

**Utilization in the Los Angeles Healthy Kids Program:
A Preliminary Study of
Health Plan Administrative Data**

Prepared for



Prepared By

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EXECUTIVE SUMMARY

The primary goal of the Healthy Kids program is to expand insurance coverage and by extension, improve access to care for previously uninsured children. First 5 LA contracts with the Urban Institute and its partners to provide feedback to stakeholders on the progress of the Children's Health Initiative in Los Angeles County. The purpose of this study is to analyze service utilization using health plan administrative data and assess the utility of using administrative data for program monitoring.

We present findings on service use by children who enrolled in Healthy Kids in the second year of the program, when data quality was sufficient to support analysis. To help us better understand these data, we compare our measures to similar measures from the San Mateo County Children's Health Initiative (the only other County CHI where similar analytical data were available), and to findings from an LA Healthy Kids Survey funded by the First 5 LA evaluation. The five measures analyzed were the percentage of Healthy Kids enrollees who received at least one (1) preventive care visit, (2) ambulatory visit, (3) emergency department visit, (4) hospital visit, and (5) prescription filled during their first year on the program.

Our findings, in brief, are as follows:

- The completeness of encounter data increased substantially over the first two years of the Healthy Kids program. This achievement likely reflects both provider incentives to submit encounters put in place by the health plan, and increased provider investment in the program as it matures.
- Administrative data from the LA Healthy Kids program suggest lower rates of utilization by children than administrative data from the San Mateo Healthy Kids program across all measures of service use, including ambulatory and emergency care visits. But these findings may be due to fundamental differences in the administrative data sets, rather than actual differences in service use, suggesting that meaningful comparisons between Healthy Kids programs about utilization levels solely using administrative data may be impractical.
- Administrative data from the LA Healthy Kids program suggest lower rates of utilization than parent reports of their children's service use in the LA Healthy Kids program from the LA Healthy Kids Survey.

- The best use of Healthy Kids encounter data is the tracking of utilization over time within the Los Angeles (or other county's) Healthy Kids program, rather than comparisons between programs. Monitoring of a program's performance will need to include ongoing assessment of the completeness of health plan data in order to distinguish true increases in utilization from improvements in data quality.

Results presented here based on the administrative data are consistent with evidence from other data sources from the First 5 LA evaluation—including case study interviews with stakeholders, focus groups of parents of Healthy Kids members and outreach workers, and survey results—that strongly suggest enrollees in Los Angeles are receiving services at higher rates than is evident in administrative data. Some of these services are likely reimbursed by Restricted/Emergency Medi-Cal, and others are likely provided just prior to enrolling in Healthy Kids (through CHDP Gateway), given that health care providers enroll about one-third of children into Healthy Kids each year. As a result, some encounters are not captured in the health plan's data for Healthy Kids.

Because many Healthy Kids programs are still in the early stages of development, data quality are likely to vary substantially across programs. It will be important to develop standards for assessing the completeness of health plan data in order to facilitate comparison of program performance across county initiatives as these programs mature. The assessment we conducted of L.A. Care's encounter data is the first step in that direction.

BACKGROUND

The primary goal of the Los Angeles Healthy Kids program is to expand insurance coverage and, by extension, improve access to care for previously uninsured children in the County. First 5 LA contracts with the Urban Institute and its partners to evaluate the program and provide feedback to stakeholders on the progress of the Children's Health Initiative in Los Angeles County.

To monitor program processes and outcomes, First 5 LA and its partners have sought to develop a measurement system that can provide regular feedback on key program activities, including health care utilization. The purpose of this study was to work in collaboration with LA Care Health Plan to analyze service utilization using health plan administrative data and assess the utility of using these data for program monitoring.

In this report, we present findings on service use by children who enrolled in Healthy Kids in the second year of the program, when data quality was sufficient to support analysis. To help us better interpret and understand the findings, we compare our measures to similar measures from the San Mateo County Children's Health Initiative and to findings from an LA Healthy Kids Survey funded by the First 5 LA evaluation. The San Mateo program was chosen for comparison simply out of convenience because such data were available. Our findings suggest that administrative data from the LA Healthy Kids program captures a lower rate of utilization than the San Mateo program across all measures, including emergency department visits and hospital stays, however, these may be due to fundamental differences in the administrative data sets rather than actual differences in service use. Furthermore, evidence from other components of the evaluation strongly suggests that enrollees in Los Angeles are receiving services at much higher rates, but that some of these services are reimbursed by Restricted/Emergency Medi-Cal and others are provided just prior to enrolling in Healthy Kids, and thus are not captured in the health plan's data for Healthy Kids.

METHODS

We analyzed administrative data submitted by providers to the LA Care Health Plan for Healthy Kids enrollees. Five utilization measures were analyzed, each representing the percentage of children receiving a particular service during their first year enrolled. The five measures are preventive visits, all ambulatory care visits (including preventive care), emergency department visits, hospital stays, and prescriptions filled. Preventive and ambulatory visits reflect services that are capitated and are based on “information only” encounter data submitted by providers to the health plan. The other three measures reflect services that are paid on a fee-for-service basis and are based on claims data.

Measures of service use were based on a cohort of children who were first enrolled in Healthy Kids during the second year of the program, from July 1, 2004 to June 30, 2005, and were enrolled continuously for at least one year. Sample sizes by age group and service planning area are presented in Exhibit 1. Since this 12-month period was determined by the child’s original enrollment date, the actual service dates varied by child, extending from July 1, 2004, through June 30, 2006.

Exhibit 1. Year 2 Cohort Sample Sizes

Age	Service Planning Area (SPA)								
	L.A. County	Antelope Valley	East	Metro	San Fernando Valley	San Gabriel Valley	South	South Bay	West
< 2 yrs	762	7	76	127	179	130	119	114	10
2–5 yrs	3660	60	480	630	759	522	649	490	59
6–18 yrs	27,259	348	3497	5080	5563	4037	4822	3386	481
Total	31,681	415	4053	5837	6501	4689	5590	3990	550

Note: Age defined at time of enrollment. The age group “less than 2 years” includes 222 infants and 540 children between 12 and 24 months old at enrollment.

Source: LA Care Health Plan claims/encounter and enrollment data.

In preliminary analysis, we also examined service use for an earlier cohort of children enrolled in the first year of the program, between July 1, 2003, and June 30, 2004. However, we do not include this cohort in our final analysis because of incomplete encounter data that reflects severe underreporting of service use in the first year of the program.

