

# **The Impact of Renewal Policy Changes in the Florida Healthy Kids Program**

**A Report Prepared for the  
Florida Healthy Kids Corporation  
2006-2007 Florida Healthy Kids Program Evaluation**

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## I. INTRODUCTION

In State Fiscal Year (SFY) 2004-2005, the renewal process for the Florida Healthy Kids Program changed from a passive process to an active process by requiring all families to provide documentation to verify program eligibility during each recertification period.<sup>1</sup> In the past, families whose children were enrolled in Healthy Kids (and other Title XXI KidCare components) received a letter notifying them about renewing their children's coverage. Families were asked to contact the program to report any changes or to update information about their income and health insurance coverage. Much like the former application process, reported changes during the renewal phase were self-attested. Nonrespondent families with no changes to report maintained Healthy Kids coverage for their children if they continued to pay their premiums. Accounts were updated for families reporting changes, and their children remained enrolled in the program if they continued to pay their premiums.

Beginning on July 1, 2004, the renewal process became an active one requiring information from all families participating in the Florida Healthy Kids Program. During the recertification process, all families are now required to complete a Renewal Request form supplemented with (1) proof of income<sup>2</sup> and (2) information about their access to employer-sponsored family coverage and the cost of such coverage if it is available to them. If families do not respond, their children are disenrolled from the program.

Analyses conducted by the Institute for Child Health Policy (ICHP) for the 2005-2006 Florida Healthy Kids Program evaluation found that 23 percent of children up for renewal disenrolled (without subsequent reinstatement). However, data were only available for the first full active renewal period, which covered renewals from September 2004 through February 2005. This period was atypical because of an unusually severe hurricane season, which

adversely affected communications with families and resulted in a large spike in disenrollment in December 2004 due to the 3-month hurricane “grace” period. In addition, the active renewal policy was modified by a special session of the legislature during the fall of 2004. Two changes were effective January 1, 2005: (1) the earned income verifying documentation requirements were reduced from three documents to one document, and (2) recertification changed from 6 month to 12 months. (In practice, these changes applied to March 2005 renewals because renewal notices are sent out two months in advance.) Therefore, the Florida Healthy Kids Corporation Board of Directors requested that the Institute for Child Health Policy conduct an updated and more comprehensive renewal analysis to assess how the renewal policy changes have affected program disenrollment after the January 1, 2005 changes. The following are addressed in this report: (1) descriptive trend analyses of the percentage of children renewing coverage under active renewal, (2) chi-square analyses comparing the sociodemographic and health characteristics of children who renewed coverage to those who did not renew coverage, and (3) multivariate survival analyses evaluating the impact of active renewal on the children’s hazard rate – or risk – of disenrolling after controlling for the children’s health and sociodemographic characteristics.

## **II. DATA SOURCES AND MEASURES**

### **A. Data Sources**

The following data sources were used to conduct the analyses:

1. Enrollment files provided by the Florida Healthy Kids Corporation. The enrollment files contain information about the children’s age, gender, family income, and enrollment status. These files were used to (1) identify when children were up for

renewal between January 1, 2004 and February 28, 2006 and (2) obtain information about the children's sociodemographic characteristics. The Healthy Kids enrollment files were linked to the Medicaid and Children's Medical Services enrollment files in order to take into account program transition. Children were not considered to be "disenrolled" until they exited from public health insurance entirely.

2. The enrollment files also were matched to health care claims and encounter data submitted by all of the health plans participating in the Florida Healthy Kids Program. The person-level claims and encounter data contain Physician's Current Procedural Terminology (CPT) codes and International Classification of Diseases, 9th Revision (ICD 9-CM) codes. Claims and encounter data were used to classify the children's health status.

## **B. Measures**

***Children's Health Status.*** The health care claims and encounter data were used to characterize the children's health status using the Clinical Risk Groups (CRGs). The CRGs system classifies individuals into mutually exclusive clinical categories by reading ICD-9-CM diagnosis codes from all health care encounters, except those associated with providers known to frequently report unreliable codes (e.g., non-clinician providers and ancillary testing providers).<sup>3</sup> It assigns all diagnosis codes to a diagnostic category (acute or chronic) and body system, and assigns all procedure codes to a procedure category. Each individual is grouped to a hierarchically defined core health status group, and then to a CRG category and severity level, if chronically ill.

