



### Define: Clearly define the question or problem.



### How do I frame the question?

The first stage of the process of evidence-informed public health is to frame the question. Using the scenario about the limited use of bike helmets, you decide you need some more information.

1. You search Google Scholar using the term helmets and get about 148,000 hits. Not a chance you are going there.
2. You search an online database (PubMed) using the term helmets, resulting in 2 671 hits. Still no way you can get through all those.

This is the stage where most people give up and decide to use whatever studies they have in their personal files.

There are many types of practice, research and policy questions (e.g., incidence/prevalence; burden of suffering and quality of life; experience and meaning of health and illness; causation; harm; assessment (or diagnosis); prognosis; costs). But most of the time, most of us are concerned with effectiveness of therapy or public health interventions.

When looking at interventions or therapy questions, you can use the following **PICO** format to help you be very specific about your question. This is also a critical step in preparing you to conduct a search of the research evidence.

<b>P</b> atient (or <b>P</b> opulation)	How would you describe the population of interest? Who are the people involved – individuals, families, populations? Age? Gender? Other important characteristics? What is the specific problem or prevention issue?
<b>I</b> ntervention	What specific preventive, therapeutic, preventive or public health services strategy or policy are you considering?
<b>C</b> omparison	What is current 'usual care' or 'usual circumstance' or 'standard of care'? What (if anything) is being done right now?
<b>O</b> utcome	What are the most significant patient- or population-level outcomes? (Note: State the outcome of interest, but do not state the direction of change that you wish to achieve, for example, increase or decrease.) While you know which direction you want the outcome to go, you do not want to limit your search to that, as you may miss studies that find the opposite (harm instead of benefit).



Context or experience questions are best answered by qualitative research, so the **P S** question frame is used:

<b>P</b> atient (or <b>P</b> opulation)	How would you describe the population of interest? Who are the people involved – individuals, families, populations? Age? Gender? Other important characteristics? Specific problem or prevention issue?
<b>S</b> ituation	What circumstances or experiences do you want to know about?



### Practice!

1. Using the scenario, you decide to update your own knowledge of public health interventions that promote the use of bike helmets among children.

How will you frame the question? Jot down how you would use the terms before going on to the next page:

**P**atient/ P opulation

**I**ntervention

**C**omparison

**O**utcome

2. From your answers, compose a focused question that includes all the above parameters.



### 3. Possible answer:

<b>P</b> atient (or <b>P</b> opulation)	school children (JK to grade 6), aged 4 to 12 years
<b>I</b> ntervention	educational programs, incentives, media campaigns or other interventions to increase the use of bike helmets besides mandating the use of helmets by law
<b>C</b> omparison	'usual care' or standard public awareness regarding bike safety and cycling helmet legislation
<b>O</b> utcome	number of children and youth using bike helmets, observed or self-reported

So you might write the question as:

*What is the effectiveness of non-legislative interventions to promote the use of bike helmets, compared to provincial legislation alone, on the use of cycling helmets among children aged 4 to 12?*

### 4. If you were interested in bike helmet use by teens, a related qualitative question might be:

<b>P</b> atient (or <b>P</b> opulation)	adolescents aged 14 to 19
<b>S</b> ituation	youth who own a bike helmet but who do not wear it

Perhaps you want to know why some youth do not wear a bike helmet despite the fact that they own one. What factors influence their decision not to wear a helmet? What barriers or facilitators might influence bike helmet use among those teens?

One qualitative question (phenomenology) could be:

*What is the experience of adolescents who own a bike helmet but do not wear it while cycling?*



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## Introduction to Evidence-Informed Decision Making



### Other Resources

Duke University Medical Center Library and Health Sciences Library, UNC-Chapel Hill. *The well-built clinical question*. <http://www.hsl.unc.edu/Services/Tutorials/EBM/Question.htm>



### Connect with Colleagues!

If you have questions about any section or would like to learn more from both colleagues and experts, go to the DialoguePH online discussion forum at

<http://www.nccmt.ca/forum/en/index.html>

### References:

Fineout-Overholt, E., & Johnston, L. (2005). Teaching EBP: Asking searchable, answerable clinical questions. *Worldviews on Evidence-Based Nursing*, 2, 157-160.