Until this study, there was no information available on how complete the submission of encounter data has been within the Healthy Kids program. To assess the completeness of the data for LA Healthy Kids, we constructed a submission rate that represents the share of participating primary care physicians in the network with active enrollee membership—and the enrollees assigned to them—who submitted any encounter data to LA Care. We found low submission rates in the first six months of the program—only 16 percent of primary care providers submitted any data, representing physicians who were assigned 31 percent of the enrollee members at the time. High submission rates in the second year—representing providers who were assigned over 90 percent of the membership—suggest that estimates of utilization using the year two cohort reflect the program’s service use more reliably. **(See Appendix for a complete discussion of the analysis of submission rates).**

We developed utilization measures in collaboration with LA Care. The San Mateo CHI also funded a large evaluation of its Healthy Kids program that included surveys of its enrollees and analysis of administrative data provided by the Health Plan of San Mateo, so our analysis took advantage of these available data to construct comparable measures to allow a comparison. Both sets of measures were constructed using three approaches. The first was to require each cohort of new enrollees to be continuously enrolled for one year. The second was in the method of counting encounters. One way that utilization in a program can be overestimated is if each treatment appearing in administrative data is counted as a separate encounter. During a visit to the doctor, a child may receive several services, and each may be coded by the provider as an encounter (e.g. the visit, immunization, and lab work). We unduplicated encounters by counting all

claims or services reported by a single provider for the same service date as one encounter. We did this for each measure, so that if a child visited an emergency room and an outpatient provider on the same day, we would capture each of these visits in its respective measure. Each measure was calculated as the percentage of children in the cohort with no encounters, one, or two encounters or more during their first year enrolled.

The third common approach was in the timing of the data extraction. There is a lag time between when encounters take place and when providers report these encounters. Based on consultation with LA Care staff, data for the study were extracted six months after the end of the study period to allow ample time for submissions to clear. For the San Mateo evaluation analysis using similar data, estimates were recalculated twice, once six months after the study period, and then one year later. Only very minor changes were found.

We provide comparison data from two sources. The first source is data provided by the Health Plan of San Mateo for children newly enrolled in San Mateo Healthy Kids in the 2004 calendar year (also the second year of this county's program).¹ The age distributions of the Healthy Kids cohorts in Los Angeles and San Mateo were very similar. Despite the comparability of enrollees and the measures constructed between these two programs, the programs differ in their reimbursement structure. In San Mateo County almost all providers are paid on a fee-for-service basis in the Healthy Kids program and thus submit claims for services rendered, whereas in Los Angeles, primary care providers and most specialists are capitated. As a result, utilization measures for San Mateo are not subject to the same threat to completeness as measures for the Los Angeles program.

In addition, we compare results to service levels reported in the LA Healthy Kids Survey, which was fielded as part of this evaluation. Parents of new and established enrollees were interviewed in 2005 and again in 2006. We use as a comparison group for

¹ Estimates in published reports did not provide age breakdowns comparable to LA Care data, so estimates were calculated based on unpublished tabulations of visits by age group provided by Health Plan of San Mateo. Utilization analyses from this CHI evaluation is available from Howell, E., and Hughes, D. "A Tale

our study sample the established enrollees, who were enrolled for one year in Healthy Kids before they were interviewed in 2005, and whose parents were asked about service use in the previous six months. This reference period represents services received during their first year enrolled, just as in our study, but provides a shorter reference period than measures based on administrative data.²

RESULTS

Preventive visits

The American Academy of Pediatrics (AAP) recommends that infants receive six preventive visits by their first birthday. One-year-olds should receive two preventive visits in their second year, and older children are recommended to receive one such visit annually. In addition to the general problem of data incompleteness, preventive care is more difficult to measure using encounter data than ambulatory visits because it requires the proper coding of care content by the provider. Thus, percentages reported here likely underestimate the percentage of Healthy Kids enrollees who received preventive care.

Exhibit 2. Percent of LA Healthy Kids Enrollees Receiving Preventive Visits by Age Group and Number of Visits

Number of visits	Percentage of Enrollees with Visits in First Year Enrolled (July 2004 – June 2005)			
	Age <1 yr	1 yr	2–5 yrs	6–18 yrs
0	41.4	47.4	55.9	78.7
1	13.5	29.8	31.1	17.8
2+	45.0	22.8	13.0	3.5
At least 1 visit	58.6	52.6	44.1	21.4
N	222	540	3,360	27,259
<i>Source:</i> LA Care Health Plan claims/encounter and enrollment data.				

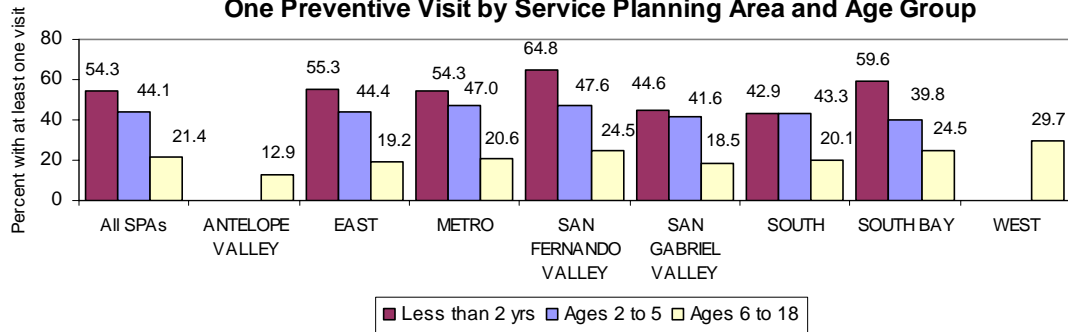
of Two Counties: Expanding Health Insurance Coverage for Children in California, 2006. Milbank Quarterly Vol. 84, no. 3 (pp. 521-554).

² Howell, E., Dubay, L., Kenney, G., Palmer, L., Hill, I., Inkelas, M., and Kovac, M. A Profile of Young Children in the Los Angeles Healthy Kids Program: Who Are They and What Are Their Experiences on the Program? Prepared for First 5 LA, October 2006 (Washington, DC: The Urban Institute).

Encounter data indicate that almost 60 percent of infants enrolled in Healthy Kids in its second year of implementation received at least one preventive visit, while 52.6 percent of one-year-olds received at least one visit (Exhibit 2). A majority of children 2 years or older received no visit. Among children ages 2–5 years, 44.1 percent received a visit, while only 21.4 percent of older children ages 6–18 years received at least one visit. Infants were most likely to receive two or more visits—fully 45.0 percent received two or more visits compared to 22.8 percent of 1-year olds. Older children were more likely to receive one visit than two, but AAP guidelines would not indicate the need for two. Some percentage of children will receive their annual visits roughly twelve months apart but not exactly, leading them to show no visits and others to show two visits in a 12-month period.

Exhibit 3 shows the variability by service planning area (SPA) in the percent of children reported to have preventive visits based on encounter records. We combined data for the two youngest age groups and omit rates for children ages 0–5 in Antelope Valley and West SPAs because of small numbers (<100). For children less than 2 years old, the percent with visits ranged from 42.9 percent in South to 64.8 percent in San Fernando Valley SPA. For ages 2–5 years, they ranged from 39.8 percent in South Bay to 47.6 percent in the San Fernando Valley. Unlike other SPAs where children less than 2 years old showed higher utilization than children ages 2–5, in South these two age groups were comparable. In all SPAs, a far lower percentage of children ages 6–18 received preventive visits, ranging from 18.5 percent in San Gabriel Valley to 24.5 percent in San Fernando Valley and South Bay.

