

Introduction

LUNG CANCER

Lung cancer is a aberrant cells in lung tissue is the hallmark of lung cancer, a kind of cancer that starts in the lungs. These malignant cells have the ability to spread (metastasise) to other areas of the body, cause tumours, and impair lung function. It is one of the most prevalent and dangerous forms of cancer, frequently linked to genetics, smoking, and exposure to specific poisons (Li, R, 2016). *Tumour-promoting inflammation in non-small cell lung cancer.*

• Signs and symptoms

persistent cough that either doesn't go away or gets worse over time
Coughing up rust-coloured phlegm or blood
Chest pain that frequently gets worse when you laugh, cough, or breathe deeply
Breathlessness and Changes in voice or hoarseness
Loss of appetite and weight loss without explanation
Weakness Frequent respiratory infections, like pneumonia or bronchitis

• What health and social care support services are required to meet the needs of individuals affected by this condition within the community? .

A variety of health and social care support services are available to community members impacted by lung cancer. Medical care, symptom management, emotional support, and practical help are the goals of these programs.

Clinical and Medical Care:

Oncology services for diagnosis and treatment (e.g., targeted therapy, chemotherapy, radiation, surgery).

Palliative treatment provides pain and symptom management to enhance quality of life. respiratory treatment can help with breathing problems.

routine observation and follow-up treatment (Homer, J. J., Winter, S. C., Abbey, E. C., Aga, H., Agrawal, et al, 2024).

Nursing Care:

Community nursing for symptom monitoring, medication delivery, and wound care. advanced disease stages with the assistance of trained palliative care nurses.

Emotional and Psychological Assistance:

In order to help patients and their families deal with diagnosis, treatment, and prognosis, mental health treatments and counselling are provided.

Support groups for exchanging experiences and receiving peer assistance.

Services for Social Work(Bortolotti, L, 2024).

Levels of the incidence that demonstrate the severity of the health issue (Both worldwide and UK statistics).



Source: adapted from Dahlgren and Whitehead, 1991

Lifestyle characteristics specific to an individual (innermost layer):

These include individual choices and behaviours including eating, exercising, smoking, and drinking. Despite their importance, broader social and economic circumstances impact and limit these lifestyle factors(Skovrup, N. F,2025).

Community and social networks:

The support and connections people have with their families, friends, and communities are represented by the layer encircling an individual's lifestyle. Effective social networks improve mental health, offer emotional support, and make resources easier to reach(Batiste, S., Batty, M., Blue, A., Van Buren, D., Dierkes, et al 2023).

Conditions of living and working:

The environments in which individuals live and work, including housing quality, employment status, workplace conditions, education, healthcare services, and access to wholesome food, are included in this layer. These elements can have a significant impact on health outcomes and are influenced by socioeconomic policy (Mitra, N, 2025).

AGRICULTURE AND FOOD PRODUCTION EFFECT ON INDIVIDUALS HEALTH ISSUES.

Individual Level: The quantity, kind, and quality of food that people eat are all influenced by agriculture and food production. This has an impact on nutrition, which has an immediate effect on health consequences like obesity, diet-related diseases, and malnutrition(Chater, N., et al, 2022).

Community Level: Social networks, employment prospects, and economic conditions are all influenced by agricultural practices and food systems. A community that depends on sustainable agriculture, for instance, may have better access to wholesome, fresh food and greater social cohesiveness, which would encourage healthier lifestyles (Vidickienė, D., & Lankauskienė, R, et al, 2025).

EFFECT OF UNEMPLOYMENT ON INDIVIDUALS CAUSING HEALTH ISSUES.

Individual Lifestyle Factors: Stress and unhealthy coping mechanisms (such as smoking, eating poorly, and exercising less) can result from unemployment and have a direct impact on one's health(Herrman, H., Patel, V., Kieling, C, et al, 2022).

Social and Community Networks: Losing a job can increase feelings of loneliness and mental health problems including anxiety and depression by reducing social connections and support(Herrman, H., Patel, V., Kieling, C, et al, 2022).

Living and Working Conditions: Financial instability brought on by unemployment affects housing quality, access to wholesome food, and healthcare services, all of which have a detrimental effect on health outcomes(Elegbeleye, J. A., Fayemi, O. E., Agbemavor, W. S. K, et al, 2025

Environmental, cultural, and general socioeconomic factors (outermost layer):

Economic policies, cultural norms, social values, the political environment, and the natural environment (air quality, climate, urban design) are among the broadest influences represented by this layer.

