Where Have All the Children Gone? Studying Retention in Child Public Health Insurance Programs in San Mateo County, California

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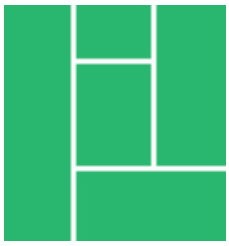

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CHAPTER 1: BACKGROUND

The San Mateo Children's Health Initiative (CHI)[1] and other local coverage expansion initiatives in California have a goal of assuring that all low income children have health insurance. To accomplish this, they use outreach and enrollment assistance to identify uninsured children and enroll them in existing programs, Medi-Cal (California's Medicaid program) or Healthy Families (California's SCHIP program). For children not entitled to those programs (undocumented children and some higher income children) many counties have developed a new insurance program ("Healthy Kids").

The Retention Problem

Low retention in health insurance programs hampers such efforts to increase insurance coverage for children. For example, data from the 1996-1997 Survey of Income and Program Participation showed that only 59.7 percent of Medicaid children nationally retained coverage for a full year (Ku and Ross 2002). A more recent study in 10 states (including California) in 2002 also found a 60 percent one year retention rate for SCHIP children in a year with a substantial drop off to about 50 percent at 15 months (Wooldridge et al. 2005). One study of retention in Alabama, Colorado, Michigan, and North Carolina found that only 26 to 48 percent of children re-enrolled at the time of renewal (Hill and Lutzky 2003), and another study of SCHIP retention for two years in four other states (Florida, Kansas, New York, and Oregon) found that only from 16 to 58 percent of children remained enrolled for two full years (Dick et al. 2002).

[1] For more information on the San Mateo CHI see the three annual evaluation reports (Howell, et al. 2004; Howell, et al. 2005; Howell et al. 2006) are all available on the Urban Institute web site (www.urban.org).

Some of the drop-off in coverage is explained by shifts between Medicaid and SCHIP or acquisition of private insurance. However, 10 to 15 percent of publicly insured children who lost coverage became uninsured between 2001 and 2004 (Sommers 2005).

There are unfortunate consequences to these low retention rates. Children losing coverage may miss the opportunity to receive needed health care (Olson et al. 2005), and enrollment systems may use unnecessary resources to re-enroll children who drop off and return to the program.

Research has shown that states that have separate SCHIP programs (such as California) have lower program retention (Sommers 2005), since the programs (Medicaid and SCHIP) are separately managed and parents who loose coverage in one program must re-enroll their child in the other program. Not surprisingly, adding a third program—Healthy Kids—as many counties have now done adds additional administrative complexity.

Premiums can create a financial barrier to renewal of coverage. Premiums are not required for Medi-Cal, but they are required for Healthy Families and Healthy Kids. While premiums are modest for children below 250 percent of the federal poverty level (from $4 to $6 per month depending on family income), they are more substantial in the Healthy Kids program for higher income children (up to $20 per month per child). Research is unclear about the impact of premiums on renewal. In a study in Florida in which parents whose children did not renew were asked about the size of the premium, fully 86.4 percent said the premium was “about right” (Herndon and Shenkman 2005).

Improving Retention Rates

Recognizing the problem of discontinuous enrollment in public health insurance, programs have made efforts to improve retention. In California all three public programs (Medi-Cal, Healthy Families, and Healthy Kids) guarantee 12 months of continuous health insurance coverage for children. This provision means that, as long as premiums are paid (when they are owed), parents do not have to file any paperwork during the year for their child to continue to be enrolled.

Many states have simplified the renewal process, including, for example, the California Healthy Families program. The Healthy Families renewal form, "pre-populated" with the family information from the enrollment application, is sent out approximately 70 days prior to the end of the 12 months enrollment period. Families are asked to make any changes and send the form back with proof of income and California residency. The Healthy Kids renewal process in San Mateo County mirrors the Healthy Families process. In contrast, the Medi-Cal renewal process is more difficult, requiring a complete application that resembles an initial application for the program.

To address the possible barrier to renewal that premiums cause, San Mateo County and some other counties, have hardship funds for parents who indicate that they cannot afford the Healthy Kids premium. However, the hardship fund has only recently been used heavily, due to increased efforts to advertise its availability.

A final important, but expensive, effort to improve retention has been to contact parents when it is time to renew their child's coverage. Such programs face many difficulties tracking and reaching mobile young families. For this and other reasons, one study of Medicaid and

SCHIP programs found that most states do not make such intensive outreach efforts at the time of renewal (Thompson 2003). In 2005, San Mateo County began new efforts to improve retention, such as increased contact with families at the time of renewal.

Purpose of This Study

The San Mateo CHI has identified low program retention as a potential problem impeding its efforts to achieve its goal of universal coverage for all low income children (below 400 percent of the federal poverty level) in the county. A significant barrier to monitoring and improving retention has been the lack of timely and consistent information on the scope of the problem. Consequently, the California HealthCare Foundation awarded a grant to the Urban Institute to develop new measures of retention and to analyze data on retention for the three public health insurance programs for children in San Mateo County. The purpose of the project is to develop a monitoring system for retention in all three public programs, with a particular emphasis on the Healthy Kids program, which is the program that the county sponsors and manages directly.

San Mateo County serves as an excellent case study for developing new methods of measuring retention, because of the presence of potentially useful data accessible at the county level. Since most counties have access to similar data sources, a realistic monitoring system that is developed for San Mateo County may also be useful to other counties with local coverage initiatives that choose to monitor their retention efforts. In addition, developing comparable cross-county measures could allow counties to compare retention results and share approaches to improving retention. Consequently, while the primary purpose of this study is to monitor

retention in San Mateo County, a second goal is to develop a model for monitoring retention that could be adopted by other counties with similar program and data sets.

CHAPTER 2: METHODOLOGY

Data Sources

The data in this report come from two sources, administrative data maintained by the Health Plan of San Mateo (HPSM), which provides managed care to children in all three public programs,[2] and data maintained by the Human Services Agency of San Mateo County as part of the One-e-App enrollment database. Each of these is described in turn below.

As part of administering health plan enrollment and claims payment to providers, the HPSM collects and stores data about each enrolled child. From these data, HPSM programmers create research files that provide a record of each child's enrollment history (that is, whether the child was enrolled or not in a given month), as well as the child's characteristics.

One-e-App is the on-line application and eligibility management system that was developed in California, with funding from the California HealthCare Foundation, to help overcome the difficulties caused by the multiple health insurance (and other benefit) programs to which families apply. The first use of the One-e-App was in San Mateo County for children's health insurance programs (beginning in November 2003), although it is now used in nine counties and for additional programs (www.oneeapp.org). Currently the One-e-App system is overseen by a non-profit organization, the Center to Promote Health Care Access. This organization provides the basic software to counties, and some technical assistance in implementing the system.

The main purpose of the One-e-App is to allow application assistors to enter data for a family on-line, to determine which program(s) family members qualify for, and to transmit their application to the appropriate entity. For example in the case of children's health insurance,

[2] The HPSM enrolls all Medi-Cal and Healthy Kids children who reside in the county. It enrolls some (about one-third) of Healthy Families children.

depending on the child's age, family income, and documentation status the application might go to Medi-Cal, Healthy Families, or Healthy Kids. In addition to providing a tool for simplifying enrollment, the One-e-App also is designed to provide management information. For example, one promising characteristic of the One-e-App data is that the system contains fields that identify where the program applications are completed and who completes them. Having a system that monitors retention by place of initial enrollment will provide good program management information on which sites are doing the best job of following and contacting parents, in order to assist them with renewal.

