

Members:**Jeff Lazo****Neo Kun Mavrick Del Valle****Simon Dimaculangan****Cancer**

refers to any one of a large number of diseases characterized by the development of abnormal cells that divide uncontrollably and have the ability to infiltrate and destroy normal body tissue. Cancer often has the ability to spread throughout your body.

Cancer is the second-leading cause of death in the world. But survival rates are improving for many types of cancer, thanks to improvements in cancer screening, treatment and prevention.

How many people are afflicted in the Philippines?

In the Philippines, a large low- and middle-income country (LMIC) of 110 million people, 2022 saw over 110,000 cancer deaths, representing the third leading cause of death in the country.¹⁻³ Almost 190,000 new diagnoses were reported in 2022, driven by common cancers of the breast, lung, and colorectum.² Within Southeast Asia, the Philippines records one of the highest premature cancer-related deaths.⁴

In the Philippine context—where family plays a critical role in health and health care—cancer profoundly affects patients' families psychologically, emotionally, socially, and financially. Financial toxicity (FT) is exacerbated in LMICs like the Philippines, where more than 40% of patients with cancer can experience financial catastrophe.⁵ Here, we shed light on the psychosocial and financial sequelae of cancer, as it affects Filipino patients' families and caregivers.

In the Philippines, cancer remains the third leading cause of death, with an estimated 184 cases per 100,000 people each year and approximately 96 cancer-related deaths occurring daily, highlighting the significant burden of the disease on the population. According to the Global Cancer Observatory, there were 153,751 new cancer cases recorded in 2020, with the most common types including breast cancer (27,163 cases), lung cancer (19,180 cases), colon cancer (11,315 cases), liver cancer (9,953 cases), and prostate cancer (8,242 cases). Among these, lung cancer has the highest mortality rate, accounting for 18.4% of all cancer-related deaths in the country. These statistics emphasize the urgent need for improved cancer prevention strategies, early detection programs, and better access to treatment and healthcare services to reduce the growing impact of cancer on Filipino communities.

Impact of Cancer on Human Capabilities

Symptoms

- Signs and symptoms caused by cancer will vary depending on what part of the body is affected.

General Symptoms of Cancer:

- Unexplained weight loss – Losing weight without trying.
- Persistent fatigue – Extreme tiredness that doesn't improve with rest.
- Lumps or swelling – Unusual lumps anywhere on the body.
- Pain that doesn't go away – Especially in bones or other affected areas.
- Fever or night sweats – Frequent fevers without infection.

Cancer symptoms can vary widely depending on the type and stage of the disease, but common warning signs include unexplained weight loss, persistent fatigue, chronic pain that does not improve, the presence of unusual lumps or swelling, prolonged coughing or difficulty breathing, changes in bowel or bladder habits such as constipation, diarrhea, or blood in the stool, abnormal bleeding or bruising, recurring infections, skin changes like new or changing moles, and neurological symptoms such as headaches, dizziness, or memory problems, all of which should be evaluated by a healthcare professional if they persist or worsen over time.

Some general signs and symptoms associated with, but not specific to, cancer, include:

- Fatigue
- Lump or area of thickening that can be felt under the skin
- Weight changes, including unintended loss or gain
- Skin changes, such as yellowing, darkening or redness of the skin, sores that won't heal, or changes to existing moles
- Changes in bowel or bladder habits
- Persistent cough or trouble breathing
- Difficulty swallowing
- Hoarseness

- Persistent indigestion or discomfort after eating
- Persistent, unexplained muscle or joint pain
- Persistent, unexplained fevers or night sweats
- Unexplained bleeding or bruising

Causes

Cancer is caused by changes (mutations) to the DNA within cells. The DNA inside a cell is packaged into many individual genes, each of which contains a set of instructions telling the cell what functions to perform, as well as how to grow and divide. Errors in the instructions can cause the cell to stop its normal function and may allow a cell to become cancerous.

Cancer develops due to genetic mutations that cause uncontrolled cell growth, which can be triggered by a combination of factors, including smoking, excessive alcohol consumption, poor diet, obesity, exposure to radiation, viral infections like HPV and hepatitis, environmental toxins such as asbestos and air pollution, as well as inherited genetic mutations that increase susceptibility to certain types of cancer.

What do gene mutations do?

A gene mutation can instruct a healthy cell to:

- **Allow rapid growth.** A gene mutation can tell a cell to grow and divide more rapidly. This creates many new cells that all have that same mutation.
- **Fail to stop uncontrolled cell growth.** Normal cells know when to stop growing so that you have just the right number of each type of cell. Cancer cells lose control (tumor suppressor genes) that tell them when to stop growing. A mutation in a tumor suppressor gene allows cancer cells to continue growing and accumulating.
- **Make mistakes when repairing DNA errors.** DNA repair genes look for errors in a cell's DNA and make corrections. A mutation in a DNA repair gene may mean that other errors aren't corrected, leading cells to become cancerous.

These mutations are the most common ones found in cancer. But many other gene mutations can contribute to causing cancer.

What causes gene mutations?

Gene mutations can occur for several reasons, for instance:

- **Gene mutations you're born with.** You may be born with a genetic mutation that you inherited from your parents. This type of mutation accounts for a small percentage of cancers.
- **Gene mutations occur after birth.** Most gene mutations occur after you're born and aren't inherited. A few forces can cause gene mutations, such as smoking, radiation, viruses, cancer-causing chemicals (carcinogens), obesity, hormones, chronic inflammation and a lack of exercise.

Gene mutations occur frequently during normal cell growth. However, cells contain a mechanism that recognizes when a mistake occurs and repairs the mistake.

Occasionally, a mistake is missed. This could cause cells to become cancerous.

Consequences on quality of Life?

Consequently, many people who are living beyond cancer experience financial, social and practical difficulties, which can all impact on their quality of life.

- **Pain & Fatigue:** Cancer and its treatments (chemotherapy, radiation, surgery) can cause chronic pain and extreme fatigue.
- **Nausea & Appetite Loss:** Many treatments lead to nausea, vomiting, and reduced appetite, affecting nutrition and weight.
- **Weakened Immune System:** Patients may be more prone to infections.
- **Anxiety & Depression:** Fear of recurrence, financial strain, and lifestyle changes can cause mental distress.
- **Cognitive Changes ("Chemo Brain"):** Memory, focus, and decision-making may be affected.
- **Loss of Independence:** Some patients may struggle with daily tasks.

Treatment

The Cancer Institute offers comprehensive healing and recovery for cancer patients. It offers treatment programs starting from diagnosis, oncologic management, surgery, radiotherapy, rehabilitation and up to palliative care in hospital and home settings.

Surgery, when used to treat cancer, is a procedure in which a surgeon removes cancer from your body. Surgeons are medical doctors with special training in surgery.

- Curative surgery – Removes all cancer when localized.
- Debulking surgery – Removes part of the tumor when full removal isn't possible.
- Palliative surgery – Relieves symptoms in advanced cancer.

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