



KING'S
IMPROVEMENT
SCIENCE

KIS glossary of terms used in improvement and implementation

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 KING'S HEALTH PARTNERS



About this resource

This glossary is a collection of terms and definitions from the fields of quality improvement, improvement science and implementation science.

It also draws on relevant terminology from health economics, patient and public involvement, evaluation and research. It is based on the work and experience of King's Improvement Science (KIS) and it is not an exhaustive list.

If you have any comments or suggestions for additional terms, please email us at kis-team@kcl.ac.uk.

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Term	Definition	Reference/learning resource
A3 template	<p>A structured approach for visually laying out a project on a single, large (A3-sized) sheet of paper, with discrete boxes outlining the problem, background, current state, goals and implementation plan.</p> <p>Also see logic model and driver diagram.</p>	https://www.queri.research.va.gov/implementation/quality_improvement/methods.cfm?method=1
Abstract	<p>A summary of a research paper.</p>	http://www.invo.org.uk/resource-centre/jargon-buster/?letter=A
Acceptability	<p>An implementation outcome: the perception among stakeholders that an intervention is agreeable and satisfactory.</p>	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/
Adoption	<p>An implementation outcome: the intention, decision, or action to try to implement an intervention.</p>	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/
Appropriateness	<p>An implementation outcome: the perceived fit, suitability, or relevance of an intervention in a particular setting or for a particular target audience.</p>	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/
Arm	<p>Refers to the group that research participants are allocated to in a study/clinical trial.</p>	http://www.invo.org.uk/resource-centre/jargon-buster/?letter=A
Audit	<p>See clinical audit.</p>	

B

Term	Definition	Reference/learning resource
Balancing measures	<p>These show whether an improvement in one area is impacting another area (positively or negatively). For example, in a project designed to reduce length of hospital stay, it would be important to also measure readmissions.</p> <p>Also see unintended consequences.</p>	<p>https://www.pointofcarefoundation.org.uk/resource/patient-family-centred-care-toolkit/tools/measuring-improvement/</p>
Baseline measures	<p>Measurement taken prior to an intervention/before starting a project in order to show whether a change/intervention is needed and that the change that has been made is an improvement.</p>	<p>https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/developing-baseline-measures/main</p>
Behaviour change interventions	<p>Aimed at changing people’s health behaviours, such as dietary changes or stopping smoking. These can happen at an individual, community, or population/national level.</p>	<p>https://www.nice.org.uk/guidance/ph49/chapter/7-glossary#behaviour-change-interventions</p>
Behaviour change wheel (BCW)	<p>A tool for identifying suitable techniques for designing an appropriate behaviour change intervention.</p>	<p>https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-6-42</p>
Belts	<p>Six Sigma certification system, divided into yellow, green, black, and master black belts, each reflecting the level of experience and expertise.</p>	<p>http://asq.org/learn-about-quality/six-sigma/overview/belts-executives-champions.html</p>

Benchmarking

A process of measuring organisational performance according to a **standard** or a point of reference to make comparisons between and within organisations.

<https://www.ncbi.nlm.nih.gov/pubmed/10139084>

Best practice

A way of working that has been shown (through research and/or experience) to produce optimal results and that is established or proposed as a **standard** for widespread **adoption**.

<https://www.merriam-webster.com/dictionary/best%20practice>

Bias

Anything that distorts or affects a project, study or an **intervention** in a way that would alter the findings or results.

<http://ebn.bmj.com/content/17/4/100>

Blinding

Refers to **participants** (and often researchers) in a study not knowing what, if any, **intervention** the participants are receiving. This is important because it removes the potential influence this information may have.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2947122/>



Term	Definition	Reference/learning resource
Capability building	Enables people to effectively respond to future challenges by providing opportunities for individual and organisational learning and development. Also see capacity building .	https://www.leadershipacademy.nhs.uk/resources/healthcare-leadership-model/nine-leadership-dimensions/developing-capability/
Capacity building	The development of the skills/abilities/activities/resources that are necessary in order for an organisation to thrive, expand or change direction. Also see capability building .	https://knowhownonprofit.org/organisation/orgdev/development-1/capacitybuilding2
Care maps	See clinical pathways .	
Care pathways	See clinical pathways .	
Case study	An in-depth exploration of a phenomenon in its natural context . For instance, looking at a single patient or a group of similar patients to gain a detailed understanding of their health condition.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3141799/pdf/1471-2288-11-100.pdf
Change agent	A person whose role it is to facilitate change efforts in an organisation.	https://naaee.org/sites/default/files/lunenburg_fred_c._managing_change_the_role_of_change_agent_ijmba_v13_n1_2010.pdf
Clinical audit	A process of assessing and monitoring clinical practice (e.g. care provided) against pre-defined and desired standards . Audits can be used within quality improvement projects .	https://www.england.nhs.uk/clinaudit/

Clinical champion	A healthcare professional who drives change in their local area, e.g. through a quality improvement project or programme.	https://www.diabetes.org.uk/professionals/resources/clinical-champions-and-networks
Clinical effectiveness	The degree of beneficial effect an intervention or procedure has under 'real world' conditions, such as in a clinical service, as opposed to in a carefully controlled setting. Also see efficacy .	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883560/
Clinical pathways	Structured, multidisciplinary plans of care used to promote the use of evidence-based medicine and standardisation of treatment.	http://www.openclinical.org/clinicalpathways.html
Clinical practice guidelines (CPGs)	Statements that provide recommendations for how healthcare professionals should care for people with specific conditions, e.g. NICE guidelines. These are typically informed by systematic reviews of evidence or expert opinion and an assessment of the benefits and harms of alternative care options.	http://www.openclinical.org/guidelines.html
Clinical significance	Refers to how practical or meaningful a research result is for patients and healthcare providers. Also see statistical significance .	https://nursingeducationexpert.com/difference-statistical-significance-clinical-significance/
Clinical trial	A research study involving human participants , intended to discover or verify the effects of a treatment (e.g. a new drug). Aims to find out if a treatment is safe and how it compares to existing treatments.	http://www.ctu.mrc.ac.uk/about_clinical_trials/what_is_a_clinical_trial/

Cochrane review	A systematic review of research in healthcare and health policy that is published in the Cochrane database of systematic reviews. Cochrane reviews adhere to specific stringent criteria.	https://www.cochranelibrary.com/about/about-cochrane-reviews
Complex interventions	Interventions with several interacting components that can pose 'extra' challenges for evaluators.	https://mrc.ukri.org/documents/pdf/complex-interventions-guidance/
Consent	See informed consent .	
Consolidated framework for implementation research (CFIR)	Brings together numerous constructs that affect implementation efforts, based on many implementation theories . It captures factors that can hinder or facilitate implementation efforts and can be used to guide implementation.	http://www.cfirguide.org/
Consultation (in research)	The first step in involving people in research where members of the public are asked about their views and opinions to inform decision making.	http://www.invo.org.uk/posttypresource/approaches-to-public-involvement/
Consultation (in the NHS)	Formal or informal processes where patients and the public are engaged on issues where changes in healthcare services are proposed.	http://www.nhsinvolvement.co.uk/connect-and-create/consultations/service-change
Context	The environment in which a project/programme takes place.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037175/
Contextual factors	Factors or attributes that can facilitate or hinder improvement efforts. These can be external e.g. regulatory requirements or internal e.g. leadership.	https://www.health.org.uk/sites/default/files/ContextForSuccessfulQualityImprovement.pdf

Continuous quality improvement

A management approach that strives for an ongoing and constant improvement (and study) of the processes of providing healthcare services. It concentrates on improving systems rather than focusing on individuals.

