Medicaid Value Management Program
SFY 2008 Report
Executive Summary

In SFY 2007 the Medicaid Value Management (MVM) program was developed under the direction of the Iowa Medicaid Director to establish a more comprehensive approach for improving the quality and value of medical services to Iowa Medicaid members. Medical Services Unit provided the leadership for the program development and implementation. Program goals are to:

- Compare nationally recognized benchmarks and data on utilization of services, gaps in care and to evaluate the Medicaid program and services in Iowa.
- Conduct a periodic evaluation utilizing the various data sources to identify opportunities to improve the balance of healthcare quality, service and cost for the Iowa Medicaid program.
- Through analysis of data, develop recommendations to add value to programs and services for the Medicaid member.

The Vision for the Iowa Medicaid Value Management program is to:

Maximize the value of the program to Medicaid members within the fiscal limitations of the state and federal budget.

The Medicaid Medical Director leads the MVM team in the evaluation and analysis of program data and developing projects with potential for enhancing quality of services and/or cost savings. Projects are staffed by Medical Services and may include other IME vendors such as the Surveillance and Utilization Review (SURS), Provider Services, Department of Human Service (DHS) Policy Specialists and Data Warehouse staff. Representatives of the MVM team meet with the Medicaid Director monthly to review and discuss status of the projects.

MVM projects in SFY 2008 included:

- Correct coding initiative
- Healthcare Cost and Utilization Program - Prevention Quality Indicator analysis
- MRI/CT expenditure trends
- Claims review analysis from SFY 2002-2007

All of the projects are developed with regard to long-term sustainability, potential impact on health outcomes and potential impact on costs. Iowa Medicaid data for selected projects will be periodically compared to industry standards and quality benchmark data. Comparison results outside an expected range (exceptions) will provide indications of target areas for further investigation and potential improvement.

MVM priority activities for SYF 2009 include:

- Quarterly review and follow up with PQI results
- Analysis of claims with missing or unknown diagnostic information to promote transparency for Medicaid expenditures
- Analysis of incidents of low birth weight and maternal health care with a goal of improving outcomes

Medicaid Value Management Program

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Background

The Iowa Medicaid Enterprise (IME) has a number of activities and processes that provide controls and program management information. These controls and processes are carried out by multiple IME vendors and are a coordinated effort to provide system integrity. The following table summarizes the inventory of controls and processes.

Program Controls	Processes
Utilization Management	DUR Level of care (LOC) determinations Prior authorization MDS validation Remedial plan review
Program Integrity	Processes SURS MMIS claim edits Correct coding initiative Retrospective review Claims pre-pay review Lock-in/Lock-out programs Provider verification and enrollment
Program Transparency	Processes Performance measures scorecard Monthly, quarterly & annual reports

While these processes and activities provide significant program management information they do not provide a systematic review of the quality and value of services provided. In SFY 2007 the Medicaid Value Management (MVM) program was developed under the direction of the Iowa Medicaid Director to establish a more comprehensive approach for improving the quality and value of medical services to Iowa Medicaid members. The Medical Services Unit provided the leadership for the program development and implementation. Program goals are to:

- Compare nationally recognized benchmarks and data on utilization of services, gaps in care and to evaluate the Medicaid program and services in Iowa.
- Conduct a periodic evaluation utilizing the various data sources to identify opportunities to improve the balance of healthcare quality, service and cost for the Iowa Medicaid program.
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The Vision for the Iowa Medicaid Value Management (MVM) program is to:

Maximize the value of the program to Medicaid members within the fiscal limitations of the state and federal budget.

