



**PRIMARY CARE COALITION OF
MONTGOMERY COUNTY, MD.
Center for Health Improvement**

Montgomery Cares Clinical Performance Measures

**Fiscal Year
2010**

December 9, 2010

Table of Contents

Executive Summary.....	2
Background.....	7
History of Clinical Measures in Montgomery Cares.....	7
Results Reporting and Benchmarking.....	9
Condition Specific Results	
Diabetes.....	13
Hypertension.....	16
Breast Cancer.....	17
Colon Cancer.....	18
Measure Definition (Appendix 1).....	19
References.....	21

Executive Summary

Background

In September, 2010, the National Committee for Quality Assurance (NCQA), announced publication of the 2010 NCQA State of Health Care Quality: Reform, the Quality Agenda and Resource Use. Quality leaders from across the country shared data demonstrating that healthcare quality improvement saves lives, and saves billions of dollars in avoidable hospital costs. But quality improvement does not come easily. It is not simple or easy, and no single actor or action can improve healthcare quality. These leaders emphasized the fact that quality improvement infrastructure is fragile, and requires constant focus and attention.

The Primary Care Coalition (PCC) and clinics participating in the Montgomery Cares (MC) Program remain committed to improving the quality of healthcare provided to low income, uninsured residents of Montgomery County. PCC's approach to Quality is multi-faceted, and reflects two basic tenets of quality improvement: outcomes are a direct result of process, and measurement is essential to improvement. PCC is in its third year of leading "Office Practice Redesign" among MC-participating clinics. Office Practice Redesign facilitates a structured and data-driven approach to process improvement; improving appointment access, clinic efficiency, and the delivery of evidence-based preventive and chronic care. Montgomery Cares Medical Directors meet quarterly to discuss quality-related issues including clinical process and outcome measures, best practices, and common challenges. These meetings help to maintain clinic focus on quality improvement and guideline-concordant care. In addition to quality improvement activities, Montgomery Cares performs annual on-site Quality Assurance (QA) Reviews, and produces clinic-specific and aggregate reports. QA Reviews include Administrative, Financial and Clinical Standards. Clinics utilize this information to improve their services and performance.

The Primary Care Coalition has convened quarterly Quality Health Improvement Committee (QHIC)/Medical Directors' meetings and collected clinical data from participating Montgomery Cares Clinics to inform quality improvement (QI) efforts since 2003. QI staff and clinical measures activities, including QHIC/Medical Director meetings, measures development, data collection and data analysis have been primarily grant funded, through federal and private organizations.

In 2007, PCC and Medical Directors from clinics participating in Montgomery Cares approved measure definitions and technical specifications in order to report nationally endorsed measures of diabetes care. Effective July 1, 2007 (the beginning of fiscal year 2008), PCC officially converted from CVDems to CHLCare, a more robust and flexible system that could capture clinical and demographic information, and support clinical operations as well as contractual reporting requirements and quality improvement efforts. The conversion to CHLCare required clinics using CHLCare to revise workflow in order to assure timely and accurate data entry and reporting in CHLCare. The performance metrics in this report are a reflection of clinical processes of care, as well as a reflection of data entry practices in each clinic.

In July, 2008, PCC produced clinical diabetes measure results from CHLCare for the first time, and began presenting quarterly results to the Medical Directors for their review. In 2008 and 2009, PCC, in consultation with the Medical Directors, added measures in addition to diabetes, to evaluate clinical performance related to hypertension and wellness and preventive care, and refined the quarterly reporting of each. This report documents performance on seven of these clinical measures in fiscal years 2008, 2009 and 2010.; the years since the conversion to CHLCare.

Current Measures

The PCC and clinic Medical Directors have selected measures for annual reporting based on several criteria, including

- Existence of nationally endorsed measure specifications;
- Evidence that improvement in the measures correlates with improved clinical outcomes;
- Sufficient prevalence of condition in the Montgomery Cares population;
- Healthcare Effectiveness Data and Information Set (HEDIS) Medicaid results available to serve as meaningful benchmarks and performance targets where possible.

Research indicates that health plans that publicly report clinical quality indicators outperform plans that do not. NCQA noted that in 2010, more than 1,000 health plans (nearly 60% of U.S. Health Plans) reported HEDIS data. A relatively small percentage of Medicaid plans publicly report HEDIS measures, though ten state Medicaid programs have mandated NCQA accreditation and HEDIS reporting. Montgomery Cares has set a goal that clinics perform at levels higher than the average for HEDIS Medicaid on measures for which Montgomery Cares and HEDIS Medicaid produce comparable measures. And Montgomery Cares benchmarks performance against the 90th percentile of reporting plans, seeking to reach quality goals that only the nation's top 10 percent of reporting Medicaid plans have achieved

The following pages highlight performance in fiscal years 2008, 2009 and 2010 for each relevant measure. This report demonstrates significant and sustained improvement in most clinical measures, with performance at or approaching target in diabetes and hypertension care. However, performance on measures of wellness and prevention lag behind chronic disease management, and far below HEDIS benchmark performance. Montgomery Cares, like practices across the country, are challenged to provide preventive care and screening in a population with high acute and chronic care needs. As a result, screening and preventive care may be postponed or overlooked by providers and patients.

The table below summarizes Montgomery Cares' performance in fiscal years 2008, 2009, and 2010, comparing Montgomery Cares' results against HEDIS 2010 Medicaid benchmarks.