<https://www.nejm.org/doi/pdf/10.1056/NEJM198901053200110>

Control chart

Shows how a process changes over time and whether it is stable, with only expected **variation**, or not. It can also be used to predict the future performance of a process. It is one of the key tools of **statistical process control**.

<http://asq.org/learn-about-quality/data-collection-analysis-tools/overview/control-chart.html>

Control group

Also known as the 'comparison group', this is a group of people in a study who receive the usual treatment or no treatment, in order to compare them to the 'experimental group' who receive the treatment being tested.

<http://www.statisticshowto.com/control-group/>

Co-production

An active collaboration between service providers and **service users** in co-creating services where service users/recipients are involved in all stages of the process.

http://personcentredcare.health.org.uk/sites/default/files/resources/what_is_co-production.pdf

Cost

See **opportunity cost** and **implementation cost**.

Cost-benefit analysis (CBA)

Identifies the costs and benefits of a different/new **intervention**, such as a new policy change, compared to what already exists/is being funded. Both the costs and benefits of an intervention are expressed in monetary terms, where possible, to compare the impact of available courses of action.

<https://www.jrf.org.uk/report/because-its-worth-it-practical-guide-conducting-economic-evaluations-social-welfare-field>

Cost-consequences analysis (CCA)

Calculates the costs and effects of a different / new **intervention** but does not combine and compare these valuations to show the cost of a **healthy life year**. Instead, the costs and the changes that could result from the intervention are presented to the decision-maker who decides on which intervention is the best choice.

<https://www.rds-london.nihr.ac.uk/How-to-design-a-study-find-funding/Health-economics/Cost-consequences-analysis.aspx>

Cost-effectiveness analysis (CEA)

Measures the additional benefit from a new/different **intervention** by comparing the costs and the **outcomes** with the intervention that is already being funded. The costs are expressed in monetary terms and the effects are valued using a single measure of health, e.g. clinical or **implementation outcomes**.

<https://jamanetwork.com/journals/jama/article-abstract/409182>

Cost-utility analysis (CUA)

A specific type of **cost-effectiveness analysis**, using a generic **health outcome** measure that allows comparisons across different areas of health and care. The costs are expressed in monetary terms and the effects are specifically valued using **quality-adjusted life years (QALYs)**.

<https://www.jrf.org.uk/report/because-its-worth-it-practical-guide-conducting-economic-evaluations-social-welfare-field>

Critical appraisal

The process of systematically assessing evidence (such as findings from a research study) to judge its trustworthiness, merit and relevance in a particular **context**.

http://www.bandolier.org.uk/painres/download/whatis/What_is_critical_appraisal.pdf

Critical pathway

See **clinical pathways**.

Culture

See **organisational culture**.



Term	Definition	Reference/learning resource
Data	<p>Information collected or created as part of projects, programmes and studies. Data can be generated in many different ways, such as text, numbers, figures or images.</p> <p>Also see qualitative data and quantitative data.</p>	<p>https://www.kcl.ac.uk/library/researchsupport/research-data-management/introdrm.aspx</p>
Data analysis	<p>A systematic process of examining, organising and processing data in order to bring out useful information and to support conclusions or decision making. For instance, performing a statistical test on numerical data or analysing interview data.</p>	<p>https://ori.hhs.gov/education/products/n_illinois_u/datamanagement/datopic.html</p>
De-implementation	<p>A process of abandoning interventions and practices found to be ineffective, of little benefit or harmful to patients, or that represent low value care.</p>	<p>https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-9-1</p>
Delivery science	<p>See health care delivery science.</p>	
Delphi	<p>A systematic method for obtaining consensus amongst a panel of experts. Typically, experts independently complete several questionnaires and responses are fed back after each round until consensus is reached. Considered especially useful when limited research exists in a particular area.</p>	<p>https://thepsychologist.bps.org.uk/volume-22/edition-7/delphi-method</p>
Deming's system of profound knowledge	<p>See lens of profound knowledge.</p>	

Diffusion of innovations	A theory , developed by Everett Rogers, that seeks to explain/predict the adoption and spread of a new idea, product or service (i.e. an innovation).	https://books.google.co.uk/books/about/Diffusion_of_Innovations_5th_Edition.html?id=9U1K5LjUOwEC&redir_esc=y
Dissemination	Communication of findings (e.g. from a project or a study) to a wider audience through, for example, publication in journals, the media, newsletters, social media, reports and presentations.	https://www.nihr.ac.uk/funding-and-support/documents/funding-for-research-studies/manage-my-study/How-to-disseminate-your-research/dissemination-guidance.pdf
Dissemination science	The study of spreading evidence-based interventions to stakeholders via determined channels using planned strategies.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3592983/
Driver diagram	A visual model of a project that contains a clear goal; factors that are needed to achieve this goal (the drivers); and the specific tasks or activities that can affect drivers.	https://qi.elft.nhs.uk/resource/driver-diagrams/



Term	Definition	Reference/learning resource
Effectiveness	See clinical effectiveness .	
Effectiveness-implementation hybrid design	A type of research design that simultaneously evaluates the clinical effectiveness and implementation of an intervention .	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3731143/
Efficacy	The degree to which a healthcare intervention produces a beneficial result under rigorously controlled and monitored circumstances, such as in clinical trials .	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3912314/
Empirical evidence	Knowledge acquired by observation or experimentation, which is recorded and analysed.	https://www.livescience.com/21456-empirical-evidence-a-definition.html
Engagement	See patient and public engagement .	
Ethics	A wide set of principles governing the design and conduct of studies or projects, including protecting people from physical or psychological harm.	https://www.hqip.org.uk/wp-content/uploads/2017/02/guide-to-managing-ethical-issues-in-quality-improvement-or-clinical-audit-projects.pdf
Ethnography	The study of social interactions, behaviours and perceptions within specific groups, cultures, teams, organisations or communities in a natural setting and over a prolonged period of time. The aim is to provide rich, holistic insights into people's views and actions.	https://www.bmj.com/content/337/bmj.a1020

Economic evaluation

Is used to inform decisions on how budgets should be allocated between different **interventions** by comparing the **costs** and **outcomes** of all the options available.

