The Impact of New Health Insurance Coverage on Undocumented and Other Low-Income Children: Lessons from Three California Counties

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Abstract: Three California counties (Los Angeles, San Mateo, and Santa Clara) expanded health insurance coverage for undocumented children and some higher income children not covered by Medi-Cal (Medicaid) or Healthy Families (SCHIP). This paper presents findings from evaluations of all three programs. Results consistently showed that health insurance enrollment increased access to and use of medical and dental care, and reduced unmet need for those services. After one year of enrollment the programs also improved the health status of children, including reducing the percentage of children who missed school due to health.

Key words: Children's health insurance, undocumented children, immigrant children, California, health policy.

Beginning in 2001, several counties in California took significant steps to address the issue of continued high rates of uninsurance, even among children. The California Health Interview Survey of 2001 found child uninsurance rates of around 10% in many California counties in that year, with higher rates in some places (such as Los Angeles).[1] These high rates occurred in spite of the long-standing Medi-Cal and relatively-new Healthy Families* programs that should provide coverage for all otherwise-uninsured citizen children under 250% of the federal poverty level.

*In California, Medicaid is known as Medi-Cal and the State Children's Health Insurance Program (SCHIP) is called Healthy Families.

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Many children entitled to existing coverage are not enrolled due to various administrative barriers and their parents' lack of understanding that they could be covered. Due to the high cost of living in California, many parents cannot afford health insurance, including those with incomes above 250% of the federal poverty level. Finally, many counties have a large number of undocumented children (immigrants without legal status to live in the U.S.) and legal immigrant children in the U.S. for less than five years. These children are not entitled to public coverage, and this is a group known to be particularly underserved in terms of access to health insurance and health care.[2]

To address this problem, coalitions in a large number of counties—beginning with Santa Clara County in January 2001—developed efforts known as *Children's Health Initiatives* (*CHIs*). These initiatives vary in scope, but most have two components: (1) intensive outreach to educate families and assist them in enrolling into all public programs (including Medi-Cal and Healthy Families); and (2) a new insurance program (called *Healthy Kids*) to cover undocumented children and some children with incomes above 250% of the federal poverty level.* While some families contribute to the premiums, the large majority of the cost for these new insurance products comes from county general revenues; state tobacco taxes administered by county-level commissions (*First 5 Commissions*); foundations; and other private sources. No other state or federal funds have as yet been provided to support the premiums for undocumented children, in spite of intensive advocacy by the counties and other groups; some federal/state funds are available to fund documented children between 250 and 300% of poverty through a Medi-Cal waiver. By March 2009 half of California's 58 counties had Children's Health Initiatives.

During 2008 and 2009 California experienced serious economic problems, culminating in a severe state budget deficit. This problem was exacerbated by the financial difficulties facing foundations, many of which have supported children's health insurance expansion programs. The three major foundations that provide premium support for Healthy Kids programs have withdrawn this support as of the end of 2010, throwing into question the future of these programs in several counties. The State's acute budget shortage led to cuts to Healthy Families which imposed an enrollment cap. The cumulative impact of funding cuts to both Healthy Families and Healthy Kids has yet to be fully felt, but it is certain that the significant gains made in California to extend insurance to low-income children has been severely eroded.

Three counties that implemented their CHIs early—Los Angeles, San Mateo, and Santa Clara Counties—also funded rigorous evaluations of the impact of their programs. The Healthy Kids programs in these three counties are remarkably similar in terms of their generous benefit packages (similar to Healthy Families, and including dental, vision, and mental health services); limited cost-sharing, especially for the poorest families; intensive culturally-sensitive outreach to bring children into the program; and management by the managed care plan that also manages many Medi-Cal and Healthy Families children's care. However, they vary according to some key characteristics, including the date of initial enrollment into Healthy Kids, the ages covered by the

*Income levels vary by county.

Table 1.

CHARACTERISTICS OF CHILDREN'S HEALTH INITIATIVES

	Los Angeles	San Mateo	Santa Clara
Initial enrollment date	July 2003	January 2003	January 2001
Ages covered	0–5 (7/03) 6–18 (5/04)	0–18	0–18
Income level	≤300% of the FPL	≤400% of the FPL	≤300% of the FPL

FPL = Federal Poverty Level

program, and the income levels for eligibility (Table 1). More detail on the programs and their implementation appears elsewhere.[3,4]

The purpose of this paper is to synthesize for the first time the findings from these impact evaluations across a range of impact measures and across three counties. The methods for the evaluations are very similar, and thus it is possible to compare and contrast the findings across all three counties. In particular, all three evaluations used the same approach to identifying the uninsured comparison group, and all three used similar survey and analysis methods. Assessing the degree to which findings are similar or different in three places with different social and health care contexts provides information on the generalizability of the findings, should other communities seek to implement similar initiatives.