Measure	FY 08	FY 09	FY 2010	Target Range (mean-90 th percentile)
Diabetes: Annual HgA1c Testing	54%	74%	77%	81-90%
Diabetes: Annual LDL Testing	47%	65%	70%	74-84%
* Diabetes: Good HgA1c Control (≤ 7)	26%	35%	37%	34-45%
*Diabetes: Poor HgA1c Control ($\geq 9\%$)	57%	44%	37%	45-28% (Note: Lower numbers demonstrate improvement)
*Diabetes: LDL Control (≤ 100 mcg/dL)	22%	32%	35%	34-46%
*Hypertension: BP Control ($\leq 140/90$)	52%	60%	65%	55-67%
Breast Cancer Screening	12%	26%	29%	52-64%
Colorectal Cancer Screening	1%	2%	2%	N/A

***achieving target**

Demonstrated Improvement

Improvements have been demonstrated as a result of multiple factors:

- Clinical measures continue to be reviewed and discussed quarterly by Medical Directors representing MC-participating clinics. This has helped to maintain clinic focus on QI and clinical outcomes.
- Review of quarterly performance identified access problems for particular services. PCC and individual clinics responded by identifying new sources of care, and revised processes of care to facilitate more effective and efficient referrals.
- Over the past three years, six clinics have embarked on office practice redesign, focusing on care team development, streamlining processes and optimizing utilization of staff to more reliably provide planned and evidence-based, “recommended” care.
- Clinics that utilize CHLCare have continued to increase their utilization of CHLCare for data entry, and have increasingly utilized the CHLCare “Visit Planner” to identify care needs at the time of a visit and facilitate recommended care for individual patients.
- Patient navigation and care management services have been added to some clinics, and will be spread to additional clinics throughout fiscal year 2011.
- PCC led a re-evaluation of diabetes self-management education. Diabetes educators from participating clinics were invited to meet quarterly to evaluate the current group class curriculum and share best practices from literature reviews and from one another. Clinics increasingly utilized bilingual educational materials intended for low literacy populations. PCC led several educational sessions on Motivational Interviewing for providers and diabetes educators. One clinic added a grant-funded medication therapy management service in cooperation with the University of Maryland’s School of Pharmacy.

Challenges

Challenges remain. Availability of specialists and procedures such as screening mammography and colonoscopy services continues to be insufficient to meet demand. Economic issues persist, resulting in increasing patient demand for free or reduced cost care while clinics confront reductions in human and financial resources.

Progress and Next Steps

The Annual Clinic Performance Measures report was first produced in February 2010. At that time, PCC and participating Medical Directors committed to a number of actions in order to improve performance over time and reduce variation in performance between clinics. These efforts have been largely successful and are ongoing.

2009 Recommended Action	2010 Status
Identify opportunities to increase access to specialty and procedural care	Grants were secured and proposals are pending to increase available screening services for breast, cervical and colorectal cancers. Individual clinics have engaged specialists and obtained equipment to better respond to specialty and procedural demand.
Conduct chart concordance reviews as appropriate to support improvement in data entry into CHLCare	Targeted reviews have been conducted and confirm reliable data entry among reviewed clinics.
Continue to share best practices in Medical Directors' quarterly meetings, and track progress on a quarterly basis	Ongoing. Patient navigation and care management services have been introduced to clinics.
Expand support for office practice redesign to improve clinic access, efficiency and planned care	Ongoing. One new clinic added to the collaborative in 2010; learnings continue to be shared among all MC clinics.
Continue to work with clinics that utilize non-CHLCare systems (Mary's Center, CCI and Holy Cross Clinic) to obtain electronic data necessary for more complete MC reporting	Mary's Center data has been incorporated and is represented in this report. CCI data is anticipated in FY 2012, after two full years of electronic medical record data is available. Holy Cross continues to report diabetes measures through their electronic data registry.
Work with TPCWC to re-institute data entry into CHLCare	TPCWC has successfully re-instituted data entry, and is fully represented in this report.
Determine how best to evaluate for health disparities	New data manager has been

within the current measure set

hired. Focused evaluations for health disparities have been conducted specific to clinic and grant requests.

Acknowledgement

Special thanks to the leadership, providers and staff of Montgomery Cares-participating clinics. It is their tireless effort and commitment to high quality care for the County's low income, uninsured residents that have made these improvements possible. And to CareFirst BlueCross BlueShield, who provided the generous funding that supported infrastructure development, PCC staffing and health information technology changes reflected in this report.

Background

In September, 2010, the National Committee for Quality Assurance (NCQA), announced publication of the 2010 NCQA State of Health Care Quality: Reform, the Quality Agenda and Resource Use. Quality leaders from across the country shared data demonstrating that quality improvement saves lives, and saves billions of dollars in avoidable hospital costs. But quality improvement does not come easily. It is not simple or easy, and no single actor or action can improve healthcare quality. These leaders emphasized the fact that quality improvement infrastructure is fragile, and requires constant focus and attention.

The Primary Care Coalition (PCC) and clinics participating in the Montgomery Cares (MC) Program remain committed to improving the quality of healthcare provided to low income, uninsured residents of Montgomery County. PCC's approach to Quality is multi-faceted, and reflects two basic tenets of quality improvement: outcomes are a direct result of process, and measurement is essential to improvement. To improve quality, it is necessary to improve process and document performance through established metrics. PCC is in its third year of leading "Office Practice Redesign" among several MC-participating clinics. Office Practice Redesign facilitates a structured and data-driven approach to process improvement; improving appointment access, clinic efficiency, and the delivery of evidence-based preventive and chronic care. Montgomery Cares Medical Directors meet quarterly to discuss quality-related issues including clinical process and outcome measures, best practices, and common challenges. These meetings help to maintain clinic focus on quality improvement and guideline-concordant care. In addition to quality improvement activities, Montgomery Cares performs annual on-site Quality Assurance (QA) Reviews, and produces clinic-specific and aggregate reports. QA Reviews include Administrative, Financial and Clinical Standards. Clinics utilize this information to improve their services and performance.

The Primary Care Coalition has convened quarterly Quality Health Improvement Committee (QHIC)/Medical Directors' meetings and collected clinical data from participating Montgomery Cares Clinics to inform quality improvement (QI) efforts since 2003. QI staff and clinical measures activities, including QHIC/Medical Director meetings, measures development, data collection and data analysis have been primarily grant funded, through federal and private organizations.

The History of Clinical Measures in Montgomery Cares

The Primary Care Coalition has collected clinical data from participating Montgomery Cares Clinics to inform quality improvement efforts since 2003. Originally, data was collected from a CVDems Diabetes Registry, utilized by five clinics, and funded through a federal grant from the Health Resources and Services Administration (HRSA). Over time, additional clinics began entering data into the CVDems Diabetes Registry. Reporting capabilities were limited, but PCC presented available information to Medical Directors on an annual basis.