<https://books.google.co.uk/books?hl=en&lr=&id=NuYRBAAQBAJ&oi=fnd&pg=PP1&dq=decision+modelling+for+health+economic+evaluation&ots=JKO8TVOGun&sig=W4khOpv8TH8SkuHlygzNsvVse0#v=onepage&q=decision%20modelling%20for%20health%20economic%20evaluation&f=false>

Evaluability

An assessment of whether it is possible to evaluate something, e.g. a project or an **intervention**, or to what extent something can be evaluated in a reliable and credible way.

https://www.betterevaluation.org/en/themes/evaluability_assessment#eval_assess_1

Evaluation

Judging or assessing the merit or worth of something.

<http://www.nhsevaluationtoolkit.net/what-is-evaluation/>

Evidence-based interventions

Practices that have been shown to be effective through research or **evaluation**.

http://ebi.missouri.edu/?page_id=52

Evidence-based medicine (EBM)

The practice of medicine that integrates clinical experience and expertise with best available, up-to-date research information, and patient values with the aim to provide the best care.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2746659/>

Evidence-based nursing (EBN)

See **evidence-based practice**.

Evidence-based practice (EBP)

The use of current best evidence in making decisions about patient care. Closely related to/stemming from **evidence-based medicine**. The terms are often used interchangeably.

<https://www.csp.org.uk/professional-clinical/clinical-evidence/evidence-based-practice/what-it>

Evidence scan

A rapid collation of existing information on a topic of interest, which usually provides an overview of the topic, rather than addressing a specific research question.

<https://www.health.org.uk/publications/what%E2%80%99s-getting-in-the-way-barriers-to-improvement-in-the-nhs>

Evidence to practice gap

The delay that forms between when evidence (e.g. from research studies) is produced and when it is utilised or implemented in clinical practice. Also called **research to practice gap**.

<https://www.sciencedirect.com/science/article/pii/S0196064406021421>

Exnovation

Removing of processes, practices or **interventions** that are no longer considered effective, relevant, suitable or sustainable.

<http://a--sandeep.blogspot.com/2011/11/exnovation-real-innovation.html>

Also see **de-implementation**.

Experience based co-design (EBCD)

An improvement approach that enables staff and patients/**service users** to co-design services or **clinical pathways** together.

<https://www.pointofcarefoundation.org.uk/resource/experience-based-co-design-ebcd-toolkit/step-by-step-guide/1-experience-based-co-design/>



Term	Definition	Reference/learning resource
Feasibility	An implementation outcome : the degree to which an intervention can be carried out as planned in a particular setting or organisation.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/
Fidelity	An implementation outcome : the degree to which an intervention is implemented as it was designed in the original protocol , plan or policy .	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/
Fishbone diagram	Graphically displays the possible causes of a specific event or problem and identifies areas for improvement. Visually resembles a fish skeleton, hence the name. Also known as Ishikawa diagram .	http://asq.org/learn-about-quality/cause-analysis-tools/overview/fishbone.html
Five S (5 S)	A method for making an organisation more efficient and its processes more effective, by adopting five principles or phases: Sort, Set in order, Shine, Standardise , and Sustain. This method is used in Just-in-time manufacturing and in Lean .	http://asq.org/learn-about-quality/lean/overview/five-s-tutorial.html
Five whys (5 whys)	A problem-solving technique often used in Six Sigma based on repeatedly asking 'why?' when looking at a problem. Anecdotally, five iterations are needed to uncover the underlying cause of a problem. Also see root cause analysis .	https://www.mindtools.com/pages/article/newTMC_5W.htm

Flowchart

A diagram that represents an activity, process or system, e.g. a healthcare process, by using differently shaped boxes to outline the different steps (in a process) and their order by connecting them with arrows.

<http://asq.org/learn-about-quality/process-analysis-tools/overview/flowchart.html>

Also see [process map](#).

Focus group

A method to draw out the views of a group who have a common experience or an interest, under the guidance of a facilitator.

<https://www.ncbi.nlm.nih.gov/pubmed/18363011>

Framework

A structure, overview or a system that helps to consider relevant concepts that can guide and/or influence a project.

<https://implementationscience.biomedcentral.com/articles/10.1186/s13012-015-0242-0>



Term	Definition	Reference/learning resource
Gantt chart	A visual tool where activities, tasks or events are displayed against time schedule. Useful in project management as it shows what needs to be done and when within the project time frame.	http://asq.org/learn-about-quality/project-planning-tools/overview/gantt-chart.html
Generalisability	The extent to which the results from one study produce the same results (i.e. can be replicated) in a different context or with different groups of people.	http://qualitysafety.bmj.com/content/20/Suppl_1/i87
Guideline	See clinical practice guidelines .	



Term	Definition	Reference/learning resource
Health care delivery science	Investigates how healthcare services are delivered/how patients receive care, with the aim to improve patient experience and outcomes .	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3744284/
Health economics	The application of economic theory that focuses on the allocation of resources in healthcare services and understanding how different stakeholders (e.g. commissioners, healthcare providers and patients) interact to make decisions on how to best spend healthcare resources.	https://www.kcl.ac.uk/ioppn/depts/biostatisticshealthinformatics/ktp/previous-events/2012/october/mccrone---health-economics.pdf
Health intervention	An effort or activity that is aimed at improving the use of healthcare resources, health processes, and health outcomes . Also see evidence-based interventions .	http://www.who.int/classifications/ichi/en/
Health outcomes	Changes in the health status of individuals or groups of people that are the result of provided care or an intervention . Examples include mortality and morbidity rates , physical, mental and social functioning.	https://www.cihi.ca/en/outcomes
Health policy	Decisions, plans or actions that are undertaken to achieve specific healthcare goals.	http://www.who.int/topics/health_policy/en/
Health services	The most visible functions of a health system, both to users and the general public; that deal with the diagnosis and treatment of disease, or the promotion, maintenance and restoration of health.	https://www.who.int/topics/health_services/en/

Health strategy	A management plan or method for health promotion or for completing health objectives for a particular population. For instance, health education is a type of health strategy.	https://www.ruralhealthinfo.org/toolkits/health-promotion/2/strategies
Health technology	The application of knowledge or skills to solving health problems. Includes pharmaceuticals and medical devices, procedures or surgical techniques, as well as management and systems innovations .	http://www.who.int/health-technology-assessment/about/healthtechnology/en/
Healthy life years	The number of years a person is expected to live in a healthy condition, living without a disability or loss of function.	https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Healthy_life_years_(HLY)
High reliability organisations (HROs)	Organisations that are able to manage and sustain a near error-free performance in an environment where accidents can be expected due to risk factors and complexity.	http://www.hse.gov.uk/research/rrpdf/rr899.pdf
Hybrid study	See effectiveness-implementation hybrid design .	
Hypothesis	A statement of prediction in regard to what we expect will happen in a project/study.	https://socialresearchmethods.net/kb/hypothes.php



