



**Uganda Cancer Institute**

# Cancer Prevention and Management

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Kampala Serena Hotel Conference Centre

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# What is Cancer

- Cancer is a disease stemming from abnormal alteration(aberration) in genome(genetic makeup of cells).
  - Germline(constitutional) inheritable aberration
  - Somatic(acquired) aberration
- Cancer is therefore a genetic disease
- Hallmark
  - Uncontrolled cellular proliferation(multiplication)



# Causes of cancer

Cancers are associated with risk factors which are categorized under

Environmental

Lifestyle

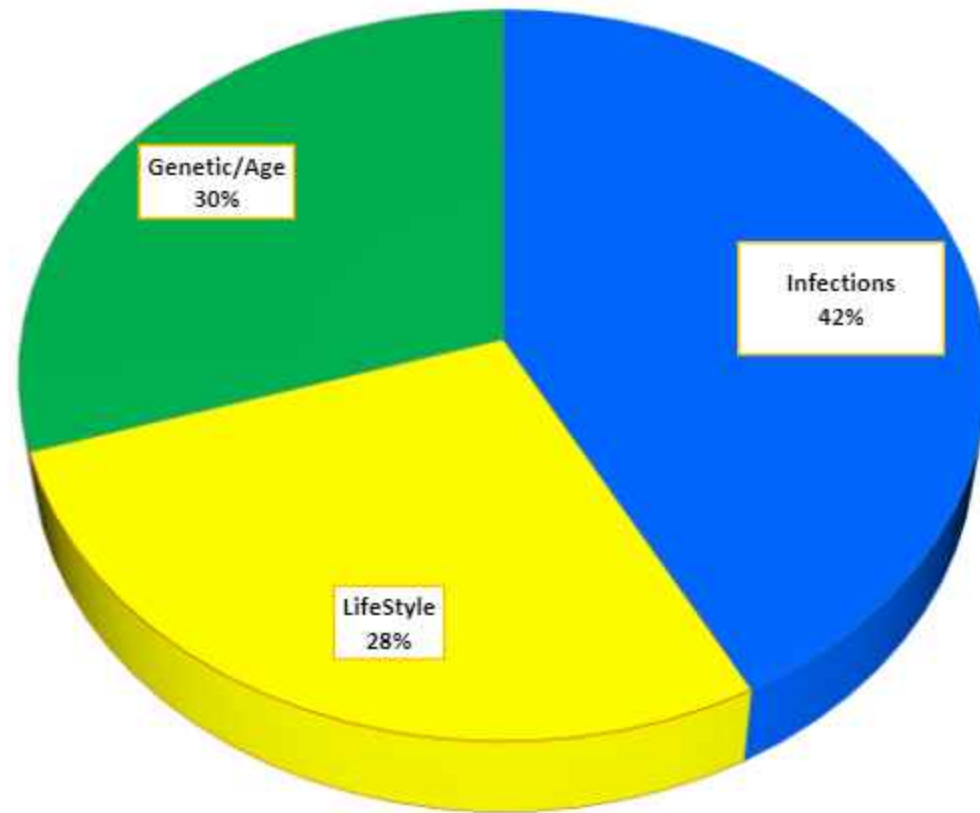
Occupational

Biologic agents(Infection)