Enrollees in the program for six months or longer are included in the analyses. Some continuity of enrollment is required to classify individuals accurately. The health status

classifications of children meeting the enrollment criteria are reported in these analyses. The following health status categories were used in this report: (1) Healthy, (2) Significant Acute, (3) CSHCN – Minor Conditions (single minor conditions and multiple minor conditions), (4) CSHCN – Moderate Conditions (moderate chronic conditions), and (5) CSHCN – Major Conditions (dominant chronic, chronic pairs and triplets, metastatic malignancies, and catastrophic conditions). The CRG categories were collapsed into the preceding categories by following instructions from the developers. A more complete description of the CRG health status categories can be found in Appendix A. The health status of children not meeting the minimum enrollment criteria for classification is reported as “unclassified.”

*Demographic Characteristics.* The families’ income expressed as a percent of the FPL was obtained from the enrollment files. The children’s age, gender, and place of residence (rural versus urban) also were obtained from the enrollment files.

### **III. RESULTS**

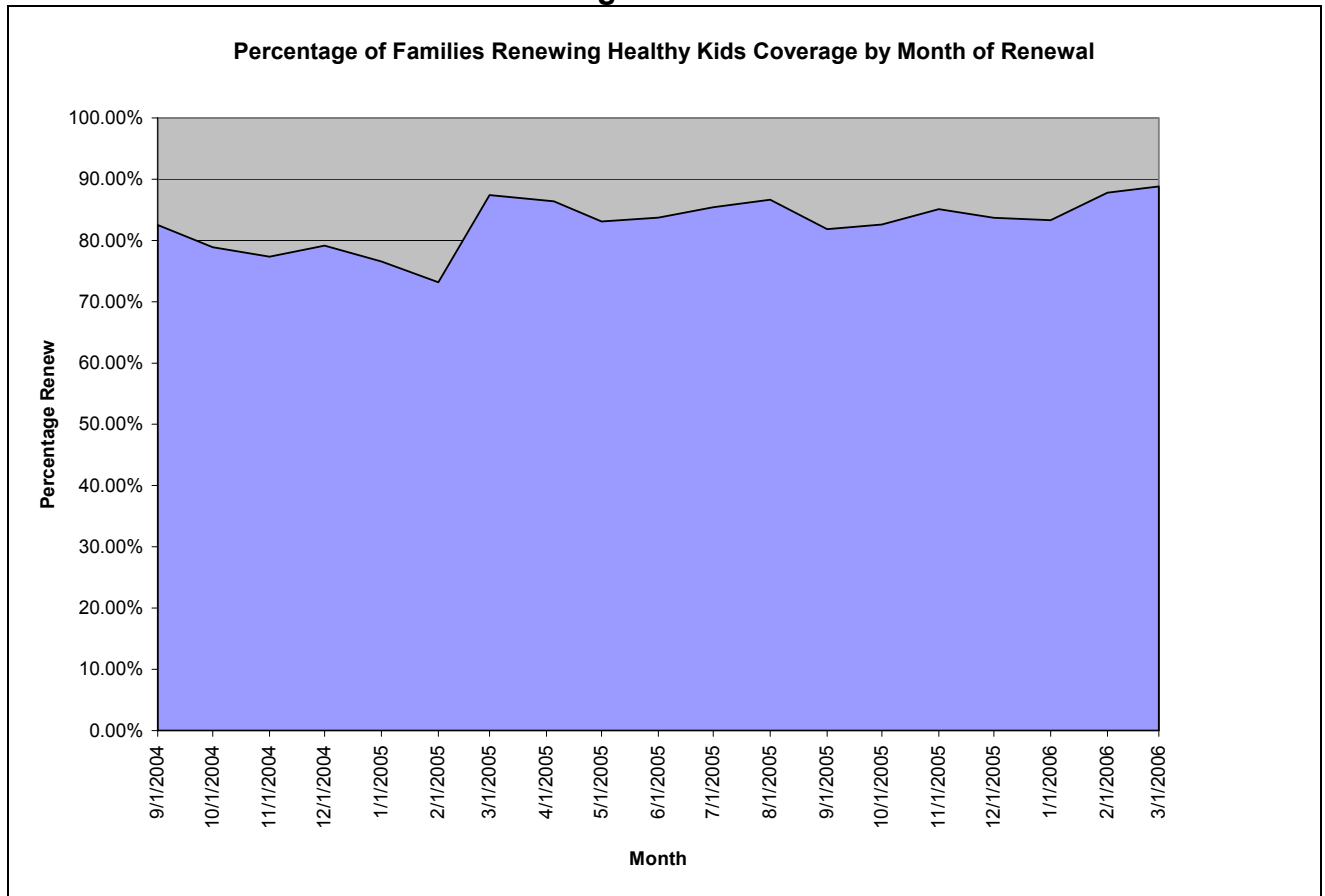
#### **A. Descriptive Analyses**

Because renewal letters are sent out two months prior the children’s renewal date, renewal letters sent between July 1, 2004 and December 31, 2005 were used to identify which children were up for renewal between September 1, 2004 and February 28, 2006. Children were classified as “not renewed” if they received a “cancelled due to renewal noncompliance letter” and were subsequently disenrolled. Otherwise, children were classified as “renewed.” Children were only considered disenrolled if they were no longer enrolled in any of the four KidCare components.

