



Cancer Incidence

Presented by:
Mohammed Wanees Ibrahim
Samia Jaher
2nd year students

ILOs:

- Overview of cancer incidence.
- Define cancer incidence.
- Explain causes of cancer incidence.
- Mention the ways of prevention of cancer incidence.

Overview of cancer incidence

- **Overall cancer death rate among men that was attributable largely to lung cancer, but this has finally begun to drop.**
- **By contrast, the overall death rate among women has fallen slightly, mostly as a result of the decline in death rates for cancers of the uterine cervix, stomach, and large bowel.**
- **The declining death rate from cervical cancer is directly related to widespread use of cytologic smear studies for early detection of this tumor and its precursor lesions.**

Definition

Cancer incidence is defined as the frequency of occurrence of new cases of cancer in a specific population for a given period of time. It can be expressed as the absolute number of cases or as a rate per unit-time, with cancer cases as the numerator and the corresponding person-time at risk as the denominator.

Explain Causes of cancer incidence

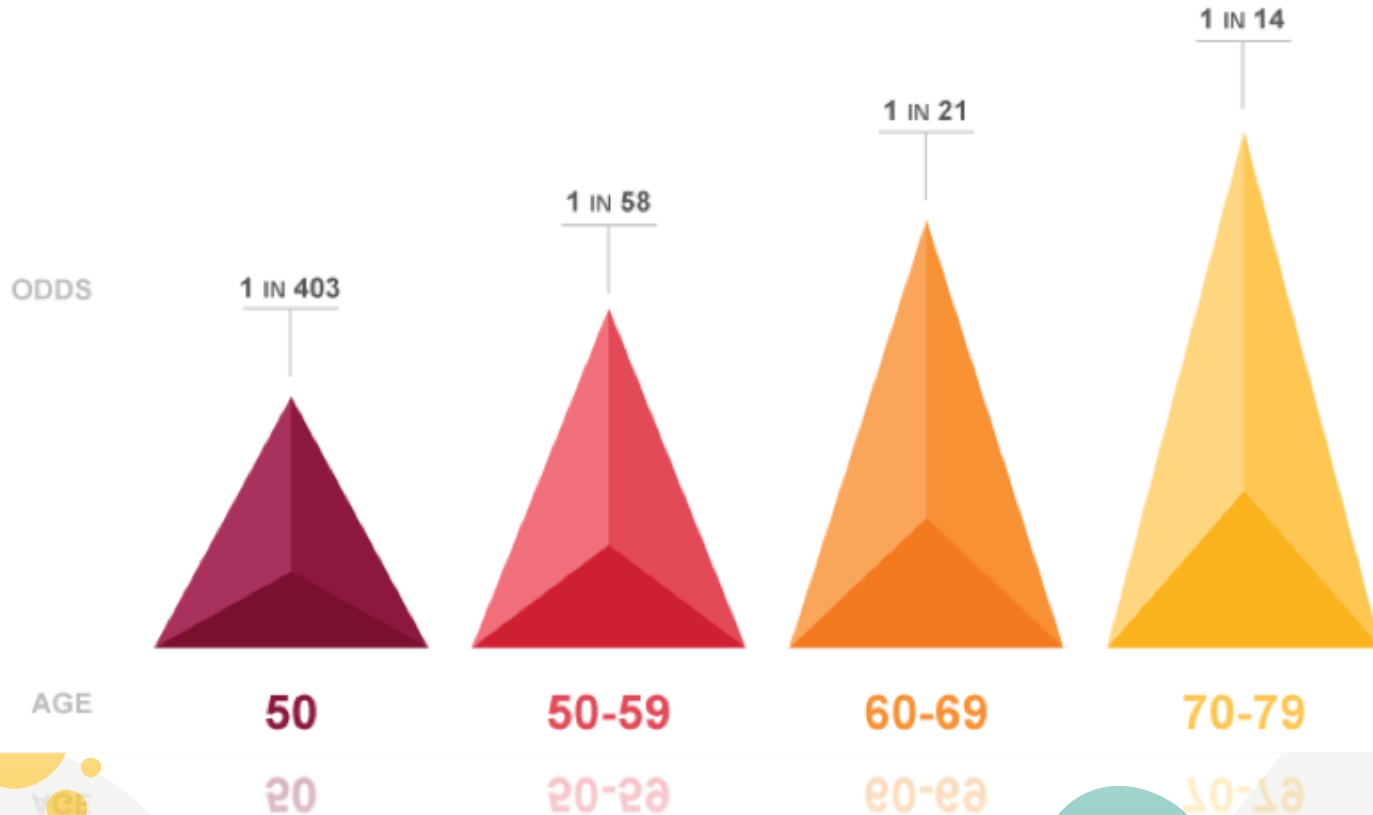
Age

Most cancer deaths occur between ages 55 and 75.

The rising incidence with age may be explained by the accumulation of somatic mutations associated with the emergence of malignant neoplasms.

The decline in immune competence that accompanies aging also may be a factor.