Projects initiated in the first year of MVM included the following:

- Utilizing established Healthcare Cost and Utilization Program (HCUP) information, primarily the Prevention Quality Indicators, developed by Agency for Healthcare Quality and Research and Healthcare Effectiveness Data Information Set (HEDIS) as benchmark data
- Correct coding initiative with informational letters to providers regarding their coding practices that were greater than two standard deviations from the norm
- Tracking and trending MRI/CT costs and utilization over the past three fiscal years to study appropriateness of prior authorization
- Trending exceptions to policy (ETP) approvals and denials to determine if a policy change for services with a high percentage of approvals should be a covered benefit
- Development of claims review protocols based on the ICD-9 CM for in-depth analysis to isolate and identify the variables in utilization and costs that they might be addressed in future program/policy changes.

MVM Projects

The Medicaid Medical Director leads the MVM team in the evaluation and analysis of program data and developing projects with potential for enhancing quality of services and/or cost savings. Projects are staffed by Medical Services and may include other IME vendors such as the Surveillance and Utilization Review (SURS), Provider Services, Department of Human Service (DHS) Policy Specialists and Data Warehouse staff. Representatives of the MVM team meet with the Medicaid Director monthly to review and discuss the status of the projects.

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Correct Coding Initiative

This initiative analysized claims data to evaluate provider billing practices. With the assistance of the Service Utilization Review staff (SURS), the MVM team created a database to track provider billing. The codes used for the project were evaluation and management (E/M) codes 99211 through 99215, which cover physician office visits for established patients. These codes were chosen because of a 2002 study done by the Office of the Inspector General (OIG) that found more than 35% of E/M codes billed at higher levels did not meet the requirements for these levels. In SFY 2008, 206 providers identified as billing at levels two standard deviations above the norm were sent letters detailing the findings. The letters reminded the providers that IME has the option of reviewing any claim or medical record and that if errors are found recoupment may occur. The letter also included a statistical breakdown of the typical Medicaid coding distribution looks for E/M codes 99211-99215. Of the 206 letters sent, 37 providers completed return correspondence explaining their coding practices.

Data from the initial correct coding sample from SFY 2007 suggested that with the prevalence, and the total amount of money spent annually on E/M, it may be possible to save Iowa Medicaid close to $200,000 a year. This initiative was an inexpensive educational intervention and designed to give feedback on coding practices.

This project will be continued with a review of SFY 2008 claims in 2009 to determine if this approach had an impact on coding practices and should then be continued.

Preventive Quality Indicators (PQI) Analysis

MVM team utilizes the Quality Indicators (QI) developed by the Agency for Healthcare Research and Quality (AHRQ) including Prevention Quality Indicators (PQIs), Inpatient Quality Indicators (IQIs) and Pediatric Quality Indicators (PDIs) as comparison data. These indicators are part of the HCUP data. HCUP is a family of health care databases and related software tools and products. HCUP is based on statewide data collected by hospitals across the United States.

After using claims to calculate the QIs, the team established 95% confidence intervals for each QI. In comparing Iowa Medicaid data to the HCUP data, the goal is to see the Iowa Medicaid rates falls within or below the confidence intervals. This would indicate that the quality of care for the Iowa Medicaid membership is at or above the aggregate rates of the other states participating in HCUP. The report on the following page reflects the PQIs for IME SFY 2007. The highlighted quality indicators reflect those that are of some concern. A PQI is highlighted if the IME rate is above the comparison rate. A QI is also highlighted if the comparison measure is within or below the IME confidence interval (this is because the comparison rate reflects the 50th percentile nationally). A PQI may also be highlighted if there was an increase in the rate from SFY 2006 to SFY 2007 or if it is likely related to another area of potential concern.

Comparison results outside an expected range or with adverse movement (highlighted areas) provide indications of target areas for potential improvement. These target areas will be the focus of further assessment and analysis. Assessment and analysis will include further drill-down into the data, (e.g., by age group, by aide type, by provider, by region, etc). This assessment and analysis will lead to the development of recommendations for intervention.