Figure 1 below shows the percentage of families who renewed coverage in the Florida Healthy Kids Program by the month of renewal. During the first six months of active renewal,

September 2004 through February 2005, renewal rates averaged 78%. This was an atypical period because the active renewal process was new to families and an unusually severe hurricane season disrupted communication with families in the affected areas of the state. Renewal rates improved during the subsequent year (March 2005 – February 2006) with an average renewal rate of 85%. These renewal rates reflect those who successfully renewed their coverage; thus, the 15% of children whose families did not complete the renewal process during March 2005 – February 2006 were disenrolled.

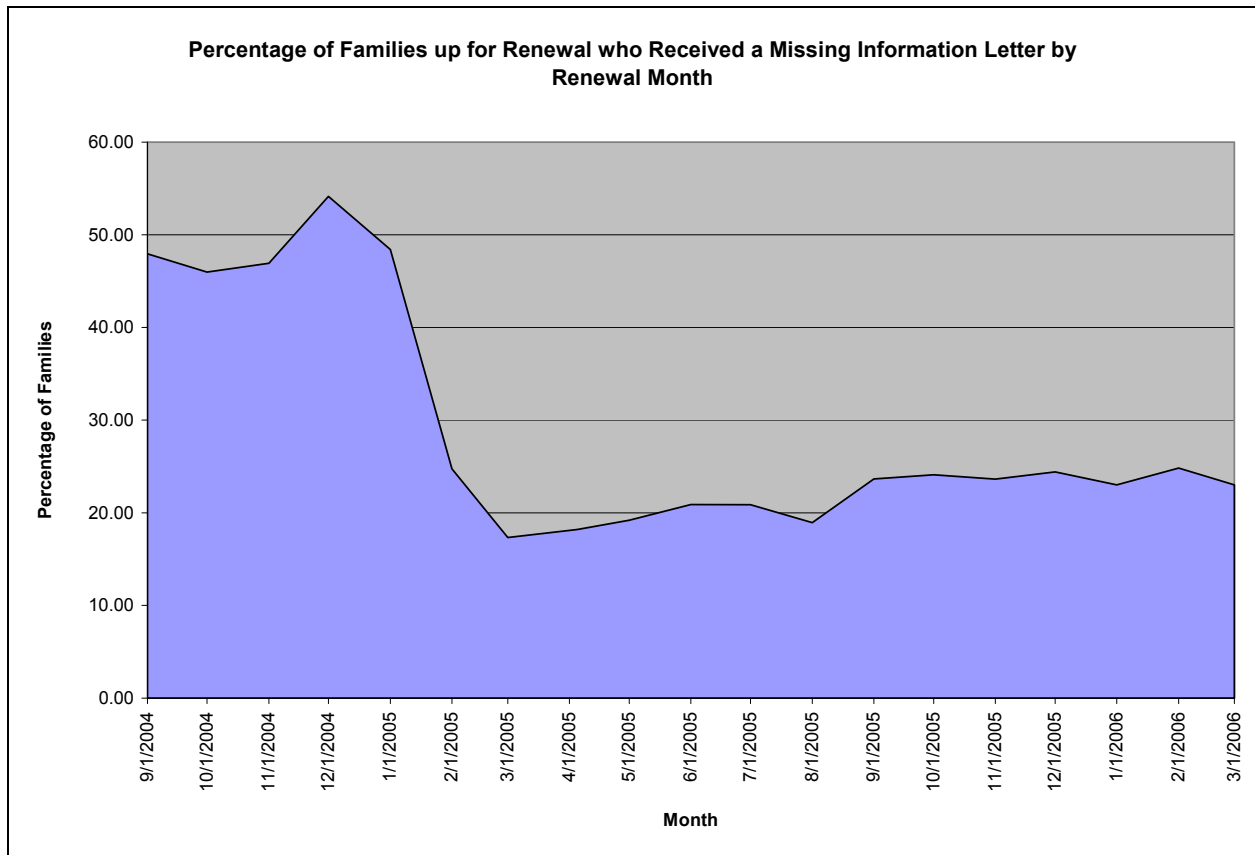
**Figure 1**



Failure to complete the renewal process in the Florida Healthy Kids Program is due, at least in part, to the new documentation requirements. Figure 2 below shows the percentage of families up for renewal who received a “missing information” letter. Families who submit their