Term	Definition	Reference/learning resource
Impact evaluation	Aims to determine whether a project / programme has achieved its ultimate long-term goals. Can be carried out during or after a programme has ended. Also see outcome evaluation .	https://www.betterevaluation.org/en/themes/impact_evaluation#ImpactEvaluation_3
Implementation	The process of utilising/carrying out or putting something into effect in a specific setting.	https://www.merriam-webster.com/dictionary/implementation
Implementation climate	The shared perception or the collective 'atmosphere' in an organisation for implementing a specific intervention . Positive implementation climate is associated with implementation effectiveness .	https://www.ncbi.nlm.nih.gov/pubmed/21781328
Implementation cost	An implementation outcome : the cost impact of an implementation effort.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/
Implementation evaluation	The evaluation of implementation efforts. Also see RE-AIM .	http://www.rff.org/resources/grant-resources/evaluation-guidelines/implementation-evaluation
Implementation gap	The phenomenon where evidence-based interventions fail to be implemented into practice.	http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199751877.001.0001/acprof-9780199751877
Implementation outcomes	Measures, which indicate the implementation success and implementation processes. Proposed implementation outcomes include: acceptability , adoption , appropriateness , cost , feasibility , fidelity , penetration , and sustainability .	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/

Implementation readiness

The extent to which members of an organisation are prepared to implement a new **intervention**, product or other **innovation**, from both a psychological and behavioural perspective.

<http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199751877.001.0001/acprof-9780199751877>

Also see **organisational readiness for change**.

Implementation research

A field of research concerned with questions of **implementation**, i.e. the activities and processes of bringing something into effect, such as health programmes, **policies** or **interventions**.

<https://www.bmj.com/content/347/bmj.f6753>

Implementation science

The scientific study of methods to promote the systematic uptake of clinical research findings and other **evidence-based practices** into routine practice, and hence, to improve the quality and **effectiveness** of health services. It includes the study of influences on healthcare professionals and organisational behaviour. (Eccles & Mittman, 2006)

<https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-1-1>

Implementation strategies

Methods, activities or techniques used to promote the **adoption, implementation, and sustainment** of an **intervention**. For example, educational sessions, distributing printed materials or championing by influential people.

<http://journals.sagepub.com/doi/10.1177/1077558711430690>

Implementation Science Research Development (ImpRes) tool

A tool that aims to help researchers successfully apply **implementation science** concepts, principles and methods to **implementation research**.

<http://www.kingsimprovementscience.org/ImpRes>

Improvement science	Is about finding out how to improve and make changes in the most effective way. It is about systematically examining the methods and factors that best work to facilitate quality improvement .	http://www.health.org.uk/sites/health/files/ImprovementScience.pdf
Indicators	See outcome indicators .	
Informed consent	A process through which people are enrolled into a study and it is ongoing once they are taking part. It involves understanding of any risks and benefits of taking part, as well as the fact that they can withdraw consent (and therefore stop taking part) at any time.	https://www.gmc-uk.org/-/media/documents/Good_practice_in_research_and_consent_to_research.pdf_58834843.pdf
Innovation	In healthcare, something that is novel – a product, method or an idea – that is applied in practice and intended to generate a benefit.	https://www.emjreviews.com/innovations/article/what-do-we-mean-by-innovation-in-healthcare/
Inputs	The ‘things’ used in a project/programme to implement it. For instance, staff, finances or equipment.	https://evaluateblog.wordpress.com/2013/06/10/difference-between-inputs-activities-outputs-outcomes-and-impact/
Intervention	See health interventions and evidence-based interventions .	
Interview	A data collection method where participants are asked to talk about a topic that is being explored or investigated. Interviews can be unstructured, semi-structured, or structured.	http://www.statisticssolutions.com/choosing-an-interview-type-for-qualitative-research/
Ishikawa diagram	See fishbone diagram .	

J

Term	Definition	Reference/learning resource
Just-in-time (JIT)	<p>A method to regulate product and supply inventories by ordering materials as close as possible to the actual time of need in order to avoid waste. It has been applied in healthcare systems for managing clinical information inventories for instance.</p> <p>Also see Lean.</p>	<p>https://www.ncbi.nlm.nih.gov/pubmed/9200584</p>



Term	Definition	Reference/learning resource
Kaizen (in Lean)	A philosophy of continuous improvement .	https://www.allaboutlean.com/lean-glossary/#Kaizen
Kanban (in Lean)	A visual tool, often a card attached to supplies or equipment that signals when more supplies are needed.	https://www.theleansixsigmacompany.co.uk/kanban/
Knowledge mobilisation (KMb)	Efforts to move available knowledge (e.g. from research) into practice; bridging or reducing the gap between research, policy and practice. Also see knowledge translation .	http://www.kmbtoolkit.ca/what-is-kmb
Knowledge to practice gap	See evidence to practice gap and research to practice gap .	
Knowledge translation (KT)	The effective and timely transfer and incorporation of evidence-based information, such as research knowledge into applied clinical practice.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2717660/



Term	Definition	Reference/learning resource
Lean	A management philosophy derived from car manufacturing based on the reduction of waste and centred on increasing value . Increasingly popular as an improvement approach in the healthcare sector.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4171573/
Lens of profound knowledge	A management theory that consists of four components or 'lenses' through which to assess a problem: 1) Appreciation of a system as a network of interdependent components; 2) Understanding variation and its causes; 3) Psychology of change; and 4) Theory of knowledge.	https://improvement.nhs.uk/resources/lens-profound-knowledge/
Levels of evidence	A hierarchical system or 'ranking' given to studies based on their design and quality. An important concept in evidence-based practice where clinicians are encouraged to seek the highest level of available evidence, to help them answer clinical questions.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3124652/
Literature review	A summary of information (e.g. policies , academic papers, guidelines) on a particular topic. May provide a general overview and interpretation of the literature or a more formal review of all published studies on the specific topic. Also see systematic review .	https://www.lib.uwo.ca/tutorials/typesofliteraturereviews/index.html

Lived experience

Personal knowledge about an aspect of the world (such as being a patient) gained through direct, first-hand involvement in the relevant event(s).

<http://www.oxfordreference.com/view/10.1093/acref/9780199568758.001.0001/acref-9780199568758-e-1552>

Logic model

A one-page visual representation of a project/programme that outlines the resources required and the sequence of actions thought to bring about change.

Also see [A3 template](#) and [theory of change](#).