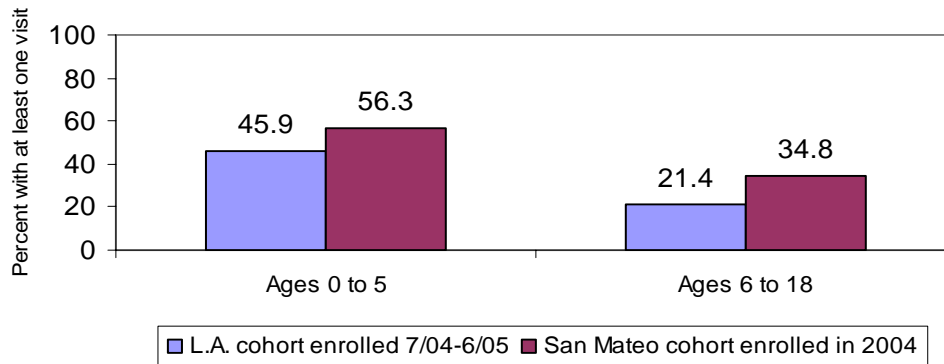
Exhibit 3. Percentage of L.A. Healthy Kids Enrollees Receiving At Least One Preventive Visit by Service Planning Area and Age Group



Source: L.A. Care Health Plan claims/encounter and enrollment data

In Exhibit 4 we compare the Healthy Kids preventive visit measure for Los Angeles to the same measure for a cohort of children newly enrolled in the San Mateo Healthy Kids program during 2004. According to health plan data, a lower percentage of children from Los Angeles County in both age groups received a preventive visit compared to San Mateo County. Among children ages 0–5 years, 45.9 percent of Los Angeles enrollees received a preventive visit compared to 56.3 percent of San Mateo enrollees. Children ages 6–18 in Los Angeles also received fewer visits—21.4 percent of L.A. enrollees received a preventive visit according to reported data compared to 34.8 percent of San Mateo enrollees.

**Exhibit 4. Percentage of Healthy Kids Enrollees
Receiving At Least One Preventive Visit
in Los Angeles and San Mateo Counties**



Source: L.A. Health Plan and Health Plan of San Mateo administrative data.

The LA Healthy Kids Survey data indicate a much higher rate of preventive care use than encounter data. Of parents surveyed, 70.5 percent reported that their child (ages 1–5) had a preventive visit in the six months before responding to the survey, compared to 45.2 percent of children of the same age based on the encounter data and representing a full 12 months of utilization (data not shown). The actual rate of preventive care receipt is likely somewhere in between these two estimates. Parents may over-report adherence to preventive care guidelines, and at least one study has shown substantial misclassification of well-child visits as sick visits in Medicaid administrative data in a comparison to medical records.³

Ambulatory visits

Most young children have periodic acute episodes of illness and some have chronic conditions that require monitoring or treatment in addition to recommended preventive health visits. These same children may receive preventive care during a visit for an acute care episode, but a provider may code the visit only for the acute care received, and documentation of preventive care may not reach the health plan. As a result, the total number of ambulatory visits may be a more valid measure of utilization

³ Schneider, K.M., Wiblin, R.T., Downs, K.S., O'Donnell, B.E. Methods of Evaluating the Provision of Well Child Care. 2001 Joint Commission Journal of Quality Improvement, Vol. 27, pp. 673-682.

among children. The ambulatory visits measure includes all visits to a primary care physician or specialist that the child had in his or her first year of enrollment, including preventive care.

Encounter data indicate that about two-thirds of the youngest children—67.1 percent of infants and 65.6 percent of one-year olds—received at least one ambulatory visit to a primary care provider or specialist during their first year enrolled (Exhibit 5). A somewhat lower percentage of children ages 2–5 (61.2 percent) and a far lower percentage of children ages 6–18 (42.7 percent) received at least one visit. A majority of children ages 6–18 received no visits. Infants were more likely to receive two or more ambulatory visits (59.0 percent) than one year olds (49.6 percent) and children ages 2–5 (41.7 percent), while few children ages 6–18 (23.3 percent) received two or more visits.

Exhibit 5. Percent of LA Healthy Kids Enrollees Receiving Ambulatory Visits by Age Group and Number of Visits

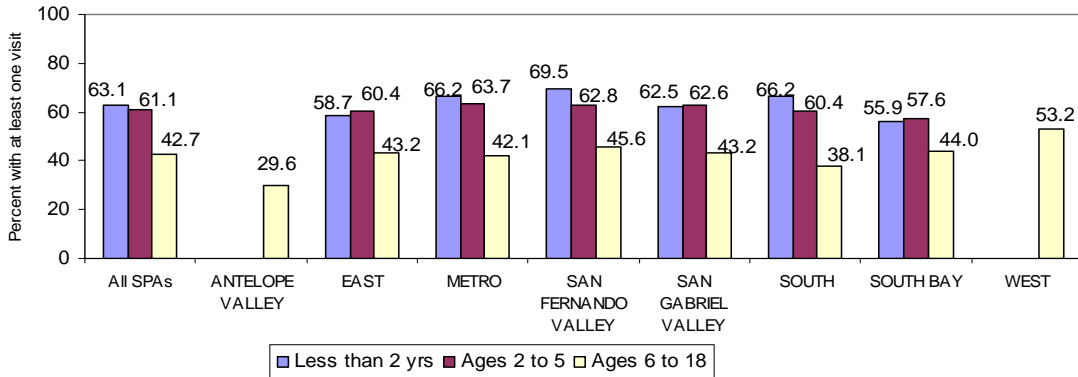
Number of visits	Percentage of Enrollees with Visits in First Year Enrolled (July 2004 – June 2005)			
	Age <1 yr	1 yr	2–5 yrs	6–17
0	32.9	34.4	38.9	57.3
1	8.1	15.9	19.4	19.4
2+	59.0	49.6	41.7	23.3
At least 1 visit	67.1	65.6	61.2	42.7
N	222	540	3,360	27,259

Source: LA Care Health Plan claims/encounter and enrollment data.

In all SPAs, the percentage of children with any ambulatory visit was much more comparable for infants and preschool age children than the percentage with a preventive visit (Exhibit 6). Visit rates for children ages 6–18 years were still far lower than rates for younger children, however. For ages less than 2 years old, the proportion with ambulatory visits ranged from 55.9 percent in South Bay to 69.5 percent in the San Fernando Valley SPA. For ages 2–5, the proportion with visits ranged from 57.6 percent

in South Bay to 63.7 percent in the Metro SPA. For ages 6–18, the proportion with visits was much lower and ranged from 29.6 percent in Antelope Valley to 53.2 percent in West SPA.

