

# Shortfalls of current RT technology in developing countries

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# Task Force 1: Technical Task Force

From a technical and systems perspective **stimulate innovation** in radiotherapy technologies and processes.

**Near-term:** Develop optimal design requirements for a novel high quality lower-cost treatment solution that leverages existing linac technologies and incorporates intelligent software designed for robust operation in a range of challenging environments. Such a system would be modular, rugged, easily operated, less reliant on personnel, and easily repaired but sufficiently sophisticated to also bring benefits to radiotherapy in high-income countries.

**Long-term:** Clearly identify shortfalls in existing critical subsystems (radiation production, power consumption, heat dissipation, automated maintenance, electromechanical collimation, imaging, safety, and training) and, through engagement of international technical centers of excellence, stimulate the development of next generation technologies to address these important needs.



**“The Devil is in the details,  
but so is salvation.”**

— Admiral H.G. Rickover, USN

# The Tension – Today's Problems or Tomorrow's Needs?

- The global demand for RT cannot be addressed by scaling today's paradigm.
  - By the time you scale today's paradigm, it will be tomorrow. Let's plan for tomorrow.
- Focus on technological/physics solutions that will form the next generation of RT machines.
- Avoid the 'forced choice' dilemma.
- Radiation treatment as simple as a vaccine.