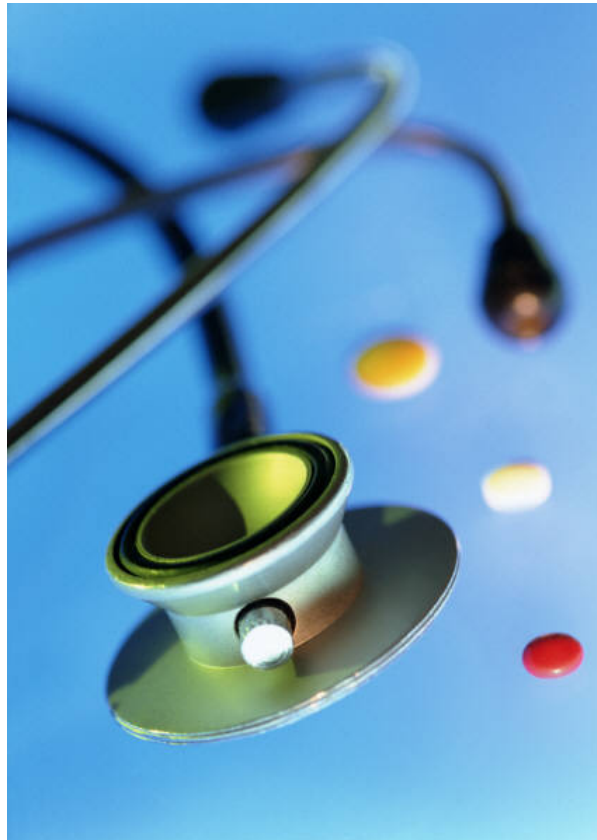


Arizona Health Care Cost Containment System

Arizona Long Term Care System (ALTCS) Performance Measure



PERFORMANCE MEASURES FOR DIABETES CARE

Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

Prepared by the Division of Health Care Management
November 2010



Thomas J. Betlach
Director, AHCCCS

**Arizona Health Care Cost Containment System (AHCCCS)
Arizona Long Term Care System (ALTCS)**

PERFORMANCE MEASURES FOR DIABETES CARE

For the Measurement Period Oct. 1, 2008, through Sept. 30, 2009

INTRODUCTION	1
SIGNIFICANCE OF THE MEASURES	2
STUDY METHODS	
Population	3
Measurement Period	4
Sample Frame	4
Data Sources	4
Data Collection	4
Data Quality and Reliability	4
Study Indicators	4
Performance Measure Goals.....	5
National Benchmarks	5
RESULTS	
Hb A1c Testing	5
Lipid Profiles	5
Eye Examinations	6
Results by Race/Ethnicity	6
DISCUSSION	
Overall Results	6
Contractor Performance	6
Quality Improvement Efforts	7
REFERENCES	7
TABLES AND FIGURES	
APPENDIX: METHODOLOGY AND TECHNICAL SPECIFICATIONS	

**Arizona Health Care Cost Containment System (AHCCCS)
Arizona Long Term Care System (ALTCS)**

PERFORMANCE MEASURES FOR DIABETES CARE

For the Measurement Period Oct. 1, 2008, through Sept. 30, 2009

INTRODUCTION

Diabetes is a serious health problem that is growing rapidly in the United States. Approximately 18 million American adults, or 8.3 percent of all people 18 years and older, have been diagnosed with diabetes, according to an estimate by the federal Centers for Disease Control and Prevention (CDC).^{1,2} About 1.6 million new cases of diabetes are diagnosed among U.S. adults each year.¹

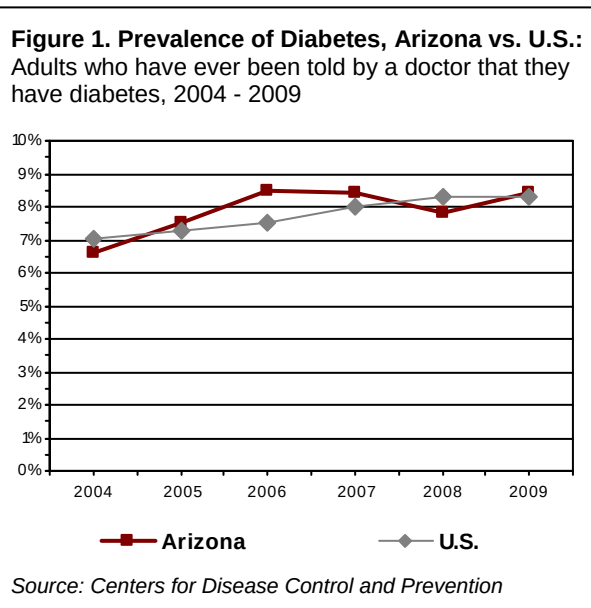
The number of people diagnosed with diabetes in the U.S. has nearly tripled in the last 25 years.³ The prevalence of diabetes in Arizona also increased during that time.⁴ The rate of diagnosed diabetes in Arizona is about equal to the U.S. rate overall.²

contributing to the increase in this costly and potentially deadly disease. Surveys conducted in recent years have found that about 60 percent of American adults are either overweight or obese.^{5,6} The proportion of Arizonans who are overweight or obese is about equal to the national rate.⁷ Another study found that nearly half of obese persons have type 2 diabetes.⁸

Hispanics, Blacks, American Indians and Alaska Natives are approximately twice as likely to have diabetes than non-Hispanic Whites in the U.S. The prevalence of diabetes also is higher among older Americans – about 20 percent of all people 60 and older have diabetes – as well as among people with low socioeconomic status and those covered by Medicaid.^{1,3,4}

Total U.S. expenditures related to diabetes are approximately \$174 billion a year — a 32 percent increase since 2002 — according to a study commissioned by the American Diabetes Association. That includes \$116 billion in direct medical costs and another \$58 billion in indirect costs because of missed work days or other losses in productivity.⁸ At least 4 million hospitalizations annually in the U.S. are associated with diabetes.⁹

In Arizona, diabetes-related discharges from non-federal hospitals numbered 102,827 in 2006, accounting for more than \$3.5 billion in total charges, with an average length of stay of 5.1 days.¹⁰



A sedentary lifestyle and dramatic rise in obesity in the U.S. population are

It has been estimated that by 2034, the population with type 2 diabetes will have doubled, with annual medical spending related to diabetes growing to \$336 billion.¹¹

The purpose of this study is to monitor performance of managed care plans contracted to provide services to ALTCS members. The measures evaluate the percent of ALTCS elderly and physically disabled (E/PD) members with diabetes who receive

certain clinical services to detect and prevent or reduce complications of the disease.

Results of the measurement are used to determine whether these managed care plans (known as Contractors), are meeting Performance Standards specified in their contracts. This report summarizes these results and compares Contractors' rates to performance standards and national means for managed care plans.

SIGNIFICANCE OF THE MEASURES

With diabetes, sustained high blood sugars result in “microvascular” complications, or damage to very small blood vessels throughout the body. One of these complications is retinopathy (damage to the retina of the eye), which causes 12,000 to 24,000 new cases of blindness each year. Diabetes also is the leading cause of end stage renal (kidney) disease, or ESRD, and is responsible for more than half of nontraumatic lower-limb amputations.¹

Diabetes also results in “macrovascular” complications, including coronary and peripheral artery disease. In fact, heart disease and stroke account for about 65 percent of deaths among people with diabetes.¹²

In addition, up to 70 percent of people with diabetes have mild to severe forms of neuropathy (nerve damage), including impaired sensation or pain in the feet or hands, carpal tunnel syndrome and motor deficits.³

As with many diseases, other conditions (known as comorbid conditions) may be present. The increased prevalence of hyperlipidemia (high cholesterol) found with type 2 diabetes contributes to higher rates of cardiovascular disease among diabetics.

