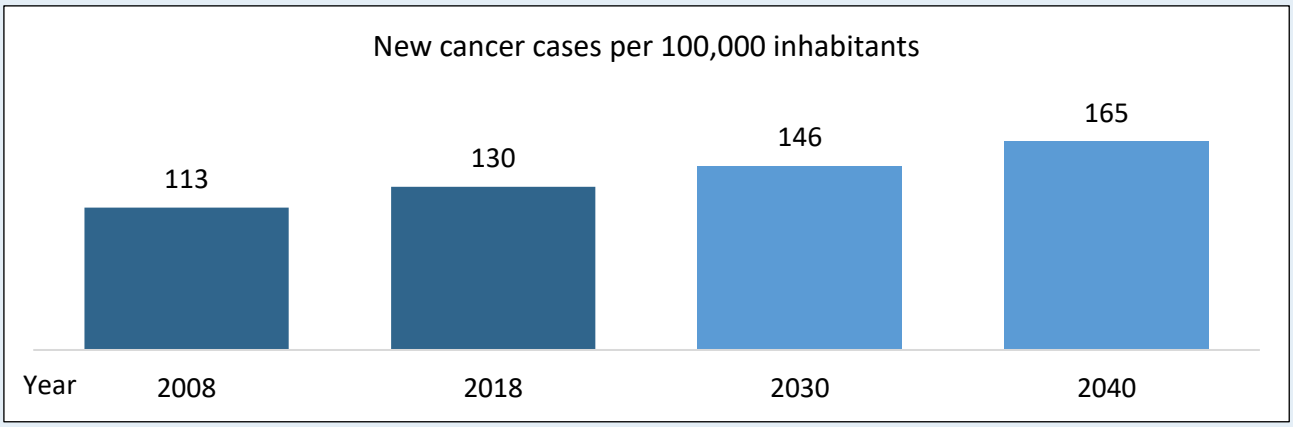
EGYPT

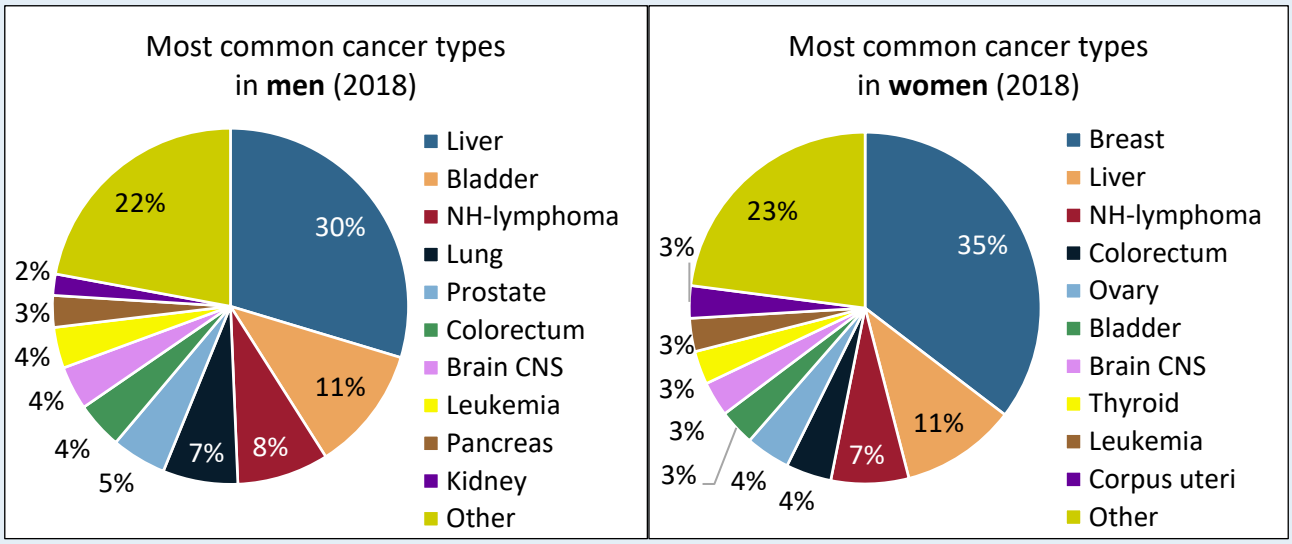
Population: 100.4 million
GDP per capita: USD 3,019
Life expectancy: 71.7 years
Total health expenditure: 4.9% of GDP
(in 2018)

