

WM9QV-15 Decision Making for Healthcare Quality Improvement

25/26

Department

WMG

Level

Taught Postgraduate Level

Module leader

Sudakshina Lahiri

Credit value

15

Module duration

4 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

Decision making is critical to the success of quality improvement in healthcare settings. This module will explore the role of decision making within distributed healthcare systems. It will equip course participants to understand concepts and theories that underpin and facilitate decision making and the impact of decision making on a given health system.

Module aims

This module aims to provide students with detailed knowledge of decision making for quality improvement involving distributed complex healthcare systems. Students will be able to understand the role of extrinsic and intrinsic factors that contribute to decision making subject to professional, ethical and regulatory requirements. At the end of module completion, students will have the ability to identify evidence-based approaches that are necessary for multidisciplinary decision making.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

1. Decision making in the context of complexity, uncertainty and variation
2. Applying evidence-based frameworks and tools in multidisciplinary decision making in healthcare
3. Advanced specialty knowledge into reasoning and judgment
4. Current and emerging evidence that influence quality improvement
5. Translating decision theories into problem solving

Learning outcomes

By the end of the module, students should be able to:

- Critique concepts and theories that underpin decision making around quality improvement in distributed health care settings.
- Synthesize evidence from various sources to demonstrate solving quality problems.
- Articulate comprehensive understanding of the different requirements for informed decisions and describe how these could be applied to a given quality scenario.
- Employ context-driven reasoning in multidisciplinary decision-making process involving quality improvement.
- Evaluate methods from relevant knowledge domains to improve decision making for healthcare quality problem.

Indicative reading list

Procter, P. R., Compton, W.D., Grossman, J.H., and Fanjiang, G. (2005) Building a Better Delivery System. A New Engineering/Health Care Partnership. National Academy of Engineering (US) and Institute of Medicine (US) Committee on Engineering and the Health Care System; Washington (DC): National Academies Press (US); 2005. ISBN-10: 0-309-09643-X

Stiggelbout, A.M., Van der Weijden, T., De Wit, M.P.T., Frosch, D., Légaré, F., Montori, V.M., Trevena, L., Elwyn G. Shared decision making: really putting patients at the centre of healthcare. British Medical Journal. BMJ 2012;344:e256 doi: 10.1136/bmj.e256.

Clarkson, P.J., Bogle, D., Dean., J. et al. Engineering better care: a systems approach to health and care design and continuous improvement. London: Royal Academy of Engineering, 2017.

Légaré, F., Adekpedjou, R., Stacey, D., Kryworuchko, J., Graham, I.D., Lyddiatt, A., Politi, M.C., Thomson, R., Elwyn, G. and Donner-Banzhoff, N. (2018). Interventions for increasing the use of shared decision making by healthcare professionals. Cochrane Database of Systematic Reviews. <https://doi.org/10.1002/14651858.CD006732.pub4>

Amman, J., Blasimme, A., Vayena, E., Frey, D., Madai, V. I on behalf of the Precise4Q consortium. (2020). Explainability for artificial intelligence in healthcare: a multidisciplinary perspective. BMC Med Inform Decis Mak 20, 310 (2020). <https://doi.org/10.1186/s12911-020-01332-6>

[View reading list on Talis Aspire](#)

Research element

This module incorporates elements of reasoning, judgment and decision making, along with challenges that arise due to complexity inherent in interconnected systems in the healthcare sector and ways to address this for quality improvement.

Interdisciplinary

Healthcare operational management is an evolving discipline that combines health science methodologies with engineering, statistics, quantitative elements of management with data science for quality and productivity improvement in the healthcare sector. This module will draw from each of these areas to provide understanding on how to facilitate multidisciplinary decision making.

Subject specific skills

- multidisciplinary decision making
- complexity
- ethics and values
- information literacy

Transferable skills

- critical thinking
- problem solving
- resource utilization
- working in teams

Study

Study time

Type	Required
Lectures	20 sessions of 1 hour (13%)
Seminars	(0%)
Online learning (independent)	10 sessions of 1 hour (7%)
Other activity	15 hours (10%)
Private study	45 hours (30%)
Assessment	60 hours (40%)
Total	150 hours

Private study description

Further reading around model- and data-driven approaches on multidisciplinary decision making for healthcare quality improvement.

Other activity description

Self-directed activities for preparation towards class work. Guidance for these activities will be provided to students in class.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time	Eligible for self-certification
Written assignment-1 Developing and analysing an evidence-based decision process for healthcare quality improvement. Word count: 2500 words	60%	35 hours	Yes (extension)
Written assignment-2 A brief case analysis on multidisciplinary decision making and its approaches. Word count: 1500 words	40%	25 hours	Yes (extension)

Feedback on assessment

Written feedback.

Availability

Courses

This module is Core optional for:

- Year 1 of TWMS-H1S5 Postgraduate Healthcare Operational Management (Full-time)