



Increasing Colorectal Cancer Screening – Saving Lives and Saving Dollars: *Screening 50 to 64 year olds Reduces Cancer Costs to Medicare.*¹

Colorectal Cancer Takes a Large Toll on the Medicare Population

Colorectal Cancer takes a significant toll on the Medicare population, both in terms of lives affected and staggering treatment costs. Of the 153,760 people diagnosed with colorectal cancer in 2007, nearly two-thirds of those cancer patients are of Medicare age. In addition, with the introduction of biologics, oncolytics and other targeted therapies, Medicare is now facing a staggering increase in costs in order to treat advanced colorectal cancer with state-of-the-art therapy. Doctors and patients are excited about these life extending therapies, but drugs such as Avastin and Camptosar cost vastly more than the drugs they replaced. Today, some estimates for one-year treatment cost for a patient with metastatic (late stage) colorectal cancer are as high as \$310,000, an annual cost typically found only for medicines used to treat rare diseases. Given the large burden of this disease on the Medicare program and the increasing size of this population, these costs are a growing concern to policy makers.

Colorectal Cancer can be Prevented.

The good news is that screening for colorectal cancer can detect the disease at an early, favorable stage, or prevent it through the early detection and removal of pre-cancerous polyps. Furthermore, when colorectal cancer is diagnosed at the localized stage, the expensive new therapies are not required, and the 5 year survival rate is 90 percent. However, when cancer is not diagnosed until the distant stage, the 5 year survival rate is only 10 percent. It is critical, therefore, that we invest further in efforts to increase screening rates.

The high costs of these new therapies make the case for prevention and early detection stronger than ever. As a leading advocate for increasing the use of life-saving colorectal cancer screening tests, the National Colorectal Cancer Roundtable commissioned a study to determine how Medicare cancer costs could be affected if we do a better job at increasing regular screening in the adult population aged 50 to 64. The early results of this analysis confirm the potential to reduce Medicare colorectal cancer costs through prevention and early detection.

The Lewin Group Analysis:

The Lewin Group, in collaboration with NCCRT experts, developed a cost model that explores how increased colorectal cancer (CRC) screening among pre-Medicare eligible individuals (aged 50-64 years) could translate into Medicare savings realized through earlier detection and treatment, specifically polypectomy and treatment of early stage cancer. The study follows a

¹ This research was conducted for the National Colorectal Cancer Roundtable in a study by The Lewin Group. The Lewin Group is a well-respected health policy consulting firm based in Washington, DC.

hypothetical population aged 50-64 until they reached age 75. This cohort is not “replenished,” that is, it is a defined sub-population followed through time very much like the smoke-free class of 2000. Thus, the cost estimates are conservative since they do not include all adults in the Medicare population, but rather only this subgroup as they age and enter Medicare eligibility.

The model assumes that screening rates gradually increase in this population to an optimal, but achievable, level. The study models two scenarios. In one scenario, the group largely takes advantage of colonoscopy screening. In the second scenario, the group largely utilizes stool blood testing. All model inputs and assumptions were drawn from the published literature and the advice of an expert National Colorectal Cancer Roundtable Task Group.

The Studies Models a Range of Treatment Costs.

The analysis also modeled three sets of colorectal cancer treatment costs, since we know not all patients receive state-of-the-art treatment, and published literature lags behind some of the costs that are occurring in today’s practices due to the introduction of the newer drugs on the market.

The figures in Set A are based on the literature using 1999 treatment costs, which was prior to the introduction of the new targeted therapies. Thus, Set A represents a conservative cost estimate.

Set B weights some of the more expensive treatment costs based on a more recent paper in the literature (2006) with these earlier figures. Set B estimates assume about half of the population is getting the more expensive treatments and about half is still getting the older therapies.

Our last set of figures, Set C, uses CRC yearly treatment costs, based entirely on the 2006 article. Recently, these figures were validated by comparing these costs with charges reported from a leading cancer center. Thus, Set C provides a real world example of how the increased cost of treating advanced colorectal cancer compare with average costs for therapy earlier in this decade and likely represents the direction costs are taking.

Preliminary Findings: Screening 50 to 64 year olds Reduces Cancer Costs to Medicare.

- The Colonoscopy Model translates into Medicare savings of \$15 billion.
- The Stool Blood Testing Model translates into Medicare savings of \$13.3 billion.
- Savings begin to be realized in the second year of the model.
- The earlier regular screening begins (starting at age 50 for average risk), the greater the benefit to Medicare.

Medicare Cost Savings (in \$billions)	Set A: Lower Treatment Costs		Set B: Intermediate Treatment Costs		Set C: High Treatment Costs	
	FOBT	COL	FOBT	COL	FOBT	COL
CRC Prevention	\$ 6.8	\$ 7.4	\$12.2	\$ 13.3	\$ 17.5	\$ 19.1
Reduction in Treatment Costs	\$ 1.0	\$ 1.6	\$ 1.2	\$ 2.5	\$ 1.3	\$ 3.3
Total Medicare Treatment Cost Savings	\$7.8	\$9.0	\$13.4	\$15.7	\$18.9	\$22.4
Screening Cost (Screening and Surveillance)	\$ (0.1)	\$ (0.7)	\$ (0.1)	\$ (0.7)	\$ (0.1)	\$ (0.7)
Total Medicare Savings	\$7.7	\$8.3	\$13.3	\$15.0	\$18.8	\$21.7

How does Medicare reduce cancer costs through screening?

1. Medicare treatment savings stem from the reduction in CRC incidence through the early detection and removal of pre-cancerous polyps
2. Medicare treatment savings stem from stage shift, which is generated by the detection of cancer at earlier stages, which are less expensive to treat.

Furthermore, while the study did not consider the costs of other illnesses to Medicare beneficiaries as they live longer without CRC, the study underestimated costs in several ways:

- We did not follow the study population beyond age 75, and thus did not calculate any savings from cancers prevented beyond age 75;
- We only focused on the unscreened population and did not account for any savings Medicare is currently accruing from cancer prevention;
- We did not capture savings by other government payors, such as state governments, Medicaid or the VA, and
- We conducted our estimates based on the general population and did not specifically focus on the uninsured, which would likely benefit to an even greater degree from an investment in screening because screening rates in this population are extremely low.

Lastly, it is important to note that once higher screening rates become established and a well screened population is constantly arriving on Medicare's doorstep, the savings will reach a steady state at a higher degree of savings.

Conclusion: Investing in Screening Saves lives and Reduces Medicare Cancer Costs.

The preliminary data underscore the benefits of investing in programs that increase colorectal cancer screening, as there are downstream costs benefits to the Medicare program. Furthermore, as we fine tune the model, we continue to see examples of higher and higher treatment costs, thus the cancer savings to Medicare will likely continue to increase.

Colorectal cancer treatment costs are rising, and this increase is considerably greater than the average increase in health costs, which alone are a considerable concern for policy makers. **By increasing colorectal cancer screening rates in the 50 to 64 population, we will reduce suffering, save lives, and reduce cancer costs to Medicare.** The earlier and sooner regular screening begins, the larger the benefit to Medicare in terms of cancer treatment cost avoided. **Investing in screening is a wise use of limited health dollars.**