



Examining disparities in cancer control across Canada - A story of gaps, opportunities and successes

REPORT HIGHLIGHTS

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The Survival Gap

A report measuring the performance of Canada's cancer system has uncovered potentially important disparities in the cancer care and outcomes received by Canadians based on how much they earn, where they live, and if they are recent immigrants or Canadian-born. Overall, the report shows that people from the poorest urban neighbourhoods are less likely to survive cancer compared with urban residents from the richest neighbourhoods and that this might be partly explained by inequities in access to diagnostic and treatment services.

This special focus report from the Canadian Partnership Against Cancer (CPAC), a non-profit federally-funded organization responsible, in collaboration with partners, for implementing the country's cancer control strategy, reported that the wealthiest urban residents have a 73% chance of surviving their cancers five years after a diagnosis (relative to others in the general population of the same age, sex and income level) compared with 61% for people living in the poorest urban neighbourhoods. The survival gap persists (although reduced in magnitude) even when lung cancer (more prevalent in low income/rural populations) and prostate cancer (more prevalent in high income/urban populations) are excluded.

Earlier research has established that, because of higher rates of smoking and obesity, lower income and rural Canadians have a greater risk of developing some types of cancers and dying from them. But gaps in survival tend to reflect differences in diagnosis and treatment as opposed to differences in the risk of getting cancer. The report reveals for the first time at a pan-Canadian level that people living in lower income and rural and remote communities may not be accessing the best cancer care. Be it screening, radiation therapy use, surgery or enrolment in clinical trials - at every step of the cancer-care journey, these segments of the population may be falling behind.

The news however, is not all bad. While the report's results suggest that inequities exist, they also provide examples where progress has been made in bridging gaps through specific interventions, such as improving access to breast screening in remote communities through mobile mammography units. These successes mean that Canadians need not be resigned to the status quo of socio-economic and geographic inequities. In fact, the purpose of this and other CPAC-produced system performance reports is to identify best practices that can be more broadly adopted to improve cancer control across the country.

It's important to note that this report does not look specifically at **First Nations, Métis and Inuit populations** due to data limitations although those populations are partially represented in the data from remote/rural provincial communities and the territories. Advancing cancer control with and for First Nations, Métis and Inuit populations is a priority for the organization demonstrated through the implementation of the First Nations, Inuit and Métis Action Plan on Cancer Control as well as supporting a number of local initiatives aimed at reducing the burden of cancer among First Nations, Métis and Inuit populations. More information is available on <http://www.cancerview.ca/cv/portal/Home/FirstNationsInuitAndMetis>

The Shortfalls

Using information from several sources, including hospital databases, national household surveys and provincial cancer registries, this report examines the incidence rates of various cancers and estimates the specific stage at which Canada's

most common cancers are detected in low income and rural and remote populations. It also includes patterns in cancer surgery, how many patients undergo radiation therapy, how long they wait to receive it if it's recommended, and which patients join clinical trials, shedding light on trends that warrant further investigation and areas for intervention.

Finding cancer early can often offer a better chance of surviving the disease but the report's results suggest that Canadians from lower income households are less likely to be screened for breast, colorectal and cervical cancers than those from higher-income households. Furthermore, when lower-income women do get screening mammography with an abnormal result, they wait longer for the follow up tests needed to resolve the results than higher-income women. Despite lower screening rates however, mortality data do not show that women from lower income neighbourhoods have a higher chance of dying from breast cancer than those living in higher income communities.

The report also suggests that recent immigrants, many of whom according to Canadian statistics, also live in urban, low-income households, are less likely to report being screened for breast, cervical and colorectal cancers than those born in Canada and immigrants who have lived in Canada for a decade or more.

A potential barrier to accessing treatment for Canadians living in rural and remote communities is the travel time required to reach treatment centres, which are typically located in larger urban areas. Long travel times, accompanied by life disruptions resulting from being away from home for extended periods, may help to explain lower utilization of certain services by residents of rural and remote communities. For example, the report shows that people living more than 40 minutes drive from a cancer treatment centre are somewhat less likely to undergo radiation therapy after a cancer diagnosis. People who live in rural and remote regions are also more likely to have their lung cancer diagnosed at a more advanced stage than urban residents. This may indicate access barriers to parts of the health care system critical to early diagnosis. Please see the report for information related to the correlation between driving distance and access to treatment available at www.cancerview.ca/systemperformancereport

People in lower-income neighbourhoods and those who live in remote communities are also the least likely to participate in clinical trials of the latest cancer therapies. Clinical trials are the engines that drive

improvement in the cancer-treatment field, pushing innovative science from laboratory bench to hospital bedside. The report's data show that cancer patients living in the highest income neighbourhoods are 1.8 times more likely to be enrolled in a clinical trial than patients from the lowest income neighbourhoods. Enrolment is also skewed by place of residence with patients living in urban areas 1.3 times more likely to be enrolled in a clinical trial than those living in remote communities.

