WM087-15 Quality and Productivity in Health Service Systems

23/24

Department
WMG
Level
Taught Postgraduate Level
Module leader
Sudakshina Lahiri
Credit value
15
Module duration
1 week
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

This module focuses on current issues and challenges facing healthcare quality & productivity. It will familiarize students with the urgent need to apply approaches from diverse disciplines for patient safety, patient experience and effectiveness, and productivity improvement in health service from a systems perspective. Students will learn to apply systematic approaches in the analysis of data & information for accurately modelling patient care journeys for service redesign, system capability & quality. Module will examine current techniques used for quality & productivity improvement in healthcare such as lean, Six Sigma, Theory of Constraint, loss functions, etc. Service improvement strategies will also be examined in the context of regulatory, patient safety and economic factors that are unique to healthcare and what information is necessary for sustained improvement.

Module aims

The aims of this module are to:

1. Critically examine the history and evolution of quality (safety, experience and effectiveness) and productivity improvement in health service systems from a quality and efficiency

perspective.

2. Examine approaches currently used for quality and productivity e.g. lean, Six Sigma, Theory of constraint, loss function, etc.
3. Understand the effects of regulatory bodies and quality monitoring agencies in the accreditation of quality with respect to healthcare.
4. Examine metrics used to measure quality and productivity in health service systems, their underlying principles, and methods used to collect data and information for measurement purposes
5. Apply basic statistical tools to a set of data involving a case based improvement project to assess the applicability of various quality and productivity approaches based on a given scenario
6. Critically evaluate the strengths and weaknesses of key approaches currently applied for quality and productivity improvement in health service systems in relation to evidence based review

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. Theories and concepts involving quality and productivity in healthcare including CQI, TQM, lean, six sigma, etc.
2. Metrics and measures of healthcare quality and productivity.
3. Techniques used to model health care processes for service redesign and improvement.
4. Use of statistical tools and analysis of health care data to generate improvement opportunities (e.g., distribution, probability, univariate and bivariate data, comparisons, generalized linear models).
5. Incentivizing health care processes for quality and productivity improvement.
6. Factors necessary for sustained quality and productivity management.

Learning outcomes

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

- Critically examine tools and approaches used by health care organizations to assess quality risks and failure events
- Synthesize critically the evidence involving issues of efficiency, effectiveness and return on investment in the context of health services
- Understand ways to engage patients and other stakeholders in quality and productivity improvement and the impact of such engagement on service system performance
- Systematically analyze health care data and information, interpret results and meaningfully

draw conclusions
- Conduct critical assessments of methodologies of quality and productivity improvement studies in healthcare
- Critically evaluate the role of qualities and standards monitoring agencies in healthcare

Indicative reading list

Sample bibliography:

