HEALTH SYSTEMS

RESEARCH

A MANUAL

Health Systems Trust

THE PURPOSE OF THIS MANUAL

This manual aims to assist people who want to do, or are doing health systems research. It is primarily aimed at researchers who are relatively new to health systems research. It describes health systems research, and shows how it is different from other types of health research. It provides advice on selecting a research topic and ways to influence decision makers through research. This manual then gives a guide on formulating and refining a research question, developing a protocol and writing research reports.

Research study design, data collection and analysis are not dealt with in any detail, as these issues are comprehensively covered in other books and articles. A brief summary of some of the most accessible of these publications is given at the end of the manual.

Throughout the manual, practical advice will be provided for researchers wishing to apply for Health Systems Trust funding. However this manual should also be of relevance to anyone wanting to be involved in health systems research.

Contents

WHAT IS HEALTH SYSTEMS RESEARCH AND WHY SHOULD WE BE DOING IT?

Health systems research aims to provide information which will improve the functioning of the health system, and ultimately lead to improved health status. It provides policy options and practical information to role players in the health system. These role-players may range from policy makers at a national level to clinic managers at the primary care level. Health systems research is applied health research.

Health managers and decision makers are daily faced with difficult decisions on how to use scarce resources. To spend more money on one thing usually implies that less can be spent on something else. For instance, an increase in spending for drugs to treat sexually transmitted diseases (STDs) requires that the money for this has to come from elsewhere. Spending on another programme, such as screening for cervical cancer may have to be reduced. Alternatively, another way of getting the extra money is through savings made by more efficient practices.

How is health systems research different from other types of Health Research?

Different types of health research vary in their focus. Each plays a different role in overall health development. This is shown by the following classification of health research:

A classification of health research		
Based on the application of biological, social and behavioural sciences methods		
Object of analysis		
Level of Analysis	Health Problems/Conditions	Health Care Responses
Individual or Subindividual	Biomedical Research - biological processes; - body structure and function; - pathological mechanisms	Clinical Research - efficacy of preventive, diagnostic and therapeutic procedures; eg drug efficacy and side effects. - natural history of diseases
Population - Public Health Research	Epidemiological Research - frequency, distribution and causes of disease	Health Systems Research - policy research - operational research

Adapted from Julio Frenk "The New Public Health" in Annual Review of Public Health 1993 14:469-90.

Both biological and clinical research focus on the individual. Biomedical research focuses on how the body works. It considers the biological processes, structures, functions and mechanisms within an organism. Clinical research focuses on the response of the body to various preventative, diagnostic or therapeutic interventions.

On the other hand public health research focuses on groups of people (populations). It has two main components: epidemiological research, which considers the frequency, distribution and causes of ill health; and health systems research, which focuses on the organised response to health and disease. Health systems research considers the functioning of the health system, the costs and quality of the services provided, and the distribution of resources within the system.

Along with biological research, behavioural and social research are important tools for public health research.

In reality, it is not so easy to neatly pigeon-hole research as is done in the table above. An interdependency and overlap often exists between various types of research. For example, the results of biomedical research often feed into clinical research; epidemiological research determines the causes of ill health and indicates which services are needed; this in turn leads into health systems research.

Research into syphilis: Some examples

Biomedical research: considers the life cycle of the micro-organism (spirochaete) in the human body and the effects of the infection on the various systems of the body and foetus.

Clinical research: determines the efficacy of various treatments for syphilis, such as long-acting penicillin injections and vaccines.

Epidemiological research: estimates the number of people suffering from syphilis and identifies risk factors determining the distribution of the disease.

Health systems research: examines the way the health system functions to ensure that an effective treatment for syphilis is delivered to those who need it. For example, it helps to find out why so many pregnant women who have syphilis are inadequately treated and deliver newborn babies that are infected.

Health systems research has recently gained increased attention internationally. By looking at the above example it can be seen why. For many years we have had an understanding of the biomedical mechanisms of syphilis infection. There has also been effective clinical treatment for syphilis. However, we know from epidemiological research that many people in South Africa still suffer from syphilis. Health systems research examines why this is so and how to improve the situation.

USING HEALTH SYSTEMS RESEARCH TO INFLUENCE DECISION MAKING

Health systems research exists in order to improve the quality of health service delivery. The key feature of HSR is its link to decision-making. It must inform a decision within the health system to achieve its goal. Some strategies which may be used to influence decision making are shown below.