Renewal Request form, but who do not submit all of the required documentation, receive a “missing documentation” letter that indicates what additional documents they need to submit to complete the renewal process. During the first six months of active renewal, approximately 45% of families submitted a Renewal Request but were missing necessary documentation. During the subsequent year – March 2005 through February 2006 – this fell to 22%. This indicates that more than one-fifth of families are still having difficulty with the renewal documentation requirements.

**Figure 2**



## **B. Sociodemographic and Health Characteristics of Renewers and Non-Renewers**

Table 1 shows the health and sociodemographic characteristics for the children who were up for renewal from March 1, 2005 through February 28, 2006 by renewal status (renewed or not renewed). There are several differences in the health and sociodemographic characteristics of children who renewed their coverage and those who did not. Health status varied significantly between the two groups ( $\chi^2=351.99$ ;  $p<.0001$ ) with a lower percentage of healthy children renewing coverage (approximately 84%) and higher percentages of children with significant acute and chronic conditions renewing coverage (87%-91%).

No significant differences were noted between the two groups in gender or in location (rural versus urban). However, age did vary significantly ( $\chi^2=98.83$ ;  $p<.0001$ ). A larger percentage of children in the 12 to 18 year old age cohort did not renew coverage (16%) than those in the 5 to 11 year old age cohort (14.5%). This finding was obtained even after excluding those that were age 18 at the time of renewal and soon to age out of the program. In addition, income varied significantly between the two groups ( $\chi^2=475.90$ ;  $p<.0001$ ). A higher percentage of children in families with incomes below 150% FPL did not renew coverage and became disenrolled (17%) compared to those with incomes greater than 150% (13%-15%). Because we accounted for program transition, including transition to Medicaid, very few of those with incomes below 150% FPL disenrolled due to Medicaid eligibility. It is possible that these households had more difficulty with the renewal process or they may have had more difficulty making their premium payments.



**Table 1: Characteristics of Renewal Status for Children up for Renewal  
March 2005 to February 2006**

Renewal Letters Sent Period: January 2005 to December 2005

Characteristic	Children up for Renewal  N	Renewal Status			
		Not Renewed		Renewed	
		N	Row %	N	Row %
Total	184302	28149	15.27%	156153	84.73%
Health Status Categories (CRGs)					
Healthy	125361	20400	16.27%	104961	83.73%
Significant Acute	11392	1455	12.77%	9937	87.23%
Minor Chronic (Single & Multiple)	9435	1166	12.36%	8269	87.64%
Moderate Chronic (Single)	9020	1064	11.80%	7956	88.20%
Major Chronic (Dominant/Multiple Chronic, Malignancies, & Catastrophic)	936	88	9.40%	848	90.60%
No CRG	28158	3976	14.12%	24182	85.88%
Gender					
Male	94429	14368	15.22%	80061	84.78%
Female	89873	13781	15.33%	76092	84.67%
Age					
1-4	72	20	27.78%	52	72.22%
5-11	90178	13036	14.46%	77142	85.54%
12-18	94052	15093	16.05%	78959	83.95%
RUCA					
Urban/Large towns	169077	25791	15.25%	143286	84.75%
Rural/Small towns	13012	2040	15.68%	10972	84.32%
Unknown	2213	318	14.37%	1895	85.63%
FPL Categories					
0-150%	90892	15347	16.88%	75545	83.12%
151-200%	49995	6316	12.63%	43679	87.37%
>200%	42750	6345	14.84%	36405	85.16%
Missing	665	141	21.20%	524	78.80%

## **C. Impact of Renewal Policy Changes on Enrollment: Multivariate Analyses**

Multivariate survival modeling approaches were used to further analyze the impact of renewal policy changes on the children's risk of disenrolling over time, controlling for the children's health status and sociodemographic characteristics. The results of a Cox Proportional Hazards Model are reported here. These results are robust across varying assumed distributions (exponential, Weibull, etc.).