The pattern indicates that patients from remote areas and low-income neighborhoods are less likely to access treatments that may improve their odds of survival. It may also suggest that clinical trial results may not be generalizable to the full population if certain segments that may respond differently to the treatments being tested are not well represented on these trials

Some Good News on Wait Times

In addition to the previously mentioned lack of disparity in rural and remote community access to breast screening, the report also offers reassuring findings on wait times, a key indicator from the public's and patient's perspectives. For example, the report found no difference in wait times for radiation therapy (when examining all cancers combined) by place of residence, be it urban, rural/remote, income or by immigrant status.

Potential Access Challenges for Some Cancer Surgeries

With surgeries for rectal cancer, the report shows that patients living in remote communities were somewhat more likely to receive a colostomy than urban residents. A permanent colostomy, in which the entire anal sphincter is removed and fecal flow is redirected to an external bag on the abdomen, is generally associated with a poorer quality of life for patients. Although there are specific situations where a colostomy is required, surgeons and patients generally strive to avoid the procedure. While other factors may play a role, the report's results may be at least partially explained by previous studies that have found that colostomy rates are higher in smaller hospitals where fewer rectal surgeries are performed. Patients from rural and remote regions may be more likely to have their surgeries in hospitals that handle fewer rectal cancer cases.

Both income levels and geography seem to be associated with the type of surgical procedure received by women with early stage breast cancer. Higher-income and urban dwelling women undergo fewer mastectomies than lower-income women and those residing in rural and remote communities, opting instead to undergo breast-conserving therapy (BCT). In BCT, the tumour is removed but much of the breast tissue is retained providing for improved cosmetic results; unlike most mastectomies however, BCT is generally followed by radiation treatment. BCT is a less radical and invasive option, and is considered as effective as a mastectomy in terms of survival.

While the findings may indicate that rural and lower-income women prefer mastectomies to breast-conserving therapy, it is also possible that the travel expense and time required to have the radiation treatment needed after breast-conserving surgery may make this treatment option more difficult for women living far away from radiation therapy facilities.

The report also shows that mastectomy and colostomy rates were lower in areas throughout the country

characterized as having a high immigrant density and may reflect that those immigrating to Canada tend to settle in urban areas where they have better access to services, such as radiation treatment facilities and high volume surgical centres.

Where disparities in cancer care may not lead to different outcomes

Prostate cancer incidence and mortality patterns offer some insights on where earlier detection may not necessarily lead to better outcomes. Men from higher-income neighborhoods have a higher incidence rate of prostate cancer than men from lower-income neighborhoods, and are often diagnosed at earlier stages. These results align with available survey data that show that more high-income men undergo PSA testing for prostate cancer. Despite the higher detection rate, high-income men are no less likely to die of prostate cancer. These findings, which require further research to be confirmed, suggest that early detection through PSA testing, while increasing the incidence rate in higher income men, does not reduce the risk of developing advanced stage or of dying from prostate cancer. In fact, the report's data suggest that high income men had slightly higher rates of advanced stage prostate cancer than low income men.

For information on the incidence and stage-specific diagnosis of breast, lung and colorectal cancer in different populations, please refer to the report available at www.cancerview.ca/systemperformancereport

Risky Business and Beyond

Many factors might help to explain the disparities chronicled in this report, and the findings from earlier research that it echoes. It may be tempting to pin these inequities on the distinct risk profiles of the different groups: the higher rates of smoking in lower income populations, or the higher obesity rates in residents of rural and remote regions.

But that picture would be incomplete.

Risk factors are crucial measures that speak to both the prevention and incidence of disease. But beyond the distinct risk profile of any population group, age, employment, education level, general awareness and personal health beliefs are all variants that shape an individual's journey through the cancer system or their

potential to avoid a cancer diagnosis. Yet controlling cancer is not a responsibility for individuals alone. Public health resources, family doctors, specialists, cancer centres, hospitals and governments all have a role in helping to prevent the disease and incorporating best practices to improve treatment outcomes.

The hope is that this special focus report will help to inform both clinical practice and policy making by identifying the areas and services where more work is needed to eliminate disparities, and by ensuring the best prevention, screening and cancer care services, are readily available to all Canadians, regardless of when they arrived in the country, how much they earn, or where they live. Cancer does not discriminate and we should be working to ensure that Canada's health care system does not either.

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