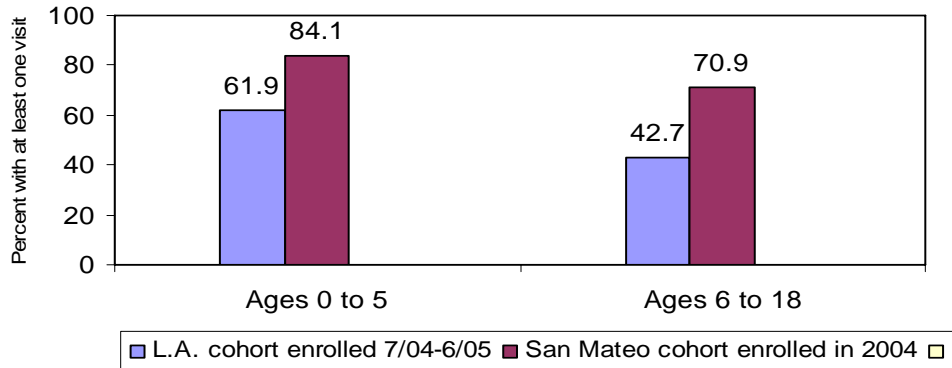
Exhibit 6. Percentage of L.A. Healthy Kids Enrollees with At Least One Ambulatory Visit by Service Planning Area and Age Group



Source: L.A. Care Health Plan claims/encounter and enrollment data.

The same measure of ambulatory visits in San Mateo based on claims data was much higher than the visit rate captured by encounter data in Los Angeles County (Exhibit 7). Among children ages 0–5, 61.9 percent of enrollees in Los Angeles received an ambulatory visit, while San Mateo reported a level that is 20 percentage points higher. The same pattern is present among children ages 6–18.

Exhibit 7. Percentage of Healthy Kids Enrollees Receiving At Least One Ambulatory Visit in Los Angeles and San Mateo Counties



Source: L.A. Health Plan and Health Plan of San Mateo administrative data.

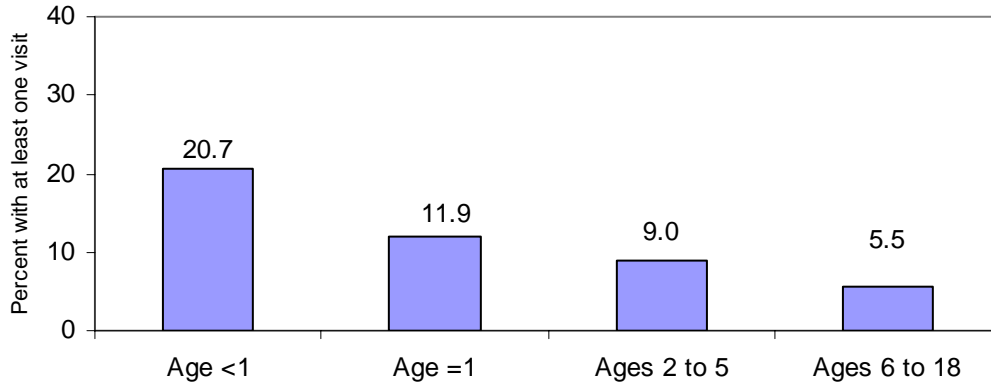
L.A. Healthy Kids Survey data indicate a much higher rate of ambulatory care use than measured through encounter data. Based on the survey, 76.4 percent of parents reported that their child (ages 1–5) had a doctor’s visit in the past six months, compared to 61.7 percent among children (ages 1–5) in 12 months of enrollment based on the encounter data.

Emergency department visits

Parents may take their children to an emergency room for treatment of injuries, high fevers, or other acute symptoms. Use of emergency rooms may also reflect poor access to primary care providers, poor management of certain chronic conditions, such as asthma, or community perceptions about the customary use of emergency rooms for certain medical situations. Our measure of emergency department use does not distinguish avoidable visits related to manageable conditions from those related to unavoidable circumstances.

Administrative data indicate that one-fifth of all infants in Healthy Kids had an emergency room visit in their first year enrolled, while about 10 percent of children ages 1–5 years and only 5.5 percent of children ages 6–18 visited the emergency room (Exhibit 8). These data are based on claims, and so they reflect all emergency room visits reimbursed under Healthy Kids.

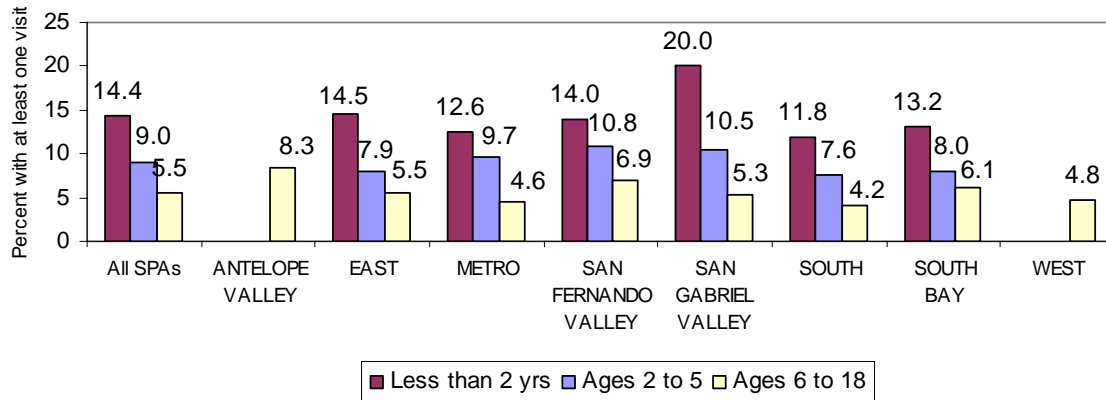
Exhibit 8. Percentage of L.A. Healthy Kids Enrollees with At Least One Emergency Department Visit by Age Group



Source: L.A. Care Health Plan claims/encounters and enrollment data.

Similar patterns of emergency care across age groups are evident across service planning areas (Exhibit 9). Among children less than 2 years old, the rates ranged from 11.8 percent in South to 20.0 percent in San Gabriel Valley, while rates for children ages 6–18 years ranged from 4.2 percent in South to 8.3 percent in Antelope Valley. Some rates stand out as uncommon. In San Gabriel Valley, the percentage of children under 2 years old with visits was considerably higher than in other areas (20.0 percent), but was more comparable for other age groups. In the East and San Gabriel Valley, the percentage of children under 2 years old with an emergency visit was twice as high as that of preschoolers.