Cancer epidemiology

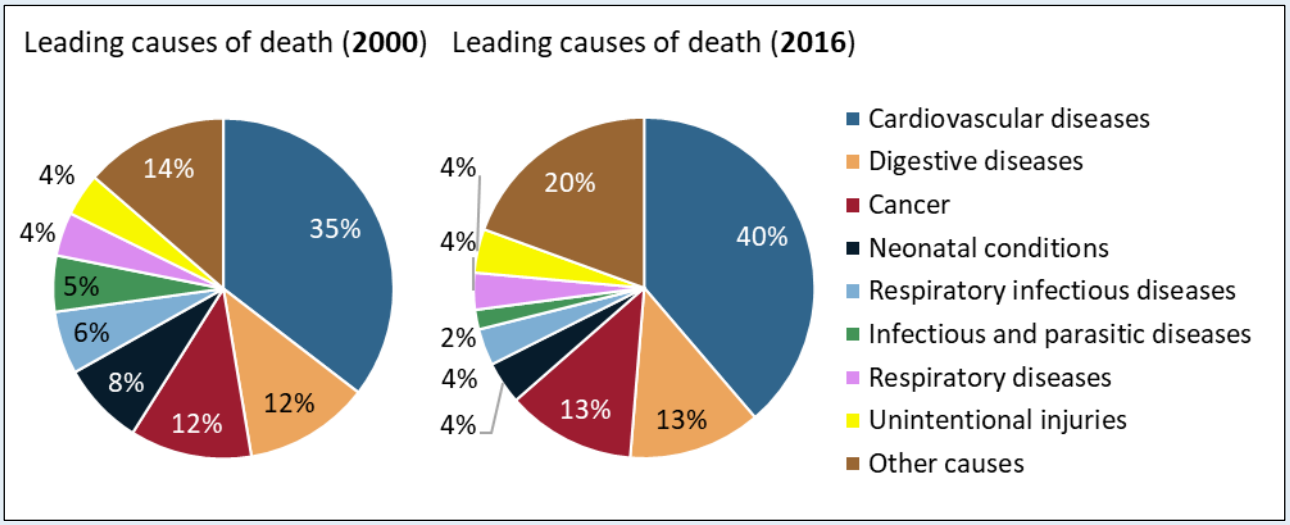
- The number of newly diagnosed cancer cases (incidence) has been increasing and is expected to increase further in the coming decades.



- There are many different cancer types diagnosed in men and women.