- **2 in 3 people with diabetes die of heart disease or stroke**
- **Diabetes is the #1 cause of adult blindness**
- **Diabetes is the #1 cause of kidney failure**

Diabetes: The Numbers
National Diabetes Education Program

Patients with diabetes also have worse outcomes with acute illness. For example, diabetics who are hospitalized for trauma have longer stays in the intensive care unit and more complications than people who do not have diabetes.¹³

Despite its potentially deadly effects, diabetes can be controlled. Many complications of the disease can be prevented or reduced with early detection, improved care and better education of patients so they can manage their lifestyles and help control their disease.^{1,14}

Glucose Control — Control of hyperglycemia (increased blood sugar) is critical to reducing complications associated with diabetes.

Physicians utilize a glycosylated hemoglobin, or Hb A_{1c}, test to monitor blood glucose levels. This test indicates a person's average glucose level over a two- to three-month period by measuring the amount of glucose that has bonded with hemoglobin in the body's red blood cells.

Studies in the United States and abroad have shown that improved glycemic control greatly benefits people with diabetes. In general, for every percentage point decrease in Hb A_{1c} levels, the risk of developing microvascular complications is reduced by 35 to 40 percent.^{3,15,16} Ten-year post-trial monitoring from one of these studies, the landmark United Kingdom Prospective Diabetes Study (UKPDS), indicates that early and intensive glucose control has significant, lasting effects on eye and kidney disease, as well as on the risk of heart attack and other causes of death.¹⁷

Lipid Management — Managing lipid levels has been shown to reduce macrovascular complications affecting the heart, brain and legs, especially in people who have a history of cardiovascular problems.^{14,15} Control of cholesterol and

lipids can reduce cardiovascular complications by 20 to 50 percent.³

A fasting lipid profile is performed to measure total cholesterol (TC), high-density lipoproteins (HDL) and triglycerides. These results are used to calculate and manage low-density lipoprotein (LDL) levels.

Eye Care — It is estimated that regular eye exams and timely treatment, including laser therapy, could reduce the development of severe vision loss by up to 60 percent.³ New analyses from the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial released in July 2010 show that more intensive control of lipids and Hb A_{1c} together significantly slowed the progression of diabetic retinopathy over four years.¹⁸

People with diabetes should have comprehensive dilated eye examinations by ophthalmologists or optometrists, in order to detect and treat retinopathy and prevent vision loss. Data compiled by the CDC through the Behavioral Risk Factor Surveillance Survey indicate that 71.5 percent of all diabetic patients in the state had a dilated retinal exam in 2007.¹⁹

STUDY METHODS

The Arizona Health Care Cost Containment System (AHCCCS) used Healthcare Effectiveness Data and Information Set (HEDIS) 2010 specifications for this measurement. Developed by the National Committee for Quality Assurance (NCQA), HEDIS is a widely adopted methodology that allows for comparisons with national benchmarks, including the mean (average) for managed care plans serving Medicaid and commercial members.

AHCCCS has selected three of the HEDIS indicators of comprehensive diabetes care to

measure Contractor performance: Hb A_{1c} testing, lipid screening, and retinal exams.

Population

This study included elderly and physically disabled (E/PD) members enrolled with ALTCS managed care plans who had a diagnosis of type 1 or type 2 diabetes in the measurement period or the year prior to the measurement period. Members were identified as having type 1 or type 2 diabetes by either pharmacy or encounter data (records of claims paid by Contractors for covered services).

For example, a member was identified for the study if he or she had a face-to-face encounter with a medical provider and the associated claim included a diagnosis of diabetes. A member also may be identified as diabetic when dispensed insulin or other certain types of drugs used to treat diabetes.

Measurement Period

The measurement period for this study was the AHCCCS contract year from Oct. 1, 2008, through Sept. 30, 2009.

Sample Frame

The sample frame consisted of E/PD members who were:

- ages 18 through 75 years as of Sept. 30, 2009,
- continuously enrolled with one ALTCS Contractor for at least 11 member months during the measurement period, and
- enrolled with that Contractor on the last day of the measurement period.

Data Sources

The primary data sources were recipient, claim/encounter, and medical record data.

Data Collection

Recipient and encounter data are stored in the AHCCCS Prepaid Medical Management Information System (PMMIS). These data are loaded into the AHCCCS Decision Support System (ADDS), from which a sample of members was selected and initial service data were collected.

However, as many as 80 percent of ALTCS elderly and physically disabled members also are covered by Medicare, which is the primary payer for these members. Medicare providers may bill AHCCCS health plans for copayments for their members, but when they do not, AHCCCS does not have complete data on services provided to “dually enrolled” members. Thus, additional data is collected by Contractors under the

HEDIS hybrid methodology for these measures.

AHCCCS provided an electronic data collection tool along with detailed instructions to the each Contractor, which collected additional service data from medical records and its claims system. The additional information was entered by Contractor staff into the electronic tool .

Data Quality and Reliability

AHCCCS conducts annual studies to evaluate the completeness of ALTCS encounter data compared with the corresponding medical records. The most recent study of claims paid by ALTCS Contractors shows an overall error rate of 2.4 percent for outpatient encounters.

In order to document the reliability of data collected outside of the AHCCCS encounter system, Contractors were required to submit copies of the appropriate sections of medical records or documentation from their claims systems. A sample of documentation was reviewed by AHCCCS and Contractor data were corrected as necessary.

Study Indicators

- **Hb A_{1c} testing** — This indicator measured the percent of members who had one or more Hb A_{1c} tests during the measurement year.

- **Lipid (LDL-C) profile** — This indicator measured the percent of members who had one or more fasting lipid profiles during the measurement year.

- **Retinal examinations** — This indicator measured an eye screening for diabetic retinal disease with a retinal or dilated eye exam by an eye-care professional (optometrist or ophthalmologist) within the measurement year. Under HEDIS methodology, a negative retinal exam (no evidence of retinopathy) in the year prior to the measurement year also may be counted.

Performance Standards

AHCCCS has established a Minimum Performance Standard (MPS) for each diabetes measure, which is specified in the CYE 2010 ALTCS E/PD contract.

AHCCCS Performance Standards

Measure	MPS	Goal
Hb A _{1c} testing	80%	89%
Lipid screening	72%	91%
Retinal exams	60%	68%

If a Contractor does not meet the minimum standard, it must implement a Corrective Action Plan and may face a financial

sanction if it fails to show improvement. AHCCCS also has set goals that Contractors should strive to meet if they are already meeting minimum standards.

National Benchmarks

The most recent HEDIS national means reported by NCQA are for the measurement period of calendar year 2009.

HEDIS National Means

Measure	Medicaid	Commercial
Hb A _{1c} testing	80.6%	89.2%
Lipid screening	74.2%	85.0%
Retinal exams	52.7%	56.5%

RESULTS

The measurement included 1,412 sample members enrolled with eight long-term care Contractors during the measurement period. Results were calculated overall and by Contractor. Data also were analyzed to determine if there were significant differences by members' race or ethnicity.

Changes in Contractor and overall rates from the previous measurement period are described as increases or decreases when analysis using the Pearson chi-square test yields a statistically significant value defined as $p \leq .05$; that is, the probability of obtaining such a difference by chance only is relatively low.

Hb A_{1c} Testing

The overall rate of Hb A_{1c} testing during the measurement year was 86.5 percent, compared with the previous rate of 78.9 percent (Table 1). The increase is statistically significant ($p < .001$). Rates by Contractor ranged from 74.5 percent to 92.4 percent. Three Contractors showed statistically significant increases in their rates for this measure.

Six Contractors exceeded the AHCCCS MPS (Figure 1), as well as the most recent HEDIS national mean for Medicaid health plans. Three Contractors also exceeded the AHCCCS goal and the HEDIS commercial health plan mean. The AHCCCS overall rate exceeded the most recent Medicaid mean by 6.1 percentage points.

