COST ANALYSES OF THE IOWA CHRONIC CONDITION HEALTH HOME PROGRAM

July 1, 2012 - June 30, 2015

June 30, 2017
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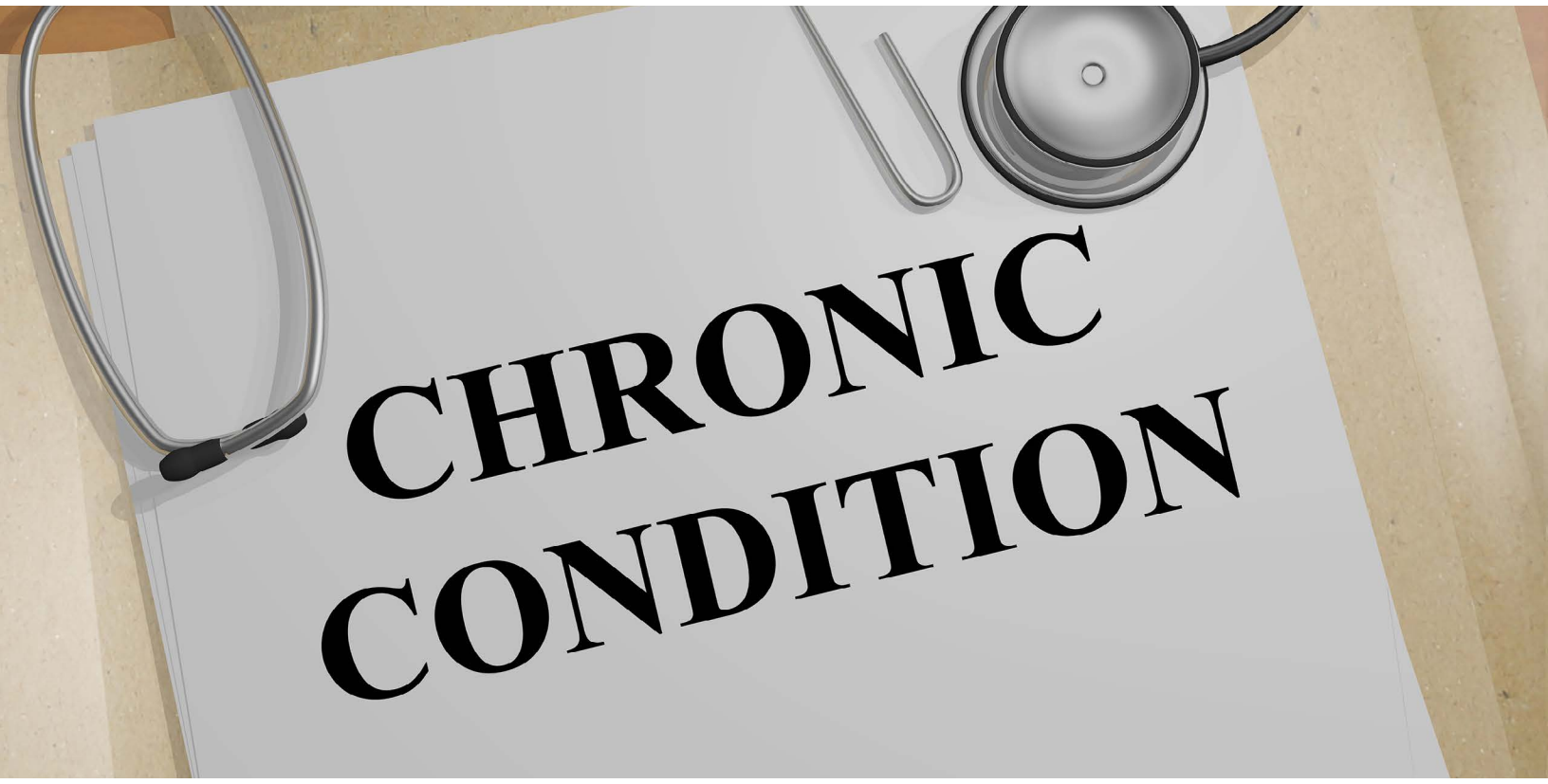
Elizabeth T. Momany
Assistant Director, Health Policy Research Program
Associate Research Scientist, Public Policy Center

Phuong Nguyen-Hoang
Associate Professor, Urban and Regional Planning and Public Policy Center

Peter C. Damiano
Director, Public Policy Center
Professor, Preventive & Community Dentistry

Suzanne E. Bentler
Assistant Research Scientist, Public Policy Center

Dan M. Shane
Assistant Professor, Health Management and Policy



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• first-last@uiowa.edu • ppc.uiowa.edu
• 319-335-6800 • 310 S. Grand Ave, Iowa City, IA 52242
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EXECUTIVE SUMMARY

INTRODUCTION

The Chronic Condition Health Home (CCHH), previously known as the Medicaid Health Home, incentivizes health care providers in Iowa to offer care coordination services to Medicaid members with chronic conditions through a monthly payment tied to the number and severity of the enrollee's chronic condition(s). This report, part of an ongoing evaluation of the CCHH program, presents the demographic characteristics of members and the cost analyses of the first three years of the program (July 1, 2012-June 30, 2015).