In 2007, PCC and Medical Directors from clinics participating in Montgomery Cares approved measure definitions and technical specifications in order to report nationally endorsed measures of diabetes care. Funding from two CareFirst Blue Cross Blue Shield grants enabled

PCC to develop syntax and technology for data capture in CHLCare, a shared electronic record available free of charge to Montgomery Cares participating clinics. A CareFirst grant funded a majority of the QI Manager salary, and partially funded a Data Manager, who creates and utilizes reporting functionality in CHLCare for clinical measure development and a host of other administrative data support. Effective July 1, 2007, PCC officially converted from CVDems to CHLCare, a more robust and flexible system that could capture clinical and demographic information, and support clinical operations as well as contractual reporting requirements and quality improvement efforts. The conversion to CHLCare required clinics to revise workflow in order to assure timely and accurate data entry and reporting in CHLCare. The performance metrics in this report are a reflection of clinical processes of care provided in the clinics, as well as a reflection of data entry practices in each clinic. The conversion to CHLCare occurred at the beginning of the fiscal year. Most, but not all MC-participating clinics, converted to CHLCare. Clinics varied in their ability to identify diabetic patients and enter timely and accurate data during the conversion period. As a result, some FY 2008 individual clinic results may be affected by initial data entry challenges.

In July, 2008, PCC produced clinical diabetes measure results from CHLCare for the first time, and began presenting quarterly results to the Medical Directors for their review and comment. In 2008 and 2009, PCC, in consultation with the Medical Directors, added measures in addition to diabetes, to evaluate clinical performance related to hypertension and wellness/preventive care, and refined the quarterly reporting of each.

The number of clinics participating in MC clinical measures reporting continues to grow. Seven clinics reported FY 2008 data, eight clinics reported FY 2009 data, and eleven clinics reported to PCC in FY 2010 for inclusion in quarterly and annual reporting for some or all measures. Eight of the eleven clinics have CHLCare available in their clinics. Not all clinics utilize CHLCare; three clinics utilize registries or commercial electronic medical records. Holy Cross Clinic reports data for Diabetes measures from their CVDems Registry. Mary's Center and Community Clinic, Inc. also utilize data systems different than CHLCare. The PCC has worked with Mary's Center and Community Clinic, Inc. to develop a data-sharing infrastructure for reporting of data from those clinics. Mary's Center converted from a paper medical record to an electronic medical record effective August 2008; for purposes of this annual report, Mary's Center has provided clinical measure data to Montgomery Cares retroactive to July, 2009. PCC anticipates data sharing with CCI effective August 2011, after that clinic has completed two full years of EMR utilization.

Clinics Reporting FY 2008	Clinics Reporting FY 2009	Clinics Reporting FY 2010
Holy Cross Clinic (DM only)	Holy Cross Clinic (DM only)	Holy Cross Clinic (DM only)
Mercy Clinic	Mercy Clinic	Mercy Clinic
Mobile Med	Mobile Med	Mobile Med
Muslim Community Center Medical Clinic	Muslim Community Center Medical Clinic	Muslim Community Center Medical Clinic
Proyecto Salud	Proyecto Salud	Proyecto Salud
Spanish Catholic Center	Spanish Catholic Center	Spanish Catholic Center
The People's Community Wellness Clinic	The People's Community Wellness Clinic (mammo only)	The People's Community Wellness Clinic
	Under One Roof	Under One Roof
		Mansfield Kaseman Clinic (CMR)
		Chinese Culture and Community Services Center (Pan Asian)
		Mary's Center

Current Measures

The PCC and clinic Medical Directors have selected measures for reporting based on several criteria, including:

- Existence of nationally endorsed measure specifications;
- Evidence that improvement in the measures correlates with improved clinical outcomes;
- Sufficient prevalence of condition in the Montgomery Cares population;
- HEDIS Medicaid results available to serve as meaningful benchmarks and performance targets where possible.

This report provides information on clinical performance in each of the three fiscal years since 2008, reflecting the time period after Montgomery Cares converted to CHLCare.

Results Reporting and Benchmarking

The PCC has reviewed performance in selected clinical measures that are reported by HEDIS for the Medicaid population, and by HRSA for Federally Qualified Health Centers in Maryland and nationally. While the technical specifications for the HEDIS, HRSA and Montgomery Cares measures differ from one another in some respects, results from both HEDIS and HRSA are comparable, and they serve as reasonable benchmarks for Montgomery Cares performance. Where relevant public information is available, Montgomery Cares performance is benchmarked against the HEDIS Medicaid 2009 performance, since annual HEDIS results are more timely and publicly available than HRSA results. HEDIS measure definition is typically similar, but not identical to Montgomery Cares measure definitions (Appendix I). Utilizing HEDIS Medicaid benchmarks sets a relatively high standard for Montgomery Cares. Only 25% of Medicaid beneficiaries are enrolled in a HEDIS-reporting plan according to the National Committee for Quality Assurance. These Medicaid plans typically have more sophisticated infrastructure and more financial resources than

Montgomery Cares participating clinics. Still, HEDIS Medicaid has been selected by PCC and participating Medical Directors as the most relevant public benchmark for Montgomery Cares comparisons. The National Committee for Quality Assurance, in their report, “The State of Health Care Quality 2010”²⁰ asserts that if all health plans in the U.S. performed at the same level as the top 10 percent (90th percentile) of reporting Plans, between 50,657 and 186,512 deaths would be averted, and billions of dollars (\$4.6-7.4B) in healthcare costs would be avoided.

Research indicates that health plans that publicly report clinical quality indicators outperform plans that do not. NCQA noted that in 2010, more than 1,000 health plans (nearly 60% of U.S. Health Plans) reported HEDIS data. A relatively small percentage of Medicaid plans publicly report HEDIS measures, though ten state Medicaid programs have mandated NCQA accreditation and HEDIS reporting. Montgomery Cares has set a goal that clinics perform at levels higher than the average for HEDIS Medicaid on measures for which Montgomery Cares and HEDIS produce comparable measures. And Montgomery Cares benchmarks performance against the 90th percentile of reporting Medicaid plans, seeking to reach quality goals that only the nation’s top 10 percent of reporting Medicaid plans have achieved

PCC also reviews variation between clinics. Variation does not evaluate the clinical expertise of the providers, but rather the reliability of the process. Reduced variation signals improved reliability in planned care and/or data entry processes.