<https://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/logic-model-development/main>

Mm

Term	Definition	Reference/learning resource
Measurement (in improvement)	The collection and analysis of data to demonstrate whether any introduced changes generate the intended improvement.	https://www.pointofcarefoundation.org.uk/resource/patient-family-centred-care-toolkit/tools/measuring-improvement/
Microsystem	The smallest functional frontline unit or a building block of a healthcare system where most of healthcare happens. For instance, a breast cancer clinic.	http://www.sheffieldmca.org.uk/microsystem
Microsystem improvement	An improvement approach that focuses on the role of microsystems in healthcare.	http://www.sheffieldmca.org.uk/improving-microsystems
Mixed methods	The combined and complementary use of both quantitative and qualitative methods in a project/study.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697857/
Model	A deliberately simplified version of reality. It describes rather than explains a phenomenon.	https://implementationscience.biomedcentral.com/articles/10.1186/s13012-015-0242-0
Model for Improvement	A quality improvement tool commonly used in healthcare, centred on plan-do-study-act (PDSA) cycles. It is based on three concepts/questions: 1) Setting aims – What are we trying to accomplish?; 2) Establishing measures – How will we know that a change is an improvement?; 3) Selecting changes – What changes can we make that will result in improvement?	https://qi.elft.nhs.uk/resource/the-model-for-improvement/

Morbidity rates	The level of illness in a population.	https://www.health.ny.gov/diseases/chronic/basicstat.htm
Mortality rates	The number of deaths due to a disease divided by the total population.	http://www.qualitywatch.org.uk/indicator/mortality-rates#
Muda (in Lean)	Japanese term for waste .	https://theleanway.net/muda-mura-muri



Term	Definition	Reference/learning resource
Never event	Serious incidents relating to healthcare that are entirely preventable if available guidance or safety measures are followed.	https://improvement.nhs.uk/resources/never-events-policy-and-framework/
NICE	An acronym for the National Institute for Health and Care Excellence. Provides national guidance and advice to improve health and social care.	https://www.nice.org.uk/
Normalisation Process Theory (NPT)	A framework that can be used to help develop, implement and evaluate complex interventions .	http://www.normalizationprocess.org/



Term	Definition	Reference/learning resource
Objectives	<p>The steps/actions taken towards achieving a desired outcome or goal. Ideally, objectives should be specific, measurable, achievable, relevant and time-bound.</p> <p>Also see SMART.</p>	<p>https://hr.wayne.edu/leads/phase1/smart-objectives</p>
Opinion leader	<p>An individual whose ideas and behaviour serve as a model to other people in a group, influencing attitudes and behaviour change.</p>	<p>http://www.cochrane.org/CD000125/EPOC_effectiveness-of-the-use-of-local-opinion-leaders-to-promote-evidence-based-practice-and-improving-patient-outcomes</p>
Opportunity cost	<p>The potential benefits that a decision-maker / organisation gives up by choosing an alternative action. It is the potential benefit that could have been received if intervention 'A' was chosen instead of intervention 'B'.</p>	<p>https://www.myaccountingcourse.com/accounting-dictionary/opportunity-costs</p>
Organisational culture	<p>A system of shared values, assumptions and beliefs, which influence how people act and behave in an organisation, such as their place of work. It is the unique 'personality' of an organisation.</p>	<p>http://qualitysafety.bmj.com/content/9/2/111</p>
Organisational readiness for change	<p>A psychological state in which members of an organisation feel collectively able and willing to carry out an organisational change (e.g. a way of working).</p> <p>Also see implementation readiness.</p>	<p>https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-4-67</p>

Outcomes	<p>The measurable changes or effects of a project/programme/intervention.</p> <p>Also see implementation outcomes and health outcomes.</p>	<p>https://hbr.org/2012/11/its-not-just-semantics-managing-outcomes</p>
Outcome evaluation	<p>Assesses the effectiveness and success of an intervention by examining whether the outcomes or objectives the intervention set out to achieve have been realised.</p>	<p>https://www.gov.uk/government/publications/evaluation-in-health-and-well-being-overview/outcome-evaluation</p>
Outcome indicators	<p>Tell us what needs to be measured in order to find out whether or not the intended outcomes have been achieved. There may be multiple indicators per outcome.</p>	<p>http://www.emro.who.int/child-health/research-and-evaluation/indicators/All-Pages.html</p>
Outcome measures	<p>Assess how much and what type of change has occurred as a result of an intervention, as compared against baseline measures.</p>	<p>https://www.sciencedirect.com/science/article/pii/S0161475408001437</p>
Outputs	<p>The products (material or non-material) which are the result of a project/programme. For example, training and workshops or educational materials.</p> <p>Also see outcomes.</p>	<p>https://hbr.org/2012/11/its-not-just-semantics-managing-outcomes</p>

PP

Term	Definition	Reference/learning resource
Pareto chart	A bar chart that shows how often different categories of events/incidents take place. It can help to identify where to focus improvement efforts. Also see Pareto principle .	https://qi.elft.nhs.uk/resource/pareto-charts/
Pareto principle	Also known as the '80/20 rule' and named after the Italian economist who observed that for many events about 80% of the effects come from about 20% of the causes. It can help with identifying where quality improvement projects are needed most. Also see Pareto chart .	https://qi.elft.nhs.uk/the-pareto-principle/
Participant	A person who takes part in a study, for instance in a clinical trial .	https://www2.le.ac.uk/institution/ethics/approval/human
Participatory action research	A range of research methods that transfers power and control over the research process to the participants themselves; centred on the understanding of history, culture, local context and social relationships.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2566051/
Patient and public engagement (PPE)	Activities by which information and knowledge is provided and disseminated to the public with the goal of generating mutual benefit.	http://www.publicengagement.ac.uk/about-engagement/what-public-engagement

Patient and public involvement (PPI)

Also called ‘service-user involvement’ or ‘patient and carer involvement’, this is an active and effective involvement of **service users**, carers and the public in health and social care services.

<http://www.invo.org.uk/find-out-more/what-is-public-involvement-in-research-2/>

It means working with people at all levels in any aspect of one’s work such as planning, delivery and monitoring.

PPI in research is defined as doing research ‘with’ or ‘by’ people who use services rather than ‘to’, ‘about’ or ‘for’ them.

Patient reported outcome measures (PROMs)

A series of questions patients are asked in the form of a short, self-reported questionnaire in order to ascertain their views on their own health status or health-related quality of life before and after a procedure.

<https://www.england.nhs.uk/statistics/statistical-work-areas/proms/>

Also see **outcome measures**.

PDSA

See **plan-do-study-act**.

Peer review

The critical review of work, research or ideas by other experts in the field, for instance work that is to be published in an academic paper.

<https://www.elsevier.com/en-gb/reviewers/what-is-peer-review>

Peer worker

A person with personal experience of a health condition and/or experience of health and social care services who works on or leads a project (in a paid or volunteering capacity) with the view to support and inspire others.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673834/>

Penetration

An **implementation outcome**: the integration of an **intervention** within a service setting.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/>

Person-centred care

Is based on the following principles:
1) Affording people dignity, compassion and respect; 2) Offering coordinated care, support or treatment; 3) Offering personalised care, support or treatment; 4) Supporting people to recognise and develop their own strengths and abilities to enable them to live an independent and fulfilling life.