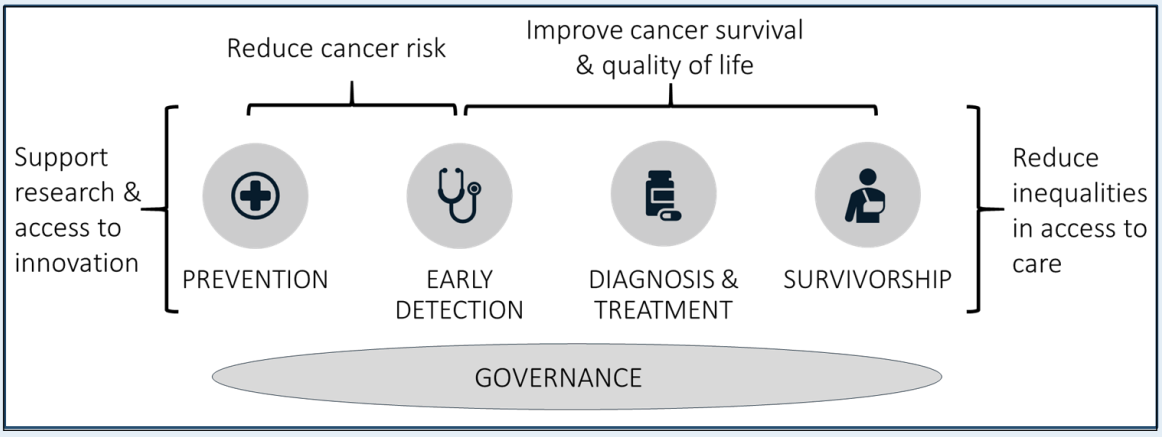
- Cancer is gradually becoming one of the leading causes of death.



Economic burden of cancer

- **Direct costs** within the health care system: USD 3 per capita in 2018 (≈2.8% of total health expenditure)
- **Indirect costs** of productivity losses (premature death, sick leave, early retirement): USD 3 per capita in 2018
- **Informal care costs**: not quantifiable

Areas of cancer control and overarching goals



Recommendations to improve cancer care

General steps to improve cancer care:

1. **Measure and understand** the magnitude and the development of the disease burden of cancer
2. **Plan, coordinate, and implement** – financial and non-financial – actions to address cancer
3. **Monitor and evaluate** actions on cancer control

Governance of cancer care

- The cancer plan for 2016–2020 had encompassing goals. The achievement of these goals has not been evaluated yet, but the absence of a dedicated funding plan for all planned actions might have limited their implementation. An evaluation would need to be done. Afterwards, the creation of a new cancer plan should be priority. This plan would need to draw on the lessons of the first plan and also include a dedicated funding plan.
- The 100 Million Healthy Lives initiative in 2018 to eradicate HCV and reduce NCDs and the spin-off Women's Health Initiative in 2019 to perform breast cancer screening along with examining other health-related risk factors were successful in reaching a large proportion of the population. A thorough evaluation of how the breast cancer screening campaign has affected (i) treatment uptake by patients, (ii) stage distribution, (iii) treatment outcomes, (iv) treatment outcomes in relation to costs for the campaign is needed.

Organization and financing of health care and cancer care

- Public spending on health care amounts to around 1.5% of GDP, which is exceptionally low even in the MEA region and falls greatly short of the informal WHO spending target of 5% of GDP. Additional spending to bring the country closer to the benchmark and as part of implementing UHC would be needed.
- Efforts to achieve UHC until 2027 are underway. This also hopes to overcome the fragmentation and complexity of the health system. The current uncoordinated system with multiple providers and payers results in duplication and inefficiencies in the allocation of financial and human resources and in capital investment. The ongoing UHC rollout needs to address these challenges.
- The rollout of UHC also needs to ensure that this results in a significant reduction in the out-of-pocket payments by patients. Currently, low quality and long waiting lists for services offered by the HIO to insured patients force many patients to seek care in the private sector instead, resulting in high out-of-pocket

payments. The MoPH services offered to the uninsured population face the same challenges. To reduce the need for out-of-pocket payments for cancer care services accessed in the private sector, the quality of care provided in HIO and MoHP hospitals needs to be improved so that patients regain confidence in these providers.

- The patient referral system between hospitals needs to be improved.
- Moving towards a system with comprehensive primary health care facilities (instead of hospitals) as the main point of entry to the health care system could be considered but would require a complete overhaul of the health system.

Cancer registration

- A national centralized and integrated cancer registry is still lacking, despite being one of the goals of the latest cancer plan. The fragmentation of health care providers remains an obstacle to achieve this. Renewed efforts to establish a national cancer registry are needed.
- Only cancer incidence is captured in the regional and hospital-based cancer registries, while information on cancer mortality is missing. Linking information on mortality to the registries and assessing survival needs to be prioritized.