DEMOGRAPHICS

- As of June 2015, 7,370 Medicaid members were enrolled with a CCHH provider. Members of the CCHH population are more likely to be white, female, adult, and living in an urban location than non-CCHH Medicaid members (Table 3).
- Within the CCHH group, children and youth (under 18 years of age) are more likely to be male, white, reside in Black Hawk county, and be in a lower tier than adults (over 17 years of age) (Table 4).

METHODS

The study included 6,874 CCHH members and 25,026 non-CCHH members. Enrollment data was derived from the March 2016 enrollment file; claim and encounter data was derived from files that had been updated through paid dates of December 2016.

For the purposes of determining the effect of CCHH enrollment on member costs, we utilized a study period from January 1, 2011 through June 30, 2015. This study period encompassed 18 months before the implementation of the program and 36 after.

ANALYTIC METHOD

We used a fixed effects regression modeling technique that included monthly information for each member for the months they were in the study. The maximum number of months of data available for a member in the analyses was 54. As this model allows for data for each member in the CCHH study and non-CCHH comparison groups for the period before and after implementation, each member serves as his/her own control. This method of predicting cost changes is quite robust.

RESULTS

- This study estimates that the CCHH averted over $32 million in gross costs to the Medicaid program during the first 3 years of the program. Using more conservative estimates still shows nearly $24 million in averted costs.
- This translates to $374.27 in gross averted costs per member per month. Additionally, analyses indicate that the sources of cost aversions include reduced expenditures for ED visits and less money spent on inpatient care (Table 9).

INTRODUCTION

The Chronic Condition Health Home (CCHH) model was authorized under a state plan amendment approved by the Centers for Medicare and Medicaid Services with enrollment beginning July 1, 2012. Briefly, CCHH incentivizes health care providers in Iowa to offer care coordination services to Medicaid members with chronic conditions through a monthly payment tied to the number and severity of the enrollee's chronic conditions (Table 1).

Table 1. Tier definitions

Tier	Sum of chronic conditions	Monthly payment
1	1-3	$12.80
2	4-6	$25.60
3	7-9	$51.21
4	10 or more	$76.81

To be eligible for the CCHH Medicaid enrollees must have at least two chronic conditions or one chronic condition and be at risk for developing a second condition from the following list:

- Hypertension
- Overweight (Adults with a Body Mass Index of 25 or greater/Children in the 85th percentile)
- Heart Disease
- Diabetes
- Asthma
- Substance Abuse
- Mental Health Problems

In addition, they may **not** be in IowaCare, enrolled in one of three Programs for All Inclusive Care for the Elderly (PACE), in the Iowa Family Planning Network, a Qualified Medicare Beneficiary or Specified Low Income Medicare Beneficiary, enrolled with an HMO or be a presumptively eligible[1] child or adult (presumptive eligibility is granted to pregnant .

