



Web Review

War on Cancer Goes On-Line

MIKE MORALIS

Throughout most of the 20th Century, the so-called “war on cancer” was approached mainly through disease surveillance and prevention, and surgery. Centuries of viewing the disease as incurable and limited options for treating it, made cancer a disease that people were afraid to talk about. But it is hard to wage war on an enemy that can’t be named, and the war on cancer brought it out of the closet. Today, radiation therapy and chemotherapy are very effective, and improved surgical techniques have increased the range of approaches for dealing with cancer. Yet in Canada, cancer currently accounts for one-third of all potential years of life lost (PYLL), one of the measures of the social impact of the severity of a disease. Lung cancer is the leading cause of premature death.

Cancer is still, in many ways, a mysterious enemy. It is actually a category covering hundreds of different diseases, all related to the abnormal growth of cells in organs or tissue. This happens when the genetic information in a gene becomes garbled, and cell multiplication runs out of control. It can occur due to exposure to radiation or chemicals, or simply because the instructions contained in a gene become scrambled due to mutation, either spontaneously or as a result of environmental factors. The perception that cancer is the result of multiple flaws in the DNA of a cell is a departure from the traditional view of cancer as a disease based on the location of a tumor.

Recent genomic research has opened the door for gene-based diagnosis of cancer, and opened a window on fighting cancer at the genetic level after it occurs, hinting at the possibility of creating vaccines. Other innovative approaches include novel forms of drug delivery that can penetrate cell walls or allow compounds to cross the blood-brain barrier. Another new form of therapy allows delivery of drugs directly to tumors before the compounds are activated with lasers. However, many people still resort to complementary and alternative therapies, often out of desperation when more conventional forms of therapy offer no hope.

1. CANADIAN CANCER SOCIETY www.cancer.ca

The Canadian Cancer Society (CCS), originally called the Canadian Society for the Control of Cancer, was created in 1938, funded primarily by the Canadian Medical Association. Today, it consists of a national office and 10 provincial divisions, and the emphasis is on prevention and disease control through screening and early detection.

Part of its mandate is to provide “clear, concise, current information” to the public, cancer patients and their families. The web site features nine publications about disease prevention and risk reduction, six publications about tobacco, six for people with cancer and their friends and families. There are only four publications dealing with specific forms of cancer: lung cancer, colorectal cancer, breast cancer and prostate cancer.

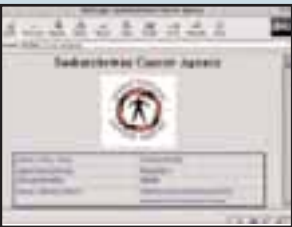
The cancer society is the country’s the largest single funder of cancer research, contributing more than \$30 million last year. The money is disbursed by the CCS’s research partner, the National Cancer Institute of Canada (NCIC), but a complete listing of CCS-funded research is available on the CCS web site. Information about other collaborations between the two organizations is also on the web site. They include the Canadian Breast Cancer Initiative (<http://www.breast.cancer.ca/>), as well as a Prostate Cancer Research Initiative and a Tobacco Research Initiative.

The CCS and the NCIC also jointly produce an annual publication, *Canadian Cancer Statistics*, which is available on their web sites. The report contains detailed information about the incidence and mortality for most common forms of cancer, broken down along demographic and geographic lines.

2. NATIONAL CANCER INSTITUTE OF CANADA www.ncic.cancer.ca

The National Cancer Institute of Canada (NCIC) was established in 1947 as a joint initiative by what was then the Department of National Health and Welfare and the CCS.

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The mission statement approved in February 1988 is: "To undertake and support cancer research and related programs in Canada that will lead to reduction of the incidence, morbidity and mortality from cancer." It works in partnership with the Canadian Cancer Society and the Terry Fox Foundation to support cancer research and other programs at Canadian universities, hospitals and research institutes.

3. PROVINCIAL CANCER AGENCIES

- BC Cancer Agency**
www.bccancer.bc.ca
- Alberta Cancer Board**
www.cancerboard.ab.ca
- Saskatchewan Cancer Agency**
www.scf.sk.ca
- Cancer Care Manitoba**
www.cancercare.mb.ca
- Cancer Care Ontario**
www.cancercare.on.ca
- Fondation quebecoise du cancer**
www.fqc.qc.ca
- Newfoundland Cancer Treatment and Research Foundation** www.nctrf.nf.ca

Seven of Canada's provincial governments have moved toward the creation of province-wide cancer agencies which ensure coordinated services, policy planning and advice to government. Many of these agencies have developed web sites to provide information to consumers on topics such as: screening, treatment, care, research, education and treatment guidelines.

4. AMERICAN CANCER SOCIETY www.cancer.org

The American Cancer Society (ACS) was formed by a group of 15 physicians and businessmen in 1913 as the American Society for the Control of Cancer. Their goal was to end the atmosphere of fear and denial associated with cancer. The concept of "declaring war" on the disease was the 1936 brainstorm of the chair of the General Federation of Women's Clubs committee on public health, Marjorie Illig. She conceived of an army of volunteers waging war against the disease. Dr. Sidney Farber, one of the first scientists to get an ACS research grant, achieved the first temporary cancer remission in the late 1940s

with a drug called aminopterin. The ACS is the largest source of private, non-profit research funds in the U.S., and has funded 28 Nobel prize winners. The ACS web site reflects the comprehensiveness and diversity of the society's activities, offering a broad range of information about research, prevention, detection and treatment of cancer, as well as services for the patients.

5. NATIONAL CANCER INSTITUTE www.cancer.gov

The National Cancer Institute (NCI) is one of the arms of the U.S. National Institutes of Health (NIH). The NCI web site offers comprehensive information organized into four major categories: cancer information; resources for scientists; about NCI; and partnerships. One of the areas of the web site is cancer Trials, which gives access to NCI's clinical trials database along with information aimed at health professionals and patients. CancerNet™ provides comprehensive information about cancer. The NCI recently restructured its communications functions to integrate them in response to the rapid pace of scientific discoveries and medical advances. The "nation's investment in cancer research" is laid out clearly as plans and priorities on the web site.

6. NEW YORK ONLINE ACCESS TO HEALTH <http://www.noah.cuny.edu/cancer/cancer.html>

New York Online Access to Health (NOAH) was launched in 1995 as a collaboration between The City University of New York, The Metropolitan New York Library Council, The New York Academy of Medicine and The New York Public Library. It has been recognized as an outstanding bilingual consumer health information site and praised for its content and design. The site has well over 350,000 page views each month, and has established itself as a distinctive, authoritative, bilingual health information site meeting the needs of an underserved population of health consumers, many of whom are also Spanish speaking.

7. AMERICAN ASSOCIATION FOR CANCER RESEARCH www.aacr.org

The American Association for Cancer Research (AACR) is a scientific association that consists of more than 15,000 laboratory and clinical cancer researchers in the United States, Canada and more than 60 other countries. It was founded in 1907 to facilitate communication, to foster research, public and scientific education, and to promote understanding of cancer internationally. The AACR publishes several journals (*Cancer Research*, *Cancer Epidemiology, Biomarkers & Prevention*, *Cell Growth & Differentiation*, and *Clinical Cancer Research*, as well as a newsletter that is available by e-mail). The AACR also holds an annual meeting and several conferences annually.

8. ONCOLINK www.oncolink.upenn.edu

The University of Pennsylvania Cancer Center's web site, Oncolink, was created in 1994. Usage has climbed steadily since then, and in March of this year alone more than 225,000 people visited the site. One of the key attractions is Oncolink's comprehensive array of information about cancer. Features appeal to health care professionals, cancer patients and survivors and their families. They include menus organized by disease and by medical specialty, and clinical trials. The site contains information about cancer causes, screening and prevention, as well as information about coping with cancer and death.


9. CANCERBACUP www.cancerbacup.org.uk

The web site for CancerBACUP, a charitable organization in the United Kingdom, is reportedly one of the busiest such sites in the world, and CancerBACUP was named patient organization of the year in 1999 by the magazine *Pharmaceutical Marketing*. Information on the web site is well-organized, broken down into the following categories: specific cancers; coping with cancer; cancer treatments; talking about

cancer; and living with cancer. The site consists of about 1,500 pages, including a growing catalogue of booklets and fact sheets that can be ordered as a CD-ROM and searchable databases of support groups, cancer organizations and hospices. The organization, created in the mid-1980s, lobbies government and offers advice to the National Health Service, and also provides extensive support and services for cancer patients and their families and friends. One of the resources is a telephone support line staffed by nurses. It gets about 50,000 calls a year, offering patients and care-givers information about local counselling services. It also offers support to the medical community regarding cancer-related issues.

Commercial for-profit web sites devoted to providing cancer information for consumers are springing up as part of the proliferation of health-related information on the Internet. Among them are www.oncology.com, www.cancerpage.com, www.cancersource.com and www.cancer-facts.com.

10. CANCERSOURCE.COM www.cancersource.com

CancerSource.com was founded in 1999 as a business alliance with Jones and Bartlett Publishers from the medical and textbook field. It offers a range of information services to the patient community and health professionals. In addition to information, the web site offers interactive chats, message boards, a searchable drug database, and clinical trials information. In April, CancerSource.com launched a monthly online column by Dr. Robert Buckman, a medical oncologist at the Toronto-Sunnybrook Regional Cancer Centre and well-known author and broadcast commentator. Free registered membership is required to gain full access to the site, which is structured into four tiers of information: introductory, basic, intermediate and advanced levels. 

Mike Moralis is a Policy Analyst with the Ontario Hospital Association.

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