



Defining the Health Research Question

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Objectives

Following this lecture, the participants will be able to

1. List the basic criteria in selecting the health related ***research question***
2. Describe ***methods*** for developing **the question**
3. List potential ***sources*** for research questions
4. List the ***categories*** of clinical research design to answer the question



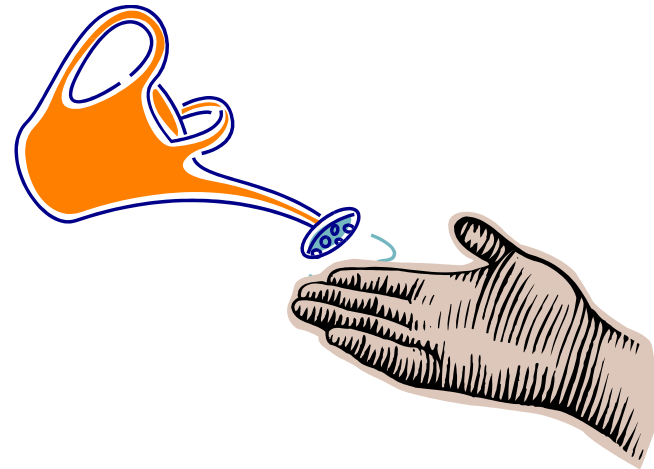
What are the Basic Criteria for a Good Research Question?

Basic Criteria: Good Research Question

1. Must be ***possible to answer***
2. Must be ***specific***
3. Must be of ***interest/relevant*** to you (and important to others)

Remember

A legitimate scientific study is **NOT** to prove that something is true but rather to find out *whether* it is true.





“...the scientific method must allow for the exercise of *imaginative insight*also place checks on the unconstrained use of the imagination”