Despite rapidly increasing numbers of patients receiving care in participating clinics, and increasing numbers of patients with diabetes or hypertension, process improvement efforts have resulted in significant and sustained improvements in most measures in terms of both absolute performance, and reduced variation between clinics.

The following pages highlight performance in fiscal years 2008-2010 for each relevant measure. This report demonstrates improvement each year in most clinical measures, with performance at or approaching target in diabetes and hypertension care.

Improvements have been demonstrated as a result of multiple factors:

- Clinical measures continue to be reviewed and discussed quarterly by Medical Directors representing MC-participating clinics. This has helped to maintain clinic focus on QI and clinical outcomes.
- Review of quarterly performance identified access problems for particular services. PCC and individual clinics responded by identifying new sources of care, and revised processes of care to facilitate more effective and efficient referrals.
- Over the past three years, six clinics have embarked on office practice redesign, focusing on care team development, streamlining processes and optimizing utilization of staff to more reliably provide planned and evidence-based, “recommended” care.
- Clinics that utilize CHLCare have continued to increase their utilization of CHLCare for data entry, and have increasingly utilized the CHLCare “Visit Planner” to identify care needs at the time of a visit and facilitate recommended care for individual patients.

- Patient navigation and care management services have been added to some clinics, and will be spread to additional clinics throughout fiscal year 2011.
- PCC led a re-evaluation of diabetes self-management education. Diabetes educators from participating clinics were invited to meet quarterly to evaluate the current group class curriculum and share best practices from literature reviews and from one another. Clinics increasingly utilized bilingual educational materials intended for low literacy populations. PCC led several educational sessions on Motivational Interviewing for providers and diabetes educators. One clinic added a grant-funded medication therapy management service in cooperation with the University of Maryland School of Pharmacy.

Challenges remain. Availability of specialists and procedures such as screening mammography and colonoscopy services continues to be insufficient to meet demand. Economic issues persist, resulting in increasing patient demand for free or reduced cost care while clinics confront reductions in human and financial resources.

The table below summarizes Montgomery Cares' performance in fiscal years 2008, 2009, and 2010, comparing Montgomery Cares' results against HEDIS 2010 Medicaid benchmarks.

Measure	FY 08	FY 09	FY 2010	Target Range (mean-90 th percentile)
Diabetes: Annual HgA1c Testing	54%	74%	77%	81-90%
Diabetes: Annual LDL Testing	47%	65%	70%	74-84%
* Diabetes: Good HgA1c Control (≤ 7)	26%	35%	37%	34-45%
*Diabetes: Poor HgA1c Control ($\geq 9\%$)	57%	44%	37%	45-28% (Note: Lower numbers demonstrate improvement)
*Diabetes: LDL Control (≤ 100 mcg/dL)	22%	32%	35%	34-46%
*Hypertension: BP Control ($\leq 140/90$)	52%	60%	65%	55-67%
Breast Cancer Screening	12%	26%	29%	52-64%
Colorectal Cancer Screening	1%	2%	2%	N/A

***achieving target**

Progress and Next Steps

The Annual Clinic Performance Measures Report was first produced in February 2010, reflecting fiscal years 2008 and 2009. At that time, PCC and participating Medical Directors committed to a number of actions in order to improve performance over time and reduce variation in performance between clinics. These efforts have been largely successful and are ongoing.

2009 Recommended Action	2010 Status
Identify opportunities to increase access to specialty and procedural care	Grants were secured and proposals are pending to increase available screening services for breast, cervical and colorectal cancers. Individual clinics have engaged specialists and obtained equipment to better respond to specialty and procedural demand.
Conduct chart concordance reviews as appropriate to support improvement in data entry into CHLCare	Targeted reviews have been conducted and confirm reliable data entry among reviewed clinics.
Continue to share best practices in Medical Directors' quarterly meetings, and track progress on a quarterly basis	Ongoing. Patient navigation and care management services have been introduced to clinics.
Expand support for office practice redesign to improve clinic access, efficiency and planned care	Ongoing. One new clinic added to the collaborative in 2010; learnings continue to be shared among all MC clinics.
Continue to work with clinics that utilize non-CHLCare systems (Mary's Center, CCI and Holy Cross Clinic) to obtain electronic data necessary for more complete MC reporting	Mary's Center data has been incorporated and is represented in this report. Anticipate adding CCI data in FY 2012, after their second full year on electronic medical record. Holy Cross reporting diabetes measures through their electronic data registry.
Work with TPCWC to re-institute data entry into CHLCare	TPCWC has successfully re-instituted data entry, and is fully represented in this report.
Determine how best to evaluate for health disparities within the current measure set	New data manager has been hired. Focused evaluations for health disparities have been conducted specific to clinic and grant requests.

The following pages provide information, obtained from the National Committee on Quality Assurance's "State of Healthcare 2009" and "State of Healthcare 2010" to describe the importance of improving quality of care in the areas of Diabetes, Hypertension and Cancer Screening. Additionally, PCC has provided the definition of each measure, and performance metrics for each of the three reported fiscal years. For each measure, the graph indicates the degree of variation between the highest and lowest performing clinic, and HEDIS Medicaid benchmarks (2010 Mean and 90th percentile) where available.

Diabetes

Diabetes is a group of diseases characterized by high blood sugar levels. It is one of the leading causes of death and disability in the US.¹ Much of the burden of illness and cost of treatment is due to potentially preventable long-term complications of diabetes, including heart disease, stroke, blindness, and kidney disease². Timely and appropriate screening and treatment can significantly reduce and delay the onset of complications and reduce the burden and cost of diabetes.

Long-standing, nationally endorsed measures exist to measure the *process* of Diabetes care (eg. Are patients receiving recommended care) and the *outcomes* of care (eg. Is the diabetes well controlled?). These were the first set of measures adopted by PCC.

In this report, the PCC presents the following four measures related to Diabetes care:

The economic costs associated with diabetes in the U.S. totaled \$174 billion in 2002.¹, and the incidence of diabetes continues to rise rapidly.