Methods

Any study of the impact of new insurance coverage faces the challenge of controlling for selection into insurance by those who were formerly uninsured. Since not everyone who is entitled to insurance enrolls, there are often unmeasured differences between those who enroll and those who do not. Building on the designs of other evaluations of children's health insurance coverage,[5,6] the evaluations compare the experiences of children who are newly enrolled in Healthy Kids with those of children who have been enrolled for a year. Specifically, the six-month period just prior to enrolling in Healthy Kids is used as the study period of uninsurance for those whom we term *new enrollees*, and the six-month period just prior to renewing after one year of enrollment is used as the study period of insurance coverage for those whom we term *established enrollees*. These two groups (new and established enrollees) are expected to be very similar in almost all ways affecting their key outcomes (especially in their parent's desire to enroll them in coverage).*

*The Los Angeles evaluation had an additional component that was to follow both groups (new and established enrollees) for one year and observe changes in key outcomes. Since that component of the evaluation was unique, and the purpose here is to compare across the three counties, the longitudinal results are not discussed in this paper, but are available at http://www.urban.org/UploadedPDF/411503_impact_healthy_kids.pdf .

To develop measures of child characteristics and outcomes, a telephone survey of parents of Healthy Kids enrollees was conducted based on a sample of new and established enrollee children from the enrollment files of the health plans that manage the care for the Healthy Kids programs. Since the evaluations were conducted at different times, the dates of the surveys differ, as do samples sizes. Response rates, which also differ somewhat across surveys, were uniformly high. These differences are described in Table 2.

Another very important difference between the evaluations is that the survey (and consequently the data analysis) for Los Angeles was only conducted for children ages 1–5 years, while the surveys for the other two counties were conducted for children ages 1–18 years. In addition, in Santa Clara County, only a very small sample was drawn of established enrollees between 250 and 300% of the federal poverty level (and no sample of new enrollees in that income group), so the impact analysis contains only Healthy Kids enrollees below 250% of poverty (the undocumented population).

The questionnaires were very similar for all three surveys (the Los Angeles and San Mateo surveys being derived to a large extent from the Santa Clara instrument, which in turn relied heavily on the instrument developed for the congressionally mandated national SCHIP evaluation). Survey sampling and data collection were conducted by the same staff in all three cases. A majority of interviews in all three counties was conducted in Spanish by Spanish-speaking staff.

The key outcomes and the survey questions used to measure them are as follows:

- Access to medical care: "Do you have a particular place that your child would usually go if he/she was sick or you needed advice about his/her health?"
- Use of ambulatory care: "During the past six months did your child see a doctor or any other health care professional such as a physician assistant or nurse?"
- Use of preventive care: "Did he/she see a doctor or health care professional for preventive care, such as a check-up, well-child visit, or physical examination?"
- Unmet need for medical care: "During the past six months was there any time that your child needed to see a doctor or other health care professional but did not go?" (Unmet need questions were asked separately for preventive, emergency, and specialist care, but were grouped for analysis.)

Table 2.

KEY CHARACTERISTICS OF HEALTHY KIDS EVALUATION SURVEYS

	Los Angeles	San Mateo	Santa Clara
Sample Sizes:			
New enrollees	547	723	609
Established enrollees	535	681	626
Interview dates	Apr '05–Dec '05	Apr '06–May '07	Aug '03–July '04
Response rates	86%	77%	89%

- Access to dental care: "Do you have a particular place that your child would usually go if he/she needed dental care?"
- Use of dental care: "During the past six months did your child go to a dentist or dental hygienist for a check-up or to get his/her teeth cleaned? Did he/she go for dental treatment?"
- Unmet need for dental care: "During the past six months, was there a time your child needed dental care but did not go?"
- Confidence: "During the past six months, how confident were you that your child could get health care if he/she needed it? (Very, somewhat, not very, or not at all.)"
- Perceived health status: "In general, would you say your child's health is excellent, very good, good, fair, or poor?"
- Activity limitations: "Does your child have any physical, behavioral, or mental conditions that limit or prevent his/her ability to do childhood activities usual for his/her age?"
- School days missed: "How many days of school did your child miss because he/she was sick during the last four weeks of school?"

The survey data were analyzed using regression analysis that controlled for age of child, gender, language spoken at home, race/ethnicity, family composition, parental education, family income, time the family resided in the county, ZIP code, and a baseline health status measure. Baseline health status was measured by whether the parent reported that they enrolled their child in Healthy Kids because the child needed to see a doctor (or a dentist in the case of dental care) or needed to get a prescription. More information on the methods for the Santa Clara data analysis, which is very similar to the analysis in the other counties, can be found in a separate document.[7]

Results are presented as regression adjusted proportions for each outcome, and labeled as New Enrollees (for the new enrollees during the six-month period prior to enrolling) and Established Enrollees (for the established enrollees in the six-month period prior to renewing coverage after one year in the program). A significant difference between the regression-adjusted proportions in the hypothesized direction reflects an impact of Healthy Kids on the outcome.

