)	0.020 (0.055)	-0.037 (0.033)	0.043 (0.073)	0.010 (0.075)
Parent Enrolled*Ineligible	-0.004 (0.024)	-0.057 (0.087)	0.076** (0.037)	-0.074 (0.125)	0.025 (0.123)
Ineligible	-0.002 (0.007)	0.010 (0.028)	-0.014 (0.013)	0.040 (0.040)	-0.008 (0.039)
Observations	2996	2996	2996	2996	2996
R-squared	0.957	0.599	0.015	0.184	0.197
P-value of Enrolled + Enrolled*Ineligible	0.503	0.626	0.044	0.782	0.752

Panel B: Number of Visits	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-0.716 (0.837)	-0.044 (0.354)	-0.068 (0.198)	0.011 (0.301)	-0.663 (0.489)
Parent Enrolled*Ineligible	0.815 (1.156)	-0.300 (0.517)	0.175 (0.183)	0.231 (0.416)	0.860 (0.660)
Ineligible	0.067 (0.463)	0.207 (0.183)	-0.034 (0.082)	0.093 (0.129)	-0.343 (0.302)
Observations	2996	2996	2996	2996	2996
R-squared	0.205	0.216	0.021	0.12	0.051
P-value of Enrolled + Enrolled*Ineligible	0.918	0.437	0.077	0.499	0.687

Source: Authors' analysis based on data described in paper.

Note: The sample is all children age 15 and under ($N = 2,996$). Children age 12–15 are considered "Ineligible" and children under 11 are considered "Eligible." Above regressions are estimated coefficients from IV estimates where "Parent Enrolled" is instrumented with the parent's random assignment status and Parent Enrolled*Ineligible is the interaction of these two variables. The dependent variable in panel A is whether or not the child has visited various providers over the past year as of baseline. The dependent variable in panel B is the number of times the child has visited various providers over the past year. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of household income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.10. Treatment Effect Estimates Using Baseline Variables as Outcomes (Expenditures)

	Any Provider	Pharmacy	EMP	Public Facilities	Private Facilities
<u>Panel A: Ever Spend</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	0.057 (0.049)	0.030 (0.058)	0.003 (0.005)	0.028 (0.018)	0.011 (0.075)
Parent Enrolled*Ineligible	-0.026 (0.075)	-0.104 (0.093)	-0.003 (0.005)	0.003 (0.034)	0.054 (0.122)
Ineligible	0.003 (0.024)	0.009 (0.029)	-0.001 (0.001)	-0.011 (0.011)	-0.026 (0.038)
Observations	2996	2996	2996	2996	2996
R-squared	0.674	0.565	0.007	0.016	0.192
P-value of Enrolled + Enrolled*Ineligible	0.644	0.370	0.935	0.343	0.552

Panel B: Inv. Hyp. Sin of Expenditures	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	0.408 (0.368)	0.243 (0.397)	0.018 (0.027)	0.064 (0.082)	0.041 (0.445)
Parent Enrolled*Ineligible	-0.320 (0.568)	-0.766 (0.624)	-0.019 (0.028)	0.087 (0.184)	0.199 (0.720)
Ineligible	0.109 (0.190)	0.138 (0.203)	-0.007 (0.006)	-0.082 (0.052)	-0.106 (0.229)
Observations	2996	2996	2996	2996	2996
R-squared	0.609	0.521	0.006	0.019	0.2
P-value of Enrolled + Enrolled*Ineligible	0.862	0.345	0.905	0.398	0.707

Source: Authors' analysis based on data described in paper.

Note: The sample is all children age 15 and under ($N = 2,996$). Children age 12–15 are considered "Ineligible" and children under 11 are considered "Eligible." Above regressions are estimated coefficients from IV estimates where "Parent Enrolled" is instrumented with the parent's random assignment status and Parent Enrolled*Ineligible is the interaction of these two variables. The dependent variable in panel A is whether or not the child had any health expenditures at various providers over the past year. The dependent variable in panel B is the inverse hyperbolic sine of expenditures at various providers over the past year. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.11. Out-of-Pocket Expenditures Based upon Sibling Eligibility

	All Providers	Pharmacy	EMP	Public Facilities	Private Facilities
<u>Panel A: Eligible Children</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-0.401 (0.553)	-0.161 (0.542)	0.041 (0.029)	-0.021 (0.039)	-0.275 (0.485)
Ineligible Sibling*Parent Enrolled	0.194 (1.526)	-0.101 (1.493)	-0.050 (0.036)	-0.010 (0.065)	-0.110 (1.140)
Ineligible Sibling	-0.271 (0.298)	-0.194 (0.293)	0.002 (0.002)	-0.009 (0.019)	0.014 (0.233)
Observations	2,172	2,172	2,172	2,172	2,172
R-squared	0.089	0.083	0.012	0.007	0.092
P-value of Enrolled + Enrolled*Ineligible	0.885	0.852	0.405	0.572	0.709

Panel B: Ineligible Children	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	-1.093 (1.154)	-0.843 (1.101)	- -	- -	-1.573* (0.863)
Eligible Sibling*Parent Enrolled	-1.180 (1.757)	-1.056 (1.678)	- -	- -	-1.112 (1.193)
Eligible Sibling	-0.246 (0.382)	-0.196 (0.362)	- -	- -	-0.322 (0.276)
Observations	824	824	-	-	824
R-squared	0.029	0.031	-	-	-0.008
P-value of Enrolled + Enrolled*Ineligible	0.090	0.138	-	-	0.001

Source: Authors' analysis based on data described in paper.