Measure Definition
<p>Annual HgA1c Test Percent of eligible patients who had at least one A1c test(s) during the measurement year</p>
<p>Annual LDL Cholesterol Test Percentage of eligible patients who had at least one LDL cholesterol test during the measurement year</p>
<p>Poor HgA1c Control Percent of eligible patients with most recent HgA1c level >9.0%. If no HgA1c test was performed during the measurement year, result is considered to be in poor control (Note: Lower rates are better for this measure)</p>
<p>Good LDL Control Percent of eligible patients with most recent LDL cholesterol level ≤ 100 mg/dl.</p>

Diabetes Process Measures	Diabetes Outcome Measures
Annual HgA1c Test	Poor HgA1c Control
Annual LDL Cholesterol Test	Good LDL Control

Why Improvement in Diabetes Care is Important

Evidence to support improvement in diabetes care is irrefutable. According to the National Committee on Quality Assurance³, people with diabetes are 2-4 times more likely than others to die as a result of heart disease⁴, and diabetes accounts for almost 45% of new cases of kidney failure⁵. Diabetic retinal eye disease is a leading cause of blindness¹. And the medical costs for diabetics are more than double the medical costs of others⁶. Even modest improvements in outcomes are meaningful. Every 10 millimeters of mercury reduction in systolic blood pressure in diabetics results in a 12 percent reduction in diabetic complications. Improved cholesterol can reduce cardiovascular complications of diabetes by 20 to 50 percent⁵. And patients with diabetes who maintain near-normal HgA1c levels gain, on average, an extra five years of life, eight years of eye sight, and six years of freedom from kidney disease⁷.

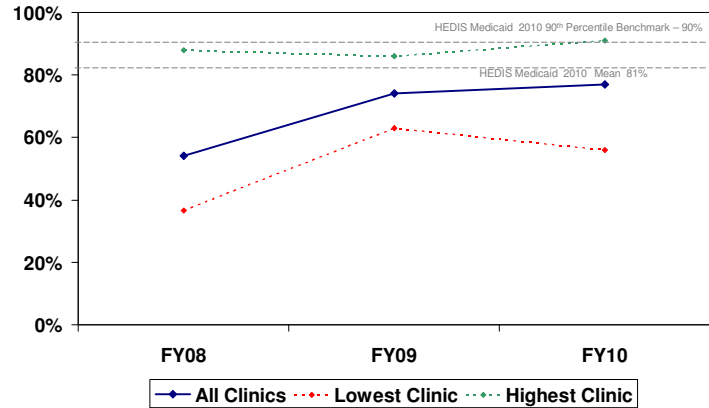
Interpretation of FY 2008-2010 Results

For both process measures (annual HgA1c and annual LDL cholesterol testing), Montgomery Cares performance improved in each of the three fiscal years tracked, and is approaching target. High performing clinics maintained performance at or near HEDIS 90th percentile, and lower performing clinics generally demonstrated improvements as well.

Note changes in the “lowest” and “highest” clinic results do not necessarily reflect performance in a single clinic; the “highest” and “lowest” performing clinic is not necessarily the same clinic each year.

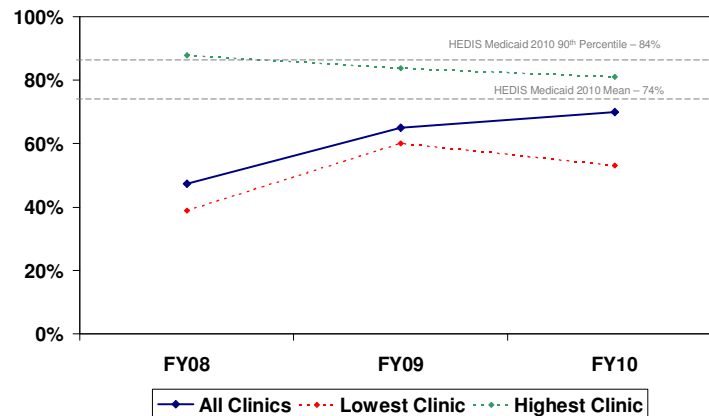
Montgomery Cares clinics have been tracking and reporting measures of Diabetes Care since 2003. In fiscal years '08 and '09, clinics made significant improvements in data entry (entering relevant data into CHLCare), and in clinic workflow. These improvements have been maintained through fiscal year 2010. Three clinics utilize a web-based laboratory order entry system; during FY 2009, the PCC developed a new laboratory module which enables lab results to auto-populate CHLCare, obviating the need for manual laboratory data entry for those clinics. Additionally, PCC designed a “Visit Planner”, that auto-populates patient level data for providers to review prior to the clinic encounter. The “Visit Planner” provides important information to the provider or care team, highlighting dates and results of Diabetes testing, and serving as an alert or reminder to the care team when recommended care is due. Clinics have expanded the role of non-provider members of the care team to help assure that recommended care is provided. Some clinics have established a policy to print the Visit Planner for any Diabetic patient presenting for care to alert clinical staff to the status of recommended care or patient results; some clinics utilize the Medical Assistant to review the Visit Planner, and initiate screening and orders for lab work on behalf of the provider.

Diabetes measurement patients with at least 1 HgA1c test



Includes patients who had a blood test for Hemoglobin A1c within one year of their most recent encounter

Diabetes measurement patients with at least 1 LDL test



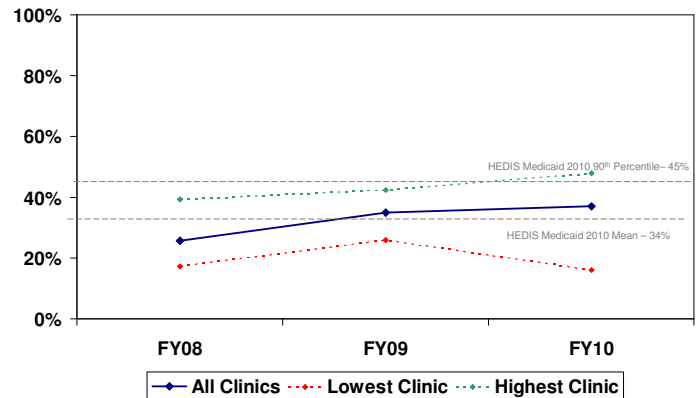
Includes patients who had an LDL cholesterol test within one year of their most recent encounter

Measures of diabetes control (H_gA_{1c} and LDL Cholesterol) continue to demonstrate improvement in each reported year, and Montgomery Cares performance is at target for all three reported measures of diabetes control: H_gA_{1c} good control, H_gA_{1c} poor control, and LDL Cholesterol control.