### **1. Sample Description**

Children who were enrolled in the Florida Healthy Kids Program for at least two consecutive months during the observation period of January 2004 through February 2006 were included in the analyses. Children age 18 or older were excluded so that those who were aging out of the program would not be included in the analyses. If a child turned age 18 during an enrollment spell, the spell was right censored; that is, the enrollment length for the child is no longer observed. In addition, we did not restrict our analyses to new enrollees because we wanted to include the impact of renewal policy changes on long-term enrollees. Therefore, for children who were enrolled prior to the beginning of our study time period, we accounted for the number of months of continuous enrollment prior to January 2004 in our analyses to augment our information on longer-term enrollments.

Children frequently disenroll and reenroll in public insurance programs. Each period of enrollment is called an enrollment spell. We analyzed 414,396 enrollment spells for 383,013 children. Ninety-two percent of the children had one enrollment spell, 7% had two enrollment spells, less than one percent had more than two enrollment spells. Approximately 52% of the children's enrollment spells ended in disenrollment, and 48% were right censored. Using Kaplan-Meier product-limit estimator, the estimated median survival time was 22 months.

## 2. Variables

***Enrollment Spells and Disenrollment.*** The outcome of interest is the children's risk of disenrollment during the renewal period. A child's enrollment spell is equal to the number of months between the first month of coverage and either the month of disenrollment or right censoring. Children were right censored if they turned age 18 during the enrollment spell or if they were still enrolled through the last month of the observation period (February 2006). Right censoring is used in these two cases to indicate that we no longer observe the children's enrollment after these time points.

The beginning of an enrollment spell is defined as two consecutive months of enrollment in the Florida Healthy Kids Program. Because a child could leave the Florida Healthy Kids Program for another public program – Children's Medical Services or Medicaid – due to changes in eligibility status, a child was considered disenrolled only if he or she was not enrolled in any KidCare program for at least two consecutive months. Two consecutive months was selected to address administrative changes in the enrollment files that do not reflect actual changes in the continuity of health coverage. For example, children can be reinstated in the program with no coverage gaps if a late payment is received. This reinstatement sometimes takes two months to appear in the enrollment files. Disenrolled children begin a new enrollment spell if they are subsequently enrolled again for at least two consecutive months.

***Renewal Policy Variables.*** A dummy variable named "renew" that is equal to "1" in a child's renewal month was constructed. When active renewal was implemented, families were given a grace period of 120 days to complete the renewal process if they submitted any renewal documentation by their renewal date. Children in families who triggered the grace period but who did not successfully complete the process were disenrolled at the expiration of the grace

period (in the fourth month following the renewal month). Consequently, we also constructed a dummy variable labeled “gracexp” to signify when the grace period expired to capture these renewal-related disenrollments.

Three dummy variables were created to capture the following three time periods of interest related to the renewal policy changes.

- 1) PRE represents the period preceding the renewal policy changes – January 1, 2004 through June 30, 2004. During this period, the renewal process was passive.
- 2) TRANS represents the transition period from the passive renewal process to the active renewal process, spanning July 1, 2004 through February 28, 2005. This encompasses a two-month administrative transition period during July and August, during which there were no renewals, and the first six-month active renewal period from September 2004 – February 2005. Analyses of the renewal process during this period are complicated by the hurricane renewal grace period, which postponed September through November program cancellations until December when there was a large spike in program disenrollment.
- 3) POST represents the period from March 1, 2005 through February 28, 2006, which constitutes the first full year of active renewals after the renewal requirements were relaxed to only one document (instead of three) to verify earned income and a 12-month (instead of a 6-month) recertification period.

These time periods are summarized in Table 2.

<i>January 2004- June 2004</i>	<i>July 2004 – February 2005</i>	<i>March 2005 – February 2006</i>
Pre Period <ul style="list-style-type: none"> <li>• Passive Renewal</li> </ul>	Transition period <ul style="list-style-type: none"> <li>• July and August – program administration transition months with no renewals</li> <li>• September 2004 – February 2005 first active renewal period with 3 earned income documents required and 6-month recertification period</li> <li>• September- November cancellations postponed until December due to hurricane grace period</li> </ul>	Post period <ul style="list-style-type: none"> <li>• Active renewal with 1 earned income document required and 12-month recertification period</li> </ul>

**Children’s Health Status.** A categorical health status variable was constructed using the collapsed CRG classifications previously described: (1) Healthy, (2) Significant Acute, (3) CSHCN – Minor Conditions, (4) CSHCN – Moderate Conditions, and (5) CSHCN – Major Conditions. Four different time frames for the claims and encounter data were used to initially classify the children’s health status and to update their health status over time. Six month intervals were selected in order to classify new enrollees once sufficient claims and encounter data were available. Claims and encounter data from July 2003 through June 2004 were used to classify the health status of spells that were left truncated at January 2004 and to new enrollment spells originating from January 2004 through June 2004. The children’s CRG classification was updated every six months (at July 2004, January 2005, and July 2005) by advancing the claims and encounter data time intervals by six months for each new classification. Twelve months of data were used at each update to classify the children.