<https://www.health.org.uk/sites/health/files/PersonCentredCareMadeSimple.pdf>

Pilot study

A small-scale ‘testing’ of a particular approach, tool or **intervention** before a full-scale project or study begins. Pilot results can identify modifications that are needed prior to the full-scale project/study.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081994/>

Placebo

A ‘dummy treatment’ given to patients in the **control group** of a **clinical trial**. Aims to determine what effect the experimental treatment has had over and above any placebo effect – that is an effect caused because someone believes they have received treatment.

<https://www.nature.com/subjects/placebo-effect>

Plan-do-study-act (PDSA)

A **quality improvement** tool for testing a change by planning it, trying it, observing/studying the results, and acting on what has been learnt in a repeated (cyclical) way. An essential part of the **Model for Improvement**.

<https://improvement.nhs.uk/resources/pdsa-cycles/>

Policy

See **health policy**.

PPE

See **patient and public engagement**.

PPI

See **patient and public involvement**.

Pragmatic trial

Evaluates the [effectiveness](#) of [health interventions](#) in real-life routine practice, as opposed to [clinical trials](#) that test interventions under strict, carefully controlled 'ideal' conditions.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3181997/>

Also see [randomised controlled trial](#).

Primary research

Research where new (original) [data](#) is being collected. If research is utilising data that already exists/had been collected previously, it is called [secondary research](#).

<http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100345447#>

Process evaluation

Aims to provide an understanding of how [outcomes](#) have been achieved (or not), looking at aspects such as intervention delivery (implementation), mechanisms of change, and [context](#). Distinct but complementary to [outcome evaluation](#).

<https://mrc.ukri.org/documents/pdf/mrc-phsrn-process-evaluation-guidance-final/>

Process mapping

A visual step-by-step representation of a process within a system, for instance a patient journey from start to finish. It identifies all the people and steps involved and helps to detect problems and areas for improvement.

<https://www.pointofcarefoundation.org.uk/resource/patient-family-centred-care-toolkit/tools/process-mapping/>

Process measures

Used to systematically record information about the actions taken to achieve the desired [outcomes](#).

<https://www.healthcatalyst.com/process-vs-outcome-measures-healthcare>

For example, the length of stay in a hospital unit could be an [outcome measure](#), but the steps in between, such as the time that passes between when a doctor orders a discharge and the time when a patient actually leaves is the process measure.

Programme management

The process of managing (steering and coordinating) a number of related projects in an organisation.

<https://www.jisc.ac.uk/guides/programme-management#>

Also see [project management](#).

Project management

The planning, organising, executing and monitoring of a project in an organisation to achieve a specific task, goal or event.

<https://www.jisc.ac.uk/guides/project-management>

Also see [programme management](#).

Promoting Action on Research Implementation in Health Services (PARIHS)

A **framework** for guiding the **implementation** of **evidence-based practice**.

https://www.effectiveservices.org/downloads/The_PARIHS_Framework-A_framework_for_guiding_the_implementation_of_evidence_based_practice.pdf

Protocol

A detailed plan that clearly outlines the reasons, methods and **hypotheses** (if applicable) of a project.

<https://www.hra.nhs.uk/planning-and-improving-research/research-planning/protocol/>



Term	Definition	Reference/learning resource
Qualitative data	Non-numerical information (e.g. text, observations) gathered through qualitative methods , such as interviews.	https://www.simplypsychology.org/qualitative-quantitative.html
Qualitative methods	Are used to explore and gain understanding of people's experiences, beliefs, attitudes or behaviours. Often using techniques like interviews and focus groups . Concerned with the 'how' and 'why' as opposed to 'how many'. Also see quantitative research .	https://qualitysafety.bmj.com/content/11/2/148
Qualitative research	See qualitative methods and qualitative data .	
Quality (in healthcare)	The degree to which health services increase the likelihood of desired health outcomes (for individuals and populations) as consistent with current knowledge and recommendations. The most commonly identified healthcare quality characteristics are: safe, timely, effective, efficient, equitable, and patient-centred (STEEEP).	https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/sixdomains.html
Quality-adjusted life years (QALYs)	A single measure of health outcomes used in economic evaluation to reflect the impact of an intervention on an individual's length of life and health-related quality of life.	https://academic.oup.com/bmb/article/96/1/5/300011
Quality gap	Healthcare that is not being delivered, received, or commissioned in line with the expected quality standards of care.	https://www.nice.org.uk/standards-and-indicators/how-to-use-quality-standards

Quality improvement (QI)

The combined and continual efforts of all interested parties – healthcare professionals, patients and their families, researchers, funders etc. – to make the changes that will lead to better patient **outcomes** and better system performance (Batalden & Davidoff, 2007).

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2464920/>

QI is about taking a systematic, methodological approach to change how things are done (often at a very localised level) and to generate improvement, e.g. reducing waiting lists in a clinic or improving communication between staff on a surgical unit.

http://www.kingsimprovementscience.org/files/Step_1_KIS_introduction_to_QI_April_2018.pdf

Quality improvement collaborative

A group of professionals and/or **service users** coming together (within or between organisations) in order to share learning and motivate/support each other in their **quality improvement** work in **health services**.

<https://www.health.org.uk/publication/improvement-collaboratives-health-care>

Quality improvement project

An initiative that focuses on one or more areas of concern or dissatisfaction (e.g. infection rates or waiting times in a clinic), with the aim of improving one or more aspects of healthcare **quality**, often through small, incremental and systematic changes.

<http://www.kingsimprovementscience.org/KIS-QI-guide-step-1>

Also see **quality improvement**.

Quality standards (in healthcare)

A set of specific statements and associated measures, which set out markers of high **quality** patient care, covering both the treatment and prevention of different diseases and conditions. In the UK, these are based on guidance published by **NICE**.

<https://www.nice.org.uk/standards-and-indicators/how-to-use-quality-standards>

Quantitative data

Numerical information that is obtained through **quantitative methods** of data collection.

<https://cyfar.org/qualitative-or-quantitative-data>

Quantitative methods

Generate numerical **data** or data that can be converted into numbers. Concerned with the 'how much'/'how many'/'how often'.

<https://research-methodology.net/research-methods/quantitative-research/>

Also see **qualitative methods**.

Quantitative research

See **quantitative methods** and **quantitative data**.

RR

Term	Definition	Reference/learning resource
Randomisation	In research, this refers to people being allocated randomly i.e. by chance to different groups in a study e.g. to receive either the treatment/experimental group or the control group .	https://www.bmj.com/content/317/7168/1301
Randomised controlled trial (RCT)	A type of study in which people are randomised to two or more groups to test a drug, treatment or another intervention . The groups are followed up and assessed to see how effective the intervention was, in comparison with the other group(s). RCTs are considered the 'gold standard' of clinical research and are high on the levels of evidence ladder.	http://www.ctu.mrc.ac.uk/about_clinical_trials/what_is_a_randomised_controlled_trial/
Readiness for change	See organisational readiness for change .	
RE-AIM	An implementation planning and evaluation framework consisting of five domains: reach, effectiveness, adoption, implementation, and maintenance. Can be used to support the translation of research into practice.	http://www.re-aim.org
Realist evaluation	A type of evaluation with explicit underpinnings in the realist philosophy. It seeks to identify 'what works, for whom, in what respects, to what extent, in what contexts, and how?'	https://www.betterevaluation.org/en/approach/realist_evaluation

Reliability

Refers to the quality of measurement in terms of consistency and/or repeatability, that is whether something (such as a result obtained in a study) can be replicated. There are many different types of reliability e.g. test-retest reliability, inter-rater reliability.

