# FROM DATA TO VALUE: IMPLEMENTING VALUE-BASED RADIOTHERAPY TO SUPPORT RESILIENT, OUTCOME-DRIVEN CANCER CARE

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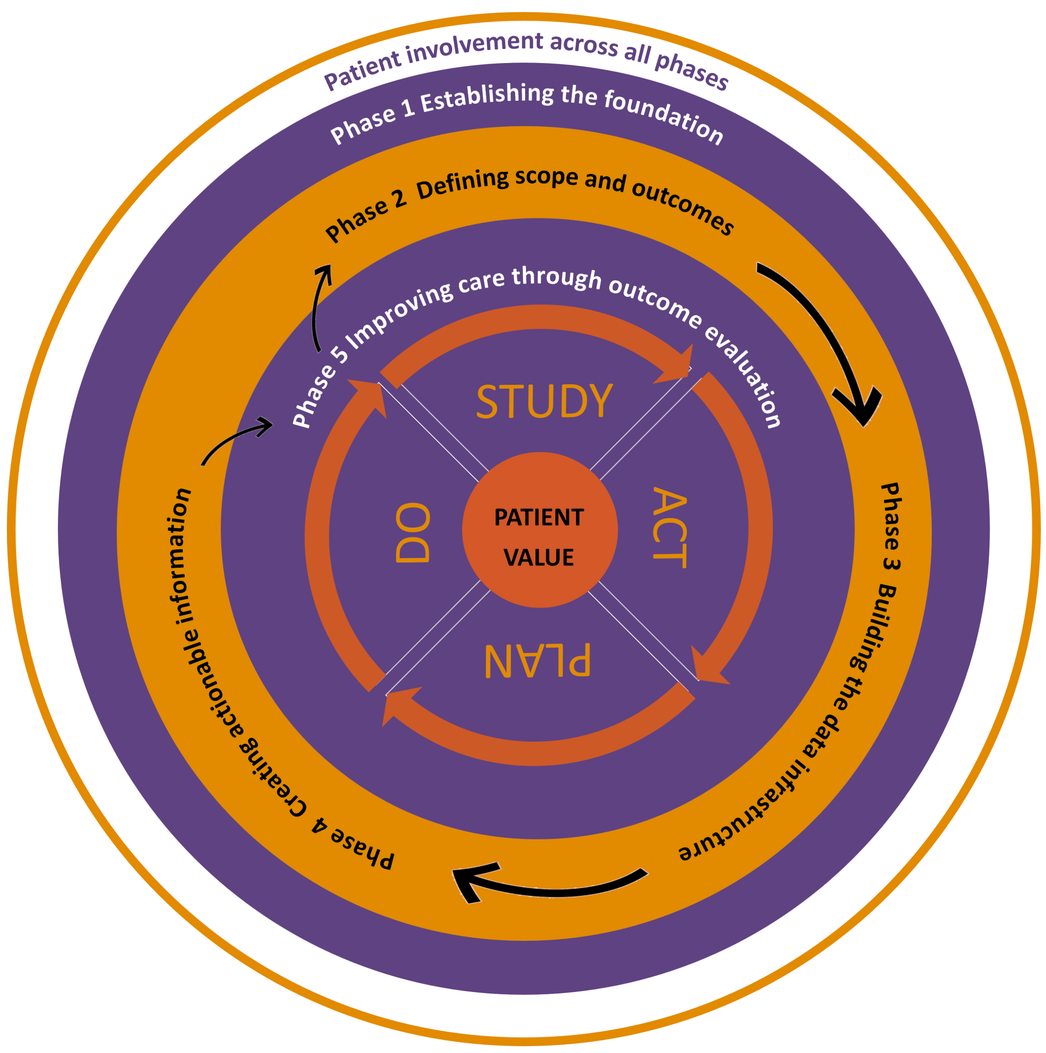
## The need for outcome-driven cancer care

Healthcare systems strive to achieve better patient-relevant outcomes while ensuring sustainable cancer care. It requires insight into outcomes that matter to patients and their systematic use to improve quality of care. Value-based Health Care (VBHC) offers a framework for outcome-driven improvement,[1] but questions remain on how to translate its principles into routine radiotherapy practice. [2]

We report key lessons from implementing VBHC in prostate cancer radiotherapy.