CANCER DIAGNOSIS RISES WITH AGE



Heredity

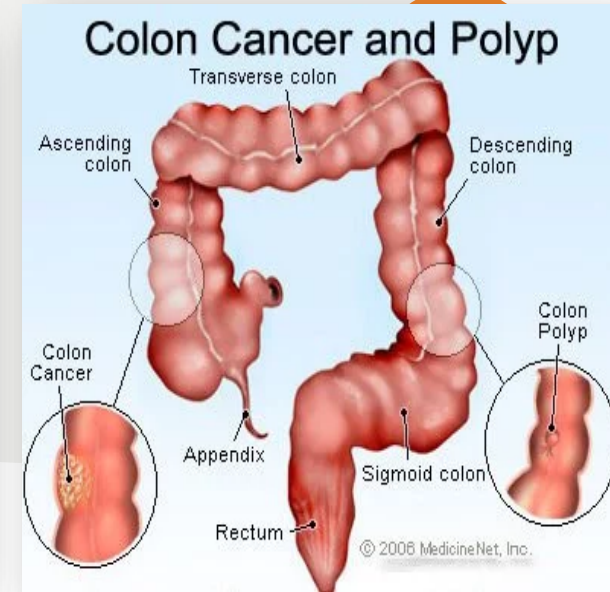
The evidence now indicates that for many types of cancer, including the most common forms, there exist not only environmental influences but also hereditary predispositions.

Hereditary forms of cancer can be divided into three categories based on their pattern of inheritance

- Autosomal Dominant Cancer Syndromes

- Autosomal Recessive Syndromes of Defective DNA Repair

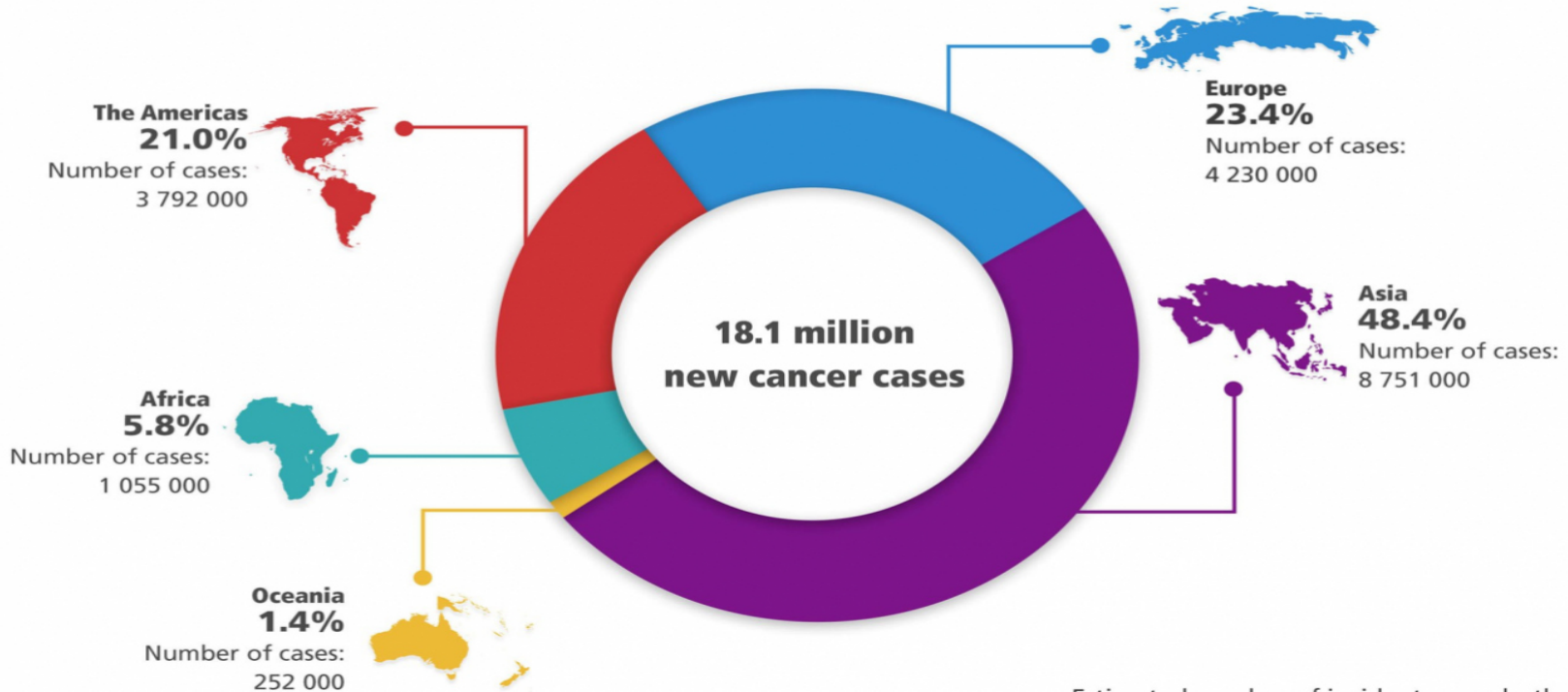
- Familial cancers



Xeroderma pigmentosum

3-Geographic

Global cancer incidence



4-Environmental

- Cigarette smoking and chronic alcohol consumption.
- It seems that everything people do to earn a livelihood, to subsist, or to enjoy life turns out to be illegal, immoral, or fattening, or—most disturbing possibly carcinogenic.





- # Mention the ways of prevention of cancer incidence

Many cancers can be prevented with modification of lifestyle, screening or vaccination against oncogenic infections.

Summary

The incidence of cancer varies with age, race, geographic factors, and genetic backgrounds. Cancers are most common at the two extremes of age. The geographic variation results mostly from different environmental exposures. hereditary cancers may be autosomal dominant or autosomal recessive. The former usually are linked to inheritance of a germ line mutation of cancer suppressor genes, whereas the latter typically are associated with inherited defects in DNA repair.

References:

- Robbin's basic pathology.



Thanks!

Any questions?