

# Bi-National Collaboration in Cancer Care

*Siavash Jabbari MD*

The Barnhart Cancer Center  
Sharp Chula Vista Medical Center





# Cancer Global Impact

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- **The world faces a “*Tidal Wave*” of cancer**
  - According to the World Health Organization and other advocacy agencies
- In 2012:
  - The worldwide burden of cancer rose to ~14 million new cases per year.

World Cancer Report 2014, International Agency for Research on Cancer Nonserial Publication, Stewart, B. W., Wild, C. P.



# Cancer Global Impact

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- In the next 2 decades:
  - The worldwide burden of cancer is expected to rise to 22-24 million new cases per year.

World Cancer Report 2014, International Agency for  
Research on Cancer Nonserial Publication, Stewart, B. W.,  
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# Cancer Global Impact

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- More than 50% of cancer cases in the world currently arise in low-income and middle-income countries.
- This proportion will rise to 70% by 2020.
- This represents a formidable challenge for prevention, early detection, and treatment.



# THE LANCET Oncology

## Role of radiotherapy in cancer control in low-income and middle-income countries

Prof [Michael B Barton](#) FRANZCR <sup>a</sup> , Prof [Michael Frommer](#) FAFPHM <sup>b</sup>, [Jesmin Shafiq](#) MPH <sup>a</sup>

- Radiotherapy is an essential part of the treatment of cancer.
- In high-income countries, 52% of new cases of cancer should receive radiotherapy at least once.
  - Up to 25% might receive a second course.



# THE LANCET Oncology

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- Patients with cancer in low-income and middle-income regions could have a greater need for radiotherapy.
  - Due to different tumor types and advanced stage at presentation.



# THE LANCET Oncology

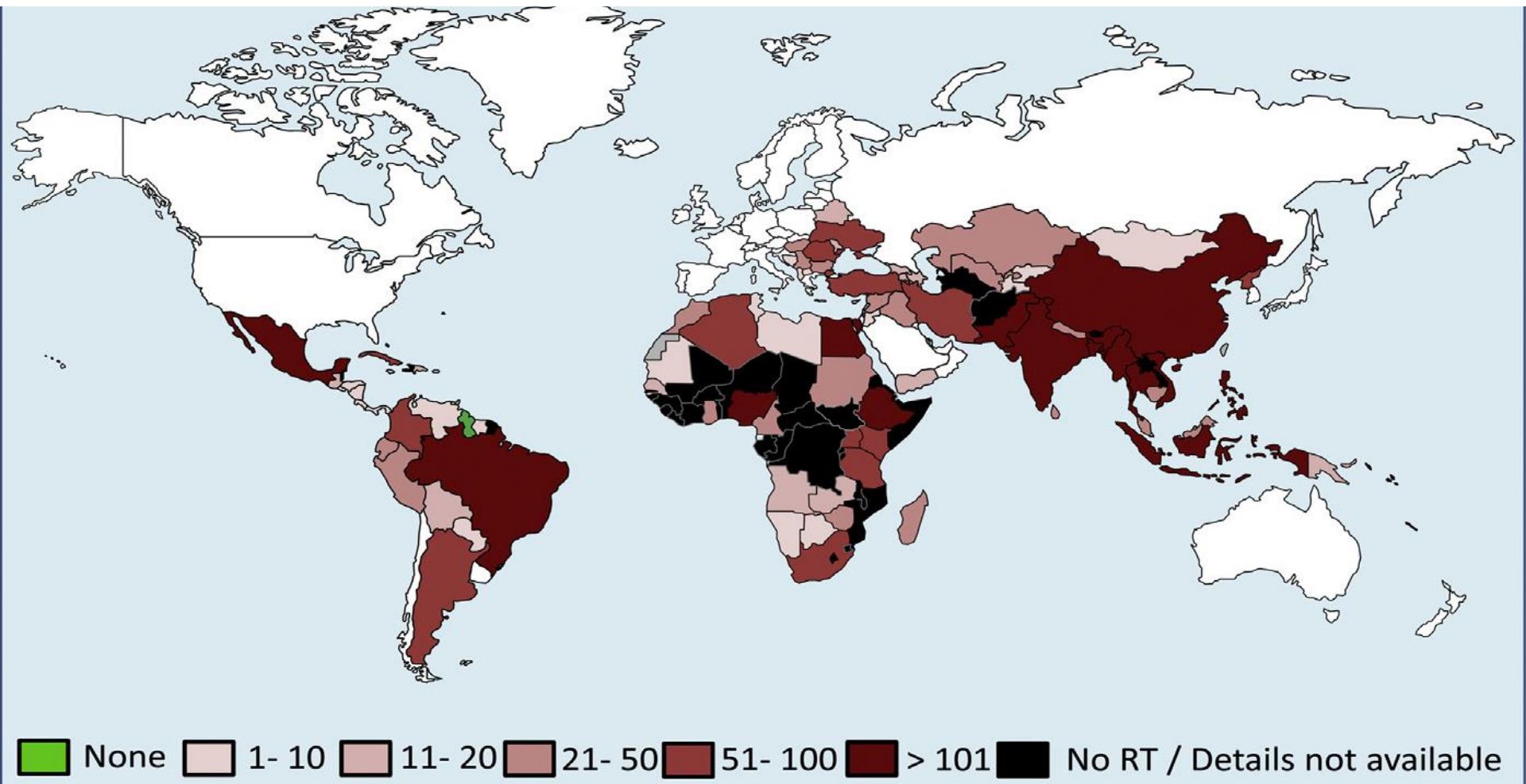
## Role of radiotherapy in cancer control in low-income and middle-income countries

