

# Cancer research paper examples

[Health & Medicine](#), [Addiction](#)



## **Abstract**

Cancer is an abnormal condition characterized by uncontrolled proliferation and spread of cells, such as in the colon, rectum, lung, breast and prostate. Cancer is caused by both external risk factors (physical inactivity, obesity, and radiation and chemicals exposure) and internal factors (innate mutations, and immune and hormonal aberrations). Cancer can remain dormant for ten years following contagion for it to manifest itself. Cancer is managed through surgery, radiotherapy and chemotherapy-where various drugs are used. Cancer death rate shows a disparity since higher deaths are reported in populations of low socioeconomic status than the well-off populace. Cancer infections also show disparity in gender with breast cancer infecting women more than men. This paper intends to show how risk factors induce different types of cancer, treatment and disparity of cancer in a population.

## **What Shift In Health Behaviors Has Changed Incidence And Mortality Of Cancer?**

The consumption of saturated fat and calorie-dense food and physical inactivity leads to obesity which makes an individual susceptible to cancer. Cigarette contains thousands of chemicals many of which are carcinogenic, thus causing lung cancer. Failure to create and maintain a regular cancer screening culture among the populace has resulted to late detection and diagnosis of cancer. These factors have increased the incidence and mortality of cancer .

## **Which Cancers Have Been Most Affected By Behavior Shifts?**

Increasing age, physical inactivity, and taking one or more alcoholic beverages on a daily basis are some of the factors that highly induce breast cancer. Occupational exposure to trichloroethylene, an industrial agent used as a metal degreaser induces kidney cancer. Exposure to radioactive material augments the risk of leukemia .

### **Definitions**

Cancer survival rate illustrates the fraction of people who survive a type of cancer for a particular period of time, usually five years.

Cancer staging is a procedure of finding out the level to which cancer has metastasized in the body. Current practice is to consign numerical values (I-IV) for cancers, with (I) being a benign tumor and (IV) being cancer which has metastasized to the extent of what the assessment evaluates .

Tumor grade is a means of categorizing tumors in relation to certain traits of their cells.. If the cancer cells look like normal cells and they occur in few numbers then the tumor grade will automatically be low.

Tumor markers are molecules, typically , which are synthesized by the body in retort to cancer development or by the cancer cells. They may be detected in urine, blood, or tissue samples. Some markers are highly specific to one cancer while others are detected in various types of cancer .

Prognostic and Predictive Factors, Incidence & Mortality, Risk Factors, Screening, Prevention and Clinical Features of Colon & Rectal, Breast, Lung and Prostate Cancers

## **Lung Cancer**

The incidence rate has reduced considerably in men, from 102.1 cases per 100,000 in 1984 to 71.8 cases in 2007. In women, the rate has started to dwindle after a long time of increase.

Lung cancer kills more people than the rest of cancers combined. Symptoms may comprise sputum streaked with blood, persistent cough, chest pain, recurrent pneumonia or bronchitis and voice change. Cigarette smoking is the key risk factor for lung cancer. Low-dose spiral computed tomography (CT) scans and molecular markers in sputum are used to detect lung cancer in early stages for effective treatment. Treatment is by surgery, radiation therapy or chemotherapy. Avoiding smoking tobacco can prevent one from acquiring lung cancer.

## **Colon and Rectum Cancer**

Colorectal cancer incidence and Mortality rates have been declining over the past two decades. At first colorectal cancer does not portray any symptoms hence screening is usually essential to detect colorectal cancer in its early phase. As this cancer advances, it may result to rectal bleeding, an alteration in bowel routines and blood in the stool, and contracting pain in the lower abdomen.

Obesity, physical inactivity, and a diet high in red meat increase risk of acquiring colorectal cancer. Colorectal cancer risk is also increased by certain. Screening results in the recognition and exclusion of colorectal polyps before they turn out to be cancerous, as well as the discovery of cancer that is at an early phase. Surgery is the most considered treatment for colorectal cancer. Chemotherapy alone, or in an amalgamation with

radiation, is administered prior to or after surgery to most patients whose malignancy has infiltrated the bowel wall severely or extended to lymph nodes .