Prevention Quality Indicators SFY 2007						
PQI	IME Numerator	IME Denominator	IME Rate/100,000	95% CI IME Indicator	Comparison Rate/100,000	Change from '06 %
Diabetes Short Term Complications	258	236,873	108.9	95.4-122.4	54.74	3.5
Perforated Appendix	30	120	25.0	16.8-33.2	30.17/100	4.2
Diabetes Long Term Complications	224	236,873	94.6	81.9-107.2	126.82	11.1
COPD	302	236,873	127.5	112.9-142.1	230.37	-6.5
Hypertension	60	236,873	25.3	18.7-31.9	49.70	-0.4
Congestive Heart Failure	337	236,873	142.3	126.9-157.7	488.56	-2.1
Low Birth Weight	971	4,104	6.0	5.6-6.4	6.26/100	3.2
Dehydration	132	236,873	55.8	46.0-65.4	127.35	-15.5
Bacterial Pneumonia	543	236,873	229.2	209.8-2548.7	418.18	13.0
Urinary Tract Infection	274	236,873	115.7	101.8-129.6	177.27	10.4
Angina	29	236,873	12.3	7.6-16.9	45.92	-31.0
Diabetes Uncontrolled	44	236,873	18.6	12.0-24.3	22.24	73.8
Adult Asthma	257	236,873	108.5	95.0-121.9	120.57	2.3
Lower Extremity Amputation	55	236,873	23.2	16.9-29.6	39.09	0.0
Overall PQI	2,475	236,873	1,044.9	1003.7-1086.0	1,878.51	3.0
Acute PQI	949	236,873	400.6	374.9-426.3	722.80	7.4
Chronic PQI	1,526	236,873	644.2	611.8-676.7	1,155.84	0.5

The team focused on results of the PQIs to identify red flag issues related to quality of care and need for further inquiry. The PQIs are a set of 14 indicators based on hospital discharge data that identify hospitalizations that may have been prevented if the member had received better outpatient care.

PQIs are currently run every quarter utilizing claims data and represent a rolling 12 months of data that is compared to the past three years of claim data. In SFY 2008 MVM identified the following performance indicators for further analysis and investigation:

- PQI-1 Diabetes Short-term Complications Admission Rate
- PQI-2 Perforated Appendix Admission Rate
- PQI-3 Diabetes Long-term Complications Admission Rate
- PQI-14Uncontrolled Diabetes Admission Rate

PQI Status Reports – Performance Indicator Checklists

The following series of checklists provide detail on activities and results of analysis completed by the MVM team.

PQI-1 Diabetes Short-term Complications Admission Rate

Rationale for PQI selection: Instead of simply looking at how many people had complications from short-term diabetes, the ratios take into account population growth. The ratios reflect what the raw numbers showed; specifically that there is a growing diabetes problem in the Iowa Medicaid population. Further analysis was needed to identify trends in the state by demographics, providers, or other factors.

Numerator: All non-maternal/non-neonatal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for short-term complications (ketoacidosis, hyperosmolarity, coma)

Denominator: Population in metro area or county, age 18 years and older.

Population/Demographics

☒ Age — 18 years of age and older - This is a younger population of individuals; most of the recipients (38%) are under the age of 30 and 62% are under the age of 40

☒ Gender — The gender distribution is equal

☒ County of Residence — As the data would suggest, the service areas with the biggest increases in short-term diabetes complications were: Council Bluffs; Davenport; Cedar Rapids. (NOTE: The growth in these areas is not attributable to overall population growth; ratios were computed to assess indicator growth independent of population growth)

Program Variables

☒ Coverage Group

☒ Aid Type — The largest increases by aid type were: Iowa Care 200% group for people ages 19 to 64(60E); Medically Needy under Family Medical Assistance related coverage or under SSI related coverage(37E); Disabled Receives Mandatory State Supplementary Assistance(640); Family Medical Assistance Program(308)

☐ Service Area

☐ Waiver Type

Provider Data

☒ Provider Type

☒ Provider Name — The providers that saw the largest increases were: Alegent Health Mercy Hospital (Council Bluffs); Genesis Health System (Davenport); Mercy Hospital Medical Center (Cedar Rapids). (NOTE: UIHC and Broadlawns had large increases but these were most likely tied to the growth of the IowaCare program)