Note: The sample in panel A is all children age 11 and under at baseline; the sample in panel B is all children age 12 and over at baseline. "Ineligible Sibling" refers to a sibling in the household age 12 and over at baseline; "Eligible Sibling" refers to a sibling age 11 and under at baseline. Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status and "Ineligible/Eligible Sibling*Parent Enrolled" is instrumented with "Ineligible Sibling" or "Eligible Sibling" times random assignment status. The dependent variables are the inverse hyperbolic sine of expenditures at various providers over the past year. Note that the regressions of EMP and public facility expenditures as dependent in panel B could not be estimated due to insufficient variation. Regressions control for baseline measures of household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.12. Effects of Parent Insurance for Eligible Children with/out an Ineligible Sibling

	Any Provider	Pharmacy	EMP	Public Facilities	Private Facilities
<u>Panel A: Ever Visit</u>	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	0.014 (0.065)	0.004 (0.082)	0.222*** (0.052)	0.067 (0.084)	0.006 (0.081)
Parent Enrolled*Ineligible Sibling	-0.009 (0.200)	0.075 (0.233)	0.023 (0.113)	-0.018 (0.211)	-0.066 (0.195)
Ineligible Sibling	-0.039 (0.038)	-0.059 (0.046)	0.004 (0.019)	-0.018 (0.042)	0.007 (0.039)
Observations	2172	2172	2172	2172	2172
R-squared	0.073	0.061	0.144	0.04	0.075
P-value of Enrolled + Enrolled*Ineligible	0.982	0.716	0.016	0.800	0.731

Panel B: Number of Visits	(1)	(2)	(3)	(4)	(5)
Parent Enrolled	1.905*** (0.686)	0.530* (0.315)	0.633*** (0.172)	0.417 (0.306)	0.257 (0.311)
Parent Enrolled*Ineligible Sibling	-3.206* (1.690)	-0.945 (0.812)	-0.349 (0.334)	-0.986 (0.780)	-0.768 (0.624)
Ineligible Sibling	0.445 (0.336)	0.114 (0.162)	0.042 (0.069)	0.199 (0.160)	0.098 (0.117)
Observations	2172	2172	2172	2172	2172
R-squared	0.067	0.05	0.1	0.027	0.037
P-value of Enrolled + Enrolled*Ineligible	0.402	0.583	0.324	0.430	0.332

Source: Authors' analysis based on data described in paper.

Note: The sample covers children age 11 and under ($N = 2,172$). Siblings are ineligible if they are 12–15 at baseline. Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status; Parent Enrolled*Ineligible Sibling is instrumented with random assignment status *Eligible Sibling. The dependent variable in panel A is whether or not the child has visited various providers over the past year. The dependent variable in panel B is the number of times the child has visited various providers over the past year. Regressions control for household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table S1.13. Effects of Parent Insurance on Health Indicators by Child Eligibility

	Checkup	Ever Sick	Times Sick
	(1)	(2)	(3)
<u>Panel A: Effects on Parents</u>			
Parent Enrolled	0.127*	-0.035	0.841
	(0.072)	(0.042)	(1.935)
Observations	1,614	1,614	1,614
R-squared	0.029	0.014	0.013
<u>Panel B: Effects on Children</u>			
Parent Enrolled	-0.040	0.014	0.676**
	(0.071)	(0.064)	(0.336)
Parent Enrolled*Ineligible	-0.009	-0.192	-1.740***
	(0.111)	(0.144)	(0.613)
Ineligible	0.028	0.062	0.456**
	(0.034)	(0.048)	(0.215)
Observations	2996	2996	2996

R-squared	0.045	0.09	0.079
P-value of Enrolled + Enrolled*Ineligible	0.638	0.198	0.053

Source: Authors' analysis based on data described in paper.

Note: The sample in panel A is all parents with a child age 15 and under ($N = 1,614$); the sample in panel B is all children age 15 and under ($N = 2,996$). Children age 12–15 are "Ineligible" and children under 11 are "Eligible." Above regressions are estimated coefficients from 2SLS-IV estimates where "Parent Enrolled" is instrumented with random assignment status; Ineligible*Parent Enrolled is instrumented with random assignment status*Ineligible. The dependent variables are various measures of health status: whether the child had a checkup in the past year, whether the child had ever been sick in the past year, and the number of times sick. Regressions control for household size, household size squared, the inverse hyperbolic sine of parental income, parent's years of education, age of child, age of child squared, gender, whether the child was sick in the past year, the number of times sick, total number of health visits, and survey round and market fixed effects. Individuals without valid income data were imputed to be the median, and regressions were run with a dummy variable indicating the missing value. Robust standard errors in parentheses, clustered at the family level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$