Since One-e-App is relatively new and still evolving, and since its primary initial purpose has been to simplify the application process, there has been little use to date of data from the system for monitoring retention rates or for other program management or research. This grant provides an opportunity to begin using One-e-App to monitor and improve retention in children's health insurance programs.

Because the HPSM data are for all three programs, these are used more often in the report. However, we present the One-e-App data for two unique purposes. The One-e-App allows the application assistor to document the location where the child was initially enrolled and the reason for disenrollment, which are two important factors in beginning to understand how to address retention problems.

Study Period

The HPSM began enrolling children in the new Healthy Kids program in February 2003. Consequently, the study period for the analyses presented in the report begins on this date and

goes through mid-2006. Having a long study period allows for a study of trends in retention over time.

Study Cohorts

Each child who enrolled in one of the three public insurance programs administered by the Health Plan of San Mateo during the period February 2003 through December 2004 was assigned to a "cohort" with all other children who enrolled in the same month. The children were tracked for the period February 2003 through June 2006. Thus, for children who enrolled any time during 2003, it was possible to track their enrollment for 30 months, while for children who enrolled later it was possible to track them for a shorter period of time. Much of the analysis concentrates on those children who enrolled in the first year of the Healthy Kids program (2003), but other analyses compare retention trends over time for all children enrolled at any time in 2003 or 2004.

The data in the One-e-App system are organized in a manner that makes it challenging to identify study cohorts and use them to monitor retention. Since the database is an on-line transaction system, all records on a single child must be extracted into an analytical file, as is true of the data from the HPSM. Through this process it was possible to create enrollment cohorts similar to those constructed from the HPSM data, since the One-e-App also has a record of when each child enrolled and disenrolled. The number of children included and the monthly retention trends were similar in the two data systems, although the HPSM data show a higher retention rate (4.5 percent higher on average) and more discontinuous enrollment in the first year.[3]

[3] More detail on differences between the two systems can be found in Appendix A.

Definition of Retention

Three measures of retention are examined: (1) retention at 13 months (the one year retention rate most commonly used in other studies); (2) retention at 15 months (less commonly used, but the major measure used in this report because of a large drop in retention between 13 and 15 months for Healthy Kids and Healthy Families); and (3) retention at 30 months (which reflects long-term attachment to a particular insurance program). At times we distinguish between children who were retained, and who had been continuously enrolled the entire time period, from those who left the program at any point, even for one month, but who re-enrolled by 15 months. The latter group is called "churners." For those who left the program, we distinguish in the analysis between those who left during their first year of enrollment (before the one-year re-enrollment date) and those who left around the time of renewal.

Analysis

Univariate and multivariate analyses are used to identify the characteristics of children associated with higher or lower levels of retention. In addition to demographic characteristics, we also examine the place of initial application. Health plan data are used for some analyses (when examining all three programs). One-e-App data (only for the Healthy Kids program) are used in other analyses, when examining place of initial enrollment and reason for leaving Healthy Kids.

Limitations

In the process of conducting this exploratory study, we identified several important data limitations that should be taken into consideration. In some cases these problems can be

remedied in future monitoring efforts. In other cases the problems are inherent in the administrative structure of the programs. They include the following:

- Children cannot be followed when they leave public health insurance, or when they leave the Health Plan of San Mateo to enroll in another Healthy Families plan (for example, Kaiser).

- A large amount of data are missing for place of initial enrollment and reason for disenrollment. The results from the analysis of these variables should be viewed with caution. The completeness of these data could be improved with greater attention to collecting these variables in the future.

- Some important variables are not included in the exploratory analyses presented here, but could be included in future analyses, such as the identity of the Certified Application Assistor who helped with the initial application.

- In comparing retention across programs, it is important to recognize that the programs are different in the types of children they serve (e.g., different ages, income levels, and health status levels); those factors contribute to the differences observed across programs in retention, and we do not fully control for the differences in this analysis.

CHAPTER 3: FINDINGS

One Year Retention

Figure 1 shows the percentage of children still enrolled at 15 months for all three programs, separately for the 2003 and 2004 cohorts. Average retention is between 40 and 60 percent for both years' cohorts and for all three programs. As shown, retention declines between the 2003 and the 2004 cohorts for Healthy Kids (from 58.5 to 52.9 percent) and Medi-Cal (from 57.6 to 54.3 percent), while it increases for Healthy Families[4] (from 46.1 to 50.4 percent).

Figure 1: Average Retention at 15 Months
Children Enrolled in the Health Plan of San Mateo
2003–2004 Enrollment Cohorts

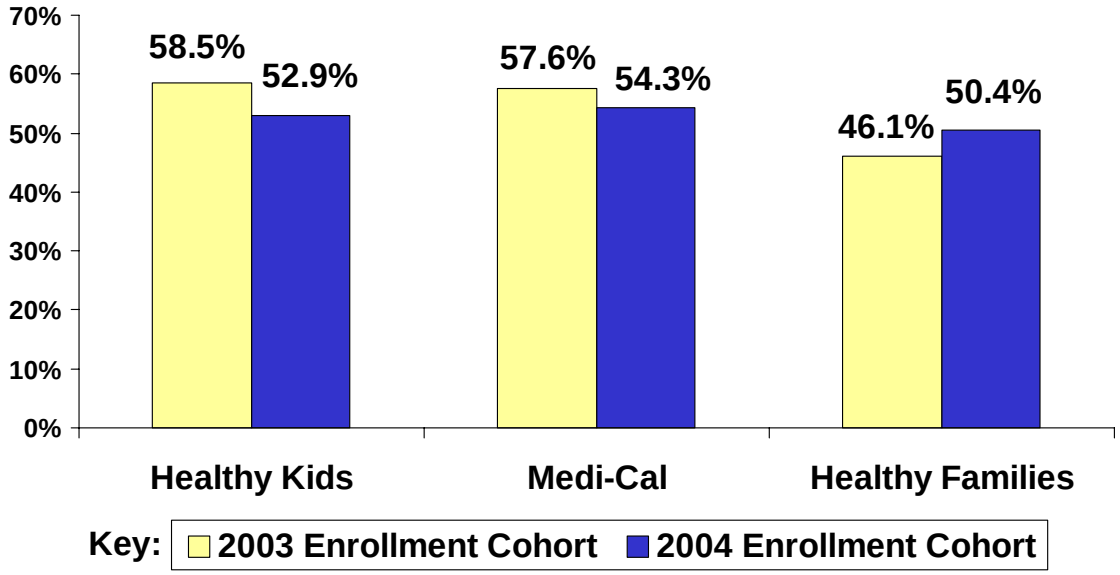
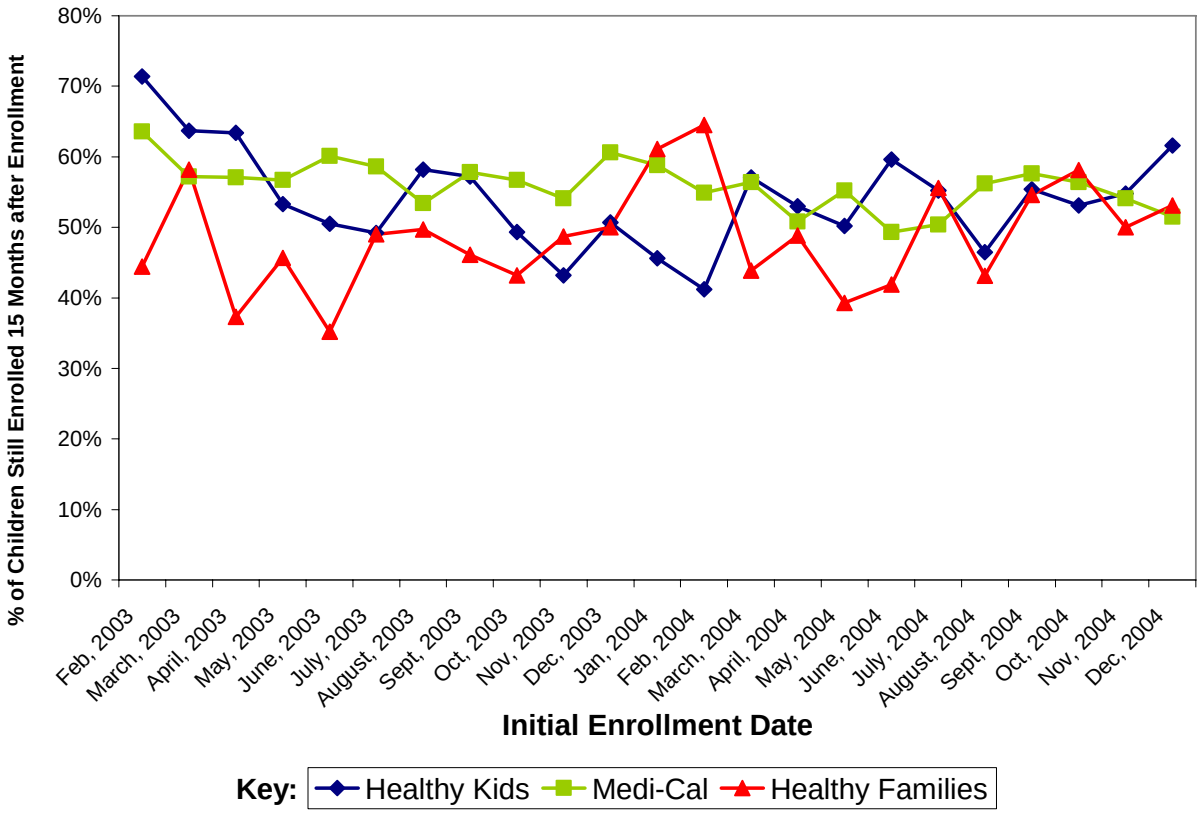