***Sociodemographic Variables.*** The families' income expressed as a percent of the FPL, and the children's age, gender, and place of residence (rural versus urban) also were included in the analyses. Age was updated annually.

***Program Transition.*** We controlled for transfers to other public insurance programs – specifically, Medicaid and CMS - in our analyses because program transitions influence enrollment length.

### **3. Results.**

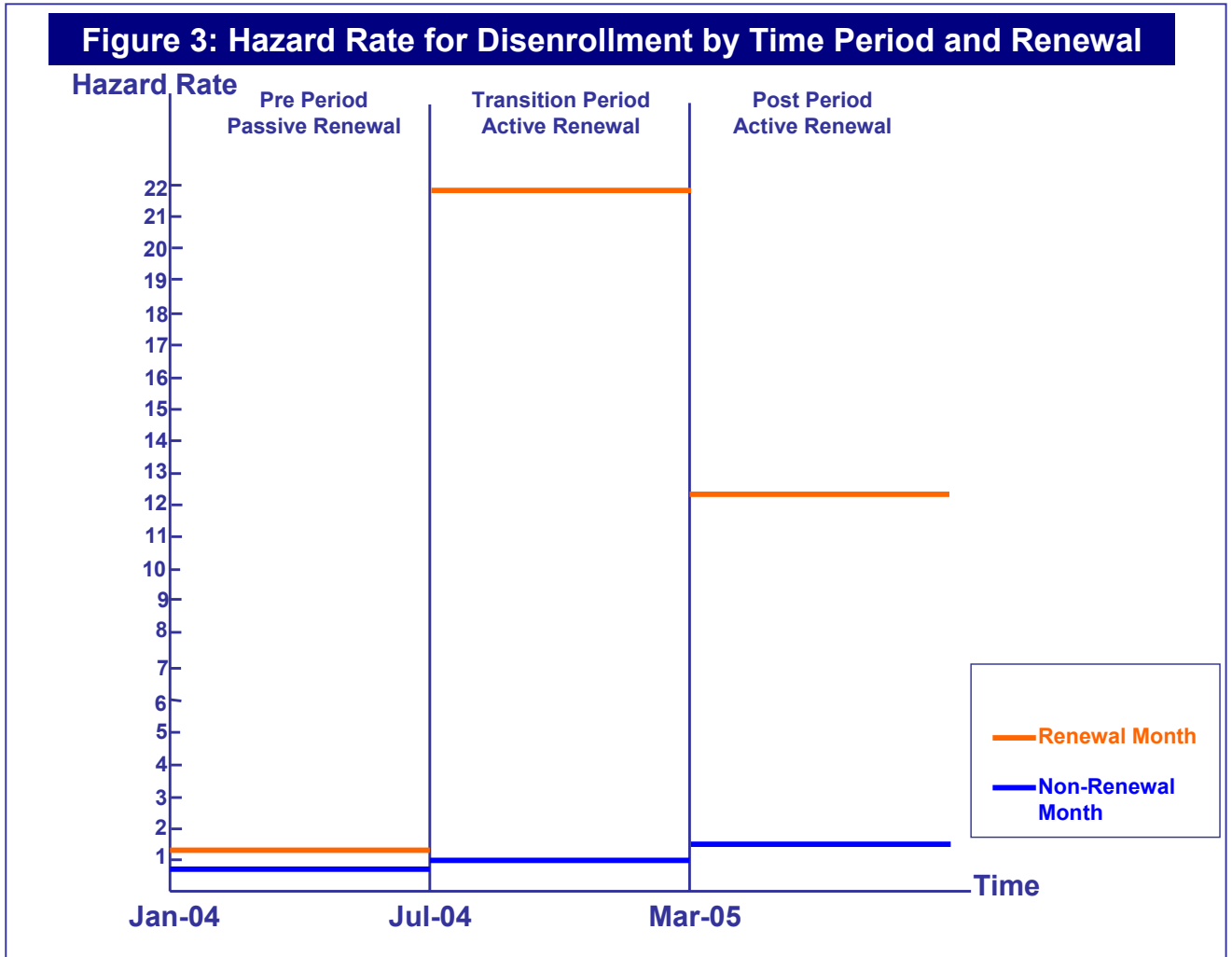
The implementation of an active renewal process was associated with an increased risk of disenrollment from the Florida Healthy Kids Program. The results of these analyses are provided in Appendix B. Figure 3 summarizes the effect of the renewal policy changes on the children's hazard rate (HR) – or risk – for disenrolling. The approximated baseline hazard rate is 0.8%, which represents just under a one percent probability of exit in a nonrenewal month for children under a passive renewal policy. Hazard rates greater than 0.8% represent an increased risk of disenrollment relative to this baseline. The following are the key findings of our analyses:

- ❑ Under passive renewal from January 2004 to July 2004, the probability of exit for children in their renewal month was higher (1.3%) than for children in non-renewal months (0.8%).
- ❑ During the transition period, immediately after the renewal policy changes, the risk of disenrollment for children in their renewal month increased significantly to almost 22%.<sup>4</sup> That is, children who were up for renewal during the transition period had approximately 17 times ( $22/1.3 = 17$ ) the risk of disenrolling compared to children up for renewal under passive renewal.

- During the “post” period, when the renewal earned income documentation requirements were relaxed and the recertification period increased from 6 months to 12 months, the risk of disenrollment in the renewal month decreased to 13% from 22%, which was observed during the transition period; however, even with this decrease, the probability of a exit in the renewal month remained about 10 times greater than the 1.3% prior to the policy changes.

These findings are consistent with prior research that has found that active renewal significantly increases the risk of disenrollment relative to passive renewal. However, even under active renewal, the hazard rate for disenrollment of 13% at recertification under active renewal in Florida is still less than that observed in other states (33-50%).<sup>5</sup>

Other findings include: (1) children were more likely to disenroll in the month that the grace period for completing the renewal requirements expired than in other nonrenewal months; (2) children who transferred to Medicaid were at higher risk of disenrolling compared to non-transferring children, whereas children who transferred to CMS were at less risk of disenrolling compared to non-transferring children; (3) children with acute significant or chronic health conditions were less likely to disenroll compared to children classified as healthy; (4) children from families with incomes between 151-200% FPL were less likely to disenroll than children from families with income less than 150% FPL, whereas children from families with incomes greater than 200% FPL were somewhat more likely to disenroll than children from families with incomes less than 150% FPL<sup>6</sup>; (5) older children were more likely to disenroll than younger children; and (6) children from rural areas were more likely to disenroll than those from urban areas.



#### IV. CONCLUSIONS

The July 2004 implementation of an active renewal process significantly increased the children’s risk of disenrollment from the Florida Healthy Kids Program. Children up for renewal after the policy change faced a ten-fold greater risk of disenrolling compared to children up for renewal prior to the policy change. The sociodemographic and health characteristics of children who disenrolled were more likely to be healthy, ages 12-18, and in families with household income of less than 200% FPL. These findings suggest that families may be making decisions about whether to renew coverage for their children based on their family income and their



children's ages and health status. Therefore, the Florida Healthy Kids Corporation may want to target families of adolescents, lower income families, and those whose children are healthy for follow-up during the renewal process.

## Endnotes

<sup>1</sup> When this policy change was enacted, recertification occurred every six months. Effective January 1, 2005 the redetermination process was changed to occur every 12 months (HB 1843).

<sup>2</sup> The proof of income requirements specified in HB 1843, effective July 1, 2004, included copies of the prior year's federal income tax return, wages and earnings statements, in addition to any other appropriate documents. These requirements were subsequently eased in December 2004 with the enactment of SB 28-A, which provides that proof of family income include a copy of the most recent federal income tax return, wages and earning statements (pay stubs), or W-2 forms, in addition to other appropriate documents.

<sup>3</sup> Neff, J.M., Sharp, V., Muldoon, J., Graham, J. Popalisky, J., Gay, J. 2001. "Identifying and Classifying Children with Chronic Conditions Using Administrative Data with the Clinical Risk Group Classification System." *Journal of Ambulatory Pediatrics*. 2(1): 72-29.

<sup>4</sup> The hazard rate during the transition period is particularly high because of the spike in disenrollment in December due to the hurricane grace period, which postponed September to November cancellations to December. We simulated what the hazard rate would have been if the cancellations had occurred on schedule. This simulated hazard rate was 12.78% instead of 23%.

<sup>5</sup> Dick A., Allison A., Haber S., Shenkman E. 2002. "The Consequences of State Policies for SCHIP Disenrollment." *Health Care Financing Review*. 23(3):65-88.