Prof [Michael B Barton](#) FRANZCR  , Prof [Michael Frommer](#) FAFPHM , [Jesmin Shafiq](#) MPH 

- Radiotherapy for cure or palliation has been shown to be cost effective.

# Radiation Therapy Infrastructure and Human Resources in Low- and Middle-Income Countries: Present Status and Projections for 2020

Niloy R. Datta, MD,\* Massoud Samiei, PhD,<sup>†</sup> and Stephan Bodis, MD<sup>‡</sup>

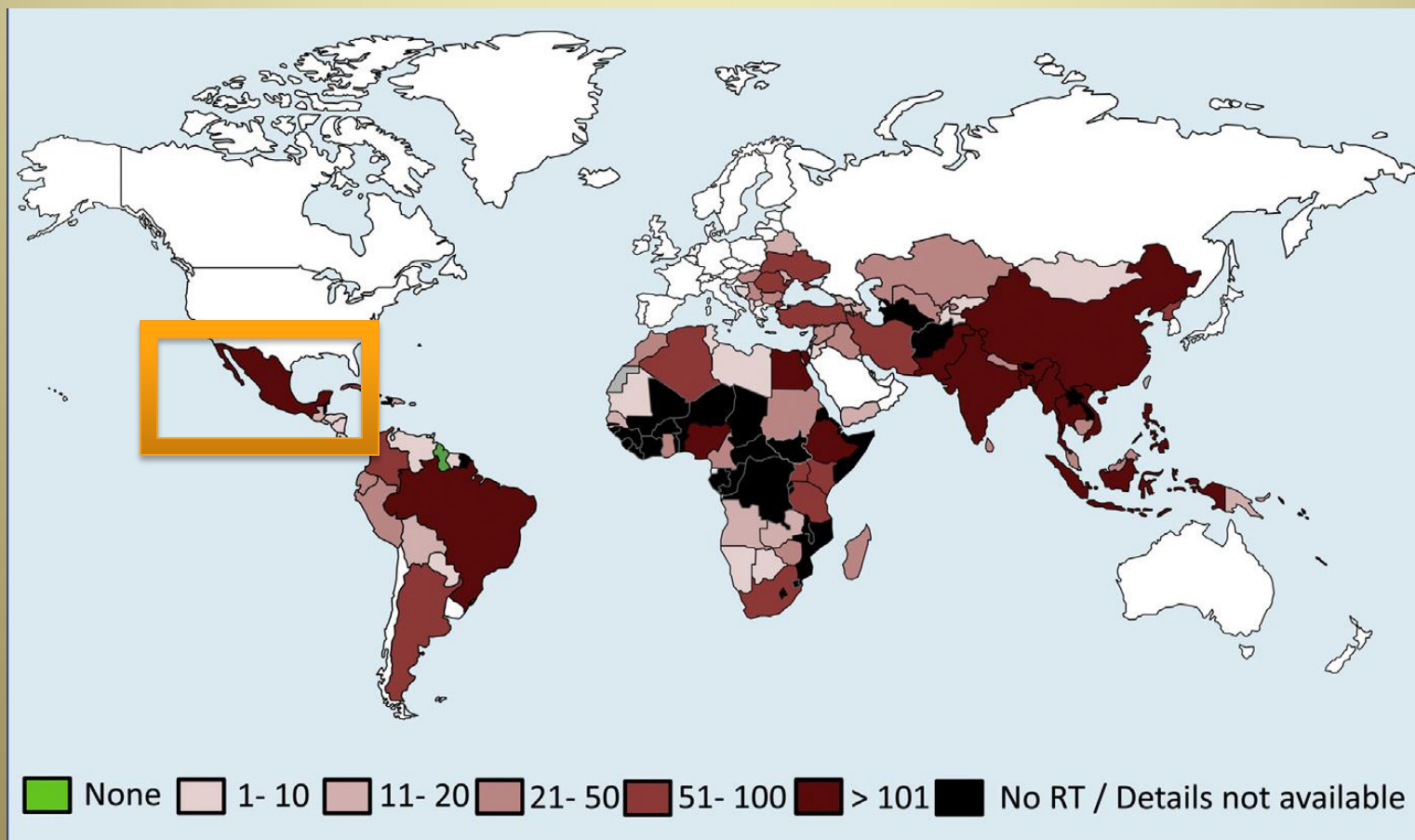






# Bi-national Collaboration

Additional Radiation Therapy units needed by 2020.





# Bi-national Collaboration

## Radiation Therapy Infrastructure and Staffing Needs (present and by 2020):

**Table 2** Radiation therapy infrastructure and staffing in 84 low- and middle-income countries

No.	Country	% of patients with access to RT*	Present deficit of no. of RT infrastructure and staffing <sup>†</sup>				Additional number of RT infrastructure and staffing required by 2020 <sup>‡</sup>			
			TRT unit	RO	MP	RTT	TRT unit	RO	MP	RTT
40.	Kyrgyzstan	37.2	-5	0	-6	-19	7	3	8	25
41.	Lebanon	135.1	4	-10	-3	3	1	20	8	14
42.	Libya	59.2	-3	-8	4	-9	6	12	-1	16
43.	Macedonia, FYR	29.5	-7	4	-4	-12	9	-1	6	16
44.	Madagascar	4.0	-24	-42	-23	-67	31	55	30	89
45.	Malaysia	78.9	-11	-88	-42	-143	27	115	57	189
46.	Mauritania	39.1	-2	-3	0	-2	3	4	1	5
47.	Mauritius	82.4	-1	-1	-1	1	2	2	2	2
48.	Mexico	61.3	-80	-158	-163	-444	141	268	224	627
49.	Moldova	29.1	-10	2	-10	-26	10	-1	10	28
50.	Mongolia	35.5	-4	-2	-2	-9	5	5	3	14