Related to but distinct from [validity](#).

<https://www.socialresearchmethods.net/kb/reliable.php>

Research ethics committees (RECs)

Committees that assess applications for research and provide an opinion about whether the research is ethical. Their main role is to safeguard the rights, safety and well-being of research [participants](#).

<https://www.hra.nhs.uk/about-us/committees-and-services/res-and-recs/>

Research to practice gap

The delay that forms between when research results are produced and when these are utilised or implemented in clinical practice.

Also called [evidence to practice gap](#).

<http://ajcc.aacnjournals.org/content/25/3/194.full>

Return on investment (ROI)

An estimate of the value generated from every £1 invested. Measured using [economic evaluation](#) methods.

<https://www.gov.uk/government/publications/health-matters-health-economics-making-the-most-of-your-budget/health-matters-health-economics-making-the-most-of-your-budget>

Root cause analysis (RCA)

A collective term for methods, tools or approaches used to identify the underlying cause of problems. Underlying causes are often not immediately apparent or visible, but may underpin a chain of events that generate the problem.

Also see [five whys \(5 whys\)](#).

<http://asq.org/learn-about-quality/root-cause-analysis/overview/overview.html>

Run chart

A line graph of [data](#) plotted over time, where the measure of interest (e.g. infection rates) is plotted against the measure of time in order to see, track and highlight changes easily.
A useful tool in [quality improvement](#).

<https://qi.elft.nhs.uk/resource/run-charts/>

Ss

Term	Definition	Reference/learning resource
Sample	In research, this refers to the number of 'units' (e.g. people, objects or items) in a study, which should represent a larger target population. For example, a portion of patients from a pool of people with a particular health condition.	https://www.thh.nhs.uk/documents/_Departments/Research/InfoSheets/16_sampling_research.pdf
Sampling	The process of selecting a sample from a target population.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5325924/
Scale-up	The expansion or 'spreading' of an intervention geographically, i.e. to other sites or locations (also known as 'horizontal scale-up') or the institutionalisation/ embedding of an intervention through policy , regulations or other health system changes (also known as 'vertical scale-up'). Also see spread .	http://www.who.int/immunization/hpv/deliver/nine_steps_for_developing_a_scalingup_strategy_who_2010.pdf?ua=1
Secondary research	Research that utilises data that already exists / had been collected previously. Research where new (original) data is being collected is called primary research .	http://www.oxfordreference.com/view/10.1093/oi/authority.20110803100451291
Service development	All the activities involved in either bringing about a new service including service design, planning and marketing or re-designing existing services in line with service models and interventions that have proven successful elsewhere.	https://www.magonlinelibrary.com/doi/full/10.12968/bjhc.2014.20.8.396

Service evaluation	The assessment of a service to see if it is achieving its proposed aims. Carried out in order to judge the current service, whether and how it is of benefit to the people using it (e.g. patients) and how it could be improved.	https://ebn.bmj.com/content/17/3/65
Service user	A person who uses or has used health and/or social care services.	http://www.invo.org.uk/resource-centre/jargon-buster/?letter=S
Significance	See statistical significance and clinical significance .	
Six Sigma	A set of methods and tools for process improvement, originating in industrial manufacturing. The focus is on eliminating defects and reducing variation .	http://asq.org/learn-about-quality/six-sigma/overview/overview.html
SMART	An acronym for remembering that the aims and objectives of a project should be specific, measurable, attainable, relevant, and time-bound. Setting aims according to these criteria is the first step in the Model for Improvement .	https://hr.wayne.edu/leads/phase1/smart-objectives
Spread	When an innovation or intervention extends widely over a large area. Also see scale-up .	https://innovations.ahrq.gov/perspectives/factors-influence-scale-and-spread-innovations
Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0)	Revised version of a framework for reporting new knowledge about how to improve healthcare.	http://www.squire-statement.org/index.cfm?fuseaction=Page.ViewPage&pageId=471
Stakeholders	People (groups or individuals) who might be affected by the change/ intervention you are proposing or who might be interested in your project.	http://www.nhsinvolvement.co.uk/connect-and-create/identifying-stakeholders

Stakeholder analysis	A process that can help to identify and plan engagement or involvement with groups of people and individuals who might be affected by a project/intervention and/or who can help effect change, both within and outside of your organisation.	http://webarchive.nationalarchives.gov.uk/20121116082002/https://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/stakeholder_analysis.html
Stakeholder engagement	Consulting a range of stakeholders in a project. Also see patient and public engagement .	https://qualitysafety.bmj.com/content/early/2016/03/22/bmjqs-2015-004814
Standardisation (in quality improvement)	The purposeful reduction of unnecessary/unwarranted variation in a healthcare process, with the aim of making processes as consistent as possible.	https://www.healthcatalyst.com/standardized-care-vs-personalization-can-they-coexist
Standards for Reporting Implementation Studies (StaRI)	Guidelines for the reporting of implementation studies.	https://bmjopen.bmj.com/content/7/4/e013318
Statistical process control	A method for measuring, monitoring and improving quality of processes through statistical analysis that is aimed at reducing variation .	http://asq.org/learn-about-quality/statistical-process-control/overview/overview.html
Statistical significance	Refers to the likelihood that a research result is 'true', i.e. unlikely to have been caused by chance alone. Also see clinical significance .	https://nursingeducationexpert.com/difference-statistical-significance-clinical-significance/
STEEEP	An acronym for remembering the most commonly identified properties of quality in healthcare: safe, timely, effective, efficient, equitable, patient-centred.	https://www.ncbi.nlm.nih.gov/books/NBK22274/pdf/Bookshelf_NBK22274.pdf

Survey

A list of structured pre-defined questions given to relevant people to collect information on a specific topic. Can be done in a variety of ways including online, face-to-face or on the phone.

<https://academic.oup.com/intqhc/article/15/3/261/1856193>

Sustainability

An **implementation outcome**: the extent to which an **intervention** is maintained or institutionalised in a given setting.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3068522/>

Systematic review

A type of **literature review** that involves systematically searching, identifying, selecting, appraising, extracting and synthesizing findings from all relevant evidence (for instance from all previous relevant studies) on a particular topic.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3024725/>

Systems thinking

A problem-solving approach that looks at relationships between parts of the system and how they connect, rather than separate activities as disconnected, individual parts.