These factors affect how resources, opportunities, and hazards are distributed throughout the population and establish the framework in which the other levels function. For instance, cultural customs can influence health-related behaviours, environmental pollution can raise the risk of illness, and economic disparity can impact access to treatment and education(Burazeri, G., & Jacobs, H, 2023).

• What are the different approaches used to measure and monitor these diseases?

Lung cancer is measured and tracked using a variety of techniques, including diagnostic, imaging, molecular, and clinical procedures to assess the disease's existence, course, and response to treatment(Kukhta, O. P., Aleksandruk, O. D., Neiko, O. V., Romash, I. B, et al,2023).

Imaging Methods:

A chest X-ray is frequently the first imaging test used to find abnormalities in the lungs. A computed tomography (CT) scan is essential for identifying tumours, staging cancer, and tracking changes over time because it produces comprehensive cross-sectional pictures. By identifying metabolic activity, Positron Emission Tomography (PET) scans are useful for staging and evaluating metastases(Prasad, V. K., Verma, A., Bhattacharya, P., Shah, S., Chowdhury, S, et al, 2024).

Magnetic Resonance Imaging (MRI): Beneficial for assessing soft tissues in detail and assessing brain metastases.

Bone scans: To find out if bones have been affected by cancer.

Histopathological Analysis:

Biopsy: To determine the kind and grade of malignancy, tissue samples taken via bronchoscopy, needle biopsy, or surgery are examined under a microscope.

Cytology: Looking for cancer cells in sputum or pleural fluid(Rastogi, A., Yadav, K., Mishra, A., Singh, M. S., Chaudhary, S, et al, 2022).

Blood Examinations:

general blood panels to evaluate general health.

In certain situations, tumour markers which are less specific for lung cancer may be employed.

Clinical Assessment and Tracking:

routine evaluations of symptoms and physical examinations.

ECOG and other performance status indexes are used to track the health of patients.

• Explain how this disease is controlled.

Prevention of lung cancer emphasizes several key actions: avoiding tobacco use is paramount, as smoking is the primary cause; reducing exposure to known carcinogens like asbestos and radon is crucial; and adopting a healthy lifestyle through proper diet and exercise can support lung health(Simeone, C, 2006). Early detection methods, particularly for high-risk individuals such as long-term smokers, involve screening techniques like low-dose CT scans, which can identify lung cancer at an earlier and more treatable stage.

The treatment options include surgery to remove localized cancerous tissue, radiation therapy utilizing high-energy rays to eliminate cancer cells, and chemotherapy which employs drugs to attack cancer throughout the body. Additionally, targeted therapy and immunotherapy are emerging treatments that focus on specific cancer mechanisms or enhance the body's immune response against cancer(Parvez, A., Choudhary, F., Mudgal, P., Khan, R., Qureshi, K. A, 2023).

Supportive care is important for managing symptoms and enhancing the quality of life, often through palliative care and rehabilitation. Public health measures, such as anti-smoking campaigns and regulations on tobacco and workplace safety, further contribute to lowering lung cancer incidence(Studts, J. L., Carter-Bawa, L., Hamann, H. A., Smith, R. A., Kazerooni, E. A., Rosenthal, 2025).

- **What are the consequences of this illness on people in the community?**

Lung cancer has serious health consequences, frequently leading to severe sickness and early death, which lowers quality of life and places a physical and emotional strain on family. Economically, treatment expenses for lung cancer including surgery, chemotherapy, radiation, and palliative care impose significant costs on patients and strain healthcare systems. Healthcare resources may be further taxed by the growing demand for services in hospitals and oncology clinics. Lung cancer can also result in lost productivity since those who have it may not be able to work, which can cost families money and reduce community productivity. Psychosocially, the illness can cause patients and their families to experience anxiety, depression, and social isolation, which can have an impact on the general mental health of the community(Symposia & Podium Abstracts,2024).

Conclusion :

Lung cancer is a dangerous illness with substantial health consequences that impact patients and their families through financial hardships, emotional misery, and health issues. Since tobacco use is the main risk factor for lung cancer, it is essential to stop smoking and stay away from second hand smoke. Reducing exposure to industrial chemicals, radon, asbestos, and other environmental contaminants is also crucial. A balanced diet full of fruits and vegetables, frequent exercise, and moderation in alcohol intake are all components of a healthy lifestyle that can further reduce risk. To aid in early detection, routine medical examinations are advised, especially for people with a family history of lung cancer or a history of smoking(*Popular Mechanics*, 2000).

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