# Bi-national Collaboration

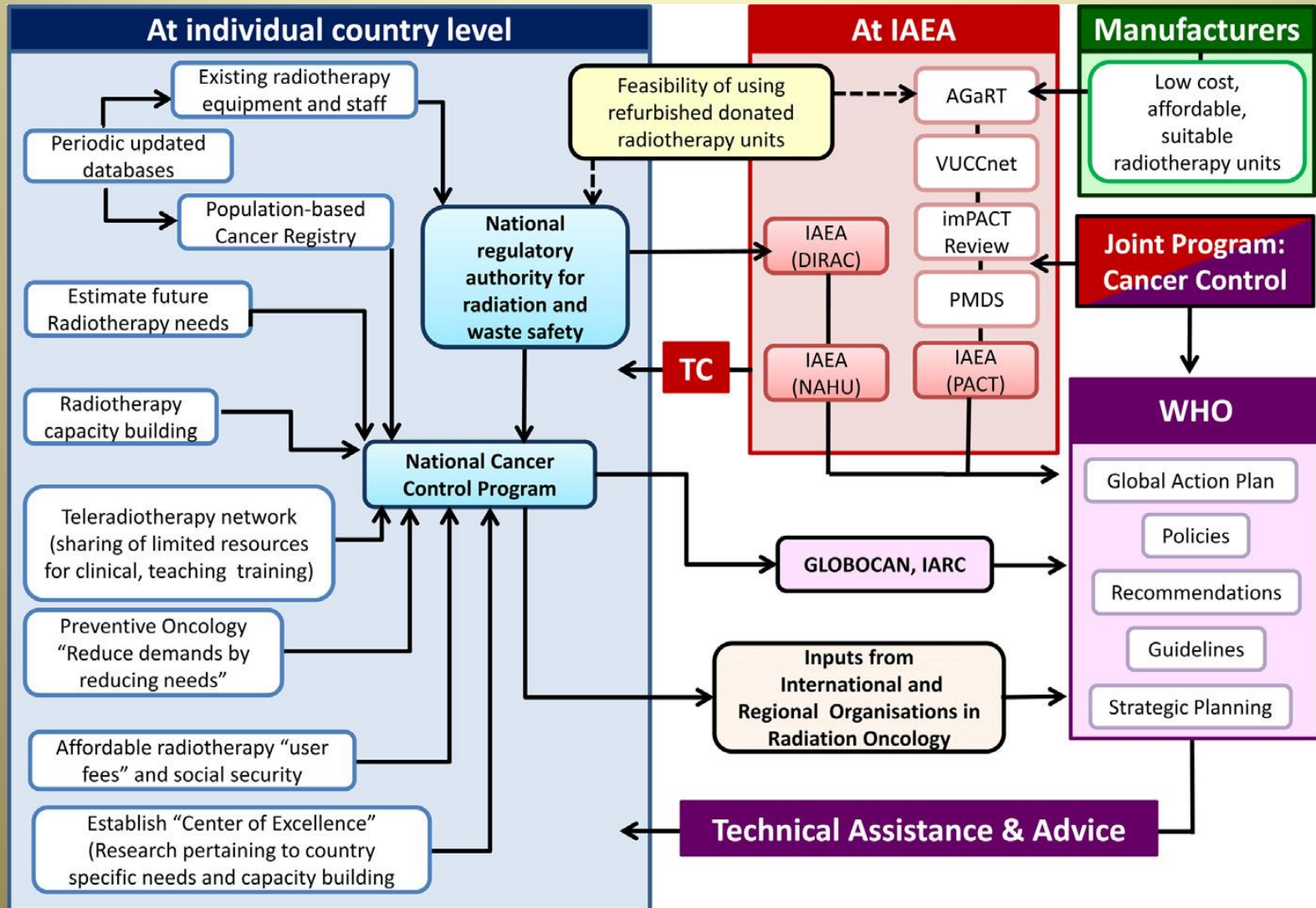
## Radiation Therapy Infrastructure and Staffing Needs:

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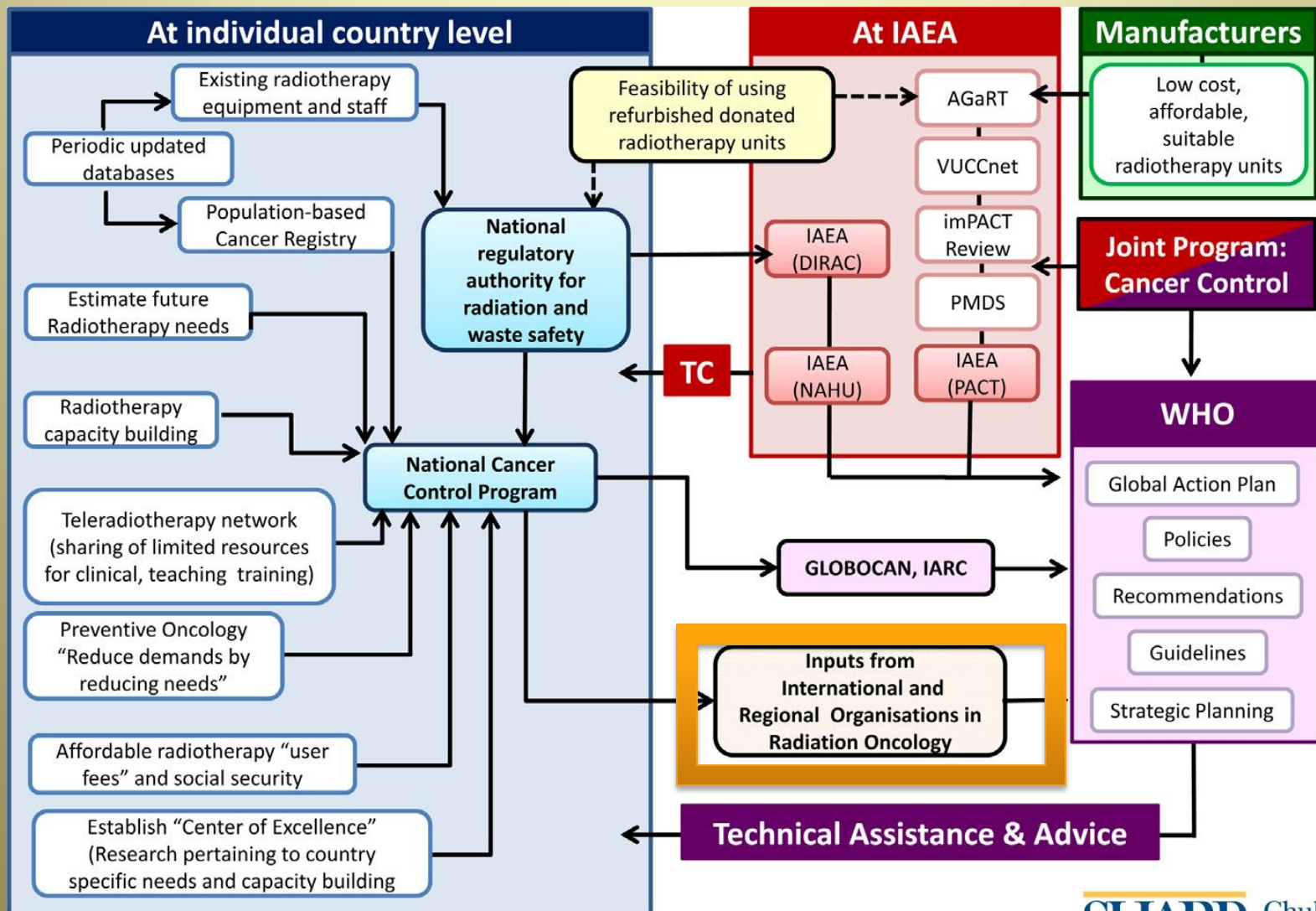
