

FORMULATION OF RESEARCH OBJECTIVES

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Questions you must ask	Steps you will take	Important elements of each step
What is the problem and why should it be studied?	Selection, analysis and statement of the research problem	<ul style="list-style-type: none"> - problem identification - prioritising problems - analysis - justification
What information is available?	Literature review	<ul style="list-style-type: none"> - literature and other available information
Why do we want to carry out the research? What do we hope to achieve?	Formulation of research objectives	<ul style="list-style-type: none"> - general and specific objectives - hypotheses
What additional data do we need to meet our research objectives? How are we going to collect this information?	Research methodology	<ul style="list-style-type: none"> - variables - types of study - data collection techniques - sampling - plan for data collection - plan for data processing and analysis - ethical considerations - pre-test or pilot study
Who will do what, and when?	Work plan	<ul style="list-style-type: none"> - human resources - timetable
What resources do we need to carry out the study? What resources do we have?	Budget	<ul style="list-style-type: none"> - material support and equipment - money
How will the project be administered? How will utilisation of results be ensured?	Plan for project administration and utilisation of results	<ul style="list-style-type: none"> - administration - monitoring - identification of potential users
How will we present our proposal to relevant authorities, community and the funding agencies?	Proposal summary	<ul style="list-style-type: none"> - briefing sessions and lobbying

FORMULATION OF RESEARCH OBJECTIVES

Objectives

Hypotheses

Title of study

RESEARCH OBJECTIVES

RESEARCH OBJECTIVES

= what is to be achieved by the study

“PROMISE”

- General objective
- Specific objectives

General objective

= what is to be achieved by the study in general terms

Specific objectives

= smaller, logically connected parts of the general objective

- should specify **What, Whom, Where, When & Why**
- The first specific objective usually focuses on **quantifying or specifying the problem**
- In public health research the last objective (ULTIMATE OBJECTIVE/ EXPECTED OUTCOME) usually states **how the findings will be used and what effects the findings will be expected to bring about**

How to state objectives

- **Action verbs** (i.e. what will be done)
- **Logical sequence** (- importance
 - descriptive-analytic
 - chronological)
- **Realistic** (exclude what you cannot do)

Examples of **action verbs**

to determine (coverage of rotavirus vaccine)

to describe (psychological and social consequences of abortion)

to assess (quality of care for NCDs in primary health care facilities)

to verify (anti-bacterial effect of neem)

to calculate (accuracy of saliva test for HIV infection)

to explore (perceptions of Basic Health professionals to task shifting to auxiliary midwives in maternal health care)

to compare (water use and sanitation and hygienic practices in disaster-prone areas and non-disaster-prone areas)

to identify (the factors associated with good infant and young child feeding practices)

to evaluate (effect of m-health on health care quality)

Examples of non-action verbs

to appreciate (situation of NCD clinics in Yangon)

to understand (social contexts of post-abortion care in mobile populations)

to study (epidemiology of DHF)

to know (causes of drug use in youths)

to learn (traditional practices in mental illnesses)

Pattern and associated factors of utilization of mobile tablets among basic health professionals in Mon State in 2019

General objective

To assess the utilization of mobile tablets and its associated factors among basic health professionals in Mon State in 2019

Specific objectives

- To determine the pattern of utilization of mobile tablets among BHS
- To identify associated factors in utilization of mobile tablets
- To explore barriers and facilitators in utilization of mobile tablets

Missed Opportunities for Immunization among Under-two Children in Hilly, Delta And Plain Regions

General objective

To assess the level and factors of missed opportunities for immunization in selected townships in Hilly, Delta And Plain Regions

Specific objectives

- To assess the proportion of missed opportunities for immunization in under-23 month children
- To identify the client factors associated with missed opportunities for immunization
- To identify the service provider factors associated with missed opportunities for immunization

Why objectives?

- To **focus** the study
(narrowing it down to essentials)
- To **avoid** collection of unnecessary data
- To **organize** the study in clearly defined parts/phases
- To **evaluate** the study

Style of writing objectives in health journals

To investigate the relative importance of fruit intake, exposure to secondhand smoke, and road vehicle traffic in determining the prevalence of asthma in over 11,000 children

To evaluate whether mid-life marital status is related to cognitive function in later life

To examine the relationship between these work patterns and depressive symptoms in a large nationally representative sample of working men and women

RESEARCH HYPOTHESES

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A **HYPOTHESIS** is a testable statement about an expected relationship between one or more independent variables and the dependent variable under study.

*All research proposals for
analytical research must explicitly
state the hypothesis(es).*

*In research proposals for
descriptive research,
the hypotheses are NOT needed.*

Types of study

(1) Descriptive studies

(2) Analytic studies

- Case-control study**
- Cohort study**
- Experiment**

Examples of Research Hypothesis

- 1. Use of mobile tablets among basic health professionals improves health information system better than quality of care**
- 2. Children in hilly regions are more likely to miss opportunity for immunization**

Research hypothesis



Basis for tests of statistical significance

Characteristics of a good research hypothesis

1. Simple
2. Specific
3. In advance

Simple

Complex:

Children in hilly regions and children of poor mothers are more likely to miss opportunity for immunization

Simple:

(1) Children in hilly regions are more likely to miss opportunity for immunization

•

(2) Children of poor mothers are more likely to miss opportunity for immunization

•

Specific

Children under 2 years in hilly regions are two times more likely to miss opportunity for immunization than delta regions

In advance

- Hypotheses must be written at the outset the study

- Avoid formulate After-the-fact hypothesis.

(**After-the-fact hypothesis**- formulated after examination of data at the end of the study)

Mention

- **Conditions under which the hypothesis is expected to apply**
- **All intervening variables that may affect the dependent variable**
- **Operational definitions for all variables in the hypothesis**
- **Multiple hypotheses – 1 primary & others**

TITLE OF THE STUDY

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- In line with the general objective
- Concise
- Specific
- Attractive
- No abbreviations
- No empty phrase (Study on, An Investigation Into,

NOT: “Study on use of mobile tables among PHPs

“ Pattern and associated factors of utilization of mobile tables among basic health professionals in Mon State in 2019”

NOT: “A study on community home-based care of HIV/AIDS patients”

“Quality and cost of community home-based care of HIV/AIDS patients and their communities in Zimbabwe in 1988”

Fancy titles

“Do we care? A study on quality and cost of HBC of HIV/AIDS patients in Zimbabwe in 1988”

“ KARAOKES: Fun or fatality? A study of sexual and reproductive behaviours of karaoke girls and karaoke patrons in 3 border towns”

SUMMARY

Research question = what to be answered

Objective = promised activities

(*Ultimate objective = expected output/outcome)

Hypothesis = expected relationship

Title = highlighted objective