Figure 2 shows trends over time for monthly cohorts, allowing for a better understanding of how the retention rate might be affected by administrative program changes or other time-related factors. The monthly retention rate varies from a low of 35.2 percent for those initially

[4] Data for Healthy Families are only for those children enrolled in the HPSM.

enrolled in Healthy Families in June 2003 to a high of 71.4 percent for those who enrolled in Healthy Kids in February 2003. For the Healthy Kids program, of greatest interest to the San Mateo CHI, retention is highest for the children enrolling in the first three months of the program, and retention is high again for those who enrolled toward the latter part of 2004, whose retention is also over 60 percent. However, 15-month retention in Healthy Kids is below 50 percent for those who enrolled in October 2003 through February 2004. Healthy Families retention also varies considerably over time, with the 2003 cohorts having the lowest retention. In contrast, Medi-Cal retention is more stable during the study period.

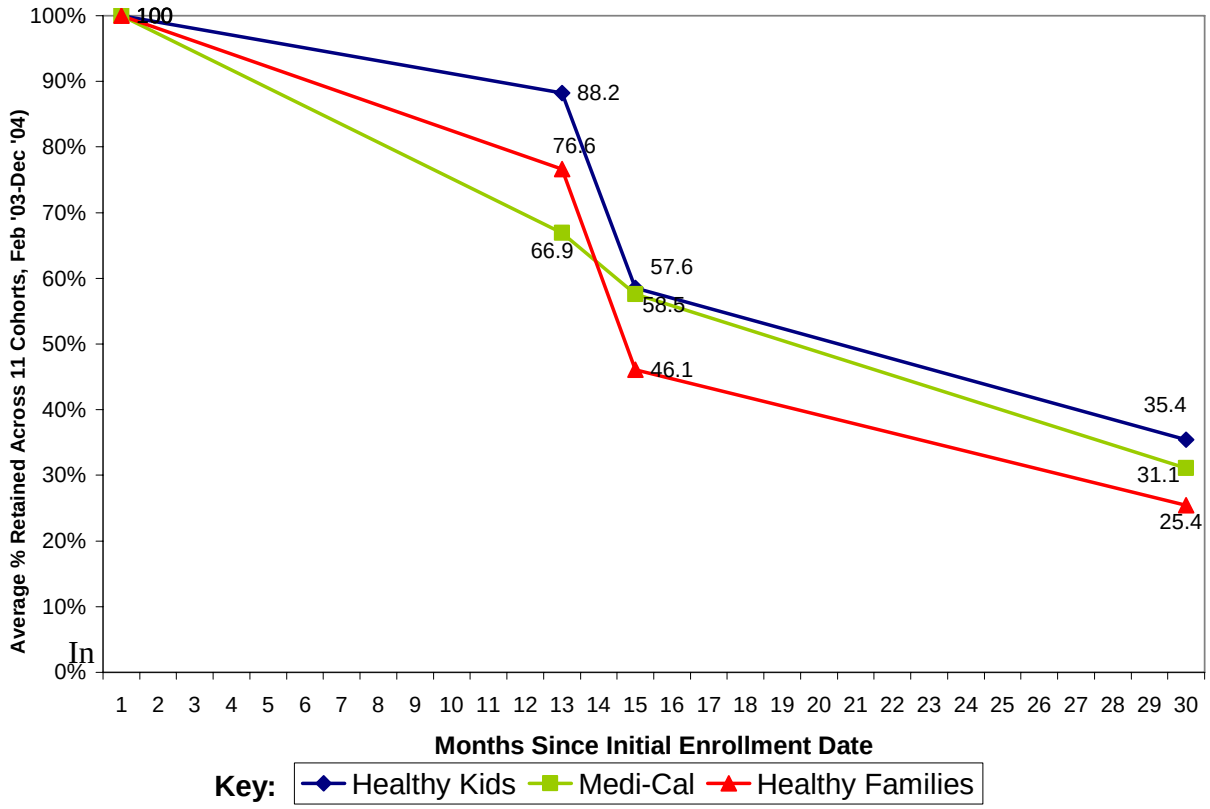
Figure 2: Trends in Retention at 15 Months
Children Enrolled in the Health Plan of San Mateo
2003–2004 Enrollment Cohorts



Longer Term Retention

A child may remain on Healthy Kids for one full year, but then leave the program in the second year. Longer-term attachment to the program is desirable for those eligible, in order to ensure continuity of care. We measured longer-term retention by showing the percentage of children who enrolled during 2003 and who were still enrolled after 30 months (figure 3). Retention for all three programs declines substantially over this 2 ½ year time period. The programs retain only from 25 to 35 percent of children for a full 30 months. Healthy Kids has the highest 30-month retention rate (35.4 percent) and Healthy Families has the lowest (25.4 percent).

Figure 3: Retention over Time,
Children Enrolled in the Health Plan of San Mateo,
2003 Enrollment Cohorts



In

In the Healthy Kids and Healthy Families programs, most children who leave the program are not dropped at the time of renewal, but rather one or two months later, as illustrated by differences between the 13 and 15 month retention rates. Until month 13, both Healthy Kids and Healthy Families show high rates of retention in comparison to Medi-Cal. Indeed, the rate for Healthy Kids is close to 90 percent. However, between months 13 and 15, retention in Healthy Kids and Healthy Families declines by about 30 percentage points. In contrast, the Medi-Cal retention rate declines at the same pace as during year one.

Churning

The previous sections examined retention patterns for children based on whether they were enrolled 13, 15, or 30 months after their initial enrollment, regardless of whether they disenrolled and re-enrolled. Another important aspect of retention is the extent to which enrollees remain on the program continuously or have gaps in coverage. Such "churning" in enrollment is inefficient for the program and family, since the parent must go through a re-enrollment process even if the child was likely continuously eligible.