Exhibit 9. Percentage of L.A. Healthy Kids Enrollees with At Least One Emergency Department Visit by Service Planning Area and Age Group

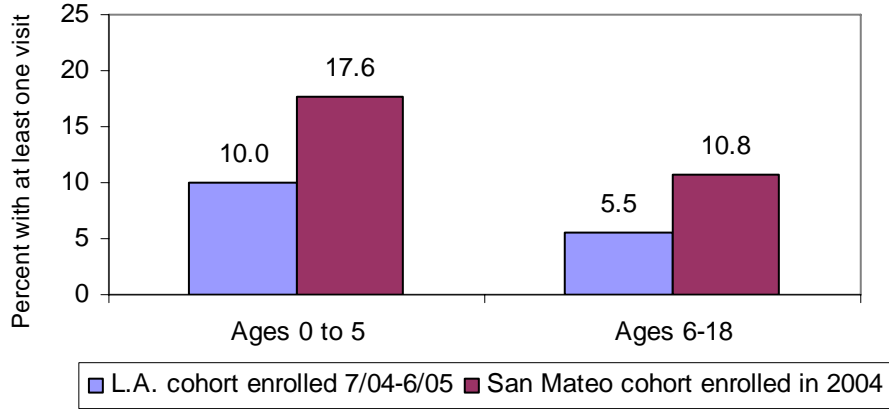


Source: L.A. Care Health Plan claims/encounter and enrollment data.

Compared to Healthy Kids enrollees in San Mateo, enrollees in Los Angeles had lower rates of emergency department use, according to health plan data (Exhibit 10). In both age groups the rate in Los Angeles is about 5 percentage points lower. And once again, the survey data indicate a rate of emergency department use more than twice as high as indicated by encounter data. Among children ages 1–5 years, encounter data indicate that 9.4 percent had an emergency room visit in their first year enrolled in Healthy Kids. By comparison, 22.5 percent of enrollees surveyed in 2005 who had been enrolled for one year reported visiting the emergency room at least once in the past six months. Comparable data are not available for infants due to small sample in the survey. LA Care also reports emergency department visits in the past year for children ages 0–5 and continuously enrolled in 2005 through HEDIS[[please spell this out the first time, if it’s an acronym.]] measure.⁴ The HEDIS rate of 10.9 percent is comparable to the rate of 10.0 percent calculated using our year two cohort ages 0–5. Both the HEDIS measure and our measure are based on claims data and very similar though not identical enrollee cohorts, so comparable levels would be expected.

⁴ Feifer, C., Arpawong, T.E., Stevens, G.D., Cousineau, M.R. Outcomes from Children’s Health Initiatives in California. Prepared for First 5 California and The California Endowment. Feb. 2007 (Los Angeles: Center for Community Health Studies, University of Southern California).

Exhibit 10. Percentage of Healthy Kids Enrollees Receiving At Least One Emergency Department Visit in Los Angeles and San Mateo Counties

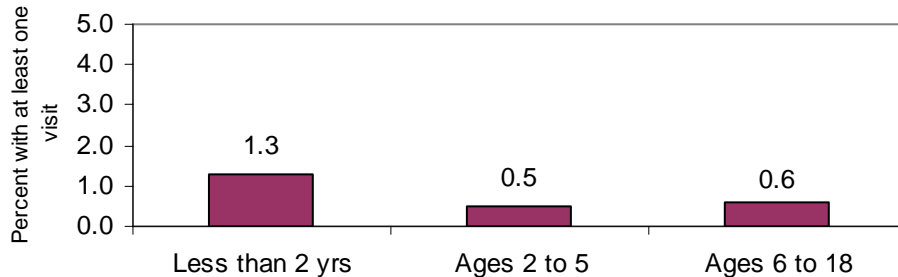


Source: L.A. Health Plan and Health Plan of San Mateo administrative data.

Hospital visits

Few children require hospitalization, but these children can account for a large share of expenditures in any public insurance program. Claims data indicate that, in the first year enrolled in Healthy Kids, only 1.3 percent of children less than 2 years old had a hospital stay, while less than 1 percent of children ages 2 and older had a hospital visit (Exhibit 11).

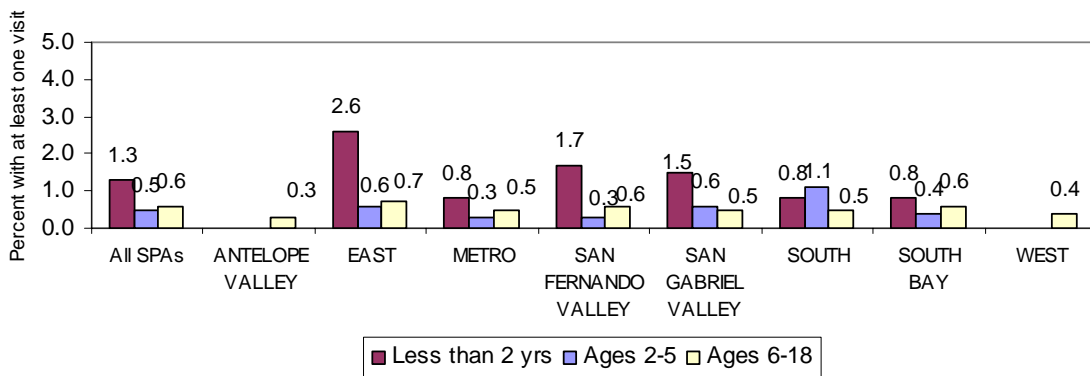
Exhibit 11. Percentage of L.A. Healthy Kids Enrollees with At Least One Hospital Visit by Age Group



Source: L.A. Care Health Plan claims/encounters and enrollment data.

The comparatively higher hospitalization rate among the youngest children was evident across all service planning areas except South SPA (Exhibit 12). The rate was highest in the East among children less than 2 years old. Hospital stays are a rare event, and rates calculated for each SPA, where enrollment in some cases is in the hundreds, may be subject to variability over time due to random events.

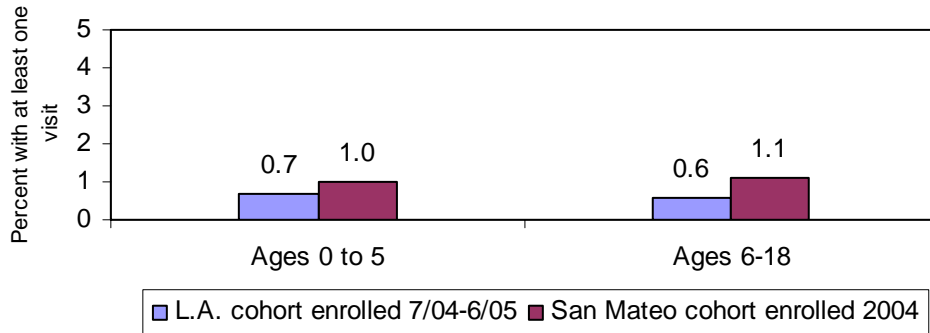
Exhibit 12. Percent of L.A. Healthy Kids Enrollees with At Least One Hospital Visit by Service Planning Area and Age Group



Source: L.A. Care Health Plan claims/encounters and enrollment data.