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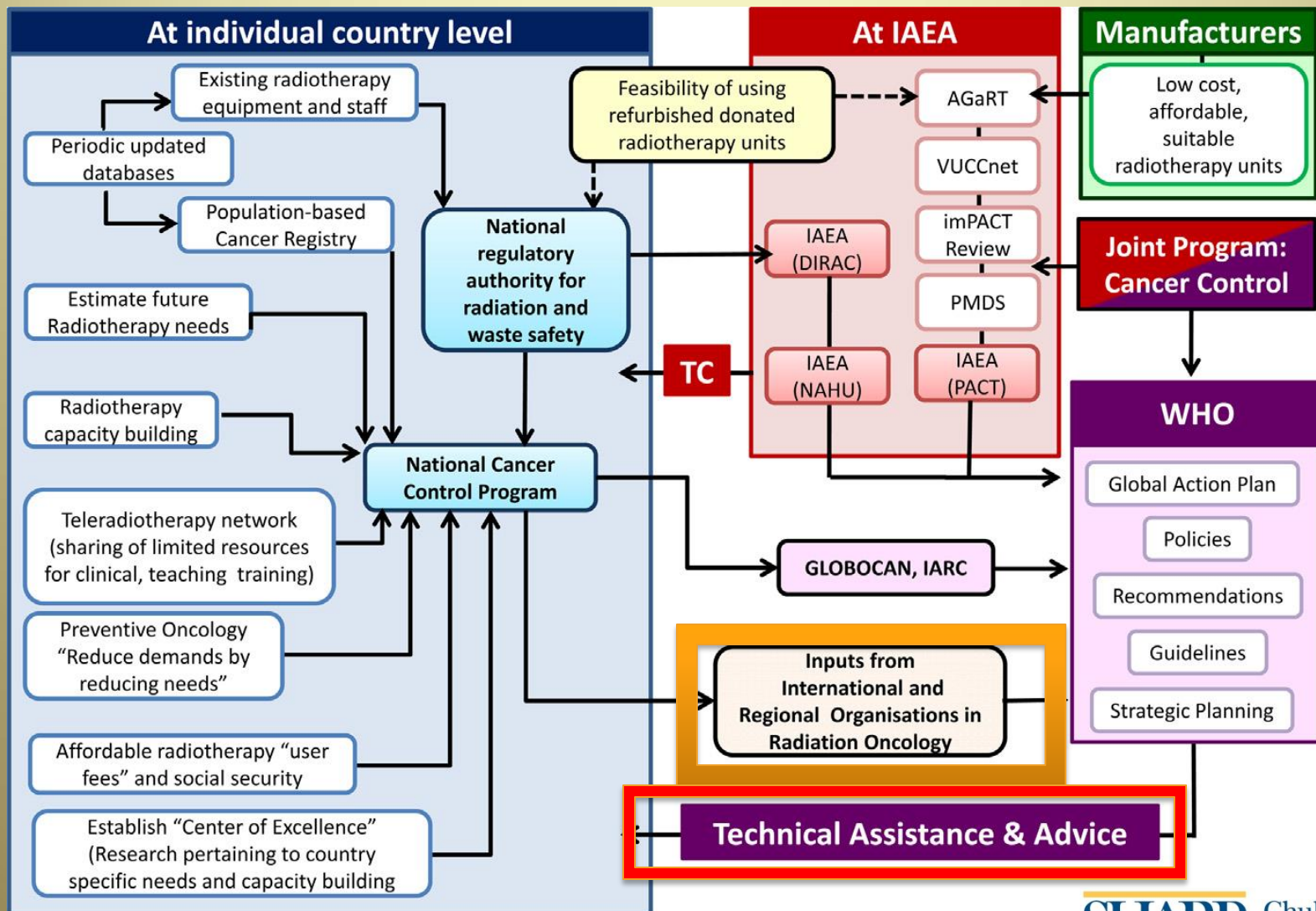
# International Collaboration