Results

Demographic characteristics. Table 3 shows some key characteristics of the Healthy Kids established enrollee samples, weighted to reflect the populations from each county program at the time of the survey. While there are variations across the counties, these are primarily due to which children were included in the analyses: the L.A. analysis including only children under six years of age, but also including children between 250 and 300% of the federal poverty level; the San Mateo survey including children ages 1–18, up to 400% of poverty; and the Santa Clara survey including children ages 1–18, but only children below 250% of poverty.

All three study populations have a high proportion of Latino children (from 84 to 92%), are from low income families (almost all below 200% of the federal poverty level);

Table 3.

DEMOGRAPHIC CHARACTERISTICS OF HEALTHY KIDS ESTABLISHED ENROLLEES

	Los Angeles (2005)	San Mateo (2006)	Santa Clara (2003–2004)
	%	%	%
Age			
1–5	100	17	21
6–12	0	54	44
13–18	0	29	35
Ethnicity is Latino	88	92	84
Family income (percent of Federal Poverty Level)			
<100%	85	74	53
100–199%	14	20	39
200+%	1	6	8
Child is citizen	6	11	0

Data for Los Angeles are only for children ages 1–5.
Data for Santa Clara are only for children <250% of federal poverty level.

and have a high proportion of non-citizen children (from 89 to 100%). Thus, all three study populations are primarily from very low-income recent immigrant Latino families. Since all of the poorest children are undocumented, this means they were not born in the U.S. and many received their earlier health care in their country of origin.

Access to medical care. Figure 1 shows findings concerning the impact of Healthy Kids on access to medical care, in particular whether the child has a usual source of medical care. As shown, across all three programs the proportion of children with a usual source of medical care was substantially higher for established enrollees, particularly in San Mateo and Santa Clara counties where the proportion was from 32 to 40 percentage points higher than for new enrollees. Among the young children studied in Los Angeles, most (76%) already had a usual source of care before enrolling and so there was not as much room for improvement. After enrolling in Healthy Kids, the children in all three counties had remarkably similar rates for this important indicator of basic health care access; in all cases, about 90% had a usual source of medical care.

Medical care use. While access to care improved dramatically, results for medical care use are not as large or as consistently highly significant across all the three counties, although Healthy Kids enrollees in all three counties showed substantial gains. Figure 2 shows the impact of Healthy Kids on having any medical visit in the past six months. There was a small, but statistically significant, gain in Los Angeles from 70 to 76% (again starting from a large base), and even greater gains from 17 to 22 percentage

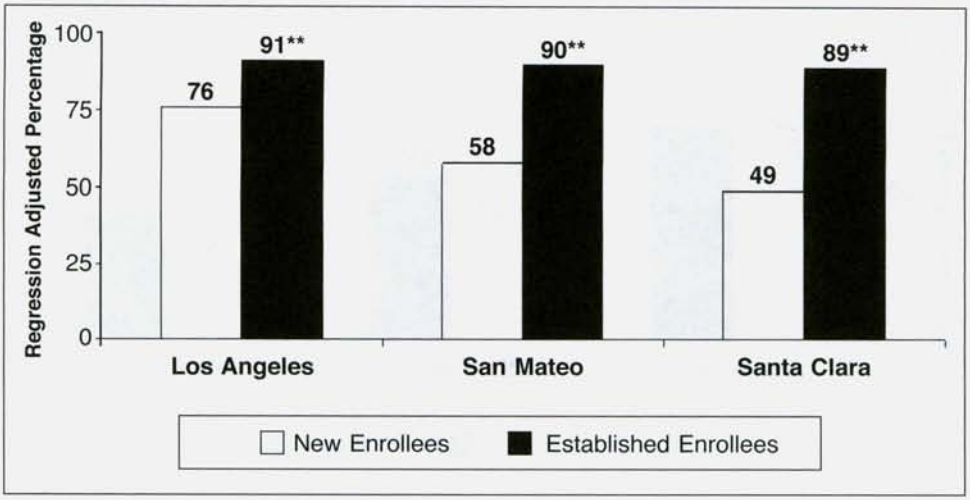

Figure 1. Impact of Healthy Kids on having a usual source for medical care.

Los Angeles reflects children ages 0 to 5; San Mateo and Santa Clara reflect children ages 0 to 18. **Difference is statistically significant at p-value <.01.

points in the other two counties. Thus children received significantly more medical care in all three counties after enrolling in Healthy Kids.

Because of the importance of preventive care for children, we also examined the impact of Healthy Kids on having a preventive visit in the past six months. Figure 3

