

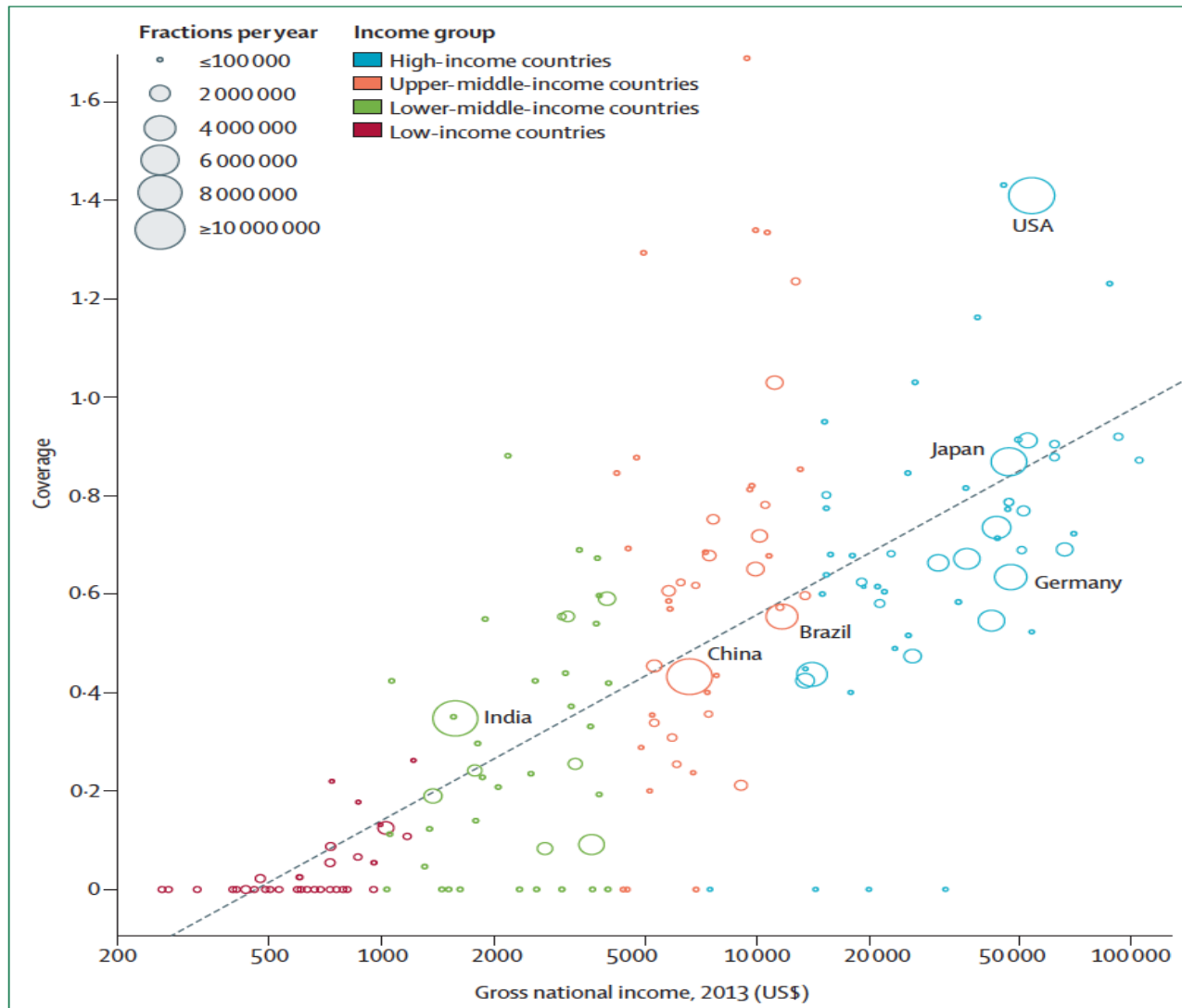
Investment case for global expansion of radiotherapy services

Global Task Force on Radiotherapy for Cancer Control.

