

Challenges in LMIC

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Challenges to upscaling radiotherapy services

- Political support & Commitment
Cancer as a priority, cost effectiveness
- Cost
- Geographic and infrastructure constraints
(Water supply, Constant Electricity supply, etc...)
- Machine breakdown & Maintenance
Availability of engineers, parts etc...

Challenges identified from surveys

- **Staff shortages**
 - Radiation oncologists
 - Physicists
 - Dosimetrists
 - Oncology nurses
 - Data managers
 - Related disciplines (pathologists, diagnostics, surgical oncology, etc...)
- **Education and training**
 - Need for technical expertise especially for equipment use
 - Reliant on foreign sponsorship/fellowships
 - No standard training for some specialities within country

Challenges identified from surveys

- Rising cancer burden

Global health & economic challenge

2018 (Globocan 2018) **18.1 million** cases,

9.6 million death

2030, **25 million** new cases, **most** increase in LMIC

- **Transitioning to new technologies**

- Limited support and educational tools

- **Maintenance**

- Lack of adequate and well trained engineers

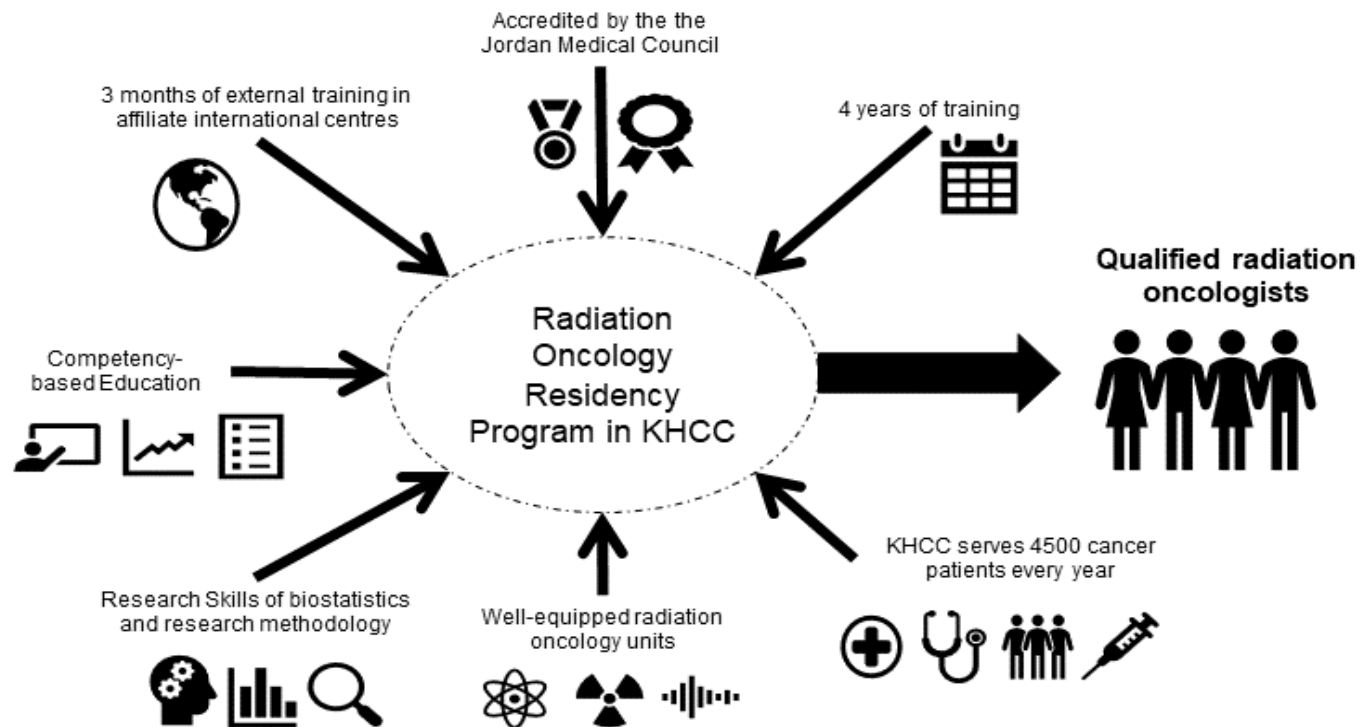
- **Environment**

- Variability in power supply has potential to limit capacity

Need to consider additional investments

- **Keep cancer as a priority health challenge , at all levels**
- **Affordable RT machines**
- **Specialist manpower shortages(short & long term solutions)**
- **Training of multidisciplinary team**
- **Quality control**
- **Data collection and research**

- **Successful Development of a Competency-based Residency Training Program in Radiation Oncology: Our 15-year Experience from within a Developing Country**



Conclusion

- Our Radiation Oncology Residency Program, initiated at our institution, within a developing country and in accordance to well-known cancer centers in developed countries – while matching our available capabilities and resources – was able to meet the need for well-trained radiation oncologists in Jordan.