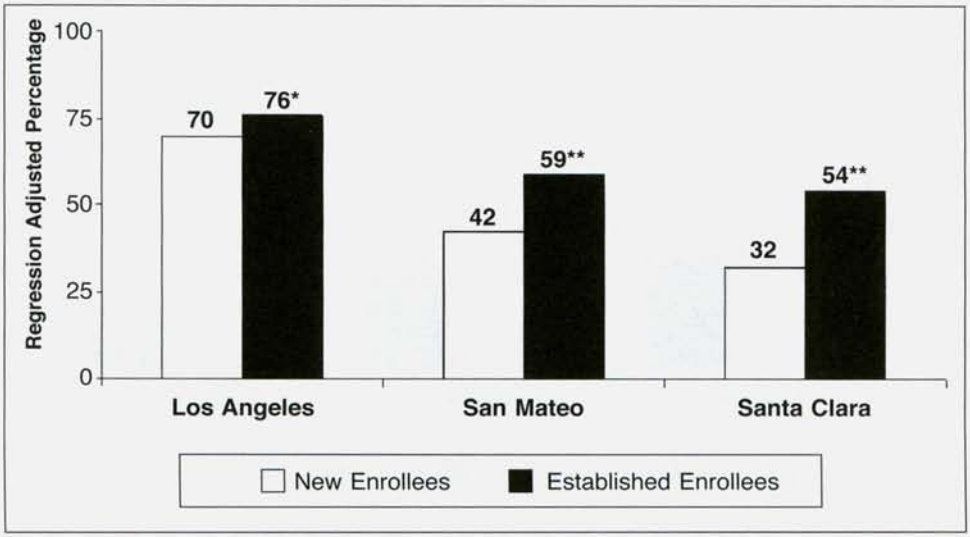

Figure 2. Impact of Healthy Kids on having a medical visit in the past six months.

Los Angeles reflects children ages 0 to 5; San Mateo and Santa Clara reflect children ages 0 to 18. **/*Difference is statistically significant at p-value <.01/.05.

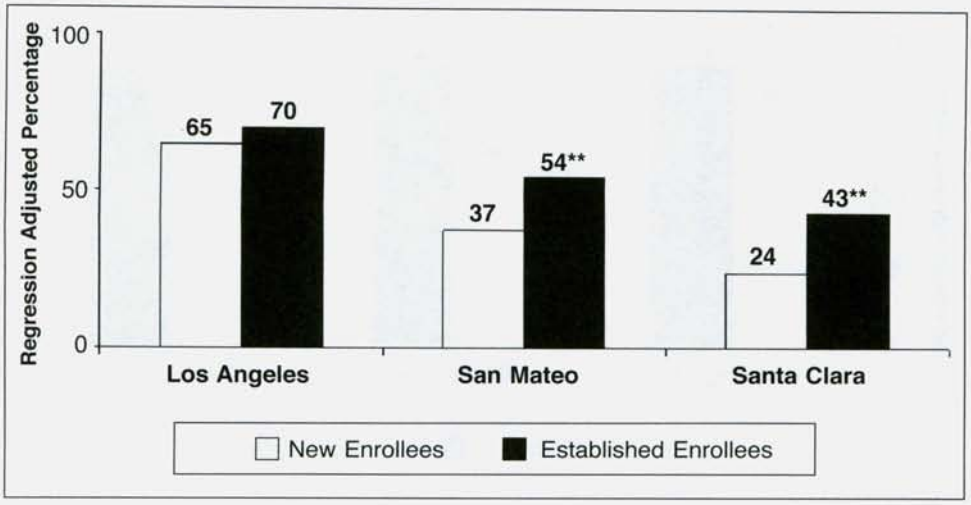

Figure 3. Impact of Healthy Kids on having a preventive care visit in the past six months.

Los Angeles reflects children ages 0 to 5; San Mateo and Santa Clara reflect children ages 0 to 18.
**Difference is statistically significant at p-value <.01.

shows these results. In Los Angeles, again starting from a high base, the 65% of new enrollees with preventive care before enrollment is not statistically significantly different from the 70% of established enrollees with a preventive visit. In the other two counties, the use of preventive care after enrollment is almost 20 percentage points higher than for new enrollees. In San Mateo County, 54% of established enrollees had a preventive visit in the past six months, and 43% had a visit in Santa Clara County.

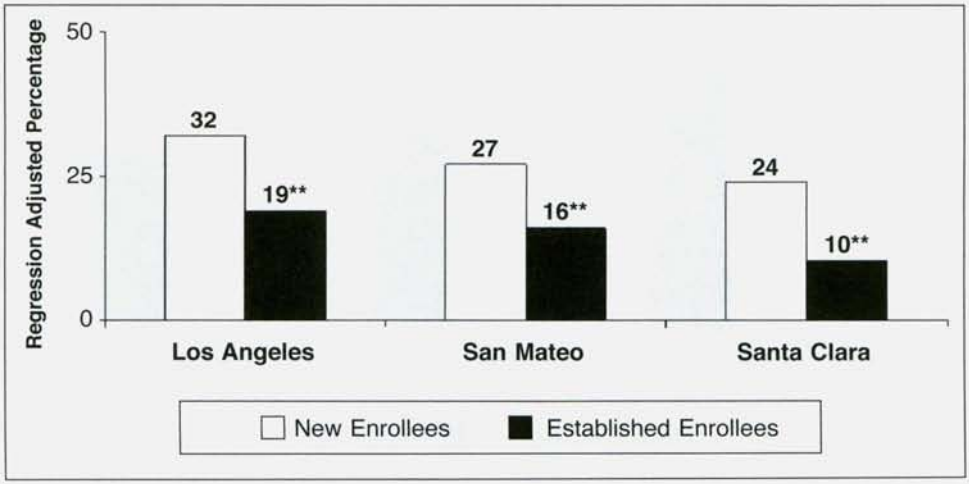

Figure 4. Impact of Healthy Kids on unmet need for medical care in the past six months.