Introduction to Quality Health Care Management, Patrice Spath, 2013, 2nd Edition, Health Administration Press, Chicago, Illinois. SBN-13: 978-1567935936 ISBN-10: 1567935931
Donabedian, A. (1978). The Quality of Medical Care. Science, 200(4344): 856-864.
Normand, S.L. T., & Shahian, D. M. (2007). Statistical and Clinical Aspects of Hospital Outcomes Profiling. Statistical Science, 22(2): 206-226.
van Dishoeck, A.-M., Lingsma, H. F., Mackenbach, J. P., & Steyerberg, E. W. (2011). Random variation and rankability of hospitals using outcome indicators. BMJ Qual Saf, 20(10), 869-874.
Neuhauser, D., Provost, L., & Bergman, B. (2011). The meaning of variation to healthcare managers, clinical and health-services researchers, and individual patients. BMJ Qual Saf 2011;20:i36-i40 doi:10.1136/bmjqs.2010.046334
Morrow, E., Robert, G., Maben, J., & Griffiths, P. (2012). Implementing large-scale quality improvement: lessons from the productive ward: releasing time to care. International Journal of Health Care Quality Assurance, 25(4): 237-253.
Frist, William H., Connected Health & Rise Of the Patient-Consumer, Health Affairs, 33: 2:191-193. Liberatore Matthew J., (2013). Six sigma in healthcare delivery. International Journal of Health Care Quality Assurance, Vol. 26:7: 601 - 626 Lighter, D. E. (2011). Advanced Performance Improvement in Health Care-Principles and Methods. Jones and Bartlett Publishers, ISBN: 13: 978-0-7637-6449-4 Meltze ,David O. & Chung, J. W. (2014).The Population Value Of Quality Indicator Reporting: A Framework For Prioritizing Health Care Performance Measures. Health Affairs (33): 1: 132–139. Roland, M., and Campbell, S. (2014). Successes and failures of pay for performance in the United Kingdom, New England Journal of Medicine, Vol. 370: 20:1944-1949 Solecito, Wi. A., and Johnson, J.K. (2013). McLaughlin and Kaluzny's Continuous Quality Improvement in Healthcare, 4th Edition, Copyright 2013, Jones and Bartlett Publication, Massachusetts; ISBN 13: 978-0-7637-8154-5 Hollingsworth, B. (2008). The measurement of efficiency and productivity of health care delivery. DOI: 10.1002/hec.1391 Campbell, S.M., Reeves, D., Kontopantelis, E., Sibbald, B., and Roland, M. (2009). Effects of pay for performance on the quality of primary care in England. New England Journal of Medicine, Vol. 361: 368-378. DOI: 10.1056/NEJMsa0807651 Lakhani, A., Coles, J., Eayres, D., Spence, C., & Rachet, B. (2005). Creative use of existing clinical and health outcomes data to assess NHS performance in England: Part 1—performance indicators closely linked to clinical care. British Medical Journal, Vol. 330: 1426. Auerbach Andrew D., M.D., M.P.H., The Tension between Needing to Improve Care and Knowing How to Do It N Engl J Med, 357;6, August 9, 2007 Benneyan J C, Statistical Process Control as a Tool for Research and Healthcare Improvement, Quality and Safety in Health Care 2003;12:458–464 Blumenthal David (1996). Quality of Care – What is it? – Part I. The New England Journal of Medicine, vol. 335:12: 891-894 Dlugacz, Yosef D., Alice Greenwood, Andrea Restifo The Quality Handbook for Health Care Organizations: A Manager's Guide to Tools and Programs ISBN: 0787969214 Pub. Date: March 2004 Series: J-B AHA Press, #131 Ellen Nolte and C Martin McKee, Measuring the health of nations: Updating an earlier analysis, Health

Affairs, Volume 27, 58-71, 2008. Gruen, R.L., Pearson, S.D., and Brennan, T.A. (2004). Physicians-Citizens-Public Roles and Professional Obligations. Journal of the American Medical Association, Vol. 291: 94-98

Research element

The module incorporates elements of research design, steps in the process of research, identifying research problem and questions contextualized to a given healthcare quality problems, specifying a purpose for quality improvement, reviewing current evidence and issues of ethics and regulations when investigating /examining quality problems.

Interdisciplinary

Healthcare operational management is a new emerging 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.

Subject specific skills

-Quality improvement
-Evidence reviews
-Complexity
-Systems thinking
-Ethics and responsibility
-Data analysis and data modelling

Transferable skills

-Multidisciplinary working
-Data analysis
-Planning and prediction
-Reporting and displaying information
-Workforce design
-Decision making

Study

Study time

Type	Required
Lectures	25 sessions of 1 hour (17%)
Seminars	15 sessions of 1 hour (10%)
Assessment	110 hours (73%)
Total	150 hours

Private study description

No private study requirements defined for this module.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A2

	Weighting	Study time
Written Assignment	100%	110 hours
Single post module assignment comprised of two parts: -Part-1 around 3000 words (65%) -Part-2 around 1000 words (35%)		

Feedback on assessment

Written feedback on post-module assignment.

Availability

Courses

This module is Core optional for:

- Year 1 of TWMS-B9AA Postgraduate Healthcare Operational Management