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Multiple Benefits of Cancer Prevention and Early Detection Programs

by Ronald D. Deisher, M.P.A.H.



Over the past decade most organized cancer programs and physicians have given more lip service than actual attention

to cancer prevention and early intervention. This lack of enthusiasm is not surprising: Fee-for-service reimbursement has encouraged and rewarded hospitals and providers for using more technology and services and has generally discouraged active prevention and early detection services. Most health services providers have not been persuaded to increase early detection services despite their knowledge that failure to diagnose cancer in a timely manner is a major reason for malpractice lawsuits. The lack of reward through reimbursement, however, has been the major disincentive.

Changes are coming, however—not so much in the form of new tests and procedures as in a major shift in health policy and priorities. Driving this forthcoming change are an aging population and money.

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The health services industry has outpaced the nation's ability to finance the continued growth in health care resources. In a real sense, the industry has done such an outstanding job in providing more technology and services that it has priced itself right out of the fee-for-service arena.

The traditional fee-for-service incentives ("the more you do and the longer you do it, the more you make") are giving way to HMOs and other managed care delivery systems. The rapid evolution, growth, and innovation of HMOs are predicted to continue throughout the 1990s, especially as the federal government increases its support for HMOs as a way to deal with runaway Medicare and Medicaid costs.¹

Herein lies the impetus for change. Increasingly, reimbursement for health services is being capped or controlled, which creates financial incentives to prevent disease or to detect it early when it is most easily treatable. In an era of managed care delivery systems, educating people to take better care of themselves and to change harmful health behaviors becomes increasingly attractive. The incentive is to help patients take more responsibility for their health and to become more

self-reliant and less dependent on expensive health care technology and resources.

THE BENEFITS OF CHANGE

For 1995 the American Cancer Society (ACS) estimates a "relative" five-year survival rate of 54 percent, up from 51 percent in 1991. Most of the 51-plus percent of cancer patients who are cured of their disease are cured by early detection and diagnosis and by surgical excision of their tumor. More than 90 percent of cancer patients cured of their disease will have had at least one surgical procedure. Radiotherapy cures somewhere between 7 to 9 percent and chemotherapy/hormonal and biologic therapies cure about 10 percent. These statistics have not changed significantly in the past ten or more years.²

Even the National Cancer Institute (NCI) has begun to recognize and actively support prevention and early detection. To achieve its Year 2000 goals for reducing cancer morbidity and mortality, NCI has started funding research and community programs in smoking cessation, chemoprevention trials, and cooperative early detection outcomes studies.³

Researchers estimate that if all knowledge about cancer prevention

were applied completely, up to two-thirds of cancers would not occur. For example, about 90 percent of the 800,000 skin cancers that will be diagnosed in 1995 could be prevented by the appropriate use of sunscreens. In addition, all cancers caused by cigarette smoking and excessive consumption of alcohol could be prevented. ACS estimates that in 1995 about 170,000 lives will be lost to tobacco-related cancers and about 18,000 cancer deaths will be caused by excessive alcohol use, frequently in combination with cigarette smoking.⁴

It is also estimated that 75 percent of all cancers in the United States could be cured if all the available early detection tests and self-examination methods were practiced routinely.⁵ Regular screening and self-examinations can detect cancers of the breast, tongue, mouth, colon-rectum, cervix, prostate, testis, and skin, including melanomas, at an early stage when they can be treated most successfully, usually resulting in cure for the patient. NCI estimates that if all available breast cancer screening procedures were followed, breast cancer mortality could be reduced by as much as 30 percent.⁶

These eight major sites will account for more than 50 percent of all new cancers diagnosed in 1995. Currently, about 67 percent of all patients diagnosed with these cancers survive five years. With the wide-scale application of currently available screening tests, and with strong follow-up and support for those patients identified with potential signs and symptoms of cancer, about 92 percent of these cancer patients could survive at least five years. This improvement in survival through early detection means about 100,000 more of those people detected with these eight cancers in 1995 could survive if their cancers were detected in a localized stage and they were treated promptly and effectively.⁷

COST SAVINGS/ IMPROVED MARGINS

A major benefit of active prevention and early detection services for hospitals and other providers under HMOs and other managed care options is the potential for cost reductions and savings. Under capitated managed care, up-front cost reductions usually mean increased margins and profits.

It really is time for cancer programs and providers to get serious about cancer prevention and early detection.

A number of cost-benefit and cost-effectiveness studies have shown potential cost savings and improved margins from cancer prevention and early detection. Coors Brewing Company, for example, examined the cost savings from a routine employee mammography screening program. Coors estimated cost savings of at least \$1.54 million annually from their employee mammography screening program. The costs of treating one late-stage breast cancer were estimated at \$157,000 versus \$12,000 for treating an early stage breast cancer.⁸

Treatment for women diagnosed with breast cancer cost an estimated \$33.3 billion in 1993. The average cost for a 27-month, late-stage treatment was about \$34,000 compared with as little as \$10,000 for the diagnosis and treatment of a small, noninvasive breast cancer. Adding high-dose chemotherapy with stem cell reinfusion rescue or bone marrow transplantation increases the costs of treating late-stage breast disease to \$60,000-\$90,000 with stem cell therapy and as high as \$240,000-\$345,000 with bone marrow transplantation.⁹ A recent study conducted by The Cancer Institute of Health Midwest for a coordinated multisite high-volume mammography screening program showed potential cost savings of at least \$12,700-\$23,000 for each early stage breast cancer detected, not

including the additional costs of stem cell or bone marrow therapies.

A cost-benefit analysis of screening programs for colorectal cancer showed significant cost effectiveness for regular screening as recommended by ACS guidelines. Such regular screening was calculated to deliver a reduction in colorectal mortality of 86 percent for a cost of \$1,470 per person-year of life saved. A calculation of medical costs in 1985 for colorectal cancer by stage of disease showed figures ranging from \$6,400 (Dukes' A) versus \$13,218 (Dukes' C).¹⁰

A prostate cancer screening program introduced in 1993 by Zeneca Pharmaceuticals for its employees and spouses has proven to be very cost-effective. Zeneca has calculated that each prostate cancer detected at an early stage saves the company about \$47,000.¹¹

In an era of managed care by capitated HMOs or other reimbursement-controlled delivery systems, it really is time for cancer programs and providers to get serious about cancer prevention and early detection.

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