Los Angeles reflects children ages 0 to 5; San Mateo and Santa Clara reflect children ages 0 to 18.
**Difference is statistically significant at p-value <.01.

Unmet need for medical care. With improved access to medical care and increased use of services, one would expect that unmet need for medical care would decline among Healthy Kids after enrollment, and this is the case (as shown in Figure 4). Parents' perception of unmet need prior to enrollment—which was higher in Los Angeles, followed by San Mateo and then Santa Clara—was lower by just over 10 percentage points after enrollment in all three counties.

While reductions are substantial, the fact that between 10 and 20% of parents still felt that their children's medical needs were unmet following enrollment shows that access to care improvements are still needed. As an example of such barriers, in client focus groups, some parents reported they had difficulty getting appointments with their primary care providers.[8] For children with high medical needs, some reported that the cost of co-payments was a barrier to care (although most parents reported no problems with co-payments).

Access to dental care. Figure 5 shows similar results for access to dental care, as measured by whether the parent reported that their child had a usual source of dental care. These findings are more striking than for access to medical care, with only 42% of the very young new enrollees children in Los Angeles having a usual source of dental care, growing to 74% with a usual source of dental care for established enrollees. There were even more dramatic gains in San Mateo and Santa Clara Counties. In those counties, the proportion with a usual source of dental care was from 45 to 50 percentage points higher for established enrollees than new enrollees. While access to dental care lagged behind access to medical care, it reached an impressive level of 74% in Los Angeles (among children ages 1–5), 81% in San Mateo, and 87% in Santa Clara. This is a very important change among this population of children, many of whom had little or no dental care before enrolling.

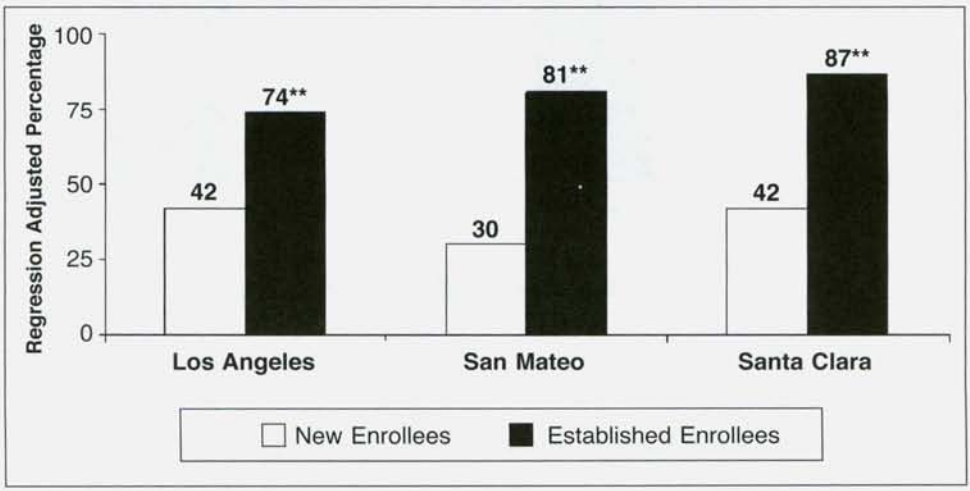

Figure 5. Impact of Healthy Kids on having a usual source for dental care.

Los Angeles study includes children ages 4 and 5; San Mateo includes ages 4 to 18; Santa Clara includes ages 3 to 18.

**Difference is statistically significant at p-value <.01.

Dental care use. The impact of Healthy Kids on dental care is the most pronounced of any of Healthy Kids effects on service use, leading to a more than doubling of the proportion of children who received services.*

Figures 6 and 7 show the impact of Healthy Kids on having a preventive dental care visit and having a visit for dental treatment, respectively. Results are strikingly similar in the two counties shown, with use of preventive care growing from around 25% of new enrollees having a preventive dental visit in the six months prior to enrolling to well over 60% having a visit after being enrolled in Healthy Kids for a year. While the goal is to have a preventive dental visit for all children every six months, these results reflect very large gains in a short period.

The use of dental treatment (for example, fillings) also grew significantly. Only about 15% of new enrollees had dental treatment in the six months prior to enrolling, but about 45% of established enrollees had such care. This undoubtedly reflects pent up demand for dental treatment prior to enrolling in Healthy Kids, and also suggests that through this dental care children's oral health was substantially improved by Healthy Kids.