Figure 4 shows children in the 2003 or 2004 enrollment cohorts (grouped) for all three public insurance programs, according to whether they were continuously enrolled throughout the 15 months following their initial enrollment, left the program but re-enrolled before the end of 15 months ("churners"), or left and did not re-enroll in that time period. It shows that Healthy Kids and Healthy Families have an identical proportion of churners (4.9 percent), and the percentage for Medi-Cal is higher (7.6 percent).

Figure 4: Children Enrolled in the Health Plan of San Mateo, 2003 and 3004 Enrollment Cohorts

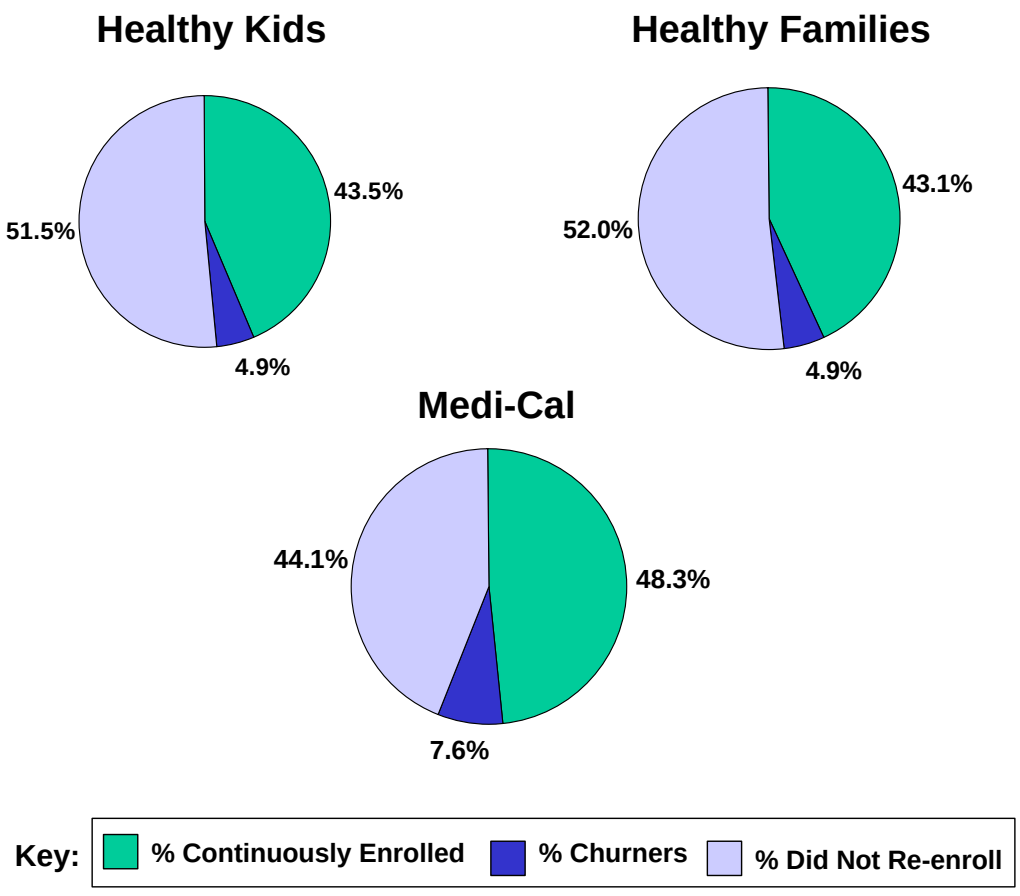
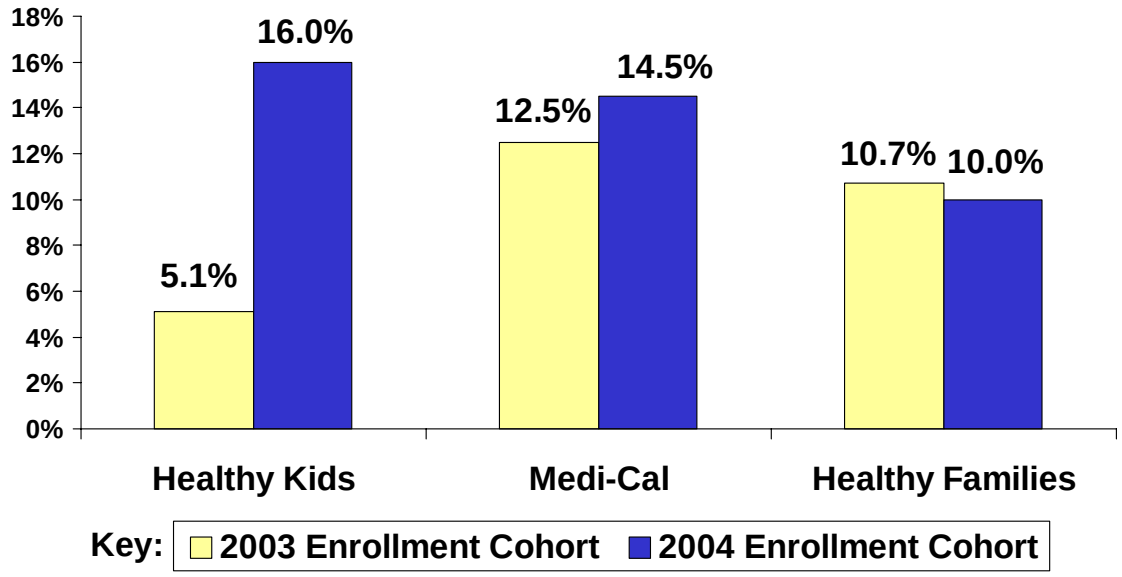


Figure 5 displays the same phenomenon in a different manner and shows trends over time, by displaying the percentage of children who are still enrolled at 15 months who have at least one enrollment gap (churners). In the Healthy Kids program, there is a significant increase in the share of churners between the 2003 and 2004 enrollment cohorts. The proportion triples from only 5.1 percent for the 2003 cohort to 16.0 percent for the 2004 cohort. In the Medi-Cal and Healthy Families programs, the share of churners remains steady between 2003 and 2004, but is still high at 10 to 15 percent.

Figure 5: Percent of Children Enrolled at 15 Months Who Disenrolled and Subsequently Re-enrolled, Children Enrolled in the Health Plan of San Mateo, 2003–2004 Enrollment Cohorts



Retention by Demographic Characteristics

Table 1 shows the average 15 month retention rate by age, income, ethnicity, and gender across all the 2003 and 2004 enrollment cohorts. It illustrates that retention varies substantially among various groups of enrollees within each of the programs.[5]

First, retention varies substantially by age. Medi-Cal infants have the highest retention rate (56.6 percent) across programs and age groups. Healthy Kids and Healthy Families infants have lower retention than older children. However, there are very few infants in either program (74 and 33 children respectively), making it difficult to draw firm conclusions about these small groups. Children in the middle age groups (from ages 1 to 5 and ages 6-12) have similar

[5] Ethnicity data are unavailable for Healthy Families, and income data are unavailable for Medi-Cal and Healthy Families.

retention for Medi-Cal and Healthy Families (about 45 percent), but retention is about 10 percentage points higher for Healthy Kids in those age groups.