Hospitalization rates were slightly lower in Los Angeles than in San Mateo for Healthy Kids enrollees (Exhibit 13). Encounter data also indicate lower rates of hospitalization in Los Angeles than were reported in the survey, where parents of 3.3 percent of enrollees reported hospitalization in the past six months.

Exhibit 13. Percentage of Healthy Kids Enrollees with At Least One Hospital Visit in Los Angeles and San Mateo Counties



Source: L.A. Health Plan and Health Plan of San Mateo administrative data.

Prescription drugs

LA Healthy Kids administrative data indicate that almost half of infants were prescribed a medication in their first year enrolled, while 38.1 percent of children ages 1–5 and 24.3 percent of children ages 6–18 were prescribed a medication (Exhibit 14). The classes of prescription drugs most often prescribed to children based on national data include respiratory agents (such as anti-asthmatics), psychotherapeutic agents (primarily anti-depressants), and anti-infectives (anti-bacterial agents).⁵

These data represent prescriptions filled at pharmacies. A greater number of children could have received a paper prescription from their provider if some parents did not fill the prescription, and some children may receive free prescription samples from their providers. No comparative data on prescription drug use are available from the LA Healthy Kids Survey. However, only parents of 3.3 percent of the children in the survey reported that their children needed prescription drugs but had not filled them in the past six months.

⁵ Estimates based on children living in the community not covered by Medicare. Stagnitti, MN. Outpatient prescription drug expenses in the U.S. community population, 2003. Rockville (MD): Agency for

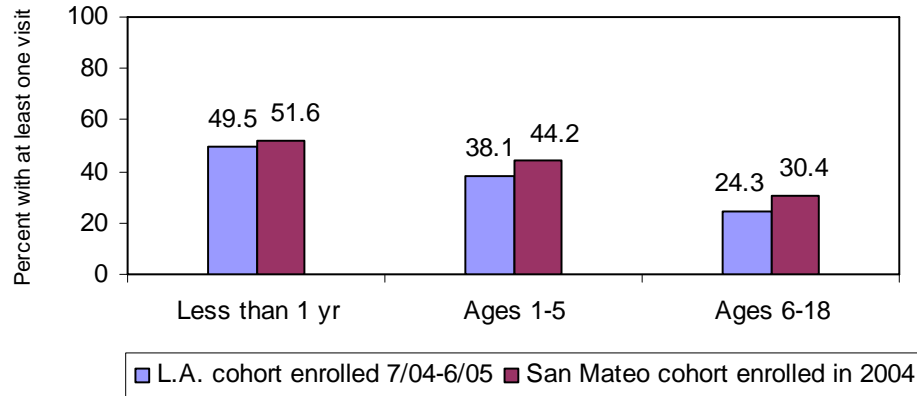
Exhibit 14. Percentage of LA Healthy Kids Enrollees with Prescriptions Filled by Age Group and Number of Prescriptions

Number of prescriptions	Percentage of Enrollees with Visits in First Year Enrolled (July 2004 – June 2005)			
	Age <1 yr	1 yr	2–5 yrs	6–18
0	50.5	61.9	61.9	75.7
1	12.2	9.8	11.8	9.1
2+	37.4	28.3	26.4	15.3
At least 1 Rx	49.5	38.1	38.1	24.3
N	222	540	3,360	27,259

Source: LA Care Health Plan claims/encounter and enrollment data.

Exhibit 15 compares prescription use in Los Angeles and San Mateo Counties. In both Healthy Kids programs, parents are asked to pay a \$5 copay for each prescription. Although prescription rates in San Mateo County are higher, the difference is only 2 to 6 percentage points, depending on the age group, and in this case measures are both based on claims data. These differences are much narrower than found in the comparisons of ambulatory care visits, for which San Mateo showed rates 20 to 30 percentage points higher, and which are based on different types of data (encounter versus claims). To the extent that prescription levels reflect other types of utilization, this suggests that utilization of all types of services in LA Healthy Kids may be higher (and thus more comparable to San Mateo) than is suggested by ambulatory visit encounter data.

Exhibit 15. Percentage of Healthy Kids Enrollees with At Least One Prescription Filled in Los Angeles and San Mateo Counties



Source: L.A. Health Plan and Health Plan of San Mateo administrative data.

Summary and Implications

This analysis provides a preliminary study of utilization in the Los Angeles Healthy Kids program using administrative data. Comparison of these data to data from two other sources suggest that LA Care administrative data do not fully capture utilization by Healthy Kids enrollees. All five measures constructed from administrative data—reflecting both preventive and acute care—show lower rates of service use than a similarly defined cohort of Healthy Kids enrollees in San Mateo County. A study of HEDIS measures—based on both medical records audit and encounter data—also found lower rates of utilization for well-child visits, primary care visits, and emergency department visits for Healthy Kids enrollees in Los Angeles County as compared to most other CHI counties reporting data and using comparable methods.⁶

Survey reports from parents of these enrollees suggest a far more encouraging picture. Parents surveyed under this evaluation reported levels of service use for their children that are far higher across preventive, ambulatory, emergency, and hospital visit measures than encounter data reveal. While our findings appear to be contradictory, a

closer look at the coverage and outreach landscape in which the Los Angeles Healthy Kids program operates provides strong evidence that administrative data do not reflect the full scope of services that enrollees actually receive. Some factors may be unique to Los Angeles County, while others may contribute to underreporting of service use in Healthy Kids programs more generally.

One factor that likely contributes to an underreporting of actual service levels in LA Healthy Kids is the unusually high rate of concurrent coverage by Restricted/Emergency Medi-Cal and Healthy Kids in Los Angeles County. Fully 60 percent of new enrollees surveyed in 2006 were reported to have Emergency Medi-Cal just prior to enrolling in Healthy Kids, and 39.2 percent were reported to have Emergency Medi-Cal *since* enrolling in Healthy Kids.⁷ The higher percentage of enrollees with Emergency Medi-Cal just prior to enrolling may be a more accurate reflection of concurrent coverage rates during the first year of enrollment because Emergency Medi-Cal is guaranteed for 12 months. In contrast, only 22.4 percent of children in San Mateo reported such coverage prior to enrolling.⁸

The high prevalence of concurrent coverage by Healthy Kids and Restricted/Emergency Med-Cal has implications for monitoring utilization in Healthy Kids. For children concurrently covered, some services received while enrolled in Healthy Kids were likely billed to Emergency Medi-Cal. One way this could happen is if parents simply use their child's Emergency Medi-Cal card instead of their Healthy Kids card. About 10 percent of all parents of new enrollees surveyed in 2006—after one year on the program—reported having used their child's Emergency Medi-Cal card while the child was enrolled in Healthy Kids.⁹ Another way is related to provider billing practices. Focus group participants reported that they often showed both of these insurance cards to a provider, who then chose which one to bill.¹⁰ A preference by providers to bill Medi-

⁶ Feifer, C., et al., 2007.