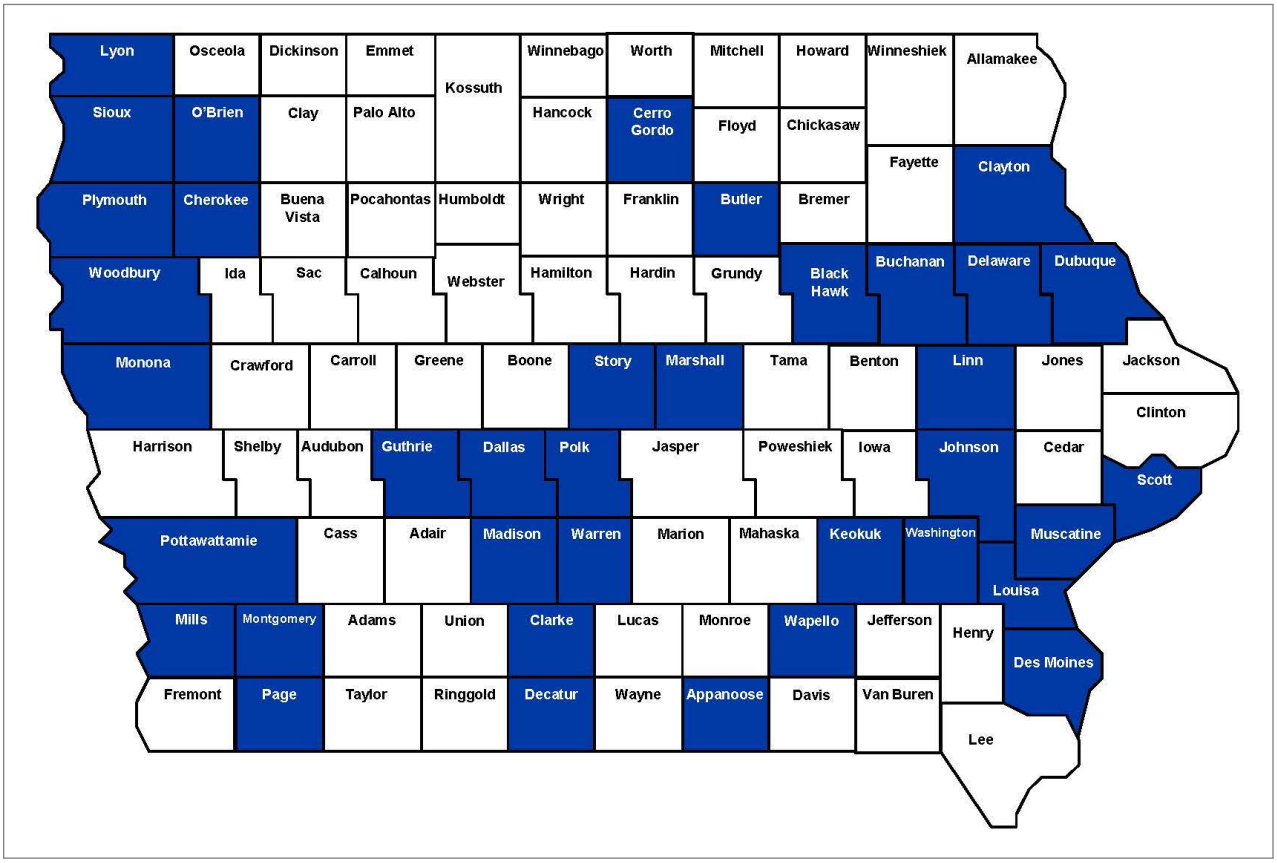
CCHH enrolled providers include but are not limited to: physician clinics, community mental health centers, Federally Qualified Health Centers (FQHCs), and Rural Health Clinics (RHCs). As of August 2015, there were 37 counties with CCHH providers in Iowa (Figure 1)

A full description of the CCHH can be found at http://www.ime.state.ia.us/Providers/healthhome.html.

This report explores the change in cost resulting from member enrollment in the CCHH during the first three years of the program. A previous report (http://ppc.uiowa.edu/publications/cost-analyses-iowa-medicaid-health-home-program) found that during the first eighteen months of the program an average of $132.10 in gross costs were averted in the first month of CCHH enrollment, with a $10.70 increase for each additional month members are enrolled. The final gross costs averted by enrollment in the program were estimated at over $9 million. These cost reductions are hypothesized as a result of the effective management of existing conditions, early detection of new conditions, and prevention efforts resulting in fewer and less costly hospitalizations, fewer nursing home admissions, and less emergency department (ED) use (see previous report http://ppc.uiowa.edu/publications/summary-report-iowa-medicaid-medical-health-home-evaluation-health-home-program-those) .

1 Presumptive eligibility (PE) provides Medicaid for a limited time while a formal Medicaid eligibility determination is being made by the Iowa Department of Human Services (DHS).

Figure 1. Map of counties with CCHH providers as of August 2015*



*Iowa Department of Human Services

ENROLLMENT

The CCHH was slow to enroll providers and thereby members during the first three years of the program (Figure 2). By June 2015, 11,466 members had been enrolled for at least one month during some time in that period (Table 2). The total number of active members on June 30, 2015 was 7,370.