Because Montgomery Cares wants to reduce the number of patients in poor control, DECREASING percentages represent improvement on the measure "Poor Control of H_gA_{1c}".

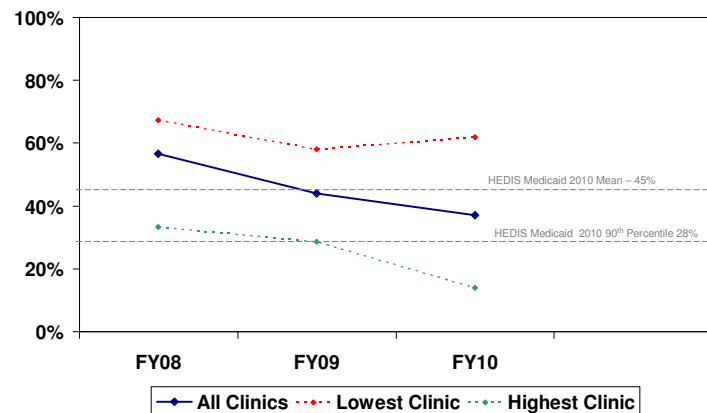
In fiscal years 2009 and 2010, Montgomery Cares participating clinics re-evaluated diabetes self-management education. Diabetes educators from many of the clinics met routinely to evaluate the current group class curriculum and share best practices from literature reviews and from one another. Clinics increasingly utilized bilingual educational materials intended for low literacy populations. PCC led several educational sessions on Motivational Interviewing for providers and diabetes educators. One clinic added a grant-funded medication therapy management service in cooperation with the University of Maryland School of Pharmacy.

Diabetes measurement patients with good control of H_gA_{1c}



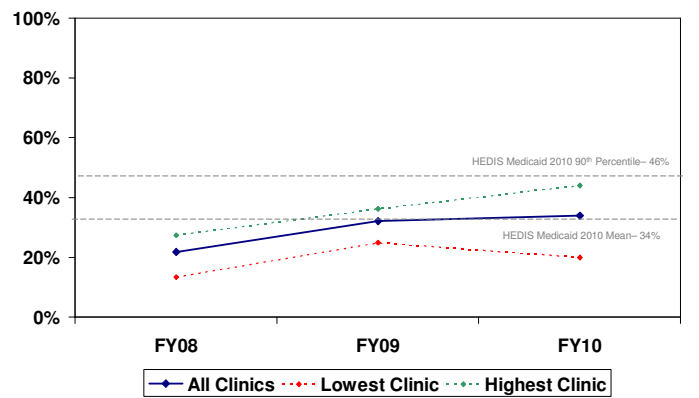
Includes patients who had a Hemoglobin A1c test result ≤7

Diabetes measurement patients with poor control of H_gA_{1c}



NOTE: Decreasing percentages indicate IMPROVED performance on this measure

Diabetes measurement patients with LDL ≤100



Includes patients who had an LDL cholesterol test within a year prior to their most recent encounter and whose most recent LDL cholesterol test had a result ≤100

Hypertension (High Blood Pressure)

Why Improvement in Hypertension Care is Important

The National Committee on Quality Assurance² reports that one out of every 3 Americans currently has hypertension, or high blood pressure⁸ and over 90 percent of middle-aged and elderly Americans will be affected by it at some point in their lives.⁹ Despite available effective treatment options, studies show that over half of Americans with hypertension go untreated or undertreated.¹⁰

People with hypertension have twice the lifetime risk of stroke compared to those without hypertension.¹¹ Nearly one-third of adults with high blood pressure are unaware of their condition, thus increasing the risk of associated complications and diseases.¹⁰

In clinical trials, treatment for hypertension has been associated with a 35 to 40 percent reduction in stroke incidence, 20 to 25 percent reduction in heart attack and a more than 50 percent reduction in heart failure¹².

Projected 2010 direct and indirect costs associated with high blood pressure in the U.S. are \$76.6 billion.¹⁹

Measure Definition

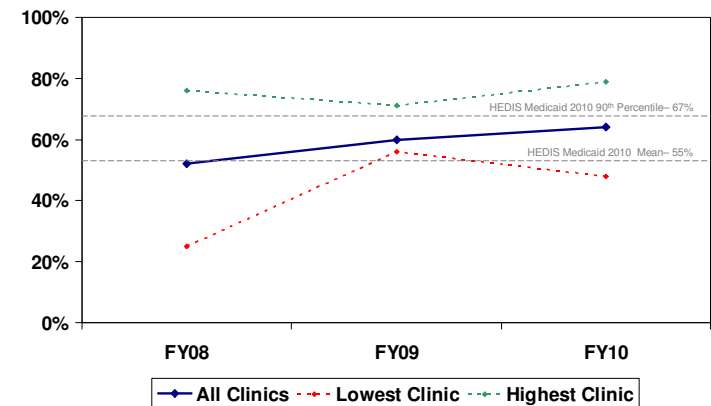
Hypertension BP Control

Percent of eligible hypertensive patients with most recent recorded blood pressure measurement $\leq 140/90$

Interpretation of FY 2008-2010 Results

Montgomery Cares clinics continue to improve blood pressure control among hypertensive patients, with many clinics exceeding HEDIS 90th percentile performance. Montgomery Cares clinics began tracking and reporting data for hypertension control during fiscal year 2008. Prior to that time, some clinics did not routinely enter BP data into CHLCare. Fiscal year 2009 was the first complete year in which hypertension measures were reported. Changes in performance between 2008 and 2009 may be largely reflective of improved data entry. Nearly all reporting clinics performed at HEDIS Medicaid's 90th percentile for hypertension control in fiscal year 2010.

Hypertension measurement patients with blood pressure $\leq 140/90$



Includes patients whose last recorded blood pressure less than or equal to 140/90

Cancer

Cancer Screening

The purpose of performing screening exams on otherwise healthy and asymptomatic patients is to identify conditions that carry a high risk of morbidity or mortality, but for which effective treatments are available if caught early. PCC is reporting two cancer screening results:

Cancer Screening Process Measures
Breast Cancer Screening
Colorectal Cancer Screening

Why Improvement in Breast Cancer Screening (Mammography) is Important

The National Committee on Quality Assurance in 2009¹ and 2010²⁰ reports that breast cancer accounts for 1 in 4 cancer diagnoses, and is one of the most common types of cancer among American women. Treatment for breast cancer detected in its earliest, pre-invasive stage costs significantly less than treatment for breast cancer detected in more advanced stages. Mammography screening for women ages 50 to 69 can reduce breast cancer mortality by up to 35 percent through early detection. A mammogram can detect about 85 percent of breast cancers in women without symptoms.³

Measure Definition

Breast Cancer Screening

Percent of eligible women ≥ 40 years of age with a documented mammogram in the past two years.