Unmet need for dental care. The reductions in unmet need for dental care mirror those for medical care and are also statistically significant (Figure 8). Again, unmet need was about 10 percentage points lower for established enrollees than new enrollees in all three counties, but still remained at or above about 10% even after enrollment

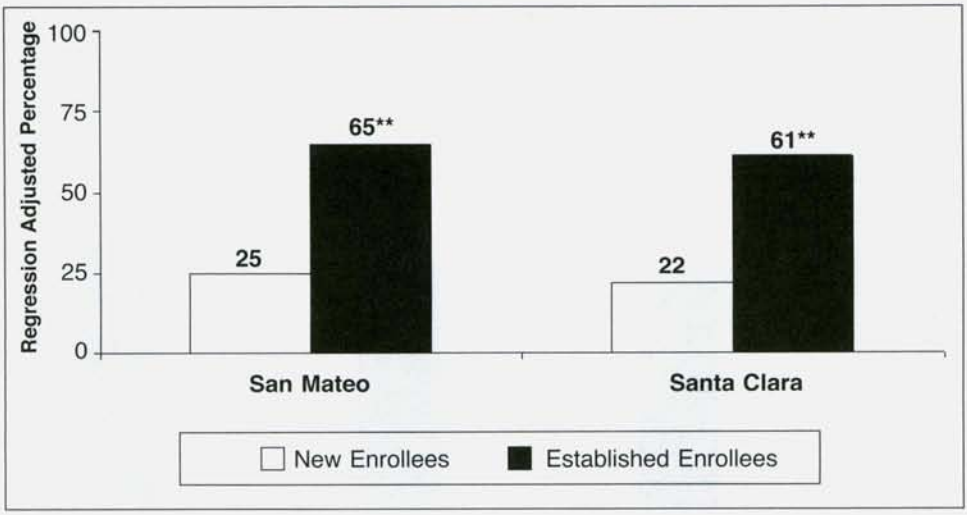

Figure 6. Impact of Healthy Kids on having a preventive dental visit in the past six months.

San Mateo study includes children ages 4 to 18; Santa Clara includes ages 3 to 18.
**Difference is statistically significant at p-value <.01.

*There were measurement differences in the Los Angeles survey that prevent a direct comparison of dental service use rates, and use is lower in the youngest children, so we here present data only for San Mateo and Santa Clara Counties.

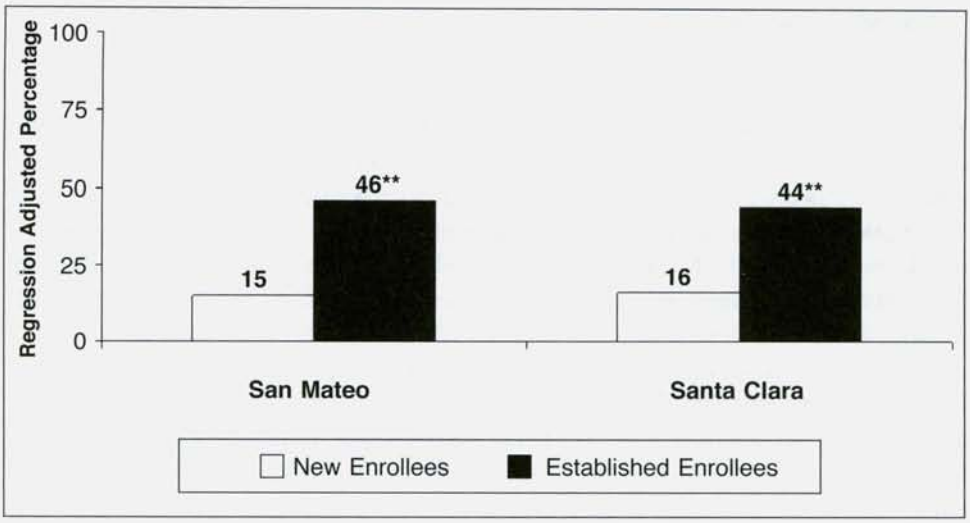

Figure 7. Impact of Healthy Kids on having a dental treatment in the past six months.

Dental treatment includes a cavity filling or tooth extraction.
San Mateo study includes children ages 4 to 18; Santa Clara includes ages 3 to 18.
**Difference is statistically significant at p-value <.01.

in the program. Thus, as with medical care access, there remain barriers to dental care even after enrollment in Healthy Kids. All three programs have taken steps to broaden their dental networks and reach out to dentists in the county to encourage them to accept Healthy Kids enrollees into their practices.