imagination

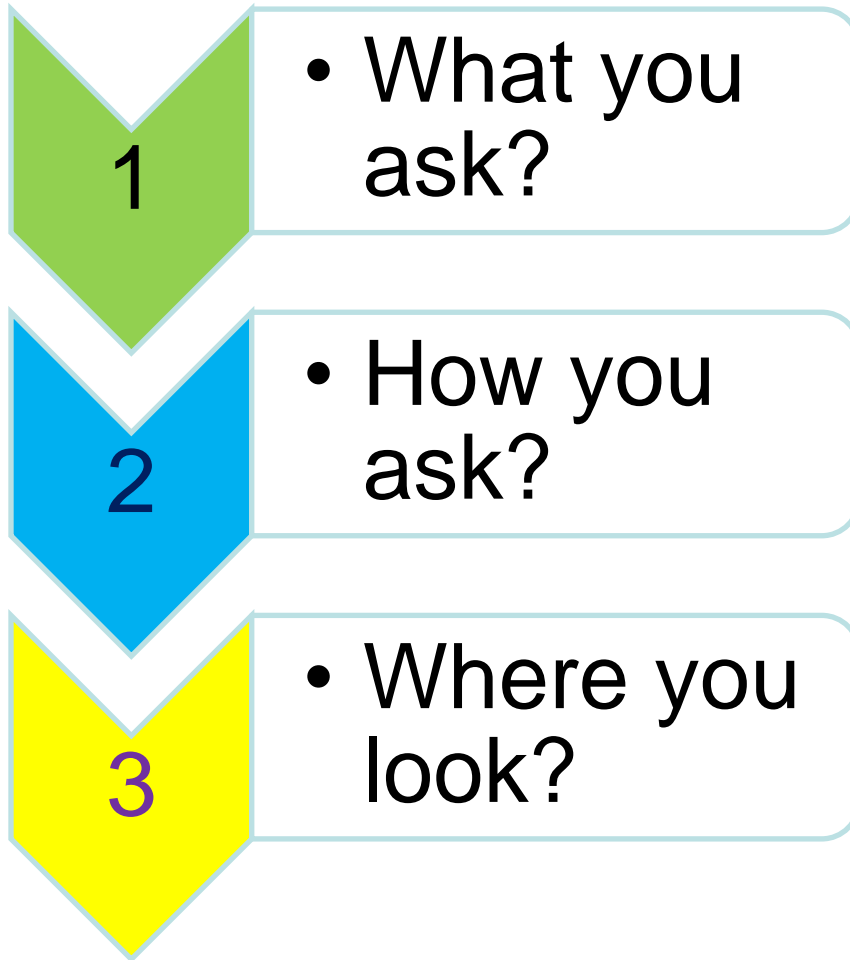


precision

.....must have a mechanism
distinguish claims that can be *substantiated* from
claims that *cannot be substantiated*
Need a “*prepared/open mind*”;
balance imagination and precision.

John Maindonald, Australian National University

Good Research Question Depends on



All influence
what you
find....
what it
means.....

Where do community based research questions come from?



Finding local sustainable solutions for local problems

Sources of Community Focused Research Questions

Own work/practice



The community

Discussion with colleagues

Inspiration from reading
(literature), meetings



Culture of inquiry-Why? How
best done ? When ? etc

MicroResearch Program

What are the knowledge, practice and attitudes about blood donation in Kiruhura District in SW Uganda?

What are the causes of death in first week of life in rural Uganda?

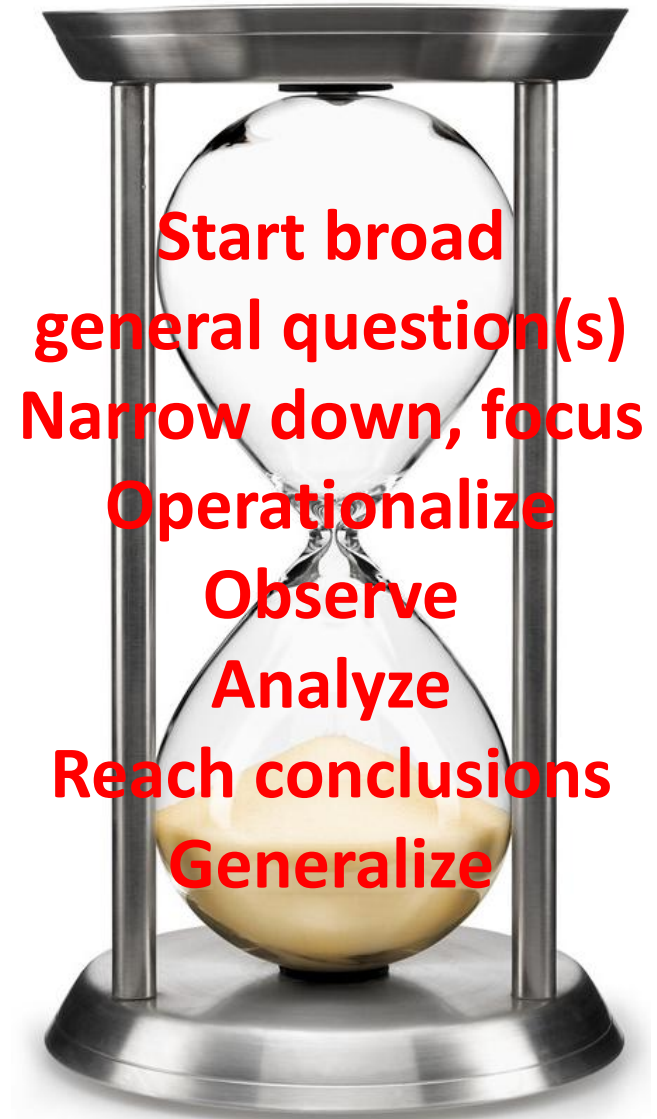
What factors influence Hepatitis B vaccination uptake among healthcare students at Kenya Medical Training College, Kenya?

Can cell phone reminders improve the antenatal care attendance of pregnant women in Semi-urban of South Eastern Tanzania?

“Hourglass” of Research

**Is the Question
too broad?
or too narrow?**

**Can the topic be
researched?**



“PICOT”

If checking on an intervention or making a comparison:

P= PATIENTS or POPULATION

I =INTERVENTION

C=COMPARISON

O=OUTCOME

T=TIME

May help in your thinking
about your question



Defining the Question-

What *kind* of a question are you asking?

What *methods* could you use to answer it?

Examples of Research Question Types

1. Describe **natural course**, prognosis or outcome of a health condition
2. **Cost effectiveness** or clinical **decision** making analysis: *CHOosing Interventions that are Cost Effective (WHO-CHOICE)*
<http://www.who.int/choice/en/>
3. **Feasibility** of a new practice or emerging trend
- 4*. **Epi studies**: RCT, Cohort, case Control etc
- 5*. **Qualitative vs quantitative**



5. Quantitative

Qualitative

Research Aims	<i>Test hypotheses</i> and establish cause and effect	<i>Understand social phenomena</i> in their natural settings
Study Design	<i>Formal, objective, and systematic</i>	<i>Observational, holistic, and flexible</i>
Sampling	Unbiased cross-section representative of the study population	Strategically selected to collect the most meaningful data
Methods	Measurement yielding numeric data	Interviews and observations yielding textual data
Analysis	Emphasis on statistical techniques to determine significance	Identify themes that emerge from the data

Brain Storm.....



The problem: many head injuries in ER-
(rationale)

Goal: “How can these be decreased?”

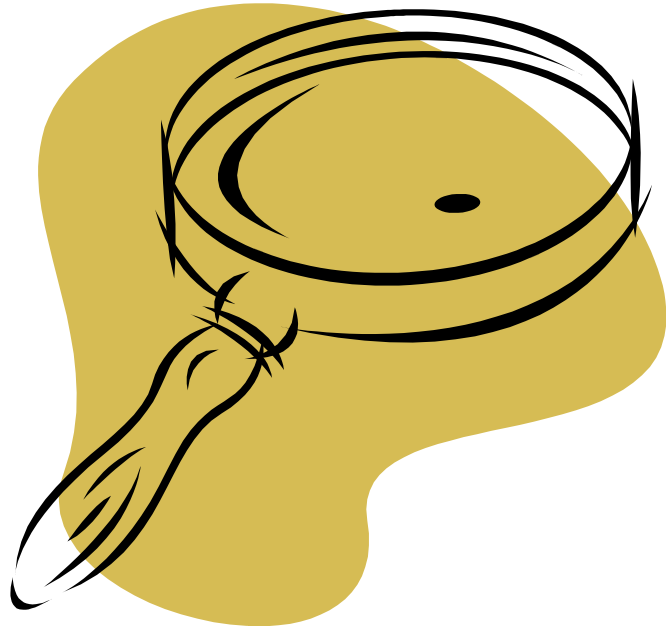
The Question:

What, how, where,
when, who ask.....

The research study design

Blair and Barton : Asking the right questions
http://www.sagepub.com/upm-data/59228_Walker.pdf

Next Steps.....



Literature...

Colleagues...

Observations...

Refine question



Many questions
may pop up

- but which one
do you have fire
inside to
answer?

“If I had an hour to solve a problem and my life depended on the solution, **I would spend the first 55 minutes determining the proper question to ask,** for once I know the proper question, I could solve the problem in less than five minutes.” ..

Albert Einstein

Potential Research Questions...



Relevant to health
esp maternal child youth
Community applicable

Interdisciplinary

Homework- Day 1



- Write down your “burning” community focused maternal/child health research question.
- “Maternal/child health” can be understood broadly.....
- List arguments for why your MicroResearch Team (will be formed tomorrow) should choose your question for the Team to move forward in proposal development.