Claims Specific Data

☒ Diagnosis Code/Description	25010, 25011, 25012, 25013, 25020, 25021, 25022, 25023, 25030, 25031, 25032, 25033
☐ Paid Date/Date of Visit	
☐ Claim Type (Inpt, Outpt, etc.)	
☐ Procedure Code/Description	The overall increase in this indicator was largely driven by complications from Ketoacidosis; this diagnosis accounted for 57% of all the short-term complications
☐ Cost	
☒ Exclusions	Exclude transfers from another institution, MDC 14, MDC 15

Recommendations: Compare member-specific information to the list of members identified for the Care Management program to ensure appropriate members are identified.
Outcome: Member-specific information for the Iowa Medicaid members who were included in the numerator for this analysis were forwarded to the Medical Services Care Management Team. 43 members were not included in the members identified for Care Management. The Care Management parameters were reviewed and it was determined that the members became eligible after the initial list was developed.
Actions: The member-specific information was provided to the Medical Service's Care Management team. The members were contacted telephonically for enrollment into the program.

Follow-up: The Care Management enrollment process will be enhanced to run reports every 6 months.

Selected Performance Indicator PQI-2 Perforated Appendix Admission Rate

Rationale for PQI selection:

Numerator: Discharges with ICD-9-CM diagnosis code for perforations or abscesses of appendix (see below) in any field among cases meeting the inclusion rules for the denominator. Include 5400, 5401.

Denominator: All non-maternal discharges of age 18 years and older in Metro Area or county with diagnosis code for appendicitis in any field. Include 5400, 5401, 5409, 541.

Population/Demographics	
☒ Age	Younger population comprises most of the cases; 39% of the cases are individuals under the age of 30; further 70% of the cases are made up of individuals under 40
☒ Gender	The gender description is relatively equal with Women being slightly more likely to have this condition
☒ County of Residence	
Program Variables	
☒ Coverage Group	
☒ Aid Type	
☐ Service Area	
☐ Waiver Type	
Provider Data	
☐ Provider Type	
☒ Provider Name	There really is no discernable pattern or trend in aid and coverage type, nor is there any significant variances in any geographic area or provider
Claims Specific Data	
☒ Diagnosis Code/Description	5400, 5401 -
☐ Paid Date/Date of Visit	
☐ Claim Type (Inpt, Outpt, etc.)	
☐ Procedure Code/Description	
☒ Cost	
Exclusions	Transferring from another institution, MDC 14, MDC 15

Overview: The appendix drilldown doesn't really tell us much, there really is not an identifiable trend or disproportionate level of perforated appendices in a particular area or provider.

Actions: No further analysis is necessary for this indicator.

Selected Performance Indicator   PQI-3 Diabetes Long-term Complications Admission Rate

Rationale for PI selection: Instead of simply looking at how many people had complications from short-term diabetes, the ratios take into account population growth. The ratios reflect what the raw numbers showed; specifically that there is a growing diabetes problem in the Iowa Medicaid population. Further analysis was needed to identify trends in the state by demographics, providers, or other factors.

Numerator: Discharges age 18 years and older with ICD-9-CM principal diagnosis code for long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified)

Denominator: Population in Metro Area or county, age 18 years and older.

Population/Demographics	
☒ Age	18 years or older - Older population with 83% of cases occurring in individuals over 40; highest prevalence is seen in ages 51-60
☒ Gender	Women are definitely more likely to experience this condition
☒ County of Residence	These counties had the largest increase in residents with long-term complications: Black Hawk; Dubuque; Polk; Pottawattamie

Program Variables	
☒ Coverage Group	
☒ Aid Type	The largest increases by aid type were in: Disabled Receives Mandatory State Supplementary Assistance(640); Iowa Care 200% group for people ages 19 to 64(60E); MEPD(60M)
☒ Service Area	
☐ Waiver Type	