<sup>6</sup> The effect on different income groups in the multivariate analyses are somewhat different than those obtained in the bivariate, chi-squared analyses contained in Table 1. The chi-square analyses in Table 1 do not control for other factors besides income that influence renewal.

## Appendix A: Clinical Risk Groups Categories

The Clinical Risk Groups (CRGs) classifies individuals into mutually exclusive clinical categories by reading ICD-9-CM diagnosis codes from all health care encounters, except those associated with providers known to frequently report unreliable codes (e.g., non-clinician providers and ancillary testing providers).<sup>1</sup> It assigns all diagnosis codes to a diagnostic category (acute or chronic) and body system, and assigns all procedure codes to a procedure category. Each individual is grouped to a hierarchically defined core health status group, and then to a CRG category and severity level, if chronically ill.

Chronic and acute illnesses are generally classified only if there has been at least two outpatient encounters for that diagnosis separated by at least a day. There are a few diagnoses that require only one outpatient encounter based diagnosis, and these include the codes for mental retardation, Down's Syndrome, blindness, and procedural codes such as chemotherapy and renal dialysis. Enrollees in the program for six months or longer are included in the analyses. Some continuity of enrollment is required to classify individuals accurately. The CRG health status categories are defined below:

**Healthy** includes children who were seen for preventive care and for minor illnesses. This category also includes children who were enrolled but did not use health care services during the classification period.

**Significant Acute Conditions** are those acute illnesses that could be precursors to or place the person at risk for developing a chronic disease. Examples in this group are head injury with coma, prematurity, and meningitis.

**Minor Chronic Conditions** (both *single minor* and *multiple minor*) are those illnesses that can usually be managed effectively throughout an individual's life with typically few

complications and limited effect upon the individual's ability, death and future need for medical care. This category includes attention deficit / hyperactive disorders (ADHD), minor eye problems (excluding near-sightedness and other refractory disorders), hearing loss, migraine headache, some dermatological conditions, and depression.

***Moderate Chronic Conditions*** are those illnesses that are variable in their severity and progression, but can be complicated and require extensive care and sometimes contribute to debility and death. This category includes asthma, epilepsy, and major depressive disorders.

***Dominant Chronic Conditions*** are those illnesses that are serious, and often result in progressive deterioration, debility, death, and the need for more extensive medical care. Examples in this group include diabetes, sickle cell anemia, chronic obstructive lung disease and schizophrenia.

***Chronic Pairs and Triplets*** are those individuals who have multiple primary chronic illnesses in two (Pairs) or three or more body systems (Triplets).

***Metastatic Malignancies*** include acute leukemia under active treatment and other active malignant conditions that affect children.

***Catastrophic Conditions*** are those illnesses that are severe, often progressive, and are either associated with long term dependence on medical technology, or are life defining conditions that dominate the medical care required. Examples in this group include cystic fibrosis, spina bifida, muscular dystrophy, respirator dependent pulmonary disease and end stage renal disease on dialysis.

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<sup>1</sup> Neff, J.M., Sharp, V., Muldoon, J., Graham, J. Popalisky, J., Gay, J. 2001. "Identifying and Classifying Children with Chronic Conditions Using Administrative Data with the Clinical Risk Group Classification System." *Journal of Ambulatory Pediatrics*. 2(1): 72-29.

## Appendix B: Results of Cox Proportional Hazards Model

Effect	Hazard Ratio	P-value
Transition period	1.1368	0.000
Renewal month	1.6142	0.000
Trans*Renew	14.8595	0.000
Post	1.8645	0.000
Post*Renew	5.2067	0.000
Grace period expiration	3.3038	0.000
rural	0.9581	0.000
age5-11	1.1119	0.000
age12-18	1.1789	0.000
transit1-Med	2.8755	0.000
transit2-CMS	0.4349	0.000
150<fpl<=200	0.8630	0.000
fpl>200	1.0665	0.000
crg2-sigacute	0.4829	0.000
crg3-minor	0.6159	0.000
crg4-mod	0.6021	0.000
crg5-maj	0.4779	0.000
crg6-unclass	1.6659	0.000
female – not significant	0.9982	0.678

### Calculated Hazard Rates by Renewal Status and Time Period

	Hazard Rate
<b>Non-Renewal Month</b>	
Pre Period	0.80
Transition Period	0.91
Post Period	1.49
<b>Renewal Month</b>	
Pre Period	1.29
Transition Period	21.81
Post Period	12.54