

If I had a Billion Dollars...

Exploring Funding Gaps and Possibilities in Lung Cancer Research Funding

Background

* Lung cancer represents 25% of cancer deaths in Canada.

* US lung cancer research investment increased from \$102 million in 2004 to \$403 million in 2020, a fourfold increase.

* In Canada the increase from \$9.5 million in 2005 to \$17.1 million in 2019, not quite a doubling.

* Low levels of research funding for lung cancer pose a threat to patient outcomes despite new treatments.

Methodology

Analyzed Canadian lung cancer research funding trends over 15 years. Lung cancer research investment was divided into six categories.

Identified gaps in funding to suggest areas for further investigation. Guided by a previous study on research needs for metastatic breast cancer patients. Used a discussion piece on the current state of cancer research for background information.

Findings

Most research investment focused on tobacco usage prevention.

Smoking cessation efforts resulted lung cancer decreasing in males since 1990 and in females since 2011.

Early detection (biomarkers using biospecimens and imaging techniques) received nearly one-quarter of the investment.

Treatment research accounted for one of every five dollars invested.

Majority of treatment research investment focused on chemotherapy, targeted therapies, and immunotherapies are promising for advanced lung cancer.

Very little research investment in lung cancer survivorship. Lung cancer survivors often face challenges like side effects from treatment, psycho-social issues, and co-morbidities.

18% of the 15-year lung cancer investment focused on cancer biology. In comparison nearly 37% was focused on cancer biology in breast cancer.

Future Directions

Maintain tobacco usage prevention efforts, early detection, and treatment research.

Increase funding for survivorship and cancer biology

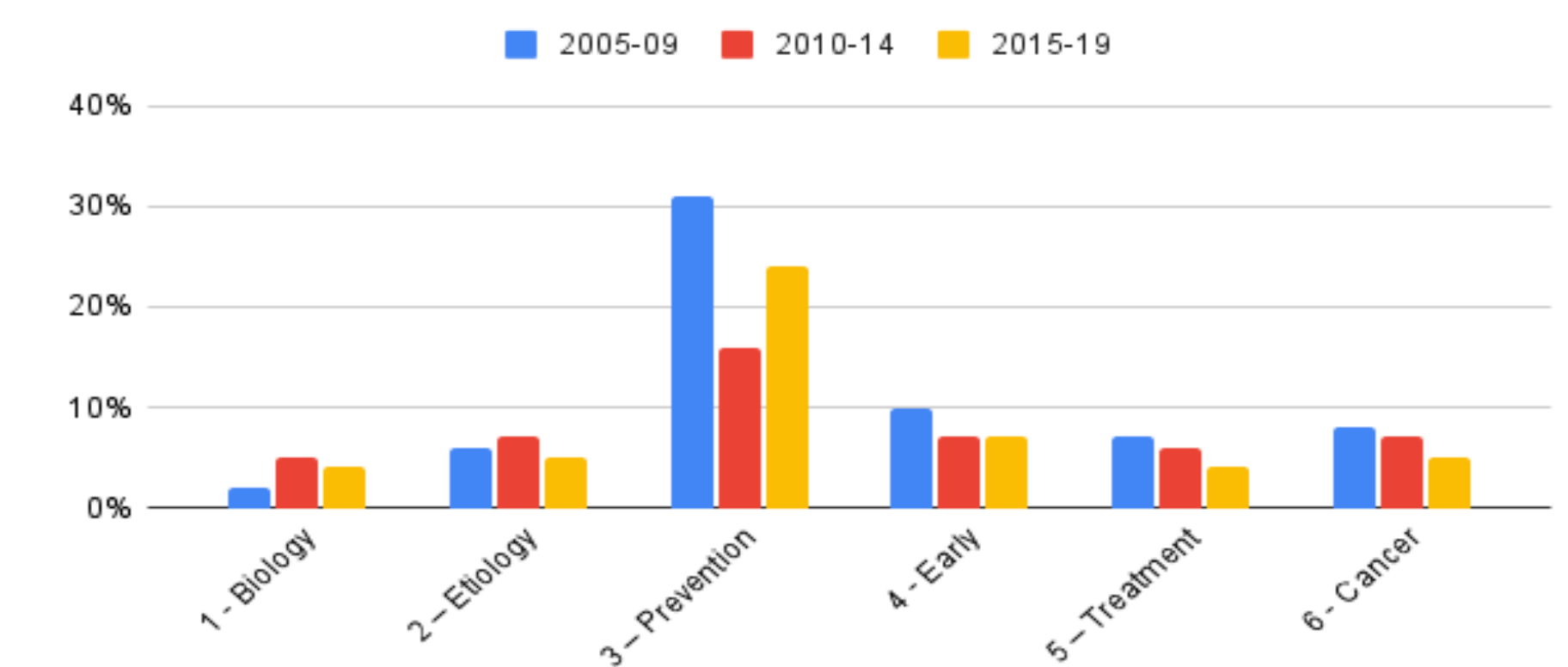
Involve patients in setting priorities

2019 Cancer Research Investment by Cancer Burden, Selected Sites

Estimated new cancer cases and predicted 5-year net survival from <https://cdn.cancer.ca/-/media/files/research/cancer->



Lung Cancer Research Funding as Percentage of All Cancer Research Funding



CSO Categories

<https://www.icrpartnership.org/cso>

Biology

Biology of how cancer starts and progresses as well as normal biology relevant to these processes

Etiology

Etiology aims to identify the causes or origins of cancer - genetic, environmental, and lifestyle, and the interactions between these factors.

Prevention

Prevention looks at identifying individual and population-based primary prevention interventions, which reduce cancer risk by reducing exposure to cancer risks and increasing protective factors.

Early Detection, Diagnosis, and Prognosis

Focuses on identifying and testing cancer markers, imaging and other methods that are helpful in detecting and/or diagnosing cancer as well as predicting the outcome or chance of recurrence or to support treatment decision making in stratified/personalised medicine.

Treatment

Focuses on identifying and testing treatments administered locally (such as radiotherapy and surgery) and systemically (treatments like chemotherapy) as well as non-traditional (complementary/alternative) treatments. Research into the prevention of recurrence and treatment of metastases are also included here.

Cancer Control, Survivorship, Outcomes

Research includes a broad range of areas: patient care and pain management; tracking cancer cases in the population; beliefs and attitudes that affect behavior regarding cancer control; ethics; education and communication approaches for patients, family/caregivers, and health care professionals; supportive and end-of-life care; and health care delivery in terms of quality and cost effectiveness.



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Thanks, Kimberly Badovinac