<http://learningforsustainability.net/systems-thinking/>



Term	Definition	Reference/learning resource
Tacit knowledge	Knowledge obtained through experience, observation and/or practice as opposed to formally derived knowledge. An important part of improvement and implementation efforts.	https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-7-20
Treatment gap	The difference between the number of people with an illness, disease or disorder in need of treatment and the number of people who actually receive treatment (for that illness, disease or disorder).	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696279/
Theory	A set of analytical principles or statements designed to structure our observation, understanding and explanation of the world.	http://qualitysafety.bmj.com/content/early/2015/01/23/bmjqs-2014-003627
Theory of change	A detailed explanation that justifies how and why interventions /activities are thought to lead to the desired goals or outcomes in a project, with a particular focus on articulating the underlying assumptions or pre-conditions that are thought to underpin change. Also see logic model and A3 template .	http://www.mhinnovation.net/sites/default/files/downloads/resource/MHIN%20ToC%20guidelines_May_2015.pdf
TIM WOOD	An acronym for the seven types of waste identified in the Lean methodology: transport, inventory, motion, waiting, over-processing, overproduction, and defects.	http://leanmanufacturingtools.org/77/the-seven-wastes-7-mudas/
Total quality management (TQM)	A management approach that focuses on meeting long-term organisational objectives through customer satisfaction and continuous quality improvement .	http://asq.org/learn-about-quality/total-quality-management/overview/overview.html

Transferability

The degree to which findings from [qualitative research](#) can be applied to other contexts.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4535087/>

Also see [generalisability](#).

Translational research

Focuses on translating research into clinical practice to ensure that research findings and new treatments reach patients. There are different types of translational research.

<https://jamanetwork.com/journals/jama/fullarticle/1149350>

Trial

See [clinical trial](#) and [pragmatic trial](#).

Triangulation

The use of more than one approach to answering a research question, for instance through combining different methods or [data](#) sources. It increases confidence in the findings obtained and conclusions drawn and provides a more comprehensive picture of the results than a singular approach.

<https://ebn.bmj.com/content/16/4/98>



Term	Definition	Reference/learning resource
Unintended consequences	Outcomes that are not planned or intended at the time of an intervention /as a result of an intervention. They can be positive or negative.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3861327/
User-led research	Research that is managed and directed by service users and their organisations. This includes decisions about what will be investigated, how and by whom (often the service users themselves).	http://www.invo.org.uk/posttypejargon/user-controlled-research-user-led-research/



Term	Definition	Reference/learning resource
Validity	Refers to the quality of measurement in terms of whether a measure truly captures what it claims to capture (related to but distinct from reliability). There are many different types of validity, e.g. content validity or construct validity.	https://www.ncbi.nlm.nih.gov/pubmed/16872117
Value (in Lean)	A capability provided to the customer (e.g. a patient) at the right time and at an appropriate price, as defined by the customer.	http://www.ihl.org/resources/Pages/IHIWhitePapers/GoingLeaninHealthCare.aspx
Value-based healthcare	Aims to increase value (get more out) of available resources by reducing unwarranted variation and waste . The aim is to reduce cost whilst at the same time improve outcomes and quality .	https://www.bmj.com/content/356/bmj.j437
Value stream (in Lean)	The specific activities required to design, order, and provide a specific product or service.	http://www.ihl.org/resources/Pages/IHIWhitePapers/GoingLeaninHealthCare.aspx
Value stream mapping (in Lean)	Identification of all the specific activities occurring along a value stream for a product or service.	http://www.ihl.org/resources/Pages/IHIWhitePapers/GoingLeaninHealthCare.aspx
Variability	See variation .	
Variation (in healthcare)	Might be warranted/appropriate, such as when altering care to the individual needs of a specific patient, or unwarranted/inappropriate, such as when systems and procedures lack standardisation . Reducing unwarranted variation lies at the heart of quality improvement .	https://www.healthcatalyst.com/Reducing-Variation-in-Healthcare-to-Boost-Improvement

Ww

Term	Definition	Reference/learning resource
Waste (in Lean)	Also known as muda is anything that does not add value to the final product or service, in the eyes of the customer (e.g. a patient). Also see TIM WOOD .	http://www.ihl.org/resources/Pages/IHIWhitePapers/GoingLeaninHealthCare.aspx

Xx

Yy

Zz

Help available from the King's Improvement Science team

This resource was created by King's Improvement Science (KIS), a specialist team of improvement scientists, senior researchers and fellows, based at King's College London. KIS was set up in 2013 by King's Health Partners, an academic health science centre comprising three NHS trusts – Guy's and St Thomas' NHS Foundation Trust, King's College Hospital NHS Foundation Trust and South London and Maudsley NHS Foundation Trust – as well as King's College London. The work of the KIS fellows has been funded by Guy's and St Thomas' Charity and the Maudsley Charity. The work of KIS fellow Louise Hull has also been supported by the NIHR CLAHRC South London.

KIS is now part of the [Centre for Implementation Science](#) at King's College London. The Centre for Implementation Science is part of the [NIHR CLAHRC South London](#).

KIS resources

The KIS team have developed the following resources:

Quality improvement guides

- Step 1: KIS Introduction to quality improvement
- Step 2: KIS guidance for deciding what to improve and assessing the feasibility of a quality improvement project
- Step 3: KIS template for planning and evaluating a quality improvement project

KIS advice about patient and public involvement

Implementation Science Research Development (ImpRes) tool and guide

KIS guide to evaluation resources

Communication: a practical resource

KIS glossary of terms used in improvement and implementation

You can download the resources at:

www.kingsimprovementscience.org.

This website also contains information about quality improvement projects carried out by the KIS team.

The KIS team can advise anyone who wants to carry out a quality improvement project in south London, or further afield.

Advice clinic for quality improvement and implementation science projects

If you are planning a quality improvement or implementation science project and need expert advice, you can book a place at our advice clinic at King's College London. To find out more, visit: www.clahrc-southlondon.nihr.ac.uk/training-and-education/advice or email: clahrcshortcourses@kcl.ac.uk.

Monthly seminars about improvement and implementation

Leaders in the field of improvement and implementation share and debate their experiences at these monthly seminars. They are open to anyone interested. Find out more: www.clahrc-southlondon.nihr.ac.uk/centre-implementation-science/research-team/seminars.

Evaluation

Any organisation can commission the KIS team to evaluate improvement/implementation programmes or projects, or to help set up ongoing evaluation procedures. We are also happy to discuss the possibility of collaborating as an evaluation partner on a grant application. Email us to find out more: kis-team@kcl.ac.uk.

Training and education

Members of the KIS team teach on the following courses:

Principles of Implementation and Improvement Science:

This is a standalone masters module at King's College London. It involves 10 days in the classroom spread over one or two terms. For more information, email clahrcshortcourses@kcl.ac.uk.

Implementation Science Masterclass: This is a two-day Masterclass for health professionals and researchers held each summer in London. Patients and service users who have experience of research may also be interested. Find out more: www.clahrc-southlondon.nihr.ac.uk/short-courses.

KING'S IMPROVEMENT SCIENCE

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details and we will investigate your claim.

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