Table 1:
Percent of Children Retained at 15 Months
by Insurance Program and Demographic Characteristics,
Children Enrolled in the Health Plan of San Mateo,
2003 and 2004 Enrollment Cohorts

		Healthy Kids	Medi-Cal	Healthy Families
Age		**%**	**%**	**%**
	0	44.6	56.6	30.3
	1-5	54.9	46.5	45.5
	6-12	56.8	46.7	43.4
	13-17	48.7	39.3	42.7
	18	0	36.3	0
Income				
	0-250% FPL	52.1	-	-
	251-400% FPL	49.8	-	-
Gender				
	Girls	51.9	48.6	41.2
	Boys	52.1	48.1	44.9
Ethnicity				
	Hispanic	53.3	53.0	-
	Asian	47.6	48.2	-
	Other	41.8	40.3	-
N		**7,695**	**20,121**	**2633**

Source: The HPSM administrative data, except for ethnicity data for Healthy Kids which are from One-e-App.

Note: "Other" includes Africa-American, Caucasian, Native American, or missing ethnicity.

Adolescents generally have the lowest retention in all three programs. For example, in Healthy Kids retention for adolescents (ages 13-17) is 48.7 percent (in contrast to 56.8 percent for school aged children, ages 6-12). Comparable rates for adolescents in Medi-Cal and Healthy Families adolescents are 39.3 percent and 42.7 percent respectively.

There are only slight differences in retention between income groups for Healthy Kids, or by gender across all three programs. These relationships between demographic characteristics and retention were consistent across the 2003 and 2004 cohorts (data not shown).

Turning to ethnic differences, retention is higher for Hispanics in Healthy Kids and Medi-Cal than for other ethnic groups. (Data on ethnicity for Healthy Families enrollees are not available.) In turn, Asian children and those of other ethnicities (African American, Caucasian, Native American, or missing ethnicity) have lower retention. In addition, the retention rates for Healthy Kids and Medi-Cal are almost identical by ethnic group, about 53 percent for Hispanics, about 48 percent for Asians, and about 40 percent for other ethnic groups.

Location of Initial Enrollment

Table 2 shows retention rates by location of initial enrollment for the small number of cases (about 15 percent) that had this location coded in the One-e-App data base.[6] The table shows retention rates for the San Mateo Health Department and for five of the seven contracted CBOs that have employees who assist with enrollment.

Three enrollment locations—North Peninsula Neighborhood Services, Cabrillo Unified School District, and San Mateo Labor Council—have higher than average retention rates (62.5, 63.1, and 59.1 percent, respectively). In contrast, with about 43 percent of their enrollees still enrolled at month 15, the California Health Initiative and the San Mateo Health Department had lower than average retention. Ravenswood Health Center retention was close to the Healthy Kids program average of 52.0 percent.

[6] Unfortunately, during the study period (which encompassed the time period in which One-e-App was being implemented), the location of enrollment field was missing for most enrollees. Because of the large amount of missing data, this analysis should be considered primarily illustrative and not definitive.

Table 2:
Percent of Children Retained at 15 Months
by Location of Initial Enrollment,
San Mateo County Healthy Kids Program,
2003 and 2004 Enrollment Cohorts

Location	N	%
San Mateo County Health Department	245	43.3
North Peninsula Neighborhood Services	40	62.5
Cabrillo Unified School District	65	63.1
Ravenswood Health Center	197	49.7
California Health Initiative	62	43.5
San Mateo Central Labor Council	22	59.1
Total*	**7,718**	**52.0**

Source: One-e-App data.
*Note: Location was missing for 85% of enrollees; these cases are included in the total.

We used a logistic regression to control jointly for age, ethnicity and location of enrollment for children enrolled in Healthy Kids. This analysis confirmed that adolescents were 20 percent less likely to be retained than school-aged children, that Asian children were 14 percent less likely to be retained than Hispanic children, and that other ethnic groups were 36 percent less likely to be retained than Hispanic children. However, most of the apparent site differences are not statistically significant, which shows that much of the site difference is due to the types of children that each site serves.

Reasons for Disenrollment

Table 3 shows reasons for disenrollment for children who left the program during their first year of enrollment (and prior to their renewal date).[7] By far the most common reason children were disenrolled in Healthy Kids during their first year of enrollment was that their

[7] During the period of this study, the disenrollment reasons were frequently missing. In particular, about 90 percent of children who were enrolled in Healthy Kids in the 11th month following initial enrollment and not in month 15, had "other" or "missing" disenrollment reasons. Consequently, this report focuses on reasons for disenrollment for children who left Healthy Kids before the 12th month of enrollment.

premium payment was at least two months past due (51.7 percent). Fourteen percent left the county, and 22.9 percent "aged out" by reaching age 19. Almost 5 percent of children who left in the first year were deemed to be eligible for Healthy Families or Medi-Cal (all higher income, documented children). The remaining reasons for disenrollment—fraud, duplication, death, coverage by other insurance, request for disenrollment, missing reasons—together account for 6.4 percent of children who left the program prior to their renewal date.

Table 3:
Disenrollment Reasons by Length of Enrollment,
San Mateo County Healthy Kids Program,
2003–2004 Enrollment Cohorts

	Disenrolled before 12 Months	Disenrolled Between 12 & 15 Months
Disenrollment Reason	**%**	**%**
Premium Payment Two Months Overdue	51.7	3.4
Left County	14.0	1.5
Turned 19	22.9	3.1
Potentially Eligible for Healthy Families or Medi-Cal	4.9	0.8
Requested Disenrollment	3.0	0.2
Missing*	3.5	91.0
N	**863**	**2,842**
Mean Length Enrollment (Months)	6.9	13.1

Source: One-e-App data.

* Note: Most missing data are coded as "other" with no additional information.

CHAPTER 4: FACTORS EXPLAINING RETENTION LEVELS AND TRENDS

A key first step to improving retention in public insurance programs is to develop a better understanding of why children disenroll. For example, if children leave because they obtain other insurance, then there is little concern, whereas if they leave because their parents cannot pay the premium it suggests that premiums are a barrier to retention.

Many factors may explain the variability in retention across programs and over time that is shown in this report. The data provided here suggest some of those factors, and we explored other factors in interviews during evaluation site visits in San Mateo County. This chapter summarizes some of the most likely reasons for the differences in retention levels and trends in public health insurance programs for children in San Mateo County.

Administrative Procedures and Changes

Administrative procedures for renewal differ across programs, which may explain some of the differences in retention across the three public programs. In addition, the Healthy Kids and Healthy Families programs went through administrative changes during the study period. It is likely that these administrative factors explain some of the differences between programs and over time.

One explanation for the lower Healthy Families retention in the 2003 cohorts is that the children were up for renewal during 2004 when MRMIB, the state agency that administers Healthy Families, changed its enrollment vendor. At that time the program experienced considerable administrative instability. During the annual San Mateo CHI evaluation site visit for 2004 we learned that, as a result of this instability, many enrollment applications were lost. It is

likely that renewal applications for some children were also lost at this time, leading to children being dropped inadvertently from Healthy Families.

Healthy Kids also went through administrative changes, as a new and evolving program during the study period. According to program staff, the implementation of One-e-App—a tool designed ultimately to improve retention—led to difficulties at the time of renewal during 2004–2005. Application assistors were required to fax attachments to the application, and the tracking system for the faxes was not working smoothly during the implementation period. These changes likely explain the lower rate of Healthy Kids retention for children enrolled in October, 2003 through March, 2004 (who were up for renewal a year later— see figure 2). It also probably explains the higher rate of churning for the 2004 cohort (see figure 5).

In contrast to the other two programs, Medi-Cal did not experience any major system changes during the period. This likely explains the more stable Medi-Cal retention rates. However, the greater difficulty in completing a Medi-Cal renewal application may explain why the rate of churning is higher on average in that program. Some parents may find it is equally easy to let their child's Medi-Cal coverage lapse and re-apply for the program when the child needs services.