⁷ Unpublished tabulations of LA Healthy Kids survey data from the second wave fielded in 2006.

⁸ Howell, E., Hughes, D., Kenney, G., Sullivan, J., Rubenstein, J. Evaluation of the San Mateo County Children's Health Initiative: Second Annual Report. August 2005 (Washington, DC: The Urban Institute).

⁹ Unpublished tabulations of LA Healthy Kids survey data from the second wave fielded in 2006.

¹⁰ Hill, I., Barreto, P., Wada, E., Castillo, E. What Do Parents Say About the Los Angeles Healthy Kids Program: Findings from the First Evaluation Focus Groups. March 2006 (Washington, DC: The Urban Institute).

Cal could apply to outpatient services for acute care, not just emergency room care, because coverage of “emergencies” through Emergency Medi-Cal often is interpreted broadly by providers to include a wide range of urgent care services, such as third trimester prenatal care and specialty care.¹¹

Specific outreach strategies implemented by the LA CHI could support concurrent coverage. Outreach workers across organizations in the County reported jointly submitting applications to Restricted/Emergency Medi-Cal and Healthy Kids for uninsured children so that a child could receive limited coverage while the Healthy Kids application was processed.¹² In addition, in 2005 and again in 2007, the CHI sent Healthy Kids application packets to parents of all Emergency Medi-Cal enrollees ages 0–5 years, who were likely eligible for Healthy Kids. The enclosed letter assures parents that application to Healthy Kids will not affect their Emergency Medi-Cal coverage.¹³ These practices may give parents the impression that Healthy Kids does not cover emergencies, or that the two insurance programs work in tandem and they should continue to use their Emergency Medi-Cal card. We do not know the extent to which other county initiatives practice similar outreach strategies and what effect they are having statewide on Healthy Kids programs, so this is worth further inquiry.

Similarly, the much lower preventive care rates could be the result of billing practices for the Child Health and Disability Program (CHDP). This statewide program reimburses providers with state funds for comprehensive periodic preventive health assessments conducted for uninsured children. While we have no direct evidence that this is occurring, providers could bill CHDP instead of Healthy Kids. A related process could trigger enrollment into Healthy Kids just after a preventive visit. That visit could be billed through the presumptive eligibility pathway to Medi-Cal, CHDP Gateway, which pays for preventive services while an application to Medi-Cal (and concurrently Healthy Kids) is pending. This initial encounter just prior to enrollment reduces the demand for

¹¹ Based on interviews conducted with key stakeholders in Los Angeles County.

¹² Hill, I., Courtot, B., Wada, E. A Healthy Start for the Los Angeles Healthy Kids Program: Findings from the First Evaluation Case Study. December 2005. Prepared for First 5 LA (Washington, DC: The Urban Institute).

¹³ Personal email correspondence to Ian Hill from Suzanne Bostwick, Children’s Health Outreach Initiative, April 23, 2007.

preventive care in the first year enrolled. In L.A. County, health care providers enroll approximately one-third of children into Healthy Kids each year.¹⁴

Despite plausible explanations for the low preventive rates found in this study, these rates still seem relatively low given that all children should receive at least one preventive care visit each year. Other studies have documented deficits in the frequency and quality of preventive care services nationally for low-income children, as well as a dearth of research and data on the topic, so the experience of LA Healthy Kids is not unusual.¹⁵ Thus, further monitoring of children's access to preventive care and the quality of care content is needed. In general, more research is needed to understand how the complex web of coverage and outreach initiatives in Los Angeles County—and statewide—is affecting capacity to monitor service use within each program.

One way to investigate the impact of CHDP and Restricted/Emergency Medi-Cal billing practices on the services captured by administrative data would be to conduct a follow-up study that examines utilization among the same children during their second year of enrollment. As children stay enrolled in Healthy Kids and their Emergency Medi-Cal coverage expires, we would expect more parents to seek emergency care that is reimbursed by Healthy Kids and a coincident increase in emergency services captured by administrative data. In a similar fashion, fewer providers may be inclined to seek reimbursement for preventive care through CHDP once their patients are established Healthy Kids enrollees.

One implication of these findings is that it may be impractical to use administrative data as a source for benchmarking against other publicly insured populations due to differences in coverage patterns, billing practices, capitation arrangements, and quality of information systems. However, health plan administrative databases still can provide a more affordable and timely resource to support program monitoring than other methods

¹⁴ Source: Mcfeeters, J., Sommers, A., Hill, I., Wada, E., Inkelas, M. Los Angeles Healthy Kids Evaluation: Recent Findings on Outreach and Enrollment. May 2007. Prepared for First 5 LA and The California Endowment (Washington, DC: The Urban Institute).

¹⁵ Chung, P.J., Lee, T.C., Morrison, J.L., Schuster, M.A. Preventive Care for children in the United States: Quality and Barriers. *Annual Review of Public Health*. 2006, Vol. 27, pp. 491-515. See also Perry, C.D., Kenney, G.M. Preventive Care for Children in Low-Income Families: How Well Do Medicaid and SCHIP Do? *Pediatrics*, 2007 forthcoming.

of assessing service use, such as enrollee surveys and medical records audits. As long as submission of encounter data remains fairly complete, data can be used to assess trends in utilization within a program. While we were unable to analyze trends in this initial report due to the low submission rates in the first year of the program, such an analysis could be conducted using new data from later periods. Administrative data could also be used for in-depth analysis of service use, such as assessing appropriate management of asthma, or to profile heavy service users.

Our second finding is related to the variability in the utilization of services by service planning area. San Fernando Valley reported the highest rate of preventive visits for children ages 0–5 years and the highest rates of ambulatory visits for all age groups. The lowest rates of preventive and ambulatory visits were reported for South Bay (ages 0–5) and Antelope Valley (ages 6–18). No single SPA stood out as having relatively high rates of emergency department, although San Gabriel Valley’s rate of 20.0 percent for ages 0–5 warrants further inquiry. Such differences could result from provider practice and supply, or community beliefs about when it is appropriate to use emergency rooms. Identifying service areas in most need of improvement is the first step to targeting interventions, but additional research would need to uncover the underlying causes of underutilization before interventions can be designed.¹⁶

Finally, analysis of the submission rates for encounter data revealed substantial increases in the completeness of encounter data over the first two years of the program. This achievement is a significant breakthrough for quality improvement practice at the health plan and provider levels and could be attributable to several factors. Health plan intervention may have influenced rates directly. To improve the completeness of encounter submissions, LA Care has established incentives through provider contracts as well as quality improvement programs.¹⁷ In addition, low submission rates at the program’s outset could reflect a lack of provider incentive to submit encounters due to the small number of enrollees assigned to each one. As enrollment increased sharply, providers may have become more invested in the program. In any case, achieving high

¹⁶ We did not assess variability in the submission rates for encounter data, which could also play a role.

rates of encounter submissions is a critical step toward building the information systems necessary to monitor and improve program utilization.

