Table[1] differentiating research from service evaluation[2], clinical audit, surveillance and outbreak investigation (Excluding research not involving human subjects or information derived from human subjects)

	Research	Service Evaluation	Clinical Audit	Surveillance	Outbreak Investigation
Intent	Primarily to develop generalisable new knowledge systematically	To assess and/or improve healthcare service delivery Designed and conducted solely to define or judge current care NB: Developing generalisable new knowledge is usually a secondary purpose	To improve patient care and outcomes Designed and conducted to produce information to inform delivery of best care NB: Developing generalisable new knowledge is usually a secondary purpose	To monitor the epidemiological trends of diseases and behavioural risk factors. Designed to guide public health policies, programmes and actions to prevent and control the diseases. NB: Developing generalisable new knowledge is usually a secondary purpose	To investigate outbreak or public health incident. Designed to determine the source of the outbreak, and actions are to prevent and control transmission of disease. Findings may also guide public health policies. NB: Developing generalisable new knowledge is usually a secondary purpose

[1] Content of table is adapted largely from Health Research Authority's Defining Research leaflet and website. Text in blue is directly cited from the leaflet.
[2] Quality improvement activities are subsumed under 'service evaluation' as they generally could be viewed as a subset of the latter.

	Research	Service Evaluation	Clinical Audit	Surveillance	Outbreak Investigation
Focus of study	Human subjects or information derived from human subjects (in the form of data or human biological material)	Looking at • capacity and capability of staff • processes to improve efficiency, save costs, reduce error rates or undesired outcomes	Looking at processes and capability of staff	Human subjects or information derived from human subjects (in the form of data or human biological material)	Human subjects or information derived from human subjects (in the form of data or human biological material)
Design	Quantitative research – designed to test a hypothesis Qualitative research – identifies/explores themes following established methodology Usually does not involve treatment or methods that are generally accepted as the current standard of care	Designed to answer: "What standard does this service achieve?" OR: "Can we provide a more efficient, cost-effective and safer delivery of services?" Does not demand changing treatment / patient care from accepted standards for any of the patients	Designed to answer: "Does this service reach a predetermined standard?" Does not demand changing treatment / patient care from accepted standards for any of the patients	Designed to answer: "What is the trend of the disease, the likely cause of this trend and the associated risk factors?" and intervene where possible. Does not demand changing treatment / patient care from accepted standards for any of the patients	Designed to answer: "What is the cause of this outbreak? and intervene where possible. Does not demand changing treatment / patient care from accepted standards for any of the patients

	Research	Service Evaluation	Clinical Audit	Surveillance	Outbreak Investigation
Evidence	May not have existing evidence	Usually based on existing practices, systems and processes	Usually based on existing practices, systems and processes	Based on existing understanding of disease epidemiology	Based on existing understanding of disease epidemiology
Benefits to subject	May or may not benefit subjects	Expected to benefit subjects directly	Expected to benefit subjects directly	Expected to benefit subjects	Expected to benefit subjects
Responsibility of Activity Engager (i.e. researcher)	• Must assure research design is scientifically sound • Must not unnecessarily expose subjects to risk • Risks must be weighed against relative benefit and expected knowledge to result • Appropriate consent to be obtained • Subject's privacy and other rights are protected • No coercion	• Data to be reasonably collected, results are aggregated and trends observed over time • Protect patient confidentiality	As for Service Evaluation		

	Research	Service Evaluation	Clinical Audit	Surveillance	Outbreak Investigation
Sharing of generalizable knowledge	Method of sharing research knowledge is commonly via publications in peer-reviewed journals	May share at conferences or forums	Not usually shared	Method of sharing is commonly epidemiology bulletins and survey reports or publications in peer-reviewed journals	Method of sharing is commonly investigation reports, epidemiology bulletins and publications in peer-reviewed journals
Approach	• States Research Problem • Conceptualize: Hypothesis, Design, Planning • Method/Analyze • Results • Conclusion	Involve : • a quality improvement process - may involve PDCA cycle (Plan, Do, Check, Act) • systematic review of care against explicit criteria • implementation of change	As for service evaluation	• Usually involve seroprevalence studies and biological monitoring	• Establish the existence of an outbreak • Perform descriptive epidemiology • Develop hypothesis • Perform epidemiological studies and collect samples for laboratory analysis • Implement control and prevention measures

	Research	Service Evaluation	Clinical Audit	Surveillance	Outbreak Investigation
Additional risk to the subject as a result of the study	May involve activities that impose additional risk to the subject as a result of the research	Generally does not involve activities that impose additional risk to the subject as a result of the service evaluation	Generally does not involve activities that impose additional risk to the subject as a result of the clinical audit	Generally does not involve activities that impose additional risk to the subject as a result of the surveillance	Generally does not involve activities that impose additional risk to the subject as a result of the investigation