We sought an administrative explanation for differences in the size of the "kink" in the long term retention rate shown in figure 3. Both Healthy Kids and Healthy Families retain many children around the time of renewal for longer than Medi-Cal, so that a substantial proportion of children leave the program between their 13th and 15th months of enrollment. Medi-Cal program administration policies that disenroll children more rapidly at the time of renewal may explain these differences.

Parental Motivation

Another factor that is difficult to discern, but likely very important, is a parent's motivation to have their child covered by health insurance. As evidence that this is a important factor in retention, the first cohort of Healthy Kids (those who enrolled in the first month of the program) has the highest retention across all cohorts and programs, just over 70 percent. It may be that the parents of these children, who were highly motivated to enroll their children initially, were particularly motivated to renew their child's coverage in Healthy Kids.

Demographic Characteristics

As shown, one important factor in differences in retention across programs, and potentially differences over time, is differences in the demographic characteristics of enrolled children. For example, Healthy Kids has few infants and Medi-Cal has a high proportion of infants (almost a third of San Mateo child Medi-Cal enrollees). As shown, Medi-Cal infants have a high retention rate. In contrast, adolescents are more prevalent in the Healthy Kids program, and experience a relatively low retention rate. Indeed, Healthy Kids has higher retention for all age groups than Medi-Cal, except for infants. On the other hand, when controlling for ethnicity, the two programs have almost the same rate of retention. Much of the apparently higher rate of retention in Healthy Kids is due to the much higher proportion of Hispanic children on the program than on Medi-Cal.

While demographic differences do explain some of the program differences in retention, demographic changes over time are not responsible for much of the change in retention during the study period. There is substantial stability between the 2003 and 2004 cohorts in each program's demographic composition (Appendix B) with two exceptions, an increase in the

proportion of higher income children and "other" ethnic groups in Healthy Kids. While the higher income group has a similar retention rate to lower income children, other ethnicities have somewhat lower retention (see table 1). This only partially explains the decline in retention between the 2003 and 2004 cohorts, since the group remains small (12.8 percent for the 2004 cohorts).

Location of Initial Enrollment

One function of the Certified Application Assistor is to help parents with renewal applications. The level of help parents receive at the time of retention varies by place of enrollment assistance, explaining some of the differences in retention across groups. There is no detailed cross-site information on the types of retention-enhancing activities conducted at each location (for example, the number of calls to or other contacts with families). However, qualitative information from a recent evaluation site visit documented some intensive activities to improve retention at the Cabrillo Unified School District site (Howell et al. 2006). The apparently higher rate of retention for children who enrolled there may, in part, reflect this intensive outreach, in addition to the demographic profile of the children (who are primarily school-aged Hispanic children).

Program and Plan Switching

A frequent transition between Medicaid and SCHIP when a family's income status changes has been documented in national studies (Sommers 2005). It is reasonable to expect that some of the children in the Health Plan of San Mateo who apparently disenrolled from Medi-Cal or Healthy Families were similarly "switchers" from program-to-program. During 2005, according to the HPSM, approximately four percent of children leaving Medi-Cal enrolled

within three months in the Healthy Families plan managed by the HPSM. Conversely, in the same period about 11 percent of children leaving Healthy Families under the HPSM joined Medi-Cal within 3 months.

Children in Healthy Families have a choice of health plans. Consequently, some of the apparent disenrollment from Healthy Families children is due to plan switching (for example, to Kaiser). In addition, an unknown number of children who leave Medi-Cal for Healthy Families enroll in a Healthy Families plan administered by another organization. Since we do not have data from the other health plans that enroll Healthy Families children, we cannot measure this effect.

Consequently, the retention rates in Medi-Cal and Healthy Families documented above would be higher if they took this switching of programs or plans into account. However, most of the children enrolled in Healthy Kids do not have access to insurance under another public program because they are undocumented.

Need for Health Services

It seems likely that parents with children who are in need of health services are more motivated to renew their child's coverage, while parents of a well child are less motivated. Additionally, parents may enroll their child for a particular health service need, and then fail to renew coverage when that health problem is resolved.

We performed an exploratory analysis of the use of health services over a 15 month period under the three public programs, comparing children who were continuously enrolled for a full year to those who were discontinuously enrolled. Appendix C provides the percentage of children who used selected health services during the time period enrolled, adjusted for the

differences in the length of enrollment between the continuous and discontinuously enrolled. Information from this analysis, while not definitive, suggests that the three public programs are different in this regard. Under Healthy Kids, the data suggest that children who leave the program are less likely to use program services while on the program, while Healthy Families and Medi-Cal children are more likely to use higher cost services while on the program (e.g., hospitals or emergency rooms). More research on this important topic is needed to draw firm conclusions.

Premiums

The need to pay a premium could be a deterrent to re-enrolling a child in Healthy Kids or Healthy Families. As shown (table 3), by far the most common reason children were disenrolled in Healthy Kids during their first year of enrollment was that their premium payment was at least two months past due. However, it is not clear that the reason the child disenrolled was due to the need to pay a premium. The failure to pay the premium could simply be an indicator of "loss to follow-up" when, for example, the family leaves San Mateo County and fails to recontact the plan. Since many families pay one year of premiums in advance, this loss to follow-up would not be apparent until the time of renewal. Consequently, we currently have little information to document that premium payment is a major reason for low retention in Healthy Kids and Healthy Families, and more research also is needed on this critical issue.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

This study of retention in the three public health insurance programs for children in San Mateo County has shown that retention is lower than desirable in all three programs. Concentrating particularly on the Healthy Kids program, for which the county has administrative responsibility, about 40 percent of children left that program after a year. This rate—while a bit lower than for the two other public programs—is much higher than desirable since Healthy Kids children are known to have poor access to private insurance (see Howell et al. 2005) and most cannot enroll in other public programs because of their documentation status.

It is difficult to know what has happened to all of these children when they leave Healthy Kids (and the other two public programs), since there is such incomplete information on their reasons for disenrollment. However, the following factors explain some, if not all, lower retention and thus provide insights for how the county can target its efforts to improve retention.

- Administrative changes in enrollment and renewal processes led to low retention. While the implementation of the One-e-App should ultimately lead to a simpler renewal process, the transition period appears to have caused a temporary drop in retention in Healthy Kids, as well as an increase in "churning" in that program. Similarly, the implementation of a new enrollment vendor for Healthy Families appears to have affected retention. The problems that San Mateo has experienced with One-e-App should be used to develop lessons for other counties as they begin implementation, and for all health insurance programs when they make administrative changes.

- Parental education may improve motivation to renew coverage, especially for parents of children who are not sick. Education on the importance of preventive care is a current initiative of the San Mateo CHI. This effort could be intensified to include a focus on renewal of coverage at the annual renewal date.

- Lower rates of retention are concentrated in certain demographic groups. These include adolescents and non-Hispanic children. These groups should be targeted for more intense retention efforts.

- Some places have developed effective ways to track and contact families. San Mateo County uses community-based organizations as "laboratories" to develop innovative ways to assist families with enrollment and renewal. Most of these organizations have on-going contact with families for other reasons—providing help, for example, with obtaining multiple types of assistance. Their procedures should be shared with other Certified Application Assistors in order to develop a better understanding of "best renewal practices."

- While parents of higher income children pay higher premiums, their children are retained at about the same rate as lower income children. Still, a lack of premium payment is a frequent reason for disenrollment. Consequently, the role of premiums in leading to low retention is still unclear. It is worthwhile for the county to make sure that parents whose payment is past due are informed of the hardship fund, and to develop better information on whether the premium is a barrier to renewal.

In addition to this information on how to improve retention, the study also reveals some ways that data systems could be improved in order to develop a more effective retention monitoring system. Two data systems—health plan data and One-e-App—are used, allowing us to examine the potential of each for monitoring retention.