Strategies to maximise the impact of research on policy include:

1. Find out who the appropriate decision makers are and get to know them.

2. Make sure the right questions are being asked - Include health service managers/ policy-makers in the project from the outset.

3. Meet with the decision makers regularly to keep them informed of progress. Provide them with interim results as often as possible.

4. Involve them when you are making your recommendations. This will help to ensure that the recommendations are realistic.

5. Present results in as accessible a form as possible.

6. Disseminate results widely, include all "stakeholder" groups (including the media).

TYPES OF HEALTH SYSTEMS RESEARCH

All health systems research can be used to inform policy. However it is useful to consider health systems research in two broad categories according to the level at which it is carried out.

Operational research looks at the actual delivery of health services. It examines the resources and processes used by the health services and the outputs they attain. Operational research aims to improve health service delivery by providing practical answers to the questions asked by managers of the health services. In addition, the findings or recommendations of operational research may be drawn upon by policy makers or policy researchers to assist them in formulating and evaluating health policy.

There is also a type of health systems research which is not carried out at service delivery level and which is more explicitly aimed at informing higher levels of health policy choices. This can be called **health policy research.** An example of this is research into resource allocation between levels of care or geographical areas, such as the funding formula for the division of the health care budget between provinces or between sectors.

Examples of Operational Research related to Tuberculosis

The elements of quality	Examples of health systems research questions
Accessibility	What are the geographical, financial, social and physical barriers to access to TB services?
Comprehensiveness	Do the TB services cater for those who are also HIV positive?
Appropriateness	Are the educational messages around TB understandable to the patients from a particular community?
Acceptability	Does the TB care provided match the expectations of patients?
Coverage	What % of TB patients are on treatment?
Adherence	What % of patients complete their treatment?
Continuity	Do the same patients see the same health care worker over the duration of their treatment?
Staff attitudes	Are TB patients treated with dignity and respect?
Effectiveness	How well does the self-supervision of TB treatment work?
Efficiency	Are the staff who work on TB seeing the appropriate number of patients per day?
Costs	What are the costs involved in providing TB services?
Equity	Are the TB services similar for all patients who have TB?

THE CHARACTERISTICS OF HEALTH SYSTEMS RESEARCH

The following points summarise the essential elements of health systems research.

1 Health systems research should focus on **priority problems**. At each level of the health services, managers and policy makers will have different problems.

Health systems research should concentrate on the most pressing problems faced by each level. By focusing attention on priority problems, health systems research makes the greatest possible impact on health services.

2 It should be **action-oriented**, i.e. aimed at developing solutions. The outcome of most health systems research should be some simple practical advice. Health systems research should do more than count the number of people suffering from a certain condition, or describe people's behaviour. It should focus on finding practical solutions, for instance how to deal with people suffering from the particular condition or how to change people's behaviour.

3 Health systems research utilises an integrated **multi-disciplinary** approach. Input from many disciplines is needed; for example doctors, nurses, epidemiologists, economists, transport managers, social and behavioural researchers. This is a reflection of the complexity of the questions that the "real world" throws up.

4 Health systems research should be **participatory.** The relevant stakeholders concerned should be involved (policy makers and health care managers, researchers, and community members) in *all stages* of the research. Recommendations from studies may be inappropriate or not feasible if health care managers are not involved; or simply have less chance of being utilised. If researchers are not involved then the methodology may not be valid or reliable. If the community are not involved, the suggested solutions may be unacceptable to them or just not wanted.

5 Research must be **timely**. Studies must be done in such a way that results will be available when needed for key decisions. Health systems research loses its purpose if decisions have been made before the findings of the research are available.

6 Research designs should be **simple and effective.**

7 Health systems research projects focus on finding solutions which are **affordable and effective**. The research should always consider 'Can these recommendations be afforded?'

8 Results should be **accessible and easily understood**. Their purpose is to make people aware of the findings and act upon them.

9 Health systems research should be evaluated by how much it has influenced policy, improved services, and ultimately led to better health. A health systems research project should not stop at finding answers to questions posed, but should include an assessment of what decisions have been made as a result of the study.

THE IMPORTANCE OF CAPACITY BUILDING AND SKILLS DEVELOPMENT

The participatory nature of health systems research inevitably brings together people from different backgrounds and disciplines. Orientation of researchers or potential researchers to health systems research is therefore a crucial aspect of improving the health system in South Africa.

The existing capacity to undertake health systems research in South Africa is limited, particularly within the historically black institutions and the health services themselves. However, the health services are ideally placed to conduct and use health systems research meaningfully. As health