Figure 2. CCHH program enrollment by month and tier level, July 2012-December 2015 (Derived from March, 2016 enrollment file)

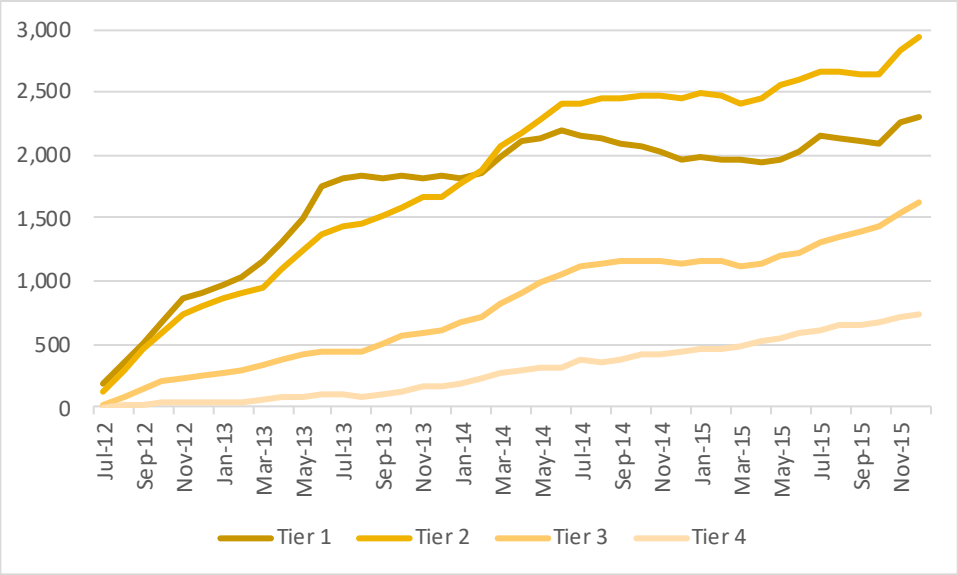


Table 2. Number of months enrolled in the CCHH program SFY 2013-2015 (Derived from March 2016 enrollment file)

Number of months	Number enrolled	Percent of enrollment
1-6	3,197	28%
7-12	2,894	25%
13-18	2,426	21%
19-24	1,225	11%
25-30	948	8%
31-36	776	7%
Total	11,466	100%

STUDY PERIOD

For the purposes of determining the cost effect of CCHH enrollment we utilized a study period from January 1, 2011 through June 30, 2015. This study period encompassed 18 months before the implementation of the program and 36 months after.

STUDY GROUP

We originally selected 720,076 Medicaid members who had at least 1 month of eligibility in Medicaid for the period from July 1, 2012-June 30, 2015. Of these, 11,466 had been enrolled in the CCHH for at least 1 month during that period (CCHH population). Medicaid members were removed from the study if they met any of the following criteria:

1. Under 1 year of age on July 1, 2012 or over 64 years prior to June 30, 2015
2. Medicare coverage in any month during the study period

This left 6,874 CCHH members (CCH study group) and 502,158 non-CCHH members. For the comparison group, we selected a 5% random sample of non-CCHH members, resulting in a non-CCHH comparison group of 25,026 members. Enrollment data was derived from the March 2016 enrollment file, claim and encounter data was derived from files that had been updated through paid dates of December, 2016.

Table 3 compares the CCHH population, the CCHH study group and the non-CCHH comparison group by sex, race,

age, county of residence, and most recent tier level (only for CCHH members). All three groups are primarily adult, female, white and living in an urban county. However, CCHH members are more likely to be female and more likely to report being white or black than the Medicaid comparison group. CCHH members are much more likely to be over 18 years of age and more likely to reside in Black Hawk county. These differences may be related to the distribution of chronic conditions in the Medicaid population. In particular, adults are more likely to have one or more chronic conditions than children. However, differences in age, sex, and county of residence are more likely related to the level of CCHH provider activity in an area and their patient mix.

Table 3. Gender, race/ethnicity, age, county of residence, and tier for the CCHH study group, CCHH population, and non-CCHH comparison group, June 2015 (Derived from March, 2016 enrollment file)