- It is reassuring that both data systems contain similar basic statistics on the number of children enrolling in Healthy Kids and their retention rates.

- While One-e-App is designed as a potential management information system, currently it is difficult to extract management data from the system. Consequently it is not being used regularly for retention monitoring. More work needs to be done to make the data more easily accessible. For example, a set of standard monitoring reports that extract data routinely from the transaction data base could be developed for all counties to use for monitoring retention and for other management purposes.

- The health plan data are useful for comparing retention between Healthy Kids and Medi-Cal. This is unique to California counties that enroll all Medi-Cal children in a single plan (a County Organized Health System).

- Since Healthy Families children have a choice of health plans, it would be useful to link data across all participating plans. Until that is done, few firm conclusions can be drawn from the apparently lower retention for Healthy Families.

Both data systems lack critical data for monitoring retention and understanding the reasons why children disenroll. Two fields that we examined on a preliminary basis are the place where the child enrolled (missing about 85 percent of the time in One-e-App in this time period) and reason for disenrollment (missing about 90 percent of the time for children who dropped off around the time of renewal).

- Greater training should be given to Certified Application Assistors in completing these two important fields, with feedback to them on their rate of complete data.

- A monitoring system that examines both place of initial enrollment, as well as the CAA who assisted, would allow for more direct feedback to CAAs on retention of the children they enroll. However, because of small sample sizes for each CAA, such retention rates should be viewed with caution.

- One-e-App variables are available only for the Healthy Kids program, even though a larger number of children are enrolled in other public programs in the county. Consideration should be given to completing the location of enrollment and reasons for disenrollment for all three programs, in order to better target retention efforts more broadly.

- The disenrollment reasons that are currently being coded are not sufficient for developing a complete understanding of why children disenroll. For example, many are coded simply as "other" or "not recertified," which provides no additional information about why the child left the program. The following are suggested additional reason codes:

    - When a child is "lost to follow-up" they should be coded as such, but with additional information indicating the number of times the child's family was contacted (e.g. the number of mailings, the number of telephone calls), whether mail was returned with an out-of-county address (and possibly the location of that address, such as within California vs. outside California), and whether their telephone was disconnected.

    - When a child's family could be contacted, that should be coded as well as whether an application was received, and whether it was only partially completed (for example, the family failed to submit complete information).

- Denials of renewal (after a complete application) should be coded as such, along with the reason for the denial.

One final conclusion concerns the financial implications of longer retention in Healthy Kids and Healthy Families around the time of renewal. About 30 percent of children in these programs drop off from the program between their 13th and 15th months of enrollment. These are apparently children who do not renew coverage after their first year, but for whom—for administrative reasons—the plan continues to receive premiums for two additional months. If such children do not pay the family premium for that period and do not use plan services, it seems reasonable that the plan would not receive a premium payment for their enrollment. These savings could contribute additional premium dollars for other children who want to enroll in the programs.

This report has provided new information on retention in public health insurance for children in San Mateo County, as well as recommendations for improved retention efforts and improved monitoring systems. We hope that this information will be useful both to San Mateo's CHI as well as to other counties in California with similar initiatives.

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APPENDIX A

A COMPARISON OF THE CONTENT OF HEALTH PLAN OF SAN MATEO AND ONE-E-APP DATA ON RETENTION

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The HPSM data and the One-e-App data are collected in a different manner for different purposes, but they should show similar results for both the number of children enrolled in Healthy Kids and the length of time they are retained on the program. First, it is reassuring that the number of children who enrolled in Healthy Kids during 2003–2004 is very similar: 7695 (HPSM) and 7718 (One-e-App), a difference of only 23 children.

Next, we compared the 15-month retention estimates from the Health Plan of San Mateo to those from the One-E-App system to assess how closely they approximate one another (appendix table A1). Again, the two data sources show roughly similar patterns in one-year retention rates. However, for some monthly cohorts, there are marked differences. One-E-App consistently shows a lower retention rate (with one exception, August 2004) and for three cohorts the difference is by more than 10 percentage points. The Health Plan of San Mateo produces an average retention estimate of 56.5 percent across all cohorts, compared to 52.1 percent for the One-E-App system. In only one cohort does the One-E-App system produce a slight higher estimate. It is reassuring that at the end of the time series, the two estimates are very close.

Another retention measure that we compared is the percentage of children who were retained at month 15 who remained continuously enrolled throughout the 15 month period (appendix table A2). One-E-App produces substantially higher percentages of members who were continuously enrolled during the 15-month period than the Health Plan of San Mateo. In fact, frequently the One-E-App system records 100 percent of members as continuously enrolled, whereas this never occurs with the Health Plan of San Mateo. The data for percentage of members continuously enrolled thus shows the greatest discrepancy in the estimates from the two systems.

The reasons for these discrepancies between the two systems are unclear. It is important for those who enter data into and maintain both databases to discuss the administrative procedures that could lead to the discrepancies, so that both data sources correctly reflect the retention of children on the Healthy Kids program and their continuity of enrollment.

Appendix Table A1
Percent of Healthy Kids Enrollees Retained at Month 15

Enrollment Cohort	Health Plan Data	One-E-App	Difference
Feb, 2003	71.4%	68.1%	3.3%
March, 2003	63.7%	61.2%	2.5%
April, 2003	63.4%	60.9%	2.5%
May, 2003	53.3%	47.5%	5.8%
June, 2003	50.5%	43.9%	6.6%
July, 2003	49.2%	44.8%	4.4%
August, 2003	58.2%	52.8%	5.4%
Sept, 2003	57.2%	53.2%	4.0%
Oct, 2003	49.3%	46.1%	3.2%
Nov, 2003	43.2%	35.6%	7.6%
Dec, 2003	50.7%	47.4%	3.3%
Jan, 2004	45.6%	35.8%	9.8%
Feb, 2004	41.2%	29.2%	12.0%
March, 2004	57.1%	46.1%	11.0%
April, 2004	53.0%	48.4%	4.6%
May, 2004	50.2%	40.1%	10.1%
June, 2004	59.6%	55.5%	4.1%
July, 2004	55.2%	50.9%	4.3%
August, 2004	46.5%	47.3%	-0.8%
Sept, 2004	55.4%	54.2%	1.2%
Oct, 2004	53.1%	47.3%	5.8%
Nov, 2004	54.8%	54.6%	0.2%
Dec, 2004	61.6%	59.9%	1.7%
Total	56.5%	52.0%	4.5%
N	7,695	7,718	-23

Appendix Table A2
Percent of Healthy Kids Enrolled in Month 15
Who Were Continuously Enrolled

Enrollment Cohort	Health Plan Data	One-E-App	Difference
Feb, 2003	97.8%	99.2%	-1.4%
March, 2003	95.5%	99.6%	-4.1%
April, 2003	95.8%	99.6%	-3.8%
May, 2003	89.9%	100.0%	-10.1%
June, 2003	86.9%	98.6%	-11.7%
July, 2003	96.9%	100.0%	-3.1%
August, 2003	98.2%	99.1%	-0.9%
Sept, 2003	96.1%	100.0%	-3.9%
Oct, 2003	94.5%	100.0%	-5.5%
Nov, 2003	86.9%	100.0%	-13.1%
Dec, 2003	91.2%	100.0%	-8.8%
Jan, 2004	89.3%	100.0%	-10.7%
Feb, 2004	76.3%	98.3%	-22.0%
March, 2004	86.1%	100.0%	-13.9%
April, 2004	92.9%	100.0%	-7.1%
May, 2004	79.3%	97.5%	-18.2%
June, 2004	84.9%	86.0%	-1.1%
July, 2004	77.2%	79.3%	-2.1%
August, 2004	74.8%	78.0%	-3.2%
Sept, 2004	76.1%	86.2%	-10.1%
Oct, 2004	84.6%	90.7%	-6.1%
Nov, 2004	83.5%	92.2%	-8.7%
Dec, 2004	92.9%	93.5%	-0.6%
Total	89.0%	96.9%	-8.0%
N	4,351	4,013	338