¹⁷ Personal email communication with Sharon Lee-Chi and Eleanor Young, LA Care Health Plan, May 2, 2007.

Appendix: Analysis of Submission Rates

Of the five measures analyzed, two—preventive visits and ambulatory visits—are based on encounter data, while the others are based primarily or exclusively on claims data. Emergency room and hospital inpatient stays are billed fee-for-service and result in individual claims for service. Prescriptions are also based on a pharmacy claims detail record submitted by the pharmacy benefit manager (PBM) contracting with LA Care. Pharmacies submit claims to the PBM, which authorizes payment and bills LA Care for the claim. Data on laboratory services are a mix of encounter data submitted by physician offices and claims submitted from Quest labs. The measures based on claims data should fairly represent utilization in the Healthy Kids program, but visits to providers are based on encounter data and are subject to the quality and completeness of these submissions by participating providers.

A primary concern when using encounter data is incomplete data. Underreporting in administrative databases often results when physicians do not rely on claims submissions to obtain reimbursement. Analysis of underlying submission rates is important when analyzing utilization encounter data, because an increase in service levels could be the result of changes in submission rates.

LA Care uses capitation agreements with almost all primary care physicians and most specialists, so these providers do not submit claims for their services. Instead, participating physician groups are required to submit encounter data for their participating physicians within 90 days of the end of the month in which the service occurred.

We assessed submission rates in LA Healthy Kids using two methods. The first calculates the rate as the percentage of primary care providers in the network who submitted any claim or encounter during the period. We restricted providers to those who had a Healthy Kids enrollee assigned to them during the period, since some providers did not have a child assigned to them. Some providers may be less likely to submit data because they have very few children assigned to them, so we also created a second rate

that represents the share of enrollee caseload that is associated with these provider submissions. The second rate is calculated as the percentage of children assigned to providers with any claim/encounter as a share of the total enrollee membership (all ages, ever-enrolled) for the period.

Submission rates were low in the first six months of the program (Period 1 in Appendix Exhibit 1). Only 16 percent of primary care providers submitted any data, representing 31 percent of the enrollee members at the time. Rates rose substantially in later periods and in Period 4, 66 percent of providers submitted data, representing fully 95 percent of the membership. The remaining 5 percent of membership is distributed among a large number of providers, who may have little incentive to submit data and for whom Healthy Kids enrollees likely represent only a small fraction of their panel. The high submission rates in both Periods 3 and 4, the second year of the program, suggest that utilization beginning in the second year of the program likely reflects levels of service utilization in the program fairly reliably. The analysis presented in the results section of this report is based on utilization of the year two enrollee cohort. Their utilization period begins with Period 3 in Exhibit 1, and depending on their enrollment date, extends twelve months after Period 4. We expect that the quality of the data was good or better in later periods.

We only consider whether the provider submitted any encounter data for any child. Therefore, our calculation is based on the assumption that if a provider submitted any encounter, then they submitted all encounters for their Healthy Kids panel. In fact, encounter data may be incomplete if provider groups submit encounter data sporadically or individual providers do not provide adequate coding for services.

Appendix Exhibit 1. Submission Rate of Encounter/Claims Data to LA Care Health Plan for the Healthy Kids Program

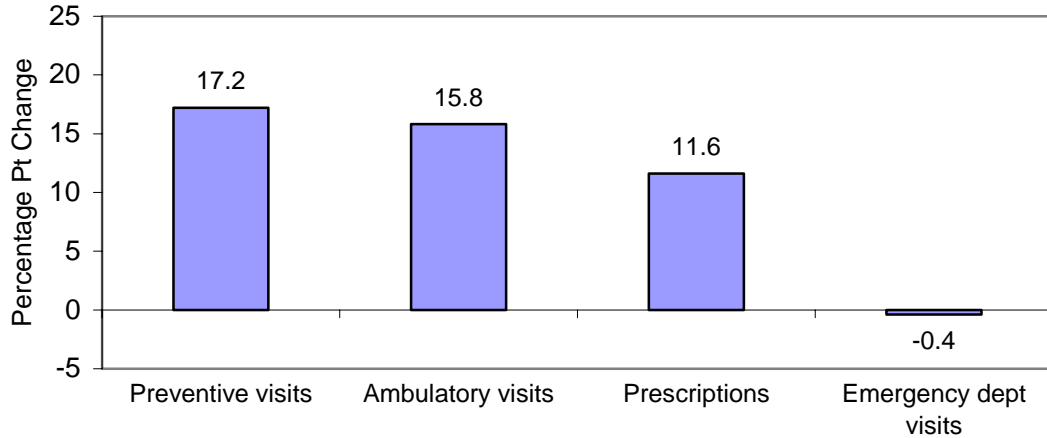
Six-month period	Period	Submission Rate	
		As a share of providers	As a share of membership
07/03 – 12/03	Period 1	16.1	31.4
01/04 - 06/04	Period 2	43.9	76.9
07/04 – 12/04	Period 3	59.2	91.2
01/05 – 06/05	Period 4	66.1	94.5

Source: Calculations using enrollment and claims/encounter files by Anna Kolodziej, Division of Health Outcomes and Analysis, LA Care Health Plan.

In preliminary analysis we also examined service use for an earlier cohort of children enrolled during the first year of the program, between July 1, 2003, and June 30, 2004. The sample for this cohort included 450 children ages less than two years old and 2,184 children ages 2–5 years. (Children ages 6–18 were not eligible for the program until May 2004 and so were not included in the year one cohort.) In Appendix Exhibit 2, we compare the percentage point change in utilization estimates between the first and second year cohorts (ages 0 to 5) for four measures. There is a substantial increase in utilization shown for preventive and ambulatory care visits, lesser but significant increases in prescriptions filled, and a small decrease in emergency room visits. Preventive visits are most affected by the adequacy of documentation, because a provider must register the content of the visit as well as the encounter itself. Ambulatory visits reflect any outpatient visit encounter but do not require documentation of content of care. Prescriptions and emergency department visits are paid on a fee-for-service basis and therefore documentation is expected to reflect actual utilization of these services.

The increase in prescriptions, as a proxy measure for access to other services, suggests that actual utilization in the program increased by some measure. But the large increases in utilization for preventive and ambulatory visits may also be driven by the increasing completeness of encounter data submissions and improvements in documentation by providers about the content of care. These improvements are also

Appendix Exhibit 2. Change in Utilization from Year 1 to Year 2 L.A. Healthy Kids Cohorts based on Encounter/Claims Data



Source: L.A. Care Health Plan claims/encounter and enrollment data.

important because they reflect higher quality information systems that can support further quality monitoring.

The dramatic change in submission rates between year one and year two complicates our ability to evaluate changes in service use observed between the first and second years of the program. As a result, we did not examine time trends in utilization based on year one comparisons, and instead report on utilization levels based on year two cohort data. Future measures of utilization are likely to be more comparable over time since submissions have achieved a relatively high threshold of completeness.