Demographics	CCHH study group		CCHH population		Non-CCHH comparison group	
Characteristic	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Gender						
Female	4,415	64%	7,103	62%	14,350	57%
Male	2,459	36%	4,363	38%	10,676	43%
Race/Ethnicity						
White	3,864	56%	6,479	57%	13,194	53%
Black or African American	1,160	17%	1,617	14%	2,060	8%
Hispanic/Latino	480	7%	637	6%	2,405	10%
Asian/Pacific Islander	91	1%	176	1%	434	2%
American Indian	142	2%	180	2%	319	1%
Multiple-other	135	2%	145	1%	474	2%
Undeclared	1,001	15%	2,206	19%	5,967	24%
Age						
0-17 years old	1,929	28%	2,125	19%	13,359	53%
18-64 years old	4,945	72%	7,912	69%	11,667	47%
Over 65 years old	0	0	1,429	12%	0	0
County of residence						
Black Hawk	2,120	31%	2,720	24%	1,093	4%
Polk	1,112	16%	2,369	21%	4,092	16%
Woodbury	1,039	15%	2,004	18%	1,302	5%
Linn	328	5%	491	4%	1,807	7%
Scott	272	4%	481	4%	1,735	7%
Des Moines	225	3%	2340	3%	456	2%
All others	1,778	26%	3,061	27%	10,485	42%
Tier						
Tier 1	3,061	45%	4,303	38%	N/A	N/A
Tier 2	2,525	37%	4,402	38%	N/A	N/A
Tier 3	904	13%	1,922	17%	N/A	N/A
Tier 4	384	6%	839	7%	N/A	N/A
Total	**6,874**		**11,466**		**25,026**	

Table 4 provides demographics by age group: child/youth and adult. The distribution of gender by age reveals that though the study group is primarily female, those under 17 are more likely to be male. In addition, as age increases it appears that members are more likely not to disclose their race, while children under 18 and adults over 64 are less likely to be white. The county of residence by age indicates that though all age groups are primarily in urban counties, the counties in which they reside vary by age. This most likely reflects the propensity of CCHH providers to take people in certain age ranges, particularly pediatric providers in certain counties. Finally, as might be expected, as age increases the likelihood that a member will be in a higher tier also increases. Only 5% of children/youth are in tier 3 or 4 within the study group, while 24% of those 18 and over are in one of these tiers.

Table 4. Gender, race/ethnicity, county of residence and tier for the CCHH study group by age, June 2015 (Derived from March 2016 enrollment file)

Characteristic	0-17 years Number (%)	18-64 years Number (%)
Gender		
Female	870 (45%)	3,545 (72%)
Male	1,059 (55%)	1,400 (28%)
Race/Ethnicity		
White	856 (44%)	3,008 (61%)
Black or African American	364 (19%)	796 (16%)
Hispanic/Latino	260 (14%)	221 (5%)
Asian/Pacific Islander	24 (1%)	67 (1%)
American Indian	38 (2%)	104 (2%)
Multiple-other	112 (6%)	23 (<1%)
Undeclared	275 (14%)	726 (15%)
County of residence		
Black Hawk	1,127 (58%)	993 (20%)
Woodbury	181 (9%)	858 (17%)
Linn	99 (5%)	229 (5%)
Polk	95 (5%)	1,017 (21%)
Plymouth	68 (4%)	
Butler	41 (2%)	
Des Moines		221 (5%)
Scott		244 (5%)
All others	318 (16%)	1,383 (28%)
Tier		
Tier 1	1,390 (72%)	1,671 (34%)
Tier 2	441 (23%)	2,084 (42%)
Tier 3	74 (4%)	830 (17%)
Tier 4	24 (1%)	360 (7%)
Total	**1,929**	**4,945**

RESULTS

UNIT OF ANALYSIS

The unit of analysis for this study is a member month, with the dependent variables being: 1) per member per month (PMPM) Medicaid total costs, 2) PMPM emergency department (ED) costs, and 3) PMPM inpatient costs. We used Medicaid claims and encounter files with paid dates through December 2016 covering first dates of service from January 1, 2011 through June 30, 2015. Enrollment data for this same period was taken from the March 2016 enrollment file. This yielded 1,199,251 months of data for 31,900 members. Of these, 6,874 members had at least one month within the CCHH. These members had 86,838 months of CCHH experience, the remaining 1,112,413 months were either months when the CCHH members were not enrolled in the CCHH such as in the 18 months before the program started or were months of experience for the non-CCHH comparison group.

Table 5 provides an estimate of the reimbursement provided to CCHH providers as tier payments. This estimate is based on the March, 2016 enrollment file. Member tier level was summed across months for the study period. Though these costs are broken out in Table 5. These costs are actually recorded in the claims and encounter data as reimbursement to providers. Therefore, the cost analyses that follow include the tier payments in the PMPM cost values. For this reason tier payments are NOT subtracted from the cost aversion estimates provided later in the report, this would over account for the tier payment costs.