Lipid (LDL-C) Profiles

The overall rate of members who had an LDL-C test or fasting lipid profile during the measurement year was 77.9 percent (Table 2), compared with 70.9 percent in the previous measurement. The increase is statistically significant ($p < .001$). Contractor rates ranged from 65.7 percent to 90.4 percent. Three Contractors showed significant increases.

Five Contractors exceeded the MPS (Figure 2). The same five Contractors also exceeded the HEDIS national Medicaid mean and two surpassed the national commercial mean. The AHCCCS overall rate exceeded the most recent Medicaid mean by 3.7 percentage points.

Eye Examinations

The overall rate of members who had a dilated retinal exam in the measurement year or a negative exam in the previous year was 63.9 percent, compared with 59.8 percent in the previous measurement (Table 3). The increase is statistically significant ($p = .027$). Rates by Contractor ranged from 45.1 percent to 78.3 percent. Four Contractors showed significant increases and one showed a significant decrease in its rate.

Four Contractors exceeded the MPS (Figure 3). Seven surpassed the HEDIS national means for both Medicaid and commercial health plans. Two Contractors had rates that exceeded the AHCCCS goal. The AHCCCS overall rate exceeded the HEDIS national Medicaid mean by 11.2 percentage points; it also exceeded the commercial mean by 7.4 percentage points.

Results by Race/Ethnicity

For all measures, there were no significant differences in rates for members who identified themselves as Hispanic, Native American or Black, compared with non-Hispanic White members. Relative rates were as follows:

Rates by Race/Ethnicity, CYE 2009

	Hb A1c	Lipid	Retinal
White ¹	86.2%	75.5%	61.6%
Hispanic	88.8%	80.0%	67.2%
Black	85.4%	83.1%	68.5%
Native American ²	93.5%	71.0%	61.3%
Other/Unknown	82.5%	80.2%	63.1%

1 Non-Hispanic Whites were used as the reference group for analyzing whether there were disparities in use of services based on race/ethnicity.

2 Results for Native Americans should be interpreted with caution, since there were only 31 members in this group.

DISCUSSION

Overall Results

AHCCCS overall rates improved significantly for all three measures and exceed the most recent HEDIS national means for Medicaid managed care plans. The AHCCCS overall rate for eye exams also exceeds the national average for commercial health plans for the fourth consecutive year.

AHCCCS overall rates for all three measures exceed the national Medicaid means

Contractor Performance

Two Contractors — Mercy Care Long Term Care Plan and Pinal/Gila Long Term Care — met the AHCCCS Minimum Performance Standards for all measures.

Mercy Care Plan has shown strong performance in these measures, meeting all minimum standards for the past four years.

Most Contractors had corrective action plans (CAPs) in place for at least one of the diabetes measures prior to this measurement. Since most of these CAPs were implemented by early 2009, it appears corrective actions and regulatory pressure from AHCCCS have resulted in the improvements demonstrated in the current measurement.

AHCCCS has worked with the lowest-performing Contractors over the past few years to reinforce performance expectations. Of particular note are the substantial gains in all measures made by Pima Health System, Pinal/Gila Long Term Care and SCAN Long Term Care.

Conversely, Cochise Health Systems had lower rates for all three measures than in the previous measurement. In addition, Evercare Select's rate for eye exams dropped significantly after it had improved it to 72.4 percent in the previous measurement under a CAP. All Contractors that did not meet AHCCCS minimum standards will have to continue and revise existing CAPs or develop new ones.

Quality Improvement Efforts

AHCCCS Contractors have utilized a variety of strategies to improve care of diabetic members. These include intensive member education, monitoring of members' test status and follow up by case managers and nurses; distributing to primary care physicians (PCPs) practice guidelines and other tools, such as a diabetic flow sheet to help track tests that must be performed periodically, and advising PCPs of diabetic members who are due or overdue for specific services.

The interventions that involve PCPs may be especially effective, since research shows that, among people with diabetes, physicians are the primary source of information about their disease and best positioned to influence compliance with self-management and receipt of recommended services.⁷ Contractors should continue to reinforce with providers the current clinical standards of care for members with diabetes.

Contractors also must ensure that, once improvement is achieved, they continue to focus on sustaining performance.

REFERENCES

¹ Centers for Disease Control and Prevention. National diabetes fact sheet: general information

and national estimates on diabetes in the United States, 2007. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008. Available at: <http://www.cdc.gov/diabetes/pubs/estimates07.htm#1>. Accessed Oct. 19, 2010.

² Centers for Disease Control and Prevention. Behavioral Risk Factor surveillance system, Prevalence and Trends: diabetes. <http://apps.nccd.cdc.gov/brfss/list.asp?cat=DB&yr=2009&qkey=1363&state=All>. Accessed Oct. 19, 2010.

³ Centers for Disease Control and Prevention. Diabetes: disabling, deadly, and on the rise. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Available at: <http://www.cdc.gov/chronicdisease/resources/publications/AAG/ddt.htm>. Accessed Sept. 22, 2008.

⁴ Centers for Disease Control and Prevention. Diabetes surveillance system: State-specific estimates of diagnosed diabetes among adults. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Available at: <http://www.cdc.gov/diabetes/statistics/prev/state/table15.htm>. Accessed Sept. 15, 2008.

⁵ Davis SN, Perkins JM. Role of the endocannabinoid system in management of patients with type 2 diabetes mellitus and cardiovascular risk factors. Medscape 2008. Available at: <http://www.medscape.com/viewarticle/5722252>. Accessed Apr. 23, 2008.

⁶ Vega CP. Stress and obesity: Partners in disease. Medscape 2007. Available at: <http://www.medscape.com/viewprogram/7780>. Accessed Sept. 25, 2009.

⁷ Public knowledge, perceptions and behavior regarding diabetes and diabetes prevention: A societal barometer. Princeton, NJ: Gallup Inc., 2008. Available at: <http://www.ncdp.com/downloads/FINAL%20PRIN TED%20REPORT%20WITH%20COVER.pdf>. Accessed July 7, 2008.

⁸ Devastating toll of diabetes reaches \$174 billion [press release]. Alexandria, VA: American Diabetes Association; Jan. 23, 2008. Available at: <http://www.diabetes.org/for-media/pr-devastating-toll-of-diabetes-reaches-174-billion-012308.jsp>. Accessed Feb. 7, 2008.

⁹ Centers for Disease Control and Prevention. Indicators for chronic disease surveillance. MMWR. 2004; 53(RR-11):100. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5311a1.htm>. Accessed Sept. 22, 2009.

¹⁰ Arizona Diabetes Coalition, Surveillance Committee. Arizona Diabetes Indicators Annual Report 2008. Arizona Department of Health Services, Diabetes Prevention and Control Program. July 2008. Available at <http://www.azdiabetes.gov/pdf/IndicatorsReportJuly2008.pdf>. Accessed Oct. 19, 2010.

¹¹ L Brookes. Diabetes Control and Prevention Are the New Focus of Health Plans. Medscape Diabetes & Endocrinology. Aug. 3, 2010. Available at: <http://www.medscape.com/viewarticle/725946?src=mp&spon=17&uac=81844DT>. Accessed Aug. 16, 2010.

¹² American Diabetes Association. Complications of diabetes in the United States. Available at: <http://www.diabetes.org/diabetes-statistics/complications.jsp>. Accessed July 21, 2008.

¹³ Barclay L. Trauma patients with diabetes mellitus have increased hospital morbidity. Medscape Medical News. July 18, 2007. Available at: <http://www.medscape.com/viewarticle/559964>. Accessed July 25, 2008.

¹⁴ American Diabetes Association. Standards of medical care in diabetes – 2007. *Diabetes Care*. 2007; 30(S1). Available at: http://care.diabetesjournals.org/cgi/content/full/30/suppl_1. Accessed April 3, 2007.

¹⁵ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Preventing diabetes and its complications. Available at: <http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/diabetes.htm>. Accessed Sept. 22, 2008.