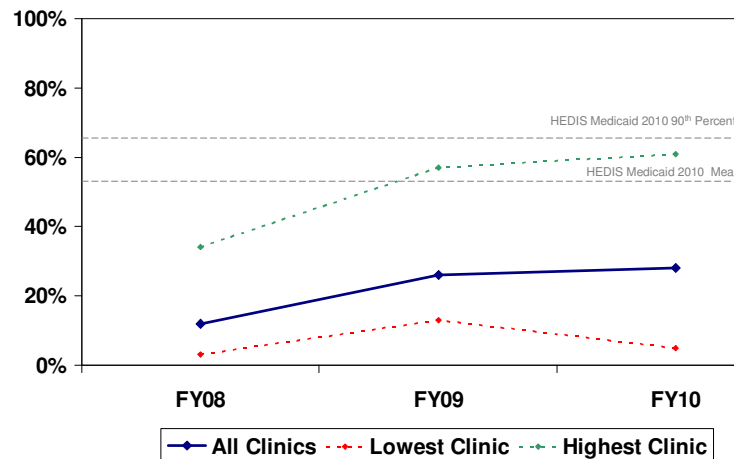
Interpretation of FY 2008-2010 Results

Breast cancer screening has been reported since FY 2008. Through Susan G. Komen grant funding, in 2009 three MC clinics served as pilot sites to implement patient navigation, care management, and “rapid referral processes” with significant improvement in referral and screening rates. Those pilot sites have demonstrated performance at or approaching HEDIS Medicaid targets. Successful process improvements are now being spread to other Montgomery Cares participating clinics, through Susan G. Komen grant funding. Also in FY 2009, the PCC worked with the Women’s Cancer Control Program to improve timeliness of

referrals. Through FYs 2009 and 2010, PCC and Montgomery Cares-participating clinics began to create partnerships between radiology providers and other MC-participating clinics to better meet demand for routine screening from clinics participating in breast health process improvement.

The currently available supply of screening mammograms for low-income women remains too low to meet MC demand. With the help of additional Susan G. Komen Foundation funding and hospital community benefit support, the model developed with the three pilot clinics is being spread to all MC-participating clinics throughout FY 2011. Results from increasing the supply of available mammograms, and streamlining referral and care management processes are anticipated to be seen in FY 2011 and FY 2012 results.

Breast Cancer Screening (≥ 40)



Why Improvement in Colorectal Cancer Screening is Important

Symptoms are not common in colorectal cancer until the disease has progressed. When colorectal cancer is treated at its earliest stage, five-year survival rate is more than 90 percent.¹⁶ But once symptoms occur, the patient’s chance of survival decreases.¹⁷ Place of birth, ethnicity, education, health coverage, smoking, gender and body mass index all have been shown to affect prevalence of colorectal cancer.¹⁸

In the last 15 years, deaths associated with colorectal cancer have decreased, primarily because screening has increased the likelihood of detecting and removing polyps.²¹

Despite the value of colorectal cancer screening, the NCQA^{2, 20} reports that nationally, screening rates for colorectal cancer lag behind other cancer screening rates, even though research shows that screening with fecal occult blood testing, sigmoidoscopy, or colonoscopy effectively detects early-stage cancer and polyps.

Measure Definition

Colorectal Cancer Screening

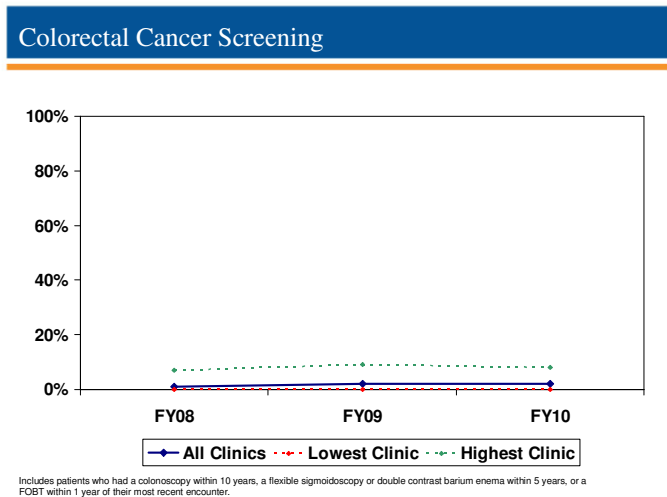
Percent of eligible adults who had appropriate screening for colorectal cancer including fecal occult blood test X3 in the measurement year, or flexible sigmoidoscopy during the measurement year or the four years prior to the measurement year or, double contrast barium enema during the measurement year or the four years prior to the measurement year or, colonoscopy during the measurement year or the nine years prior to the measurement year.

Interpretation of FY 2008-2010 Results

Colorectal cancer screening was reported for the first time in fiscal year 2009, though results for 2008 have been calculated for purposes of this report. The extremely low results are a function of poor data entry of fecal occult blood testing, and severely limited access to screening colonoscopies and flexible

sigmoidoscopies for low-income uninsured County residents. There are significant challenges to improve the screening rate. Clinics are beginning to address work-flow issues that, to date, have impeded attempts to record fecal occult blood testing in CHLCare. Availability of colonoscopy services for low income county residents is far less than needed to meet clinical guidelines. The PCC is seeking grant funding to develop systems similar to the successful breast cancer screening approach, to streamline workflow processes. The PCC continues to work to identify available screening colonoscopy services and clinically acceptable alternatives.

Relevant HEDIS benchmarks are not available for comparison.



