DEFINING YOUR QUESTION

When supporting a project it is really helpful to formulate a clear question to answer. Below are some suggested mnemonics to help think about the key elements of the question.

PICO

PICO is useful for developing questions about whether a particular healthcare intervention is effective.

Population/Patient/Problem
Who are you interested in finding out about/treating? Do they have a particular condition? Are they working in a particular setting? Are they a particular age group?

Intervention
What is it you want to do to/with the population or patient group you identified?

Comparator
Is there an alternative intervention that could be used on the population or patient group that you would be interested in comparing your intervention with?

Outcome
What is the desired result of the intervention or phenomenon you are investigating?

An example question in this format would be:
“Do electric toothbrushes help reduce periodontal disease in adults when compared to manual toothbrushes?”

PICO can also be expanded to include either:
Timeframe – length of treatment or outcome measurement
Context – for example rural, primary care
Study design – for example Randomised Controlled Trials

ECLIPSE

ECLIPSE is a good for developing health care management and improvement questions.

Expectation
What do you want to find out? What do you want to use the information for?

Client group
Who is the service/improvement you are asking about aimed at?

Location
Where is the service/improvement of interest located?

Impact/Improvement
What is the change in the service which is being looked for? What would constitute success? How is this being measured?

Professionals
Who is involved in providing/improving the service?
Service
For which service are you looking for information? For example, outpatient services, nurse-led clinics, intermediate care.

An example question in this format would be:
“How can we improve procedures for nurses, community staff and social care workers when discharging patients with head injury from hospital to the community for continued rehabilitation?”

SPICE

SPICE is good for formulating questions about qualitative or improvement research. (Qualitative research is generally when you want to explore perspectives or opinions about a topic)

Setting
What is the setting the project is taking place in?

Population
Who is the project about? What are the defining characteristics of involved patients? (e.g. a particular age, condition or ethnic origin)

Intervention
What is happening to the population group outlined above? Are you introducing a particular drug or therapy? What kind of improvement programme are you thinking about implementing?

Comparison
What would you like to compare your intervention to? This might be a group where you have not introduced the drug, therapy or improvement programme.

Evaluation
How might relevant studies have evaluated their success? What would you want to evaluate about your planned intervention?

An example question in this format would be:
“What is the impact on referrals to hospital of offering primary/community allergy testing for children under the age of 19 years old?”

SPIDER

SPIDER is an adapted version of PICO which can be used to formulate qualitative research questions:

Sample
Which groups of participants are of interest?

Phenomenon of Interest
Which behaviours, decisions, experience are being considered?

Design
Theoretical framework or research method?

Evaluation
Are there specific outcomes to be considered?

Research type
Qualitative, quantitative or mixed methods?