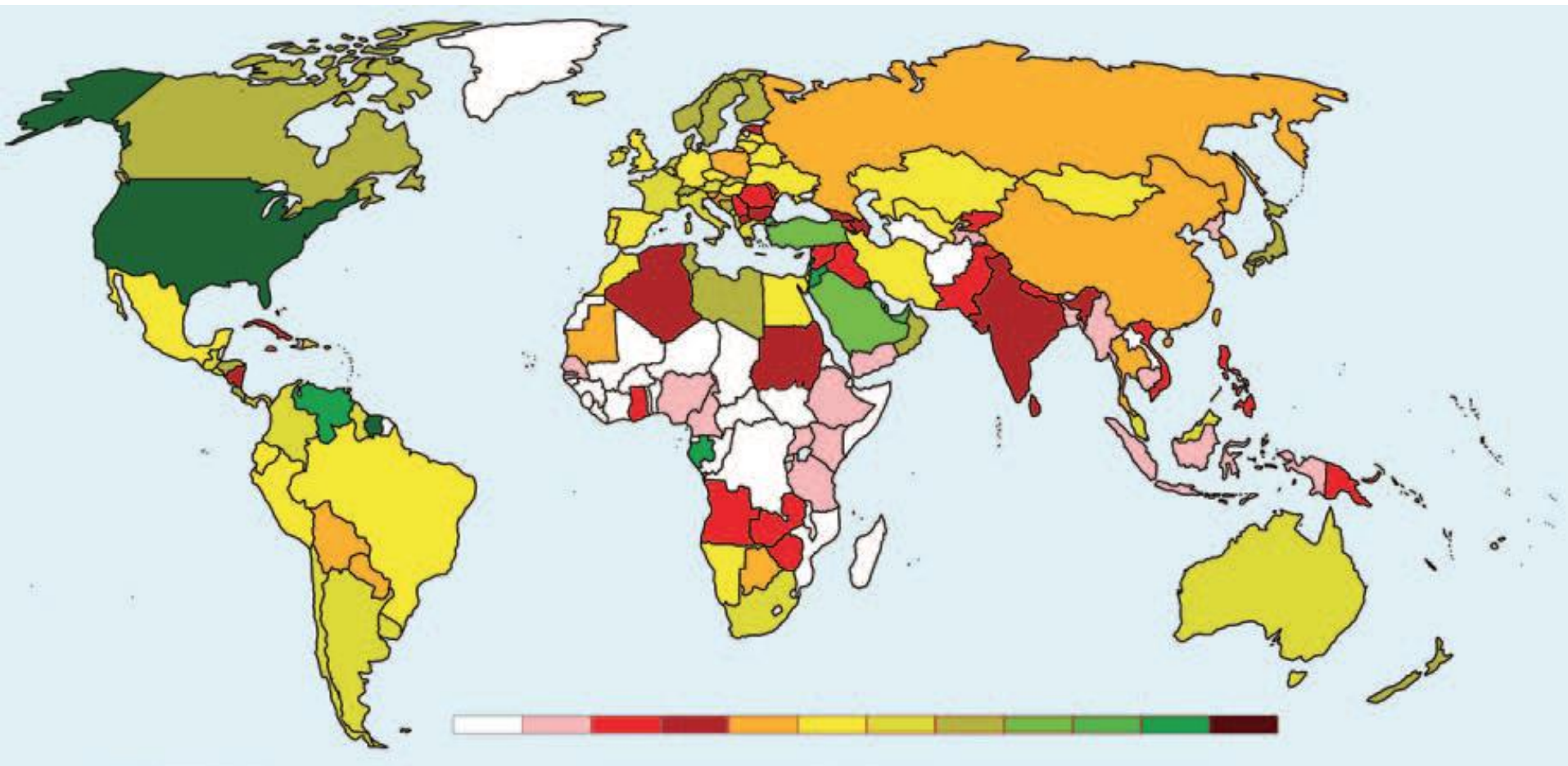
The equity gap in access to radiotherapy.

"We unite the cancer community to reduce the global cancer burden, to promote greater equity, and to integrate cancer control into the world health and development agenda."

Radiotherapy coverage: huge variations – many countries below potential



Stark inequities in coverage, yet myths abound...



8 h (%)	0	1	13	27	40	53	67	80	93	107	120	133
12 h (%)	0	1	20	40	60	80	100	120	140	160	180	200
16 h (%)	0	1	27	53	80	107	133	160	187	213	240	267

Expanding global radiotherapy coverage: moving beyond myths



Scientific and clinical advances mean that worldwide radiotherapy services can be:

1. Highly standardised
2. Effectively applied
3. Safely delivered
4. Consistently and feasibly scaled up
5. Afforded

Cost of global expansion of radiotherapy 2015-2035 (linear)