Table 5.Tier payments to the CCHH providers during the three-year study period

Tier	Monthly payment	Tier months	Reimbursement to CCHH providers
1	$12.80	58,682	$751,129.60
2	$25.60	33,194	$849,766.40
3	$51.21	11,300	$578,673.00
4	$76.81	3,674	$282,199.94
Total		**153,438**	**$2,461,768.94**

STUDY GROUPS

The CCHH study group consisted of 6,874 members who had been enrolled for at least 1 month in the CCHH and who had no months of Medicare coverage. These members were matched to 25,026 randomly selected Medicaid members using a regression technique exploiting information such as age, gender, program, and presence of medical conditions. This provided analytical weights which were used to adjust the regression results to reflect the results if the two groups would have had the same distributions on these characteristics.

ANALYTIC METHOD

We used a fixed effects regression modeling technique that included monthly information for each member for the months they were in the study. The maximum number of months of data available for a member in the analyses was 54. As this model allows for data for each member in the CCHH study and non-CCHH comparison groups for the period before and after implementation, each member serves as his/her own control. This method of predicting cost changes is quite robust.

DEPENDENT VARIABLES

Below is a list of the 3 dependent variables included in the regressions and how they were defined in these models. These represent the primary research questions for these analyses.

Total costs

Total costs include medical, institutional, dental, inpatient, outpatient, pharmaceutical, and durable medical equipment. Essentially, if Medicaid made a payment to cover the service it is in the total cost calculation.

ED costs

ED visits were identified through revenue codes (450-459) from institutional claims. By calculating the length of stay for the claim we were able to determine whether there was an inpatient stay associated with the visit. ED costs include all costs associated with ED visits that did NOT have an associated inpatient stay.

Inpatient costs

Inpatient costs include all costs associated with an inpatient stay including those that resulted from an ED visit.

INDEPENDENT VARIABLES

Below is a list of the independent variables included in the regressions and how they were defined in these models.

Average monthly change in cost

An indicator was created for the first month of CCHH enrollment. This value reflects the average change in cost for each month in the CCHH.

Trend month 2-7

An indicator for whether the data is in month 2-7 of the member's enrollment in the CCHH. This value reflects the average change in cost for each month of enrollment for months 2-7.

Trend month 8-12

An indicator for whether the data is in month 8-12 of the member's enrollment in the CCHH. This value reflects the average change in cost for each month of enrollment for months 8-12.

Trend month 13-18

An indicator for whether the data is in month 13-18 of the member's enrollment in the CCHH. This value reflects the average change in cost for each month of enrollment for months 13-18.

Trend month 19-24

An indicator for whether the data is in month 19-24 of the member's enrollment in the CCHH. This value reflects the average change in cost for each month of enrollment for months 19-24.

Trend month 25-36

An indicator for whether the data is in month 25-36 of the member's enrollment in the CCHH. This value reflects the average change in cost for each month of enrollment for months 25-36.

Program

11 indicator variables (0=not in the named program; 1=is in the named program) for the Medicaid program in which the member was enrolled. Programs include: MediPASS, Fee-for-service, HMO, disability determination, foster care, waiver or institutional level of care program, Medicaid for Employed People with Disabilities, IowaCare, Family Planning, Wellness Plan, Marketplace Choice, and other.

CCHH provider - Number of months providing care

For each month, the number of months for which the member's health home provider had been enrolled is provided.

CCHH provider - Number of CCHH members

For each month, the number of members enrolled with the member's health home provider is provided.

CONTROL VARIABLES

Control variables are used to account for the effects of various characteristics while the effect of these variables is not of theoretical interest.

County of residence

A set of indicators (1=is in the name county; 0=is not in named county) is used to indicate the county of residence each month. This allows us to control for the effects of county level characteristics such as urbanicity, population density, and physician to population ratio.

Health Home provider

A set of indicators (1=is enrolled with named provider; 0=is not enrolled with named provider) is used to indicate the Health Home provider the member was assigned to in each month. Though we use the number of health home members and number of months providing health home care as theoretical variables to investigate the effects of specific aspects of the health home providers practice, these provider indicator variables allow us to control for characteristics

we may not have considered such as location of practice, age distribution of practice, and specialty areas within the practice.

Time

A set of indicators (1=is in the named year and month; 0=is not in named year and month) is used to indicate the year and month of the data. This allows us to control for time effects such as seasonal infections, annual changes in health care coverage or policy, and changes in health care guidelines or practice styles.