Genetic defects

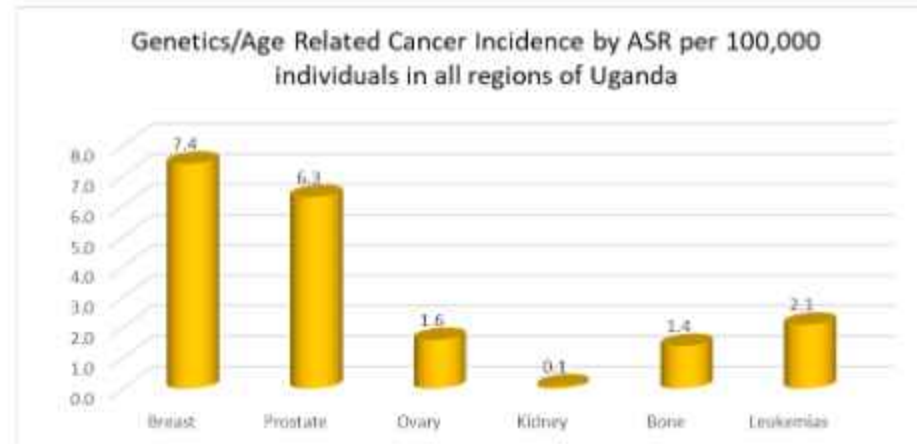
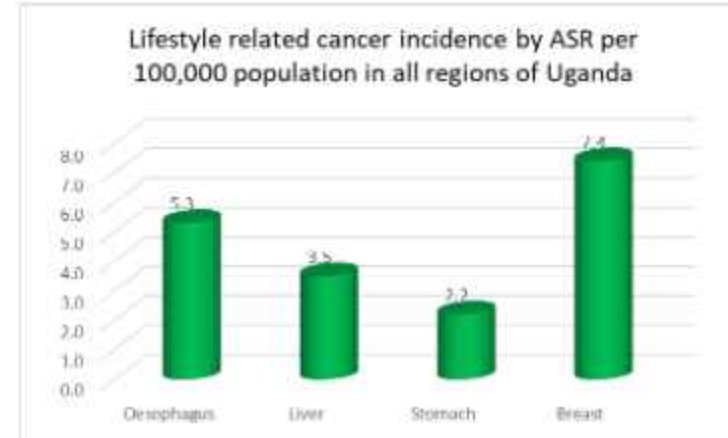
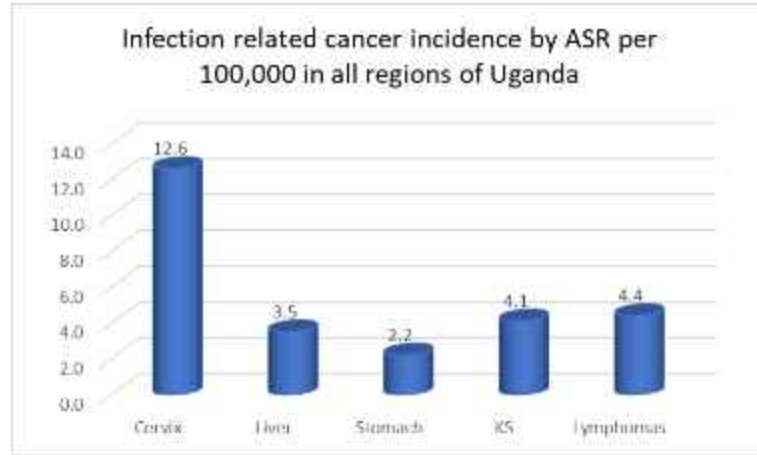


# Common Cancer Risk Factors in Uganda



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# Common