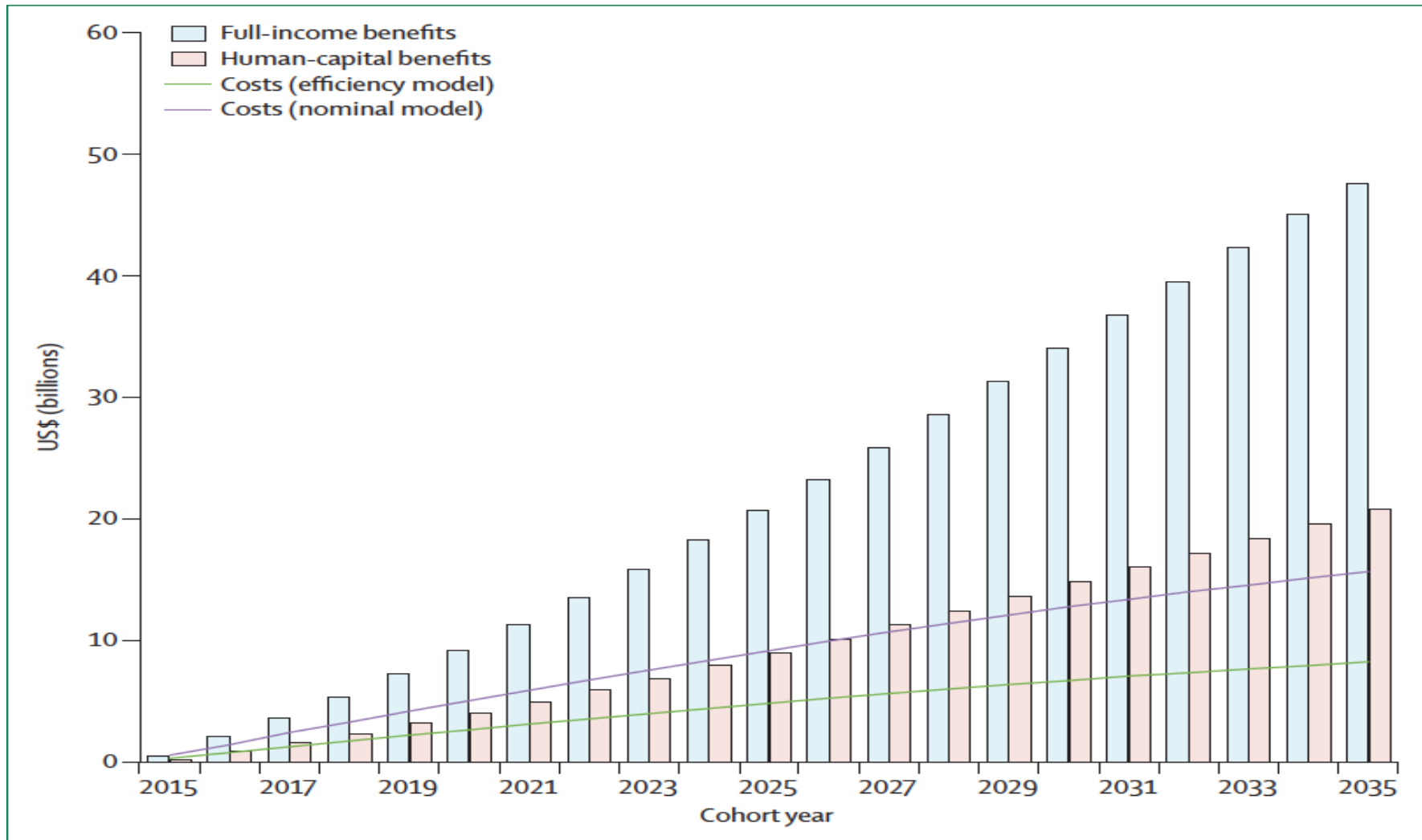
	Nominal Model	Efficiency model
Low income	\$26.6 Bn	\$14.1 Bn
Lower-middle income	\$62.6 Bn	\$33.3 Bn
Upper-middle income	\$94.8 Bn	\$49.4 Bn
Total	\$184.0 Bn	\$96.8 Bn

Global expansion of radiotherapy will bring immense health benefits



	Health benefits in life years saved (2015-2035; discounted)
Low income	6.3 million
Lower-middle income	9.9 million
Upper-middle income	10.7 million
Total	26.9 million

Investment case for global expansion of radiotherapy



Investment case for radiotherapy: large benefits



	Low-income countries		Lower-middle-income countries		Upper-middle-income countries	
	Nominal	Efficiency	Nominal	Efficiency	Nominal	Efficiency
Net monetary benefit (US\$, billions)						
Human-capital approach	-14.9	-2.4	-18.7	10.7	50.5	95.9
Full-income approach	0.265	12.8	38.5	67.7	239.3	284.7
Return on investment (US\$, billions)						
Human-capital approach	-0.56	-0.17	-0.3	0.32	0.53	1.94
Full-income approach	0.01	0.91	0.62	2.03	2.52	5.77

Net monetary benefit=cost of investment – economic return. Return on investment=net monetary benefit / cost of investment. Costing models are described in the text and include both operational and capital costs.

Financing the global expansion of radiotherapy



- Combine multiple financing sources
- Domestic financing: leverage expansion of universal health coverage
- Innovative financing
- Guarantees by development banks
- Public-private partnerships

Acknowledgements

- Authors of the Lancet Oncology Commission for Global Radiotherapy: R Atun, DA Jaffray, MB Barton, F Bray, M Baumann, B Vikram, TP Hanna, FM Knaul, Y Lievens, T Lui, M Milosevic, B O'Sullivan, DL Rodin, E Rosenblatt, J Van Dyk, ML Yap, E Zubizarreta, M Gospodarowicz.



THE LANCET Oncology