Presence of chronic conditions

In each month there are 21 indicator variables (0=does not have the condition; 1=has the condition),to adjust the results for existing conditions: substance abuse, dementia, schizophrenia, learning disability, depression, intellectual and/or developmental disorder, attention deficit disorder, mood disorder, persistent mental health problems, anxiety, pervasive developmental delay, asthma, diabetes, coronary artery disease, hypertension, obesity, hypercholesterolemia, hypothyroid, anemia, rheumatoid arthritis and major cancer. Though a member can have indicators for more than one of these chronic conditions, there are no overlapping diagnoses between the chronic conditions. Simply put, being found to have any one of the above chronic conditions does not automatically code you has having a second chronic condition. We used case finding protocols derived from the HEDIS quality measures and the CMS chronic conditions coding algorithms to find the first month of the study in which there is a claim for the condition. This is the index month and the first month that the indicator is set to 1. The indicator remains 1 throughout the study period following the index month.

Waiver services

An indicator (1=yes, 0=no) of whether a member received waiver services during the month to control for additional costs due to access to waiver services.

RESULTS

CHANGES IN COSTS

The results of the regression models estimating the change in costs as a result of the CCHH program are provided in Table 6-Table 8. 'Average monthly cost of CCHH' provides an estimate of the change in "per member per month" (PMPM) cost resulting from the first month of CCHH enrollment. 'Monthly trend' provides an estimate of the adjustment to change in PMPM costs that should be made each month in that period. To estimate the change in cost in a given month as a result of CCHH enrollment for total cost (Table 6) we take the 'Average month cost of CCHH' and add it to the 'Trend Months XX-XX' for the given month of enrollment. For example, the change in cost for a CCHH member in month 9 of enrollment would be -$232.00+-$225.80=-$457.80, with the minus sign indicating a reduction in costs over what would have been predicted considering the experience of the non-CCH comparison group and the CCHH member's own pre-CCHH experience. Summing these changes over months and time provides the gross estimates of averted costs (Table 9).

Change in total costs

The results for change in total costs are shown in Table 6. The average monthly averted costs per member in the CCHH was $232.00 with a lower-bound estimate of $187.40. This PMPM estimate adjusted for the trend indicators find no additional aversion of costs during months 2-7, $225.80 during months 8-12, $317.60 during months 13-18, $445.20 during months 19-14 and $342.30 during months 25-36. Estimated total averted costs using these estimates are found in Table 9. The average cost reduction PMPM across the full study period was $374.27.

Table 6. Change in Total PMPM costs as a result of enrollment in the CCHH, average and lower-bound estimate

Independent variable	Change in cost	Lower-bound estimate of change in cost
Average monthly cost of CCHH	-$232.0***	-$187.40
Trend month 2-7	$78.2	$172.20
Trend months 8-12	-$225.8**	-$123.70
Trend months 13-18	-$317.6**	-$195.80
Trend months 19-24	-$445.2***	-$314.10
Trend months 25-36	-$342.3***	-$229.20
Tier	-$111.9**	-$64.50
MediPASS	-$357.2	$38.10
HMO	-$82.7	$296.00
Fee-for-service	-$379.1	$18.60
Disability determination	$168.1	$503.20
Foster care	$549.7	$959.50
Waiver level of care services	-$1118.1	-$136.90
IowaCare	-$1133.2***	-$766.00
Family Planning	-$1097.4***	-$694.30
Wellness Plan	-$453.7	-$49.30
Marketplace Choice	-$379.0	$27.10
Other program	$691.0	$1,610.90
CCHH – number of members	$0.07	$0.27
CCHH – number of months	$0.004	$0.02

* p<0.10, ** p<0.05, *** p<0.01

Change in ED costs

Table 7 provides the results for the change in costs for ED visits that did not result in an inpatient stay. There is no significant change in average monthly cost while enrolled in the CCHH. However, there are post enrollment trends in averted costs which show cost aversions of $20.80 per month during months 2-7, $28.20 per month during months 8-12, $28.50 per month during months 13-18, $35.00 per month during months 19-24 and $36.80 per month during months 25-36. When these estimates are applied to the number of months in the CCHH, the estimated averted costs are over $2 million.

Table 7. Change in ED visit PMPM costs as a result of enrollment in the CCHH, average and lower-bound estimate

Independent variable	Change in cost	Lower-bound estimate of change in cost
Average monthly cost of CCHH	-$2.44	$0.43
Trend month 2-7	-$20.8**	-$10.70
Trend months 8-12	-$28.2***	-$18.48
Trend months 13-18	-$28.5***	-$18.40
Trend months 19-24	-$35.0***	-$25.37
Trend months 25-36	-$36.8***	-$26.00
Tier	-$0.97	-$0.97
MediPASS	$26.7**	$37.00
HMO	$53.2***	$64.00
Fee-for-service	$28.6***	$39.30
Disability determination	$28.0***	$37.58
Foster care	$18.9*	$28.75
Waiver level of care services	$49.3***	$67.90
IowaCare	-$8.26	$5.04
Family Planning	-$1.94	$8.76
Wellness Plan	$30.3***	$40.60
Marketplace Choice	$30.1***	$40.40
Other program	$42.8***	$53.10
CCHH – number of members	$0.03***	$0.03
CCHH – number of months	-$0.001***	$1.43