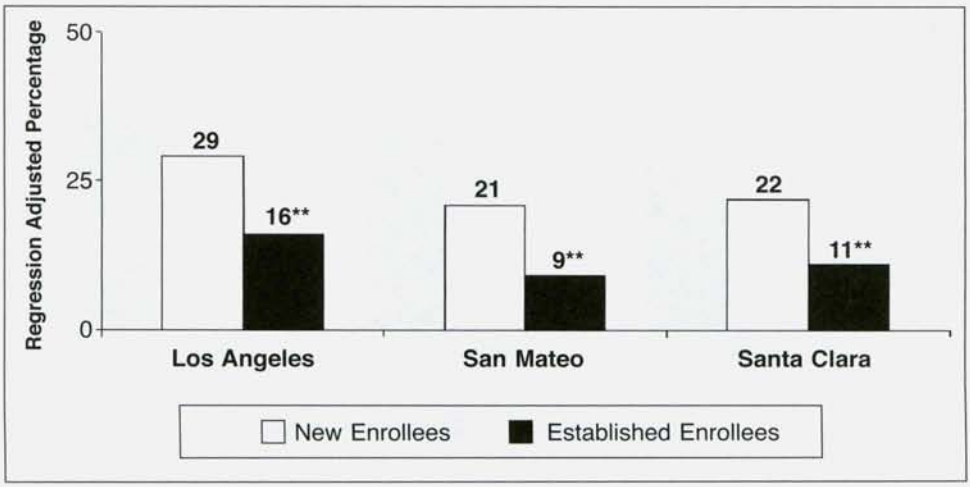

Figure 8. Impact of Healthy Kids on unmet need for dental care in the past six months.

Los Angeles study includes children ages 4 and 5; San Mateo includes ages 4 to 18; Santa Clara includes ages 3 to 18.
**Difference is statistically significant at p-value <.01.

Confidence getting care. Figure 9 shows large gains in the proportion of parents who reported that they were very confident that they could get care for their child when they needed it. Before enrolling their children in Healthy Kids, only from 28 to 42% of new enrollee parents were very confident they could get health care for their child when they needed it. Established enrollee parents were about 25 to 30 percentage points more likely to be very confident in getting such care.

Health status. The ultimate goal of improving access to care and increasing service use through Healthy Kids is to improve enrolled children's health. However, measuring health status and changes in health status over a short period of time is fraught with difficulty, particularly since most children are healthy with only brief episodic illnesses.

The questionnaires in all three surveys contain multiple measures of health status. However, because the samples were not stratified to include a higher proportion of children with special health care needs than generally found in the population of Healthy Kids, we were unsure whether in the short time of the study it would be possible to measure any changes in health status.

To gain statistical power to detect such changes, we pooled data across the three counties, and analyzed the combined data, for those questions that were asked identically on all three surveys. In addition, we restricted the analysis to children under 250% of the federal poverty level for comparability. We weighted all three counties equally, but performed a sensitivity analysis to examine results if the original weights were used (which resulted in more heavily weighting the largest county—L.A.—for example). The results were virtually the same with both weighting approaches.

A concern with measuring health status is regression to the mean, whereby parents may be more likely to enroll their children in health insurance programs if they are

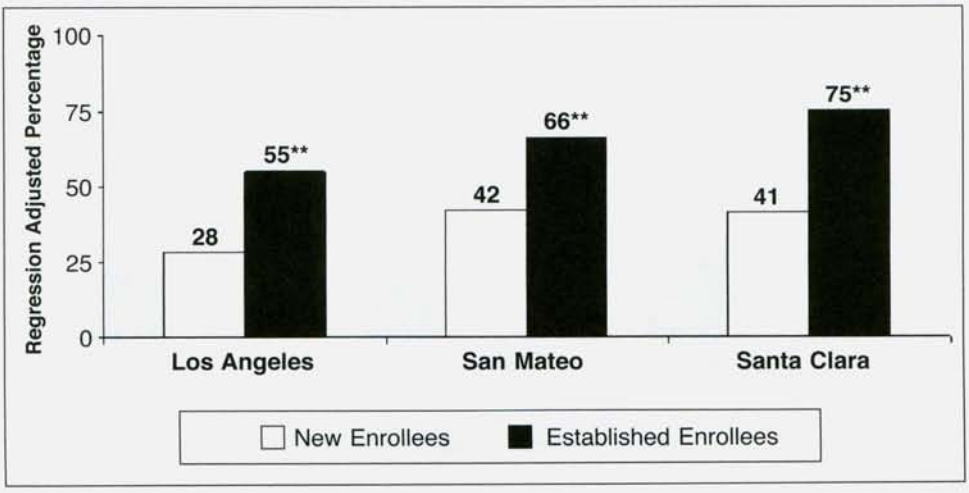

Figure 9. Impact of Healthy Kids on parent confidence that child can get needed health care.

Los Angeles reflects children ages 0 to 5; San Mateo and Santa Clara reflect children ages 0 to 18.
**Difference is statistically significant at p-value <.01.

sick, and whereby the average health status of the sicker groups improves naturally. To try to control for this phenomenon, we reanalyzed the data for children whose parents did and did not report that they enrolled their child for a medical reason.

Table 4 shows results for four health status measures and for three age groups. For the youngest children, ages 1–5 (including children from all three counties), we show the percentage of parents who felt their child was in excellent or very good health at the time of the interview as well as the % whose children's activity was limited due to their health. For children ages 6–18 (including only children from San Mateo and Santa Clara Counties) we show these two measures as well as the proportion who missed any school in the past four weeks due to health and the proportion who missed three or more school days. Finally, for San Mateo and Santa Clara Counties we show results for perceived health status and activity limitations for all children ages 1–18.