Appendix I: Annual Clinical Quality Measures November 2010 Primary Care Coalition of Montgomery County

Measure Name	HEDIS 2010 Denominator	Montgomery Cares Denominator	Montgomery Cares Numerator
<i>Diabetes Measures</i>			
Hemoglobin A1c (HgA1c) Testing	Patients aged 18-75 with diabetes	Patients aged 18 or older with a diagnosis of diabetes who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who had at least one HgA1c test within one year prior to their most recent encounter
Good control of HgA1c	Patients aged 18-75 with diabetes	Patients aged 18 or older with a diagnosis of diabetes who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who had at least one HgA1c test within one year prior to their post recent encounter and whose last HgA1c test was $\leq 7\%$
Poor control of HgA1c ($\geq 9\%$)	Patients aged 18-75 with diabetes	Patients aged 18 or older with a diagnosis of diabetes who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who did not have at least one HgA1c test within one year prior to their most recent encounter or whose last HgA1c test was $\geq 9\%$
LDL Cholesterol Testing	Patients aged 18-75 with diabetes	Patients aged 18 or older with a diagnosis of diabetes who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who had at least one LDL cholesterol test within one year prior to their most recent encounter
Good Control LDL cholesterol (≤ 100 mg/dL)	Patients aged 18-75 with diabetes	Patients aged 18 or older with a diagnosis of diabetes who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who had at least one LDL cholesterol test within one year prior to their most recent encounter and whose last LDL cholesterol was ≤ 130 mg/dL

<i>Hypertension Measures</i>			
Blood pressure control (BP \leq 140/90)	Patients 18-85 with hypertension	Patients aged 18 or older with a diagnosis of hypertension who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients whose most recent blood pressure was \leq 140/90
<i>Preventative Measures – Cancer Screening</i>			
Breast Cancer Screening	40-69 years old	Women aged 40 or older who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who received a mammogram within two years prior to their most recent encounter
Colorectal Cancer Screening	50-80 years old No Medicaid Benchmark	Patients aged 50 or older who had two face-to-face encounters with different dates of service - one visit during the measurement period and the other visit in the measurement period or within two years prior to the end of the measurement period	Denominator patients who received one of the following tests: <ul style="list-style-type: none"> • Colonoscopy within ten years prior to their most recent encounter • Flexible sigmoidoscopy within five years prior to their most recent encounter • Double contrast barium enema within five years prior to their most recent encounter • Fecal occult blood test within one year prior to their most recent encounter

References

- 1- National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Statistics. http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2007.pdf.
- 2- American Heart Association. Heart Disease and Stroke Statistics – 2008 Update. http://www.americanheart.org/downloadable/heart/1200078608862HS_Stats%202008.final.pdf.
- 3-The State of Health Care Quality 2009, National Committee for Quality Assurance, Washington, D.C.
- 4-American Heart Association. Heart Disease and Stroke Statistics – 2008 Update. http://www.americanheart.org/downloadable/heart/1200078608862HS_Stats%202008.final.pdf.
- 5-National Institute of Diabetes and Digestive and Kidney Diseases. Kidney Disease of Diabetes. <http://kidney.niddk.nih.gov/kudiseases/pubs/kdd/index.htm>.
- 6-Hogan P, Dall T, Nikolov P. Economic costs of diabetes in the US in 2002. *Diabetes Care* 2003; 26(3):917-932.
- 7-American Heart Association. Heart Disease and Stroke Statistics – 2007 update. http://www.americanheart.org/downloadable/heart/1166711577754HS_StatsInsideText.pdf.
- 8- Fields LE, Burt VL, Cutler JA, Hughes J, Roccella EJ, Sorlie P. The burden of adult hypertension in the United States 1999 to 2000: a rising tide. *Hypertension*. 2004;44:398 – 404.
- 9- Vasan RS, Beiser A, Seshadri S, Larson MG, Kannel WB, D’Agostino RB, Levy D. Residual lifetime risk for developing hypertension in middle-aged women and men: the Framingham Heart Study. *JAMA*. 2002; 287: 1003 – 1010.
- 10- American Heart Association. Heart Disease and Stroke Statistics – 2009 update. <http://www.americanheart.org/downloadable/heart/1240250946756LS-1982%20Heart%20and%20Stroke%20Update.042009.pdf> Accessed May 2009.
- 11- Seshadri S, Beiser A, Kelly-Hayes M, Kase CS, Au R, Kannel WB et al. The Lifetime Risk of Stroke: Estimates From the Framingham Study. *Stroke* 2006; 37(2):345-350.
- 12- Neal B, MacMahon S, Chapman N. Effects of ACEinhibitors, calcium antagonists, and other blood-pressure-lowering drugs: results of prospectively designed overviews of randomised trials. Blood Pressure Lowering Treatment Trialists’ Collaboration. *Lancet*. 2000; 356: 1955 – 1964.
- 13- Centers for Disease Control and Prevention. Screening to Prevent Cancer Deaths. <http://www.cdc.gov/NCCdphp/publications/factsheets/Prevention/cancer.htm> Updated: 5-3-2006
- 14- Elmore JG, et al. Screening for breast cancer. *JAMA*. 2005 Mar 9;293(10):1245-56. American Cancer Society. Breast Cancer Facts and Figures 2007-2008. Available at: http://www.cancer.org/docroot/STI/stt_0.asp. Accessed May 2009.

15- . National Cancer Institute. Breast Cancer Screening (PDQ®). Harms of Screening. Available at: <http://www.cancer.gov/cancertopics/pdq/screening/breast/HealthProfessional/page7>. Accessed: May 2009.

16- Rosen AB, Schneider EC. 2004. Colorectal Cancer Screening Disparities Related to Obesity and Gender. *Journal of General Internal Medicine* 19(4):332-338.

17- Rozen P. 2004. Cancer of the gastrointestinal tract: early detection or early prevention? *Eur J Cancer Prev* 13(1):71-75.

18- Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

19- American Heart Association. 2010. Heart Disease and Stroke Statistics-2010 update. http://www.americanheart.org/downloadable/heart/1265665152970DS-3241%20HeartStrokeUpdate_2010.pdf (March 2010)

20- -The State of Health Care Quality 2010, National Committee for Quality Assurance, Washington, D.C

21- American Cancer Society. Colorectal Cancer. http://www.cancer.org/docroot/CRI/content/CRI_2_4_7x_CRC_Colorectal_Cancer_PDF.asp (March 2010)