* p<0.10, ** p<0.05, *** p<0.01

Change in inpatient costs

Table 8 provides the results for the change in costs for inpatient stays. The cost averted while enrolled in the CCHH is $67.80 PMPM with a lower-bound estimate of $47.60. The post enrollment trends indicate averted costs of $106.10 per month during months 2-7, $182.20 per month during months 8-12, $220.70 per month during months 13-18, $230.70 per month during months 19-24 and $203.30 per month during months 25-36. When these estimates are applied to the number of months in the CCHH, the estimated averted costs are over $12 million.

Table 8. Change in inpatient PMPM costs as a result of enrollment in the CCHH, average and lower-bound estimate

Independent variable	Change in cost	Lower-bound estimate of change in cost
Average monthly cost of CCHH	-$67.8***	-$47.60
Trend month 2-7	-$106.1*	-$52.40
Trend months 8-12	-$182.2***	-$120.60
Trend months 13-18	-$220.7***	-$149.90
Trend months 19-24	-$230.7***	-$165.50
Trend months 25-36	-$203.3***	-$144.10
Tier	-$4.82	-$4.78
MediPASS	$368.2**	$526.70
HMO	$544.7***	$686.90
Fee-for-service	$393.1**	$552.00
Disability determination	$301.8*	$461.70
Foster care	$263.0*	$413.90
Waiver level of care services	$492.8**	$731.70

Independent variable	Change in cost	Lower-bound estimate of change in cost
IowaCare	$178.7	$345.30
Family Planning	$159.3	$323.50
Wellness Plan	$332.3**	$493.50
Marketplace Choice	$331.8**	$484.80
Other program	$345.7**	$421.50
CCHH – number of members	$0.33***	$0.33
CCHH – number of months	-$0.024***	$14.78

* p<0.10, ** p<0.05, *** p<0.01

The change in cost reflected in Table 9 indicates that the CCHH provided over $32 million in gross averted costs to the Medicaid program during the first 3 years of the program. Using the lower-bound total monthly costs averted as a conservative estimate the program still averted nearly $24 million in costs. This translates to $374.27 in averted costs per member per month. Additionally, analyses indicate that some of these costs were averted due to lower costs for ED visits and less money spent on inpatient care. The total amount spent on care for the intervention group over the 3 year period was approximately $143 million, marking a nearly 18% reduction in costs.

Table 9. Change in total cost for the first 3 years of the CCHH program by member's month in the program

Month(s) in program	Number of months (A)	PMPM averted costs (B)	Total monthly averted costs (A*B)	Lower-bound PMPM averted costs (D)	Lower-bound total monthly averted costs (A*D)
1	7,906	$232.00	$1,834,192	$187.40	$1,481,584
2-7	36,568	$232.00	$8,483,776	$187.40	$6,852,843
8-12	20,967	$457.80	$9,598,693	$311.10	$6,522,834
13-18	12,467	$549.60	$6,851,863	$383.20	$4,777,354
19-24	5,865	$677.20	$3,971,778	$501.50	$2,941,298
25-36	3,065	$574.30	$1,760,230	$416.60	$1,276,879
Total Gross Averted Costs			**$32,500,531**		**$23,852,792**

LIMITATIONS

We are unable to determine the costs associated with CCHH members who have any months of coverage through Medicare. Of the 11,466 Medicaid members who had at least one month of CCHH experience, 4,592 members were removed due to Medicare coverage. These members had 10,535 months of non-Medicare covered enrollment. Applying the average PMPM costs averted to these months would add another $4 million to the cost aversion estimates. Interpretation and extrapolation of these results to other members or practices must be limited. These analyses provide the results for a targeted program with both members and practices needing to meet certain criteria. Any assumption that these results would be easily replicated with members who do not have chronic conditions or practices that are not ready to intervene would be false.

CONCLUSIONS

The CCHH program is estimated to have saved between $23 million and $32 million dollars during its first three years of operation as a program operated by the Iowa Medicaid Enterprise (IME). Averted costs were primarily attributed to lower inpatient and emergency room costs. Future estimates will determine if the costs continue to be averted as the Iowa Medicaid program transitions to being managed by the three managed care organizations (MCOs) and the operation of the CCHH was became the responsibility of the MCOs.