Provider Data	
☐ Provider Type	These providers had the largest increases in number of patients with long-term complications: Allen Memorial Hospital (Waterloo); Genesis Health System (Davenport); Iowa Methodist Medical Center (Des Moines); Mercy Hospital Medical Center (Cedar Rapids)
☒ Provider Name	

Claims Specific Data	
☒ Diagnosis Code/Description	25040, 25041, 25042, 25043, 25050, 25051, 25052, 25053, 25060, 25061, 25082, 25063, 25070, 25071, 25072, 25073, 25080, 25081, 25082, 25083, 25090, 25091, 25092, 25093,
☐ Paid Date/Date of Visit	
☐ Claim Type (Inpt, Outpt, etc.)	
☒ Procedure Code/Description	
☐ Cost	
☒ Exclusions	Transferring from another institution, MDC 14, MDC 15

Recommendations: Compare member-specific information to the list of members identified for the Care Management program to ensure appropriate members are identified.

Outcome:

The member-specific information was provided to the Medical Service's Care Management team. The members were contacted telephonically for enrollment into the program.

Follow-up: The Care Management enrollment process will be enhanced to run reports every 6 months.

Selected Performance Indicator PQI-14 Uncontrolled Diabetes Admission Rate

Rationale for PI selection: Instead of simply looking at how many people had complications from short-term diabetes, the ratios take into account population growth. The ratios reflect what the raw numbers showed; specifically that there is a growing diabetes problem in the Iowa Medicaid population. Further analysis was needed to identify trends in the state by demographics, providers, or other factors.

Numerator: All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for uncontrolled diabetes, without mention of a short-term or long-term complication.

Denominator: Population in Metro Area or county, age 18 years and older.

Population/Demographics

☒ Age	The majority of recipients are between the ages of 41-50 (32%); further 61% of all the cases are from recipients ages 41-60
☒ Gender	Based on data from the last three years it would seem that women are almost twice as likely as men to incur uncontrolled diabetes complications
☒ County of Residence	

Program Variables

☒ Coverage Group	
☒ Aid Type	Half of all recipients receive a particular aid type: *Disabled Receives Mandatory State Supplementary Assistance(640);* combining this group with the *FMAP (308)* aid type accounts for more than 70% of all the cases
☒ Service Area	
☐ Waiver Type	

Provider Data

☐ Provider Type	
☒ Provider Name	Genesis Health System in Davenport saw a substantial increase in cases last year (rising from 1 to 10); likewise Scott county had the same increase which would suggest that the Davenport area has a disproportionate number of uncontrolled diabetes cases

Claims Specific Data

☒ Diagnosis Code/Description	25002, 25003
☐ Paid Date/Date of Visit	
☐ Claim Type (Inpt, Outpt, etc.)	

☒ Procedure Code/Description	
☐ Cost	
☒ Exclusions	Transferring from another institution, MDC 14, MDC 15

Overview: Member-specific information for the Iowa Medicaid members who were included in the numerator for this analysis was forwarded to the Medical Services Care Management Team. If the members were not currently enrolled in Care Management, the members were contacted to become involved. Type 2 diabetes (adult onset) has seen the most significant growth and accounts for 80% of the uncontrolled diabetes cases
Actions: Continue to monitor quarterly
Recommendations: Review in 6 months
Outcome: Continue to monitor

The MVM team will continue to review and monitor the results of the PQI data on a quarterly basis. There is a lag time of six months to allow for claims submission. All PQI reports include the names of the Medicaid members making up the PQI selection. The Medical Services care management program staff contacts these members and offer care management services. The focus for care management outreach is on the following PQIs:

- Diabetes
- Asthma
- Congestive Heart Failure
- Chronic Pulmonary Disease

Claim Review Analysis

The MVM team reviews claims data as a tool to identify opportunities to enhance the management of Medicaid expenditures. Claim studies are generated quarterly and display claims by major diagnostic codes (MDC) for FY 2002-2007 and include procedure amounts and percent of change from 2002 to 2007. Claims are also reviewed by MDC by claim type. Additional claim drill downs are available for the team's review as needed. To assist with analysis the team considers the following data:

- Total cost and number of claims/units by fiscal year
- Major diagnostic category (MDC)
- Claim type by MDC
- Demographics including gender, age and county of residence
- Claim type by provider

Claims review study initiated in SFY 2008 and continuing in SFY 2009 was the trending expenditures for MRI and CT scans. The following checklist summarizes status of this project.