¹⁶ Osterweil N. Tight glucose control may provide long-term benefits in diabetics. Medscape Medical News, 2004. Available at: <http://www.medscape.com/viewarticle/480466>. Accessed June 16, 2008.

¹⁷ Wood S. Ten years later, UKPDS shows intensive glucose lowering, but not tight BP control, reduces MI, all-Cause mortality. Medscape Medical News. Sept. 11, 2008. Available at: http://www.medscape.com/viewarticle/580370_print?wwparam=1221691717. Accessed Sept. 17, 2008.

¹⁸ Barclay L. Tight Control of Hyperglycemia and Dyslipidemia May Slow Progression of Diabetic Retinopathy MedscapeCME Clinical Briefs. July 8, 2010. Available at <http://cme.medscape.com/viewarticle/724693>. Accessed July 20, 2010.

¹⁹ Centers for Disease Control and Prevention. Chronic disease indicators: diabetes, Arizona. <http://apps.nccd.cdc.gov/cdi/SearchResults.aspx?IndicatorIds=12,61,34,31,24,19,38&StateIds=3&StateNames=Arizona&FromPage=HomePage>. Accessed Oct. 19, 2010.

*For questions or comments about this report,
please contact:
Rochelle Tigner
Quality Improvement Manager
Clinical Quality Management
DHCM, AHCCCS
Rochelle.Tigner@azahcccs.gov*

TABLE 1
AHCCCS Clinical Quality Performance Measures for Diabetes
Hb A1c TESTS - ALTCS E/PD MEMBERS WITH DIABETES
Current Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

Minimum Performance Standard: 80%

Contractor	Included Cases	Total Receiving Hb A1c Test	Percent Receiving Hb A1c Test	Relative Percent Change	Significance Level
Bridgeway Health Solutions *	162	135	83.3%	3.8%	p=.501
	132	106	80.3%		
Cochise Health Systems	102	76	74.5%	-3.9%	p=.615
	98	76	77.6%		
Evercare Select *	212	179	84.4%	-0.9%	p=.819
	250	213	85.2%		
Mercy Care Plan *	301	271	90.0%	1.5%	p=.584
	336	298	88.7%		
Pima Health System *	238	220	92.4%	45.1%	p<.001
	237	151	63.7%		
Pinal/Gila Long Term Care *	157	143	91.1%	13.1%	p=.008
	144	116	80.6%		
SCAN Long Term Care *	153	131	85.6%	34.7%	p<.001
	107	68	63.6%		
Yavapai County Long Term Care	87	66	75.9%	-5.2%	p=.513
	85	68	80.0%		
TOTAL	1,412	1,221	86.5%	9.6%	p<.001
	1,389	1,096	78.9%		

Notes:

* Denotes the Contractor met or exceeded the AHCCCS Minimum Performance Standard (MPS).

Significance levels in bold face indicate a statistically significant change from the previous measurement ($p \leq .05$).

Results of the previous measurement period (Oct. 1, 2007, through Sept. 30, 2008), are shown in shaded rows

Figure 1
Hb A1c TESTS - ALTCS E/PD MEMBERS WITH DIABETES
Current Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

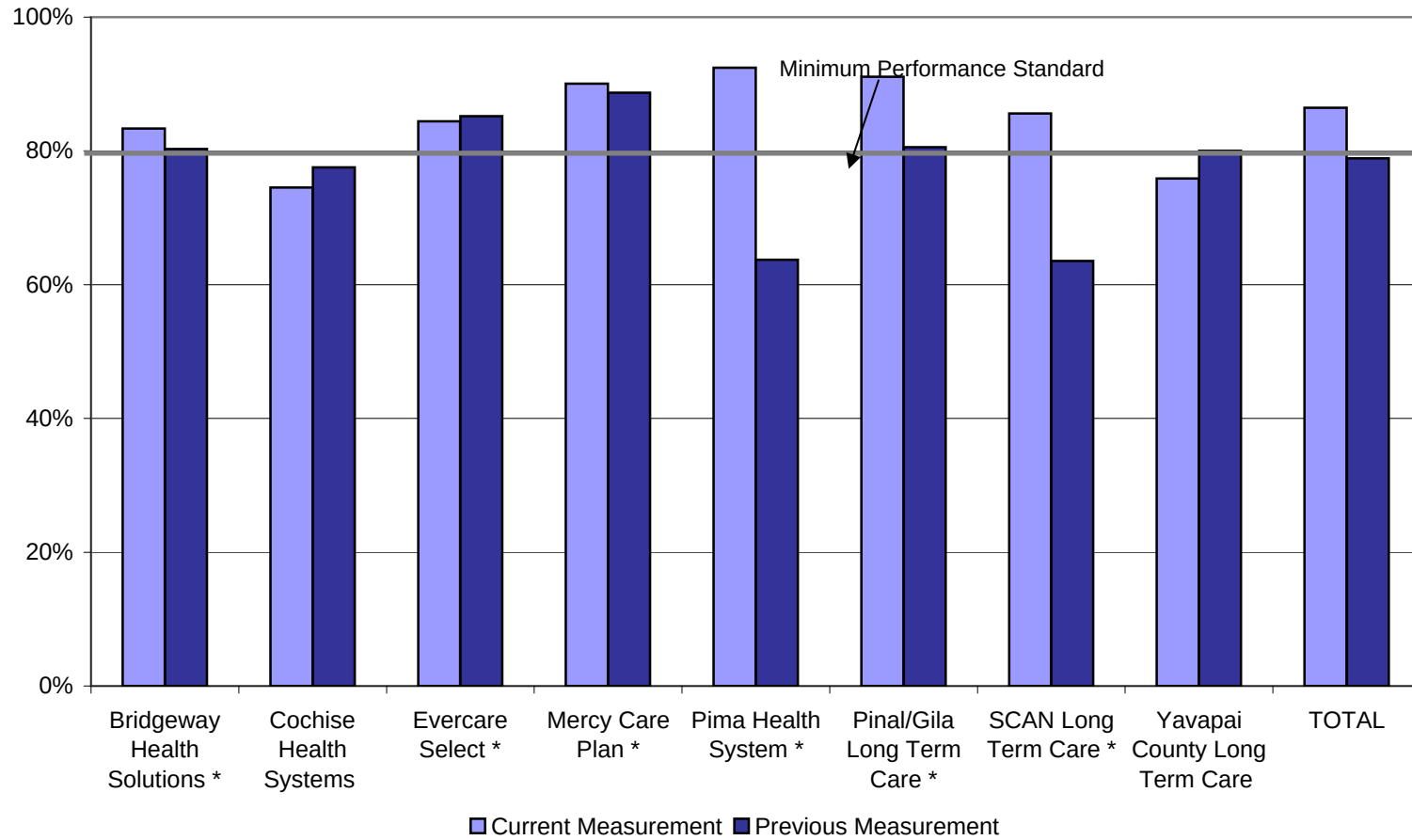


TABLE 2
AHCCCS Clinical Quality Performance Measures for Diabetes
ANNUAL LIPID PROFILES - ALTCS E/PD MEMBERS WITH DIABETES
Current Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

Minimum Performance Standard: 72%

Contractor	Included Cases	Total Receiving Fasting Lipid	Percent Receiving Fasting Lipid	Relative Percent Change	Significance Level
Bridgeway Health Solutions *	162	120	74.1%	0.8%	p=.909
	132	97	73.5%		
Cochise Health Systems	102	67	65.7%	-3.9%	p=.687
	98	67	68.4%		
Evercare Select *	212	163	76.9%	6.8%	p=.231
	250	180	72.0%		
Mercy Care Plan *	301	265	88.0%	2.7%	p=.386
	336	288	85.7%		
Pima Health System	238	166	69.7%	33.3%	p<.001
	237	124	52.3%		
Pinal/Gila Long Term Care *	157	142	90.4%	21.7%	p<.001
	144	107	74.3%		
SCAN Long Term Care *	153	115	75.2%	34.0%	p=.001
	107	60	56.1%		
Yavapai County Long Term Care	87	62	71.3%	-2.3%	p=.806
	85	62	72.9%		
TOTAL	1,412	1,100	77.9%	9.9%	p<.001
	1,389	985	70.9%		

Notes:

* Denotes the Contractor met or exceeded the AHCCCS Minimum Performance Standard (MPS).