# International Collaboration



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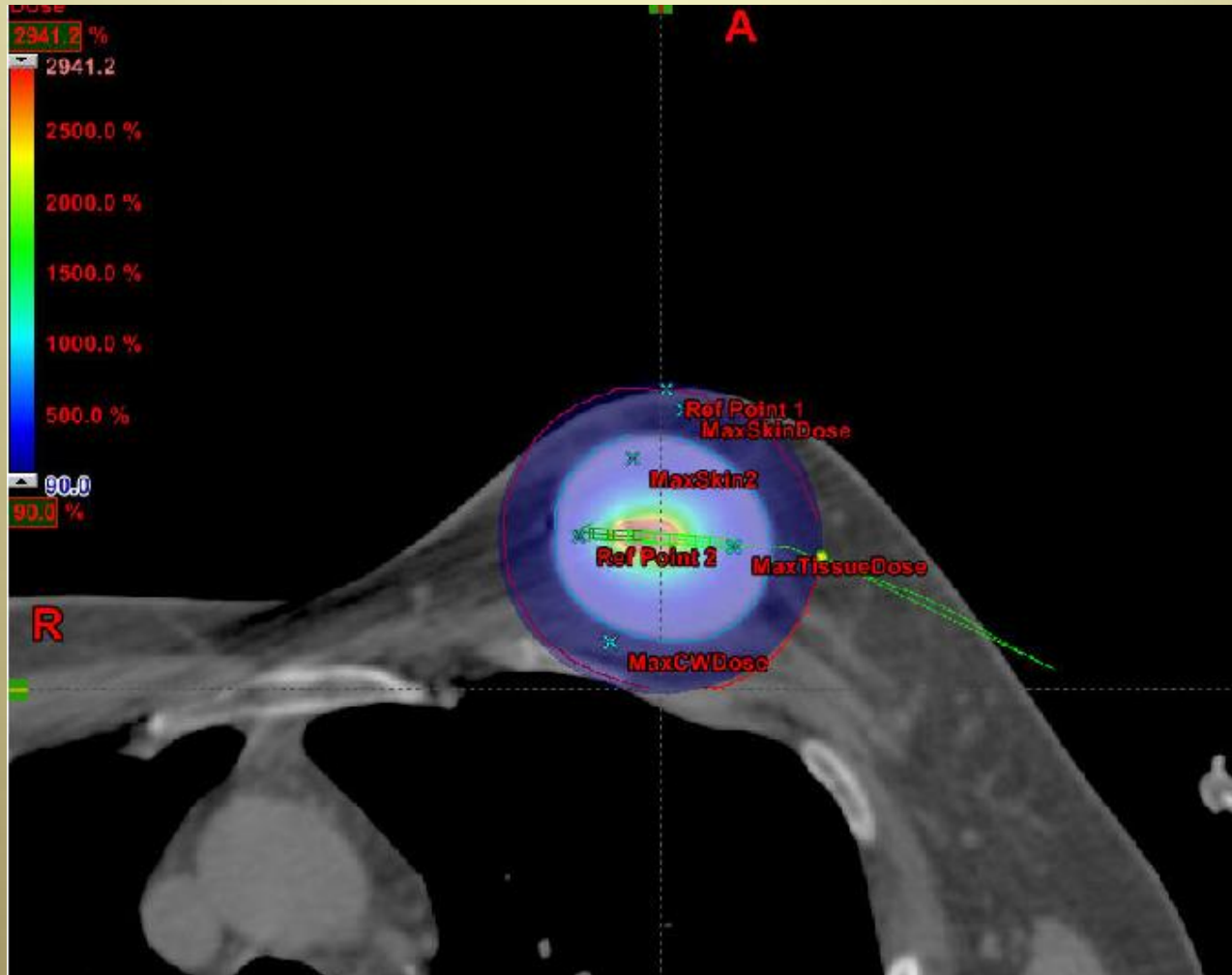