Prevention

- The fight against tobacco consumption needs to be stepped up. Recent awareness campaigns have not been successful. Existing smoking bans in public indoor places and age limits for purchase of cigarettes need to be enforced. Excise taxes on cigarettes could be increased further.
- Obesity needs to be addressed. Recent awareness campaigns have not been successful. Utilizing the data collected from the 100 Million Healthy Lives initiative in 2018 to direct public health campaigns and preventive interventions could be considered. Measures need to be taken to encourage changing dietary habits and to increase physical activity. Excise taxes on sugary drinks could be introduced.
- Repeated epidemiological studies to monitor the prevalence of HPV could be conducted. This would help to assess the optimal timing for a rollout of a vaccination program against HPV in children.
- After the successful HCV screening and treatment campaign in 2018, reinfection with HCV can still be a challenge. Epidemiological studies to monitor the development and/or a renewal of the campaign (in conjunction with another major health campaign) could be considered.

Early detection

- Health care staff in primary health care need to be better trained to recognize common early symptoms of cancer. Health literacy in the general population on early symptoms of cancer also needs to be improved.
- The breast cancer screening campaign as part of the Women's Health Initiative in 2019 has been turned into a permanent program offering recurring annual visits for screened women. It also includes a guarantee to receive treatment upon positive diagnosis. Efforts to ensure a continuously high participation rate need to be prioritized.
- Cervical cancer screening could be extended faster to the whole country than at the speed of the UHC rollout until 2027.
- Given the increasing obesity rates, the introduction of a colorectal cancer screening program could be considered.

Diagnosis and treatment

- Many challenges in accessing diagnostic and treatment services are tied to the organization of care. This includes the absence of UHC, the small range of services and low quality of these services in HIO and MoPH hospitals, and high co-payments for radiation therapy and cancer drugs even in the public sector.
- Training additional medical staff to remedy the lack of oncologists and nurses needs to be prioritized. This will need to be done along with increasing investment in new health care infrastructure to meet increasing patient numbers.

- The inequity in the geographic distribution of cancer care centers needs to be addressed.
- Establishing common treatment guidelines could be considered, but this is difficult due to the fragmentation of the health care providers.
- Molecular diagnostic testing needs to be improved in order to establish the prerequisites to administer modern cancer drugs. Testing all breast cancer patients for HER2 status could be a first step.
- The number of radiation therapy machines is fairly close to recommended standards, but the geographic distribution is inadequate. This forces some patients to travel long distances and others to be on waiting lists. An assessment of underserved areas could be conducted to determine where the installation of additional machines is of greatest benefit.
- The availability of modern cancer drugs (targeted therapies and immunotherapies) is very limited. This applies also to the private sector, as few of these drugs have received regulatory approval. Accelerating regulatory approval of drugs – focusing on those with high clinical benefits – could be a first step to increase the availability in the private sector at least.
- High co-payments for modern cancer drugs make them unaffordable for most patients. The EDA and the UPA together with the public care providers need to seek ways to reduce out-of-pocket payments.
- The plans of the EDA and the UPA to make use of HTA in the assessment of new drugs is a step in the right direction to move from pure consideration of prices to consideration of value-for-money. The EDA and the UPA show also interest in performance-based risk-sharing arrangements, but the current poor state of the cancer registries blocks this.

Survivorship

- Formal psycho-oncology services could be established or public support to NGOs for providing these services could be increased.
- Informal caregivers with regular jobs could be better supported, such as through a right to flexible working arrangements and paid leave.
- The reintegration in the labor market of cancer survivors could be supported by flexible working arrangements.
- Cancer survivors could be protected from discrimination in the acquisition of certain services (e.g., health insurance, life insurance, loans, mortgages), by imposing time limits up to which a previous cancer diagnosis needs to be disclosed.