MRI/CT Utilization Project

Utilization of MRI/CT

Rationale for selection: Based on preliminary data extractions a high utilization of MRI/CT was identified, therefore further analysis is warranted to identify the need for continued observation by medical review.

Numerator: All Medicaid members who had a MRI/CT paid for in FY'07 in a non-emergent setting.

Denominator: All eligible Medicaid members.

☒ Population/Demographics	
☒ Age	0 and older
☒ Gender	Male and Female
☒ County of Residence	All counties
☒ Program Variables	
☒ Coverage Group	All eligible Medicaid Members
☒ Aid Type	No restrictions
☐ Service Area	N/A
☐ Waiver Type	N/A
☒ Provider Data	
☒ Provider Type	Outpatient settings and providers that file under a HCFA 1500
☒ Provider Name	Top providers have not been identified yet
☒ Claims Specific Data	
☒ Diagnosis Code/Description	Top ten have not been identified yet
☐ Paid Date/Date of Visit	All data are from claims paid in FY'07
☐ Claim Type (Inpt, Outpt, etc.)	Outpatient and HCFA 1500
☐ Procedure Code/Description	306, 70336, 70552, 70553, 72141, 72142, 72146, 72147, 72148, 72149, 72156, 72157, 72158, 72196, 73220, 73221, 73720, 73721, 76093, 76094, 77058, 77059, 77012, 77014, 77011, 77078, 76071, 307, 76070, 76380, 76375
☐ Cost	
☒ Exclusions	Inpatient and Emergency Room

Overview: Initial data pull has yielded more questions regarding the type of data that was pulled. Have begun to look at the utilization of the top procedure codes in relation to the top diagnosis codes to ascertain whether oversight of these procedures through medical review would be warranted.

Actions: Continue to drill down claims data to determine utilization by diagnostic groups.

Recommendations: Continue study

Outcome: N/A – project is ongoing

Claims review will continue with data refreshed every three months. A minimum of three claims review projects, either new or continuing, will be managed by the MVM team.

Healthcare Effectiveness Data and Information Set (HEDIS)

In addition to HCUP data and claim review results, the MVM team uses the HEDIS data for comparing Iowa Medicaid performance from one year to the next, and to that of other states and/or commercial populations. For the outcome assessment for SFY2007, the following outcomes were evaluated and are available to the MVM to consider:

- Well child visits in the first 15 months of life
- Well child visits in the third, fourth, fifth and sixth years of life
- Annual dental visit
- Children and adolescents' access to primary care practitioners
- Use of appropriate medications for people with asthma
- Adults' access to preventive/ambulatory health services
- Prenatal and postpartum care
- Comprehensive diabetes care: Hemoglobin A1c testing

The results of the HEDIS data were used to inform the diabetes and asthma care managers regarding how they may need to intensify educational interventions.

Summary

All of the projects discussed in this report were developed with regard to long-term sustainability, potential impact on health outcomes and potential impact on costs. Iowa Medicaid data for selected projects will be periodically compared to industry standards and quality benchmark data. Comparison results outside an expected range (exceptions) will provide indications of target areas for further investigation and potential improvement. MVM priority activities for SYF 2009 include:

- Quarterly review and follow up of PQI results
- Analysis of claims with missing or unknown diagnostic information to promote transparency for Medicaid expenditure.
- Analysis of incidents of low birth weight and maternal healthcare with a goal of improving outcomes