The results differ by age group. Among the youngest children, 46.5% of parents of new enrollees thought their children were in excellent/very good health as did 50.4% of parents of established enrollees (a difference that was not statistically significant). Differences between the two groups of children ages 6–18 were larger and statistically significant, with 36.0% of new enrollee parents and 42.7% of established enrollee parents reporting their child to be in excellent/very good health.

Table 4 also shows partly parallel findings for reported activity limitations, with no difference between new and established enrollees for this measure for young children (both 3.8%), but significant differences between new (6.3%) and established enrollees (3.8%) for the children ages 6–18. When grouped across all ages for children ages 1–18 in San Mateo County, the differences remain substantial and statistically significant for both perceived health status and activity limitations, showing improvements in health status after enrollment in Healthy Kids.

For older children, the table presents data on missed school days. There was a significant difference between new and established enrollees both for whether the child missed any and whether they missed three or more days in the past month, with significantly fewer established enrollees having missed school.

In order to investigate regression to the mean, Table 4 shows the health status results separately for children whose parents reported enrolling them for a medical reason and those who did not. The significant improvements in perceived health status and activity limitations are concentrated among children whose parents enrolled them for a medical reason. Although there were small improvements for children who were not enrolled for a medical reason for these two measures, these were not statistically significant. Consequently, while we are concerned that regression to the mean may explain some of the improvements in health status for children whose parents enrolled them for a medical reason, the fact that improvements are significant for the entire Healthy Kids population (not just this group) lends credibility to the conclusion that Healthy Kids led to improvements in health status over a short period of time.

In contrast, the results for missed school days are not concentrated only in children enrolled for a medical reason. In particular, significantly fewer parents of children who were not enrolled for a medical reason reported their child missed three or more days of school in the past month. Thus, this finding is the strongest of all the health status results.

Table 4.

IMPACT OF HEALTHY KIDS ON HEALTH STATUS

	Total		Enrolled for a Medical Reason		Did Not Enroll for a Medical Reason	
	New Enrollees	Established Enrollees	New Enrollees	Established Enrollees	New Enrollees	Established Enrollees
Ages 1–5						
Health status is excellent/very good	46.5	50.4	33.1	37.4	56.4	58.2
Has activity limitations	3.6	3.6	8.8	5.8	1.3	2.3
N	891	801	362	315	529	486
Ages 6–18						
Health status is excellent/very good	36.0	42.7*	22.8	34.9**	48.1	49.3
Has activity limitations	6.3	3.8*	8.9	4.4*	4.1	3.2
Missed any school in the past month due to illness	43.2	35.4**	50.2	40.3*	37.2	31.3
Missed 3+ days of school in the past month due to illness	16.0	10.9**	19.7	15.3	12.0	7.2*
N	918	997	438	447	480	550
Ages 1–18						
Health status is excellent/very good	38.3	44.5**	25.6	35.3**	49.1	51.8
Has activity limitations	5.8	3.6*	9.1	4.5**	3.2	2.9
N	1,280	1,277	576	554	704	723

*Significantly different from new enrollees, $p \leq .05$, one-tailed test
**Significantly different from new enrollees, $p \leq .01$, one-tailed test

Discussion

In the populations of low-income children studied in these three California counties, it is clear that providing the children with health insurance greatly improved their access to medical and dental care which, in turn, led to improvements in use of critical health services and reductions in unmet need for services. The consistency of findings across all three counties (even though the surveys were conducted in different years, and the health care environments are different in each county) suggests that the findings are generalizable to other groups of children who have previously been underserved, such as this group of primarily-undocumented children. The effects in these studies on access and use are generally larger than those observed in the national SCHIP evaluation and other studies of health insurance expansions for children. This is possibly because these immigrant uninsured children lacked preventive/primary care, to a greater degree than uninsured children growing up in the U.S., prior to enrolling in health insurance.

We found that the large gains in access and use, along with reduced unmet need, led to improved health status, even in the short period studied (one year) in these counties. The findings for health status effects were not as consistently statistically significant, especially for the youngest children and for children who did not enroll for a medical reason. While the children's health improved substantially according to their parents, they still were much less like to be in excellent/very good health than other children nationally, including Hispanic children, of whom about 70% are in excellent/very good health.[9] With continued access to care, the children's health may continue to improve. These findings are among a small but growing body of research on this important topic.[10,11]

The children in these programs, mostly undocumented, are particularly disadvantaged. The improvements in health status that they experienced may not be as pronounced in citizen children who have previously had better access to care. On the other hand, the public and non-profit health care safety net in these counties is strong, so providing health insurance might lead to even greater improvements for children in communities without such a strong safety net. Thus, these studies should be repeated in other places to confirm the results we observed.

An additional caveat is that, while the methods of these three evaluations are stronger than many previous studies of the impact of new insurance, there was no random assignment to insurance. Consequently it is possible that unmeasured differences between the children enrolling earlier in the program (the "established" group) could be different from children enrolling later in ways that affect outcomes.

With this in mind, while caution is needed, these findings from Children's Health Initiatives in three California counties point to strong improvements in children's well-being over a short period of time after enrolling in new comprehensive health insurance.

Notes

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