Significance levels in bold face indicate a statistically significant change from the previous measurement ($p \leq .05$).

Results of the previous measurement period (Oct. 1, 2007, through Sept. 30, 2008), are shown in shaded rows

Figure 2
LIPID PROFILES - ALTCS E/PD MEMBERS WITH DIABETES
Current Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

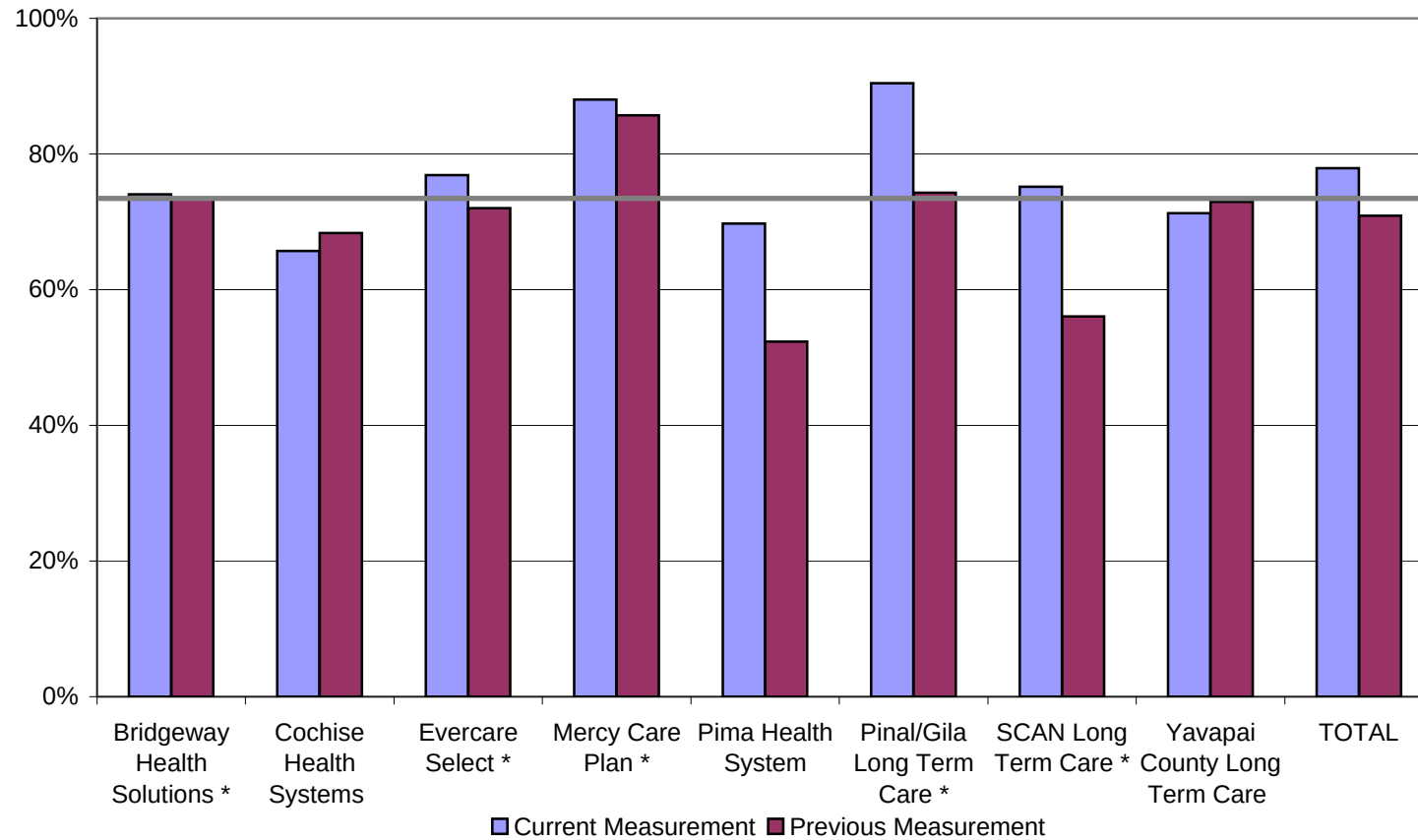


TABLE 3
AHCCCS Clinical Quality Performance Measures for Diabetes
RETINAL EXAMS - ALTCS E/PD MEMBERS WITH DIABETES
Current Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

Minimum Performance Standard: 60%

Contractor	Included Cases	Total Receiving Retinal Exam	Percent Receiving Retinal Exam	Relative Percent Change	Significance Level
Bridgeway Health Solutions	162	97	59.9%	18.0%	p=.117
	132	67	50.8%		
Cochise Health Systems	102	59	57.8%	-17.8%	p=.064
	98	69	70.4%		
Evercare Select	212	122	57.5%	-20.5%	p=.001
	250	181	72.4%		
Mercy Care Plan *	301	227	75.4%	10.7%	p=.026
	336	229	68.2%		
Pima Health System *	238	146	61.3%	20.2%	p=.001
	237	121	51.1%		
Pinal/Gila Long Term Care *	157	123	78.3%	46.5%	p<.001
	144	77	53.5%		
SCAN Long Term Care	153	69	45.1%	41.9%	p=.031
	107	34	31.8%		
Yavapai County Long Term Care *	87	59	67.8%	8.8%	p=.452
	85	53	62.4%		
TOTAL	1,412	902	63.9%	6.8%	p=.027
	1389	831	59.8%		

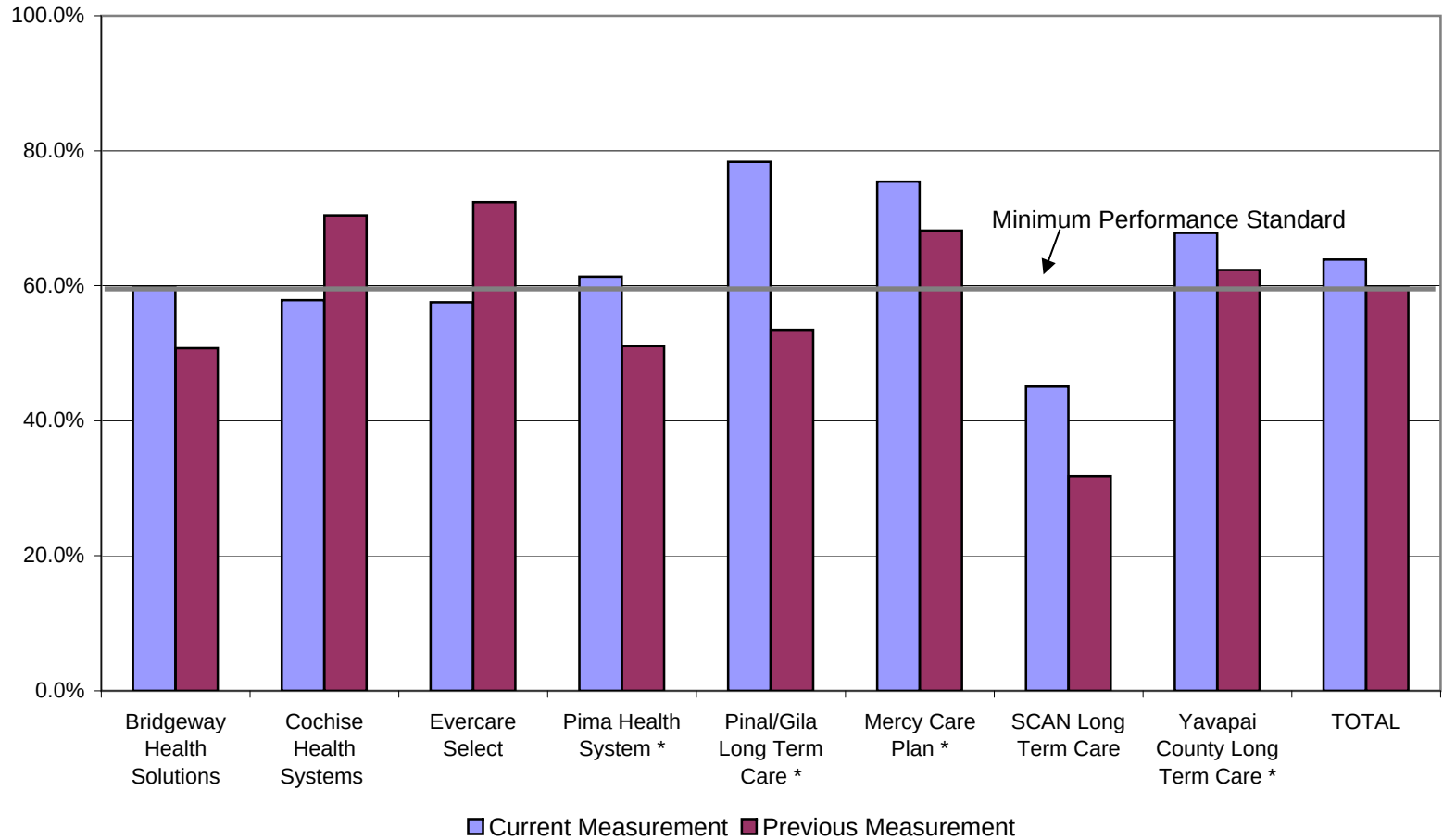
Notes:

* Denotes the Contractor met or exceeded the AHCCCS Minimum Performance Standard (MPS).

Significance levels in bold face indicate a statistically significant change from the previous measurement ($p \leq .05$).

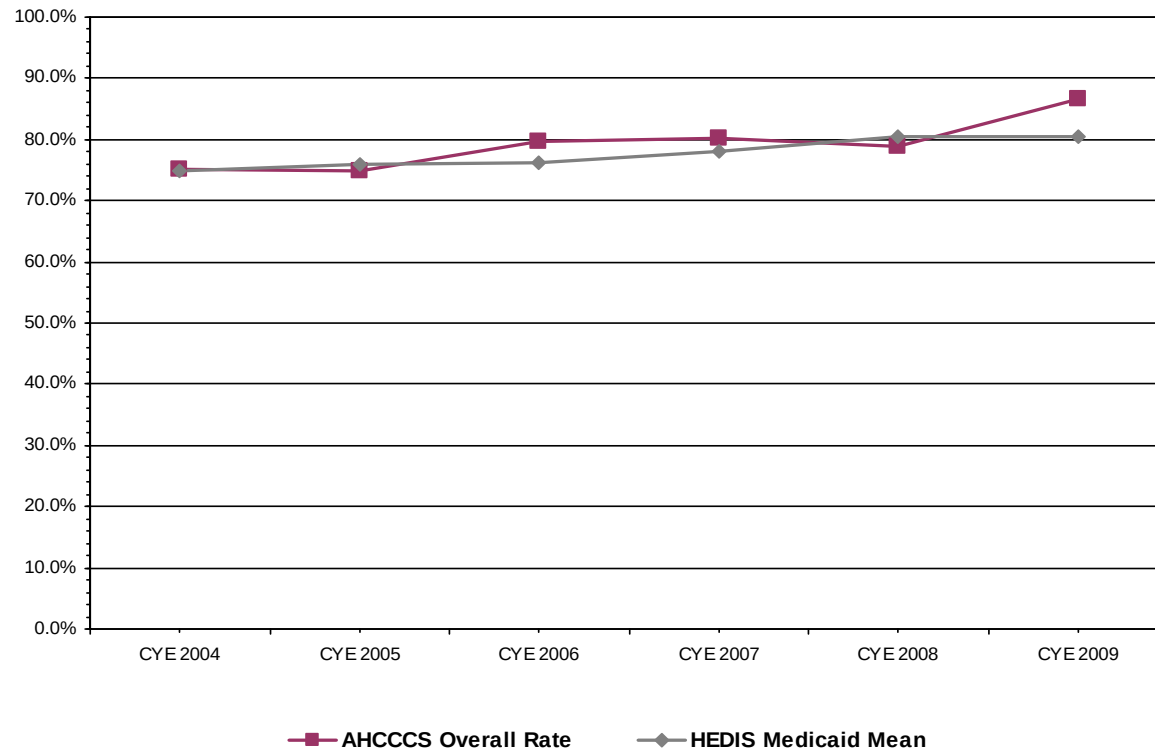
Results of the previous measurement period (Oct. 1, 2006, through Sept. 30, 2007), are shown in shaded rows

Figure 3
RETINAL EXAMS - ALTCS E/PD MEMBERS WITH DIABETES
Current Measurement Period: Oct. 1, 2008, through Sept. 30, 2009

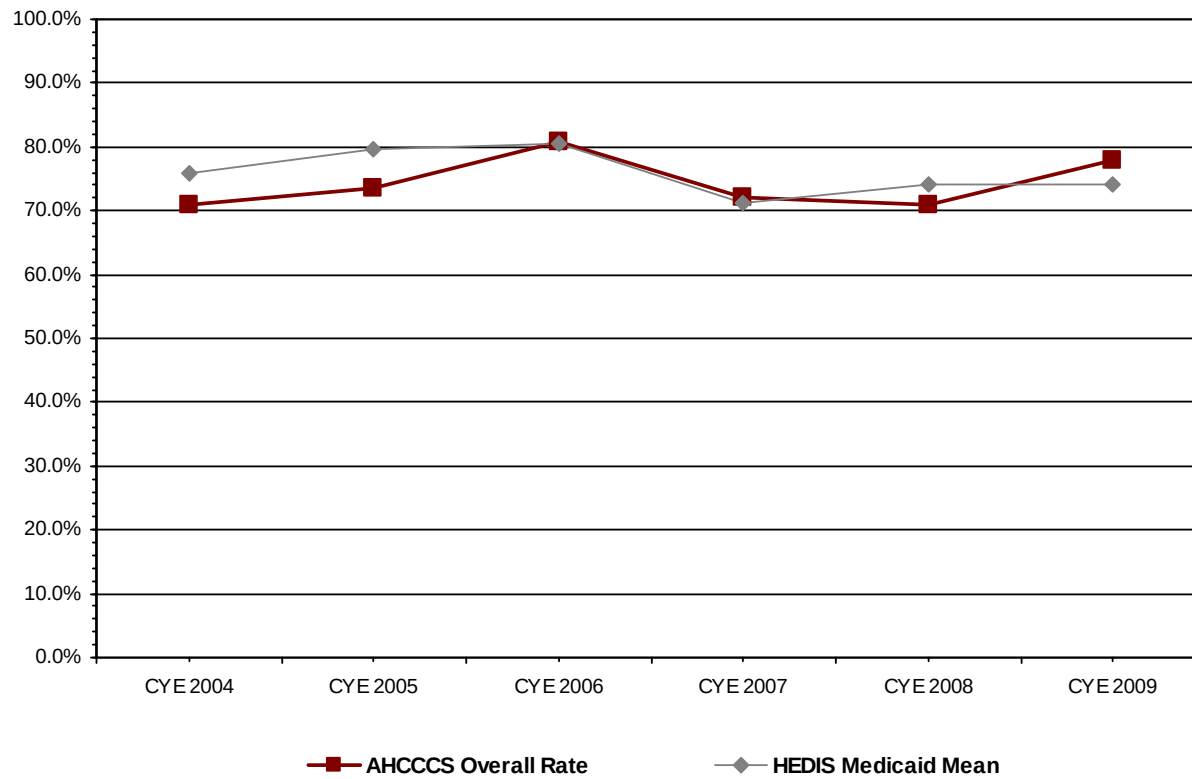


AHCCCS Rates Compared with National Medical Means:

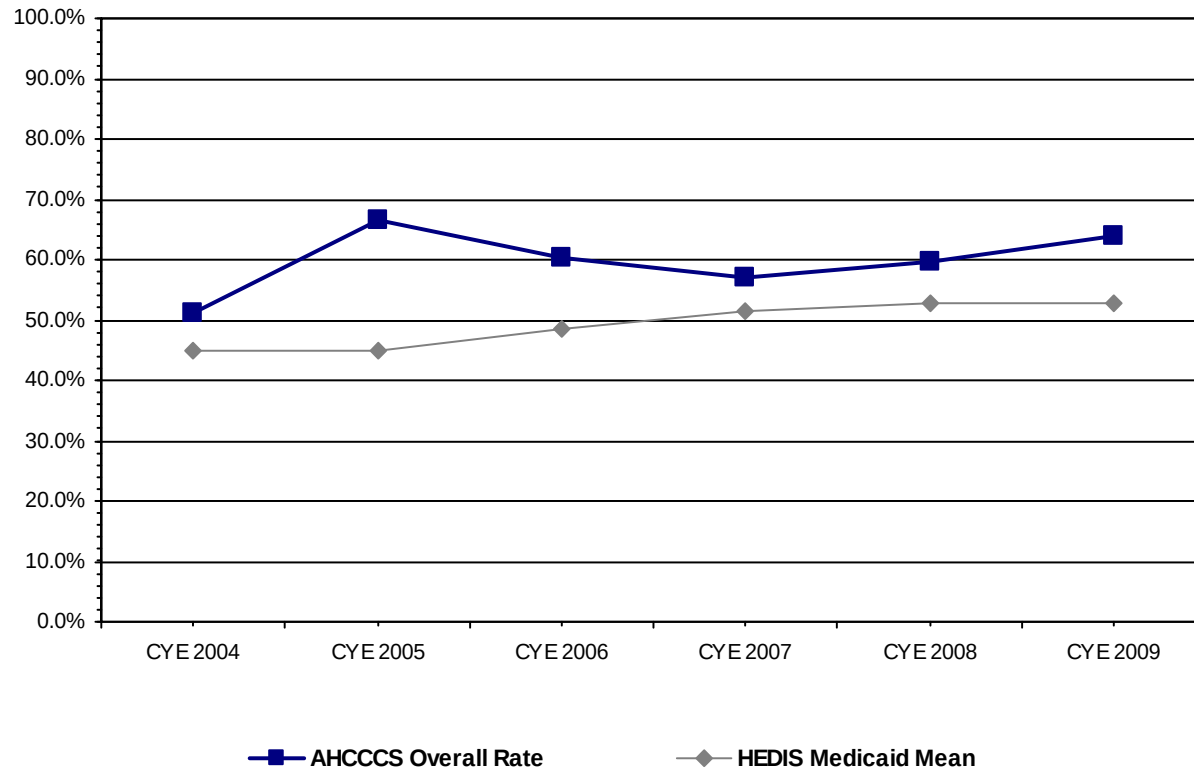
Hb A1c Testing



Lipid Screening



Eye Exams



APPENDIX

Arizona Health Care Cost Containment System (AHCCCS) Arizona Long Term Care System (ALTCS)

DIABETES PERFORMANCE MEASURES METHODOLOGY

Purpose

The purpose of this study is to monitor performance of health plans contracted with the Arizona Long Term Care System (ALTCS) for diabetes-related measures. These measures evaluate the percent of ALTCS members with diabetes who receive certain clinical services to detect and prevent or reduce complications.

Measurement Period

October 1, 2008, through September 30, 2009

Study Questions

1. What is the number and percent, overall, and by Contractor, of members enrolled with ALTCS Contractors who met the sample frame criteria and who had one or more HbA1c blood tests during the measurement period?
2. What is the number and percent, overall, and by Contractor, of members enrolled with ALTCS Contractors who met the sample frame criteria and who had at one or more fasting lipid profiles (cholesterol, high density lipoprotein or HDL and low density lipoprotein or LDL) during the measurement period?
3. What is the number and percent, overall, and by Contractor, of members enrolled with ALTCS Contractors who meet the sample frame criteria and had a retinal exam during the measurement period or a negative exam during the preceding year?

Population

This study includes AHCCCS members diagnosed with diabetes, as defined by HEDIS® 2010. Members may be identified as diabetic during the measurement year or the twelve months prior to the measurement period.

Population Exclusions

The following members are excluded from this study:

- Members less than 18 years of age.
- Members greater than 75 years of age.
- Members not enrolled the last day of the measurement period
- Members with a gap in coverage resulting in less than 11 member-months of enrollment with the same health plan during the measurement period
- Members with steroid-induced diabetes or gestational diabetes
- Members with a diagnosis of polycystic ovaries who did not have two face-to-face encounters with a diagnosis of diabetes in any setting during the measurement year or prior year

- Tribal and Fee for Service members, due to the inability to accurately collect complete data on these populations. These members may obtain medical care outside of the AHCCCS system; therefore, data would not be available from AHCCCS administrative data.

Population Stratification

The population will be stratified by:

- Contractor*

* E/PD and VD populations for each Contractor are combined before stratifying

Sample Frame

The sample frame consists of members 18 through 75 years of age as of September 30, 2009, who were continuously enrolled with one ALTCS E/PD Contractor for at least 11 members-months during the measurement period, and diagnosed with type 1 or type 2 diabetes.

- Prior Period Coverage (PPC) is considered a break in enrollment.
- A change of county service area with the same Contractor is not considered a break in enrollment.
- Members must have been enrolled on the last day of the measurement period.

Sample Selection

The sample frame will be identified through enrollment, claims and encounter records using the stated criteria. A statistical software program will be used to select a representative, random sample, using a 95-percent confidence level and a confidence interval of +/-5 percent. Each Contractor's lowest rate of the three indicators as reported for the previous measurement will be used to calculate the estimated proportion of incidence for the current sample. An over sampling rate of 10 percent also will be utilized to determine the sample.

Identification of Members with Diabetes

Members with diabetes will be identified, according to HEDIS 2010 specifications, by pharmacy data (National Drug Code or NDC list) or by specific diagnosis codes. To be included in the measurement, members must have had two face-to-face encounters with different dates of service in an ambulatory or non-acute inpatient setting, or one face-to-face encounter in an acute inpatient or emergency room setting during the measurement year, or the year prior to the measurement year, with a diagnosis of diabetes as specified in HEDIS 2010, Volume II.

Indicators

AHCCCS will work with ALTCS E/PD Contractors to collect data for this measurement through a hybrid methodology, as allowed under HEDIS.

HbA1c testing

This indicator measures whether selected members received one or more HbA1c tests during the measurement period, identified through either administrative data or medical record review, according to HEDIS 2010 specifications. A member is considered to have had an HbA1c test if:

- a claim or encounter, using codes listed in the following table, or an automated laboratory record with a service date during the measurement period was found for the member

Codes to Identify HbA1c Tests

CPT Code	CPT Category II
83036, 83037	3044F, 3045F, 3046F, 3047F

or

- At a minimum, documentation in the medical record must include a note indicating the date on which the HbA1c test was performed and the result. The organization may count notation of the following in the medical record review
 - o A1c
 - o Hemoglobin A1c
 - o HgbA1c
 - o HbA1c
 - o Glycohemoglobin A1c

Fasting Lipid Profile

This indicator measures whether selected members received one or more LDL-C tests during the measurement period, identified through either administrative data or medical record review, according to HEDIS 2010 specifications. A member is considered to have had an LDL-C test if:

- a claim or encounter, using codes listed in the following table, or an automated laboratory record with a service date during the measurement period that was found for the member,

Codes to Identify LDL-C Screening

CPT Code	CPT Category II
80061, 83700, 83701, 83704, 83721	3048F, 3049F, 3050F

or

- there was documentation in the member's medical record (at a minimum, a note or lab result record) indicating the date a fasting lipid profile was performed and the result.