# Bi-National Collaboration for Cure





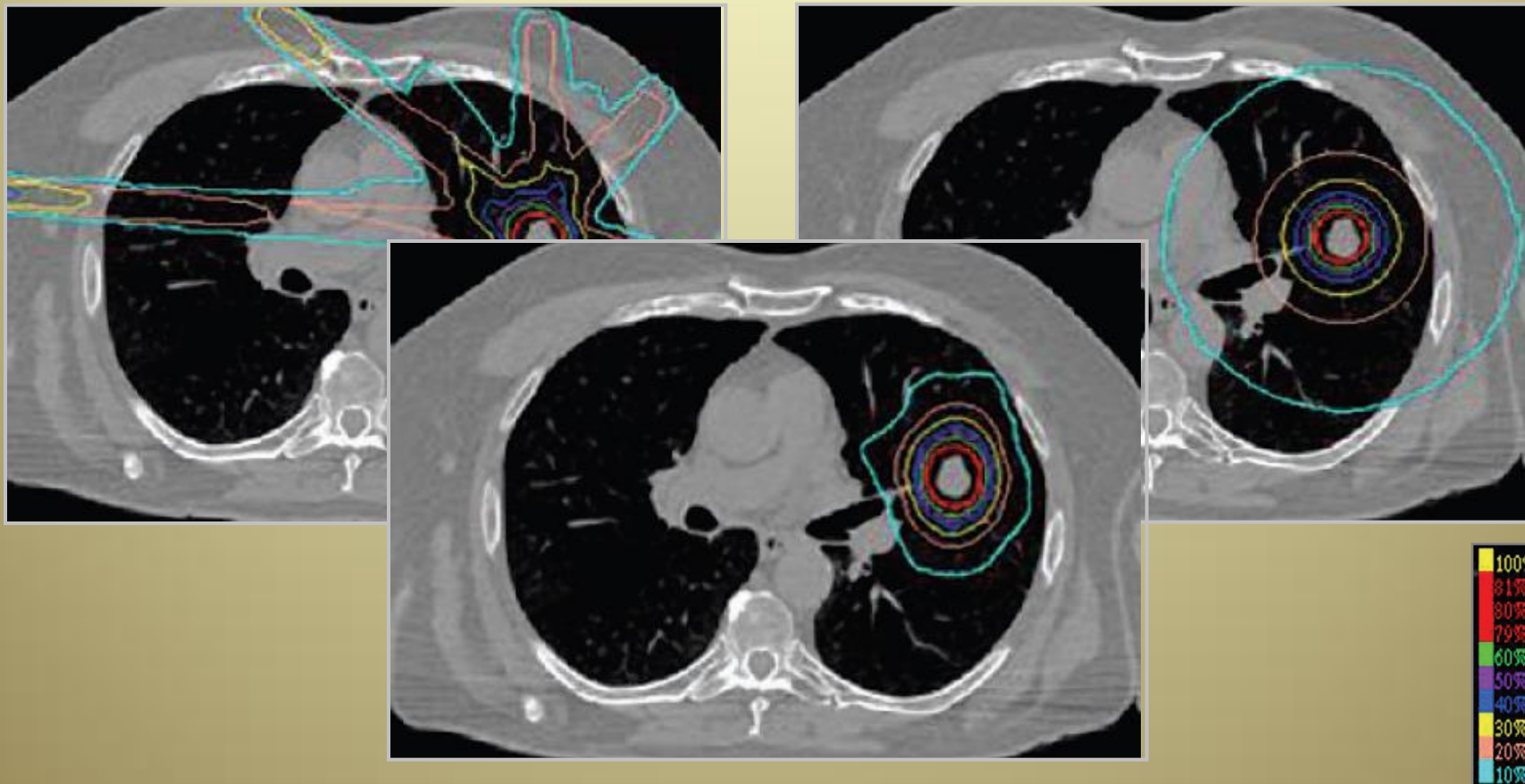
# Convenient Treatment Plans







# Bi-national Collaboration: Cure





# Bi-national Collaboration: Cure





# Bi-national Collaboration: Palliation and Quality of Life

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*“Palliative therapy is an important part of cancer care, with the objective to improve the terminal patient’s quality of life.*

*Radiation therapy is one of the most cost-effective and quickest modes of sustainable pain relief in a number of situations resulting in a better quality of life.*

*This too calls for adequate radiation therapy services, not only for curative but also for palliative therapy.”*