APPENDIX B

DEMOGRAPHIC CHARACTERISTICS OF 2003 AND 2004 COHORT

Appendix Table B1
Demographic Characteristics of
Children Enrolled in the Health Plan of San Mateo
2003 and 2004 Enrollment Cohorts

	2003 Cohorts				2004 Cohorts			
		Healthy Kids	Medi-Cal	Healthy Families			Healthy Kids	Medi-Cal	Healthy Families
Age		%	%	%	**Age**		%	%	%
	0	0.8	32.4	1.4		0	1.3	30.5	1.1
	1-5	21.0	26.4	31.6		1-5	20.4	27.3	34.9
	6-12	43.3	22.9	45.8		6-12	43.1	23.7	43.8
	13-17	31.4	15.4	19.5		13-17	30.7	15.2	18.7
	18	3.5	2.9	1.7		18	4.5	3.3	1.5
Ethnicity					**Ethnicity**				
	Hispanic	88.1	50.1	-		Hispanic	80.5	56.9	-
	Asian	5.9	14.9	-		Asian	6.7	14.7	-
	Other	6.0	35.0	-		Other	12.8	28.4	-
Income					**Income**				
	0-250% FPL	89.9	-	-		0-250% FPL	84.8	-	-
	251-400% FPL	9.7	-	-		251-400% FPL	14.7	-	-
	Unknown	0.4	-	-		Unknown	0.6	-	-
Gender					**Gender**				
	Girls	50.5	49.7	50.5		Girls	48.2	49.5	47.9
	Boys	49.5	50.3	49.5		Boys	51.8	50.5	52.1
Total %		100	100	100			100	100	100
N		**4965**	**9298**	**1401**	**N**		**2730**	**10823**	**1232**

Source: The HPSM administrative data, except for ethnicity data for Healthy Kids which are from One-e-App.
Note: "Other" includes African-American, Caucasian, Native American, or missing ethnicity.

APPENDIX C

ANALYSIS OF USE AND COST

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There is little information on differences in service use and cost between children who remain enrolled continuously in health insurance and those who leave. For example, it is possible that some children join a health insurance program for a brief period in order to obtain benefits before they disenroll. On the other hand, some children may join, but when the parent determines that their child is rarely using services they may disenroll the child to avoid premiums.

Data from the Health Plan of San Mateo allow us to study whether children who left one of the three programs obtained fewer or more services, and whether they were more or less expensive, than those who remained continuously enrolled. The HPSM maintains a claims/encounter data base that documents the services that each enrolled child uses, as well as their cost to the plan. Those services include:

- Ambulatory care visits (preventive and other)
- Emergency room visits
- Hospital stays
- Prescriptions
- Dental visits
- Vision care visits

The algorithm for defining visits and stays is the same as that used in the evaluation of the San Mateo County Children's Health Initiative, whereby all claims for a particular hospitalization are grouped to define a "stay" and all services billed by a particular provider on a particular day are grouped to define a "visit." We adjusted the rates for discontinuously enrolled children by creating a denominator for the rates; we totaled the number of months the children in each program were enrolled over 15 months, and divided by 15 to create an adjusted number of "children" on the program for the full 15 months.

The three programs were very different in the comparisons between continuously and discontinuously enrolled children. For Healthy Kids, those who were continuously enrolled for 15 months had somewhat higher use of services on the program, although differences were not very pronounced (table C1). This suggests that one reason for leaving Healthy Kids for some parents may be a perception that their child has little need for the program, because they use few services.

Within both the Healthy Families and Medi-Cal programs, the discontinuously enrolled children generally had higher service use. The most marked differences were for "other" outpatient visits (often specialist care), emergency rooms, and (for Medi-Cal) hospitals. These programs may be serving as a "safety net" for parents who could afford to pay for care until their child is very sick, and who enroll just for the time period in which the child needs the high cost services. Some of these may be higher income children who spend down (within Medi-Cal), or who have the ability to pay out of pocket for most care or access to private insurance (Healthy Families).

Some children who leave these programs undoubtedly do obtain other insurance quickly, and maintain access to health care that is not documented in these data. However, the lower rates of preventive care, ambulatory care, and dental care cause special concern for the children who leave Healthy Kids, since those children are unlikely to obtain any insurance coverage for those critical services after they leave the program.

These programmatic differences in use for the continuously and discontinuously enrolled across programs translate into differences in average monthly cost. For example, Healthy Kids continuously enrolled children cost an average of $44 per month compared to $36 per month (18 percent lower) for those who were only enrolled for a portion of the 15 month period. The differences were in the opposite direction) for Medi-Cal ($91 vs. $97), due to the higher hospital cost for the discontinuous group. The two groups of Healthy Families children cost almost an identical amount per month ($27 vs. $26).

In summary, for Healthy Kids, we see lower service use on the program for children who left, as well as lower average cost per month, reflecting the lower intensity of service use during the specific months they were on the program. The pattern is different for Healthy Families and Medi-Cal. For those programs, the children who disenroll have a relatively higher use of expensive hospital (Medi-Cal) and emergency room (Healthy Families) services while enrolled.

Differences in monthly cost between the three programs are dramatic, and have been demonstrated in previous evaluation reports. Some of these differences are explained by case mix differences. Medi-Cal includes more infants and children with disabilities. In addition, the higher cost per month for Healthy Kids compared to Healthy Families is explained by the inclusion of the cost of dental and vision care.

While these data are thought provoking, we have included them in the appendix rather than the body of the report for several reasons. It is difficult to know with the data available which factors are leading to the differences between the programs and the between the continuously and discontinuously enrolled. In addition, the way we have adjusted for time on the program is imperfect. Finally, we do not know whether children who leave obtain services after they leave the program, since these are not documented in the data base. Still, with the data available, it appears that—at least for the Healthy Kids program—there is no evidence that children join for brief periods to use high cost services and leave, while for the other two programs there is some evidence of that phenomenon.

Appendix Table C1
Percent Using Services and Cost Within 15 Months of Enrollment
Children Enrolled in the Health Plan of San Mateo
2003 and 2004 Enrollment Cohorts

	Healthy Kids		Healthy Families		Medi-Cal	
	Continuously Enrolled	Discontinuously Enrolled	Continuously Enrolled	Discontinuously Enrolled	Continuously Enrolled	Discontinuously Enrolled
	Percent Using Service					
Outpatient visits						
Preventive	38.7	33.2	36.5	38.9	31.5	29.8
Other	61.0	58.6	49.8	55.2	59.7	66.2
Other doctors' visits						
Preventive	11.2	11.5	25.3	27.7	27.8	26.3
Other	15.9	16.0	31.6	32.6	47.9	47.3
Any preventive visit	46.4	41.7	57.7	62.1	52.3	51.6
Any ambulatory visit	82.5	82.8	84.1	98.8	83.4	98.8
Any dental visit	67.7	60.0	-	-	-	-
Any vision visit	11.1	10.2	-	-	5.5	5.1
Hospital stay	1.2	0.8	1.4	1.3	5.3	7.7
ER visit	16.4	15.1	19.4	24.6	38.8	44.7
Prescription	42.5	36.9	51.8	53.5	63.7	61.9
Average cost per month	$44	$36	$27	$26	$91	$97

Source: The HPSM administrative data.

Note: The denominator for calculating the percentage using services and the cost is adjusted for the discontinous group. It is calculated by dividing the total member months enrollment in the 15 month period by 15.