Cancers Types by Risk Factors



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# Overview of Cancer in Uganda

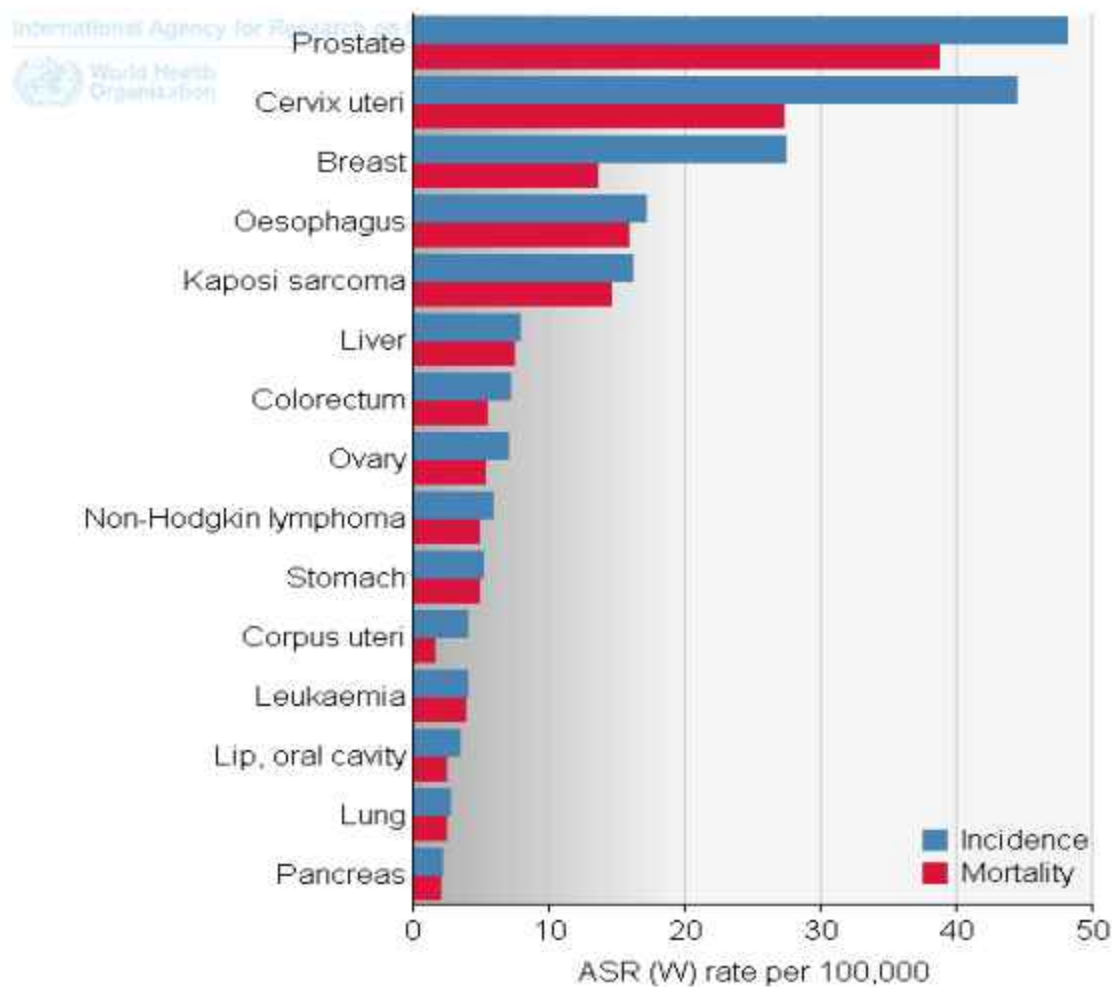
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## Key facts