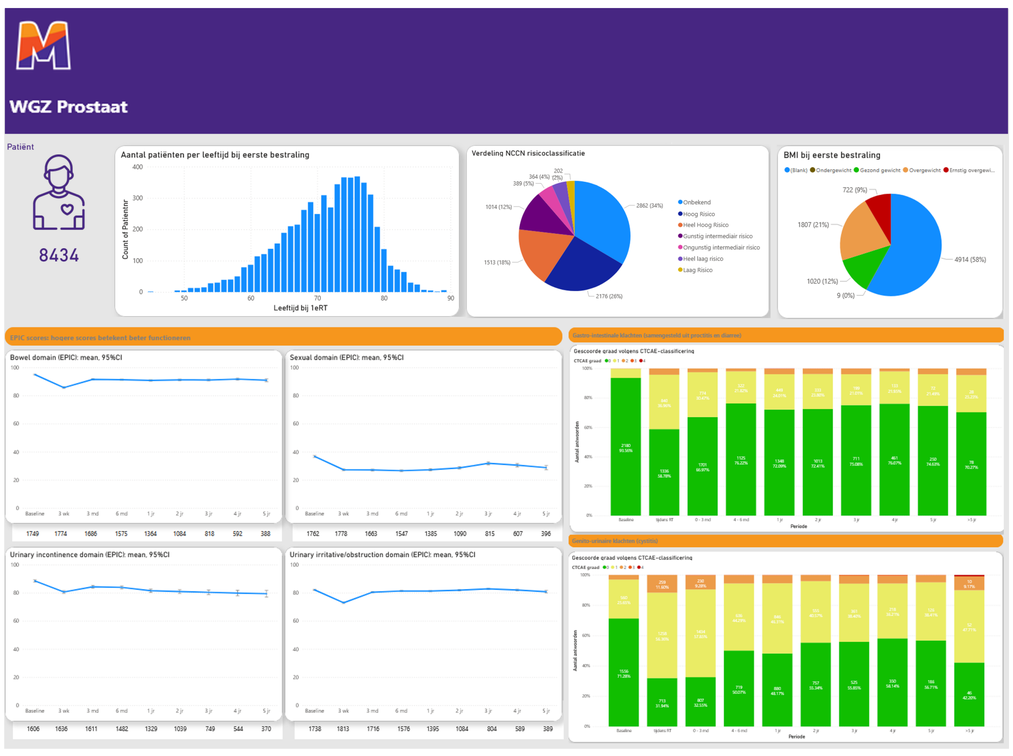
## Our VBHC implementation approach

The VBHC framework followed a bottom-up, clinician-led approach aligned with Porter's value agenda,[1] and rooted in the PDSA cycle.[3]




## Real-time dashboard for performance analysis

The dashboard enables stratified analyses of patient-relevant outcomes by patient characteristics and treatment pathways. The dashboard provides direct insight into alignment with external benchmark levels.




## Key lessons from implementing VBHC

Weekly implementation observations and in-depth discussions with clinicians and IT staff revealed facilitators and barriers in the implementation of the VBHC approach.

### Facilitators

- Strong clinical leadership
- Dedicated IT capacity
- Focused project manager
- Pilot sparks enthusiasm across teams

### Challenges

- Data for individual care vs. population-based analysis
- Complex data transformations to obtain outcomes
- Harmonization due to data collection variations
- Privacy regulations hamper data sharing

## Implications for resilient cancer care

VBHC can support resilient, outcome-driven cancer care.

However, implementation requires more than outcome measurement: sustainable IT support, clear governance, data standardization, and secure data sharing are essential.

## References

1. Porter ME. What Is Value in Health Care? *N Engl J Med*. 2010;363(26):2477–2481.
2. Lieven Y, Grau C & Aggarwal A. Value-based health care – what does it mean for radiotherapy? Acta Oncologica 2019;(58):101328-1332.
3. Deming WE. *Out of the Crisis*. Cambridge, MA: MIT Press; 1986.

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