

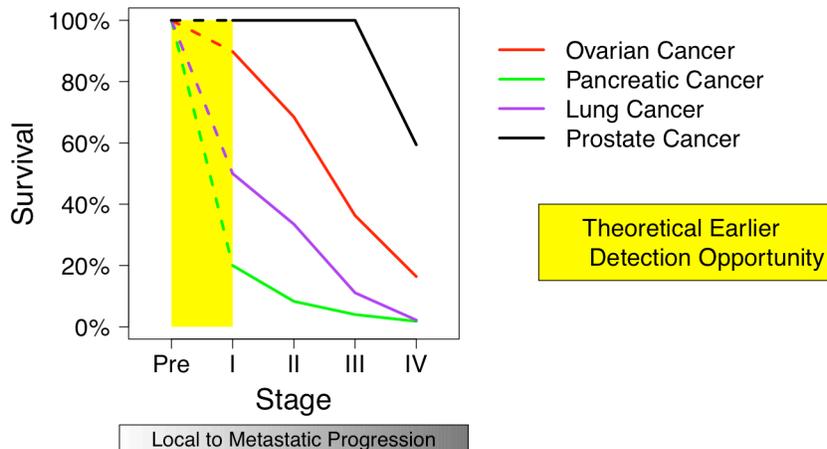
## Early Detection Works

Cancer strikes about one in three women and one in two men in the U.S.<sup>1</sup> and more than 560,000 die<sup>2,3</sup> from it each year. The best chance to reduce these numbers is through early detection and intervention. Over 1.4 million new cancer cases are expected in 2009.<sup>3</sup> Survival rates improve dramatically when cancer is diagnosed early and the disease is confined to the organ of origin.

- Early detection has proven value: since 1950, there has been a 70% decline in cervical-cancer incidence and deaths in developed countries<sup>4</sup> thanks to a simple screening test, the Pap test.
- Colon cancer caught early has a 91% 5-year survival rate, vs. an only 11% survival rate if it is caught late and has spread to other organs.<sup>1</sup>
- Among the 15% of ovarian cancer cases diagnosed early when cancer is confined to the ovary, over 90% survive five years. Unfortunately, for the nearly two-thirds diagnosed after it has spread, only 28% survive that long.<sup>1</sup>
- Lung cancer is a major global killer, and most cases of newly diagnosed lung cancer patients have either never smoked or have quit smoking.<sup>5,6</sup> Over half of new patients are diagnosed after the cancer has spread and only 4% of them will live for 5 years!<sup>1,7</sup>
- Early detection is key in breast and prostate cancers. Five-year survival for breast- and prostate-cancer patients with early stage disease is 98% and 100%, respectively, and survival rates remain high at 10 years.<sup>1,3,7,8</sup>
- For nearly all types of cancer, the 5-year relative survival is substantially lower if disease is caught at an advanced stage.<sup>3</sup>
- The financial costs of cancer treatment can be an additional burden to people diagnosed with cancer, their families and society. Cancer treatment accounted for a staggering \$93 billion in the U.S. in 2008.<sup>9</sup> In addition to saving lives, prevention and early detection have the potential to reduce that financial burden through the reduction of treatment costs.

Relative 5-year survival correlated with stage at diagnosis.<sup>8</sup>

Chances of survival are greater if cancer is diagnosed when still confined to the organ of origin (stage I). Survival rates decline as tumors enlarge and spread regionally (stages II,III) or distantly (stage IV).



## Research Funding

Most cancer research focuses on treatments for late stage disease. Less than 15% of research funding goes to early detection<sup>10</sup> even though early intervention is far more effective than late stage treatment. The greatest advances in cancer research can be obtained -- and more lives saved -- by reorienting research toward prevention and earlier detection.

## Canary Foundation

Identifying early stage cancers will save lives. Discovering highly sensitive and specific markers of early stage disease and building tests for these markers are the focus of Canary's collaborative research programs that span multiple disciplines and institutions. Canary's strategy is to stimulate investment in the cancer diagnostics industry by demonstrating the first set of efficient, cost-effective early detection tests. The goal is to *identify* cancer through a simple blood test, *isolate* the disease through



imaging scans and *intervene* early enough to dramatically increase the chance of a full recovery with minimal side effects. One day, screening for cancer will become as common as tests for cholesterol and most cancers will be detected early and eliminated.

### Sources

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