- 34,008 new cases of cancer in Uganda per year
- The UCI receives only 20% of these cases (6,000 to 7000, 600(10%) children)
- 30% of the patients with Cancer are HIV positive
- Survival is low for most cancers
- Majority present in stage III and IV disease
  - For example, for breast cancer, 71-90% of patients present in stage III and IV

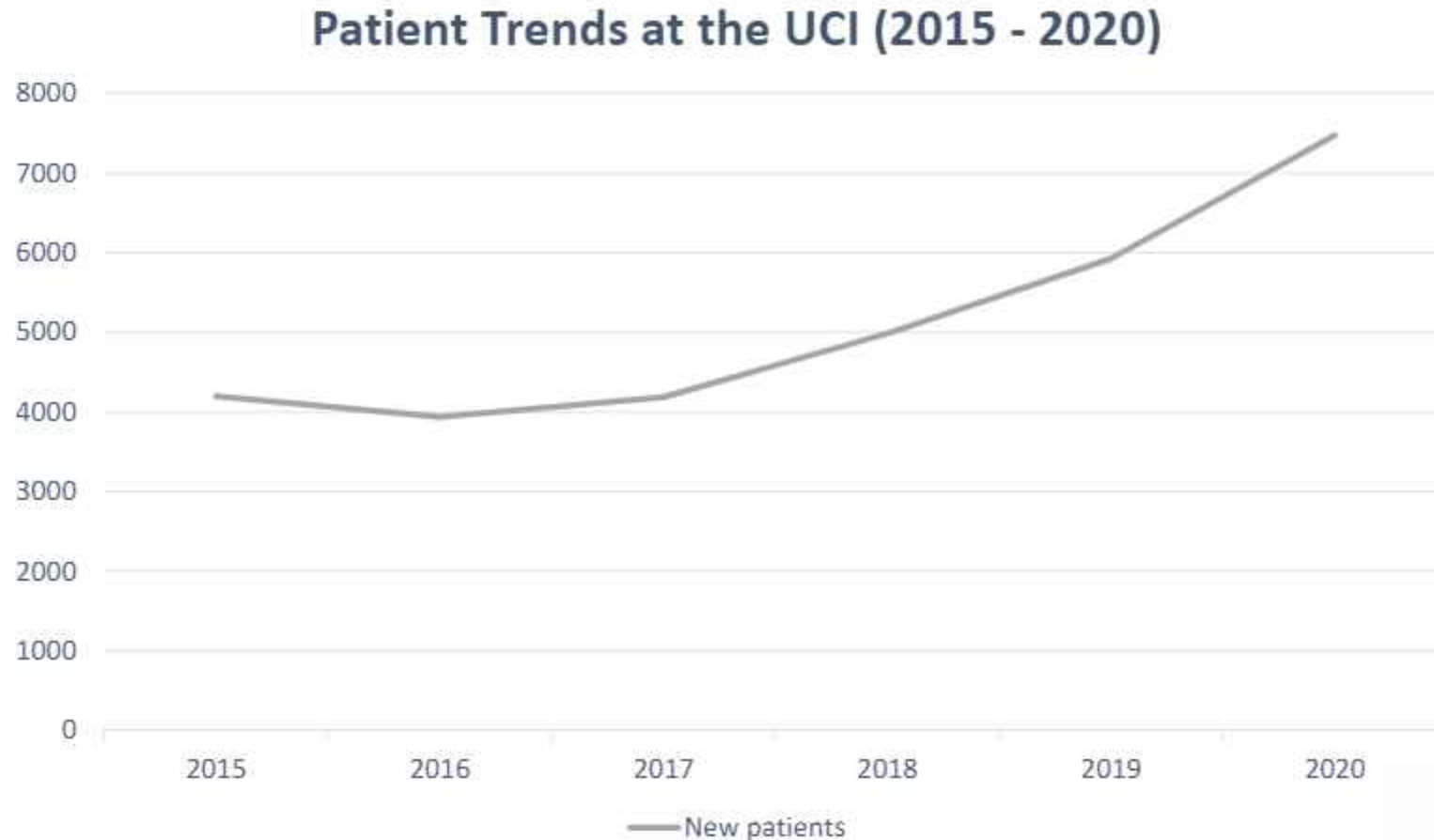


# Common cancers incidence and mortality rates: both sexes



# Patient Trends at the UCI

- Number of patients increasing over years





# Cancer Prevention

- Avoiding occurrence of cancer
- Eradicating/Eliminating the impact of the disease
- Minimizing suffering and disability due to disease



# Preventive interventions

- Policies targeting risk factors
  - Environmental, Economic, social behavioral and cultural lifestyle
- Population/community interventions
  - Increase awareness of cancer risk factors
  - Avoidance of risk factors
  - Lifestyle change
  - Occupational/workplace practices
  - Protection(Vaccination)
- Individual level intervention
  - Regular health checkup
  - Screening
  - Exercise
  - Hygiene
  - Lifestyle changes
    - Tobacco
    - Alcohol
    - Drugs



# Cancer Management

- Effort to minimize the impact of cancer on the population or individual who develop cancer



## Key target for management

- Lowering personal risk of developing cancer
- Increase personal chances of early diagnosis
- Enhance opportunity for successful treatment of cancer



# Strategy for effective Management

- Presenting for routine cancer screening
  - Breast, cervical, colorectal, prostate and lung cancer
- Increase chances for prompt diagnosis of symptomatic disease
  - Consider cancer as a possibility in any symptom
- Enhance capacity for disease evaluation and staging(extent)
- Availability of treatment facility and expertise
- Control of symptoms and improved quality of life



# Availability of comprehensive cancer services in Uganda





# Uganda Cancer Institute - 2024





# Uganda Cancer Institute – Artistic impression CoE Campus



UCI – CoE/Mulago Campus masterplan

# LINAC Machine



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# Radiotherapy Bunker



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# Cancer service packages and utilization

	Available packages	Services	Cancer types	Level of capacity	Utilization
Prevention	Basic Package	Screening	Cancer of cervix Cancer of Brease	80%	60%
Cancer Management	Basic comprehensive care	Diagnosis Staging Treatment	All cancers	50%	120%
	Exclusive comprehensive care	Diagnosis Staging Treatment	All cancer	50%	5%



# A case for building National capacity

- With use of less than 5% of exclusive comprehensive package there is need for a case for developing local capacity.
  - Reduce treatment out of the country
- Presentation of disease by our patient similar to that of an average Ugandan(stage, type etc.)
- Challenging management to the external system
  - Advance stage
  - High cost
  - Poor outcome
- Outcome marginally different than currently obtained in Ugand



# Benefit of building our own capacity

- Benefit at personal level
- Benefit at population level
- Potential for medical tourism





# Conclusion

- We now understand cancer better as a genetic disease
- Appreciate the causes and risk factors
- The burden and common cancers in Uganda
- Appreciate our role is prevention and management of cancer
  - At personal and population level
- The need to build our own system and capacity as a country to prevent and manage cancer.





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# Thank You

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