Retinal Exam

This indicator measures an eye screening for diabetic retinal disease, documented through either administrative data or medical record review. It includes a retinal or dilated eye exam by an eye care professional (optometrist or ophthalmologist) within the measurement period or a negative retinal exam (no evidence of retinopathy) by an eye-care professional in the year prior to the measurement year. At a minimum, documentation in the medical record must include:

- a note or letter from an ophthalmologist, optometrist or other health-care professional summarizing the date on which the procedure was performed and the results of a retinal evaluation performed by an eye-care professional

or

- a chart or photograph of retinal abnormalities. If fundus photography was used in the exam, there must be documentation in the medical record indicating the date on which the procedure was performed and evidence that an eye-care professional reviewed the results. Alternatively, results may be read by a qualified reading center that operates under the direction of a medical director who is a retinal specialist

or

- a note, which may be prepared by a primary care provider, indicating the date on which the procedure was performed, and that an ophthalmoscopic exam was completed by an eye-care professional, with results of the exam.

CPT Code	CPT Category II	HCPCS	ICD-9-CM Procedure
67028, 67030, 67031, 67036 67038-67040, 67041-67043, 67101, 67105, 67107, 67108, 67110, 67112, 67113, 67121, 67141, 67145, 67208, 67210, 67218, 67220, 67221, 67227, 67228, 92002, 92004, 92012, 92014, 92018, 92019, 92225, 92226, 92230, 92235, 92240, 92250, 92260, 99203-99205, 99213-99215, 99242-99245	2022F, 2024F, 2026F, 3072F	S0625, S3000, S0620, S0621	14.1-14.5, 14.9, 95.02-95.04, 95.11, 95.12, 95.16

Denominator

1. The number of members who met the sample frame criteria

Numerators

1. The number of ALTCS EP/D members who had one or more Hb A1c tests during the measurement period
2. The number of ALTCS EP/D members who had one or more fasting lipid profiles during the measurement period
3. The number of ALTCS EP/D members who had a retinal exam during the measurement period or a negative retinal exam in the preceding year

Confidentiality Plan

AHCCCS continues to work in collaboration with Contractors to maintain compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements. The Data Analysis and Research (DA&R) Unit maintains the following security and confidentiality protocols:

- To prevent unauthorized access, the sample member file is maintained on a secure, password-protected computer, by the DA&R project lead.
- Only AHCCCS employees who analyze data for this project will have access to study data.
- Requested data are used only for the purpose of performing health care operations, oversight of the health care system, or research.
- Only the minimum amount of necessary information to complete the project is sent to and returned from Contractors.
- Sample files given to Contractors are tracked to ensure that all records are returned.

- Member names are never identified or used in reporting.
- Upon completion, all study information is removed from the computer and placed on a compact disk, and stored in a secure location.

Data Sources

- Recipient demographic information, as well as encounters and pharmacy data (Form C), will be used by AHCCCS to identify the population.
- Encounters will be used by AHCCCS to identify services. Contractors will use administrative (claims) or laboratory data to collect additional service information. When these data are not available, data will be collected from members' medical records.

Data Collection Process

- The population file will be obtained from the AHCCCS Decision Support system (ADDs). The sample population will be selected by the Data Analysis & Research (DA&R) unit of the Division of Health Care Management from this file.
- Applicable services from administrative (encounter) data will be paired with members selected for the study.
- After initial data collection by AHCCCS, electronic data files will be sent to Contractors. These files will contain only the Contractors' sample members.
- Contractors will collect additional service data and enter it on the electronic file.
- The electronic data file will then be returned to AHCCCS.
- AHCCCS will require Contractors to submit laboratory records, medical records, electronic data directly transmitted by laboratories, or claims data to verify services that were provided.

Quality Assurance Process

- Contractors will be instructed in use of the data collection methods, sample file layout and timelines for data collection.
- Contractors will receive written instructions for data collection, in addition to AHCCCS resource and contact information for assistance.
- AHCCCS will verify that all records have been returned. The distribution to Contractors and return of sample files will be monitored by the DA&R Unit.

Data Validation

- To verify that an HbA1c test, fasting lipid profile or retinal examination was performed, Contractors must submit any one of the following for each member identified as receiving indicator services: laboratory records, medical records, electronic data directly transmitted by laboratories, or claims data
- This documentation must contain confirmation of an examination being performed and the date of service.
- A random sample of Contractor-submitted documentation will be reviewed by AHCCCS, matching the Contractor-supplied documentation with data on the Contractor's electronic file. Any members for whom documentation does not meet HEDIS criteria will be excluded from the numerator.

Limitations

- A large portion of the ALTCS population also is covered by Medicare and seeks services outside the AHCCCS provider system. Because Medicare is the primary payer for Medicare beneficiaries, AHCCCS does not have the ability to collect information on services provided to members outside the AHCCCS system. Thus, some members with diabetes may not be identified for inclusion in this study.

Deviations from Previous Methodology

Codes to identify diabetic members were updated to the HEDIS® 2010 standard, including:

- Added drugs to Table CDC-A, Prescriptions to Identify Members with Diabetes
- Added CPT Category II codes 3044F and 3045F to Table CDC-D
- Added CPT codes 67030, 67031, 67036, 67121, 67220 and 67221 to Table CDC-G
- Deleted CPT codes 99499 from Table CDC-C
- Added CPT codes 67041-67043 and 67113 to Table CDC-G
- Clarified use of CPT Category II code 3072F in Table CDC-G
- Deleted CPT codes 83715 and 83716 from Table CDC-H

Analysis Plan

- The numerator will be divided by the denominator to determine the percentage of compliance with each indicator. The rates will be analyzed and reported overall, by ALTCS Contractor and by race/ethnicity.
- Variability of distribution will be calculated by range and standard deviation. Any Contractor with results more than two standard deviations from the mean will be identified, and the reason ascertained if possible. To avoid skewed and misleading conclusions, any such Contractor may be excluded from selected charts and graphs. Clear documentation in the report will caveat any Contractor exclusions and the reasons for exclusion.

Comparative Analysis

- Prior measurements will be compared to the current results.
- The results of this measurement will be compared to national HEDIS means and percentiles for Medicaid and commercial health plans, as reported by the National Committee for Quality Assurance (NCQA)
- Results by Contractor will be compared to the AHCCCS Minimum Performance Standard and Goal.
- Individual Contractors will be compared to each other and to the statewide average.

Report Format

- The report will include the methodology used, narrative summary of analysis findings, and limitations
- Findings will be displayed in appropriate charts, tables and/or graphs, with results reported by individual Contractor, program type, and statewide aggregate.
- The comprehensive findings will be presented in a manner that will allow for easy interpretation of the data by evaluators at the federal, state, and Contractor levels.
- Results will be reported on the AHCCCS website and will be provided to an External Quality Review Organization (EQRO) for annual reporting to the Centers for Medicare and Medicaid Services (CMS).

Definitions

Statistically Significant: A finding is described as statistically significant, when it can be demonstrated that the probability of obtaining such a difference by chance only is relatively low. It is customary to describe one's finding as statistically significant, when the obtained result is among those that (theoretically) would occur no more than 5 out of 100 times, $p \leq .05$, or occur no more than 1 out of 100 times, $p \leq .01$, when the only factors operating are the chance variations that occur whenever random samples are drawn. It is important to note that a finding may be statistically significant but may not be clinically or financially significant.

The statistically significant value is calculated using the Pearson chi-square test. Statistical Significance Level: $p \leq .05$