## **Breast Cancer**

The incidence rate for feminine breast cancer started to drop in 2000, and this has been credited to diminution in the exploitation of menopausal hormone therapy (MHT). The first sign of breast cancer is often an aberration identified on a mammogram before it can be detected by the patient or a physician. Rare symptoms comprise persistent changes to the breast, such as thickening, distortion, swelling, tenderness, redness, skin irritation and nipple abnormalities, such as retraction, ulceration, or spontaneous discharge. In general, breast pain yields from benign tumors and is not an early sign of breast cancer. Physical inactivity, increasing age, and taking of one or more alcoholic beverages on a daily basis are some of the factors that highly induce breast cancer. Mammography detects breast cancer at an early phase, when treatment is more effectual, and a remedy is more likely. Treatment involves considering tumor size, degree of spread, and other features, as well as patient predilection, and then tumor cells are removed surgically or amputation such as in the case of breast cancer .

## **Prostate Cancer**

Prostate cancer is the most regularly diagnosed cancer in males. Though death rates have declined more quickly among African American than white men, the death rates are still higher compared to white men. Early prostate cancer usually lacks symptoms. As the cancer advances, men may suffer

weak or interrupted urine flow; incapability to urinate or intricacy starting or halting the urine flow; the need to urinate regularly, especially at night; blood presence in the urine; or burning sensation or pain with urination. The only well-established inducing factors for prostate cancer are race/ethnicity, age and family history of this cancer. Detection can be done through routine testing with the PSA test. Treatment alternatives differ depending on stage, age and grade of cancer, on top of other medical conditions .

## **Drugs Approved For Lung, Breast, Prostate, Colon And Rectal Cancer.**

Abraxane is particularly designated for the early treatment of locally progressed or metastatic non-small cell lung cancer, in an amalgamation with carboplatin, in cancer patients who are not entrants for radiation therapy or curative surgery. Side effects include anemia, nausea and fatigue.

Afinitor is exclusively approved for the cure of postmenopausal women with advanced hormone receptor-positive, HER2-negative breast cancer (advanced HR+ BC) in an amalgamation with exemestane, following failure of treatment with letrozole or anastrozole. The side effects are mainly fatigue, diarrhea, edema, abdominal pain, alopecia and nausea.

Xtandi is specially designated for the treatment of individuals with metastatic castration-resistant prostate cancer who have beforehand obtained docetaxel. Some of the side effects include asthenia/fatigue, back pain, diarrhea, and arthralgia.

Zaltrap (ziv-aflibercept) is exploited in colorectal cancer treatment, is a blending protein exclusively crafted to attach all varieties of Vascular

Endothelial Growth Factor-A (VEGF-A) and Placental Growth Factor (PIGF). Both PIGF and VEGF-A are proteins that participate in the abnormal formation of new blood vessels. Its side effects are weight loss, diarrhea, stomatitis and headache. All these drugs were approved by Food and Drug Administration (FDA) in 2012.

### **Non-Hodgkin's Lymphoma Chemotherapy**

Rituximab (Rituxan) is permitted by the FDA as a drug to treat of B-cell lymphoma. Rituximab reduces the number of B cells, together with healthy B cells, but the body synthesizes new healthy B cells to reinstate these. The cancerous B cells are less expected to reappear. The side effects include low blood pressure, irregular heartbeats and difficulty in breathing .

### **Minorities And Underserved Communities Have Greater Incidence Of And Deaths Related To Cancer.**

There has been significant advancement in trimming down cancer death rates in the United States. However, death rates in persons with lower socioeconomic status, as defined by education, occupation, or residence, has shown little or no decrease, and even increased in some instances. Similarly, the reduction in cancer death rates in minorities happened later and has been sluggish measured up to those of whites. As a consequence, the breach in mortality rates between disadvantaged and advantaged segments of the US populace has persisted to broaden. Disparities principally crop up from disproportions in work, income, wealth, housing, education and general standard of living, in addition to social obstacles, to first-rate early detection, cancer prevention, and, treatment services. The government should avail

subsidized cancer screening, prevention, treatment and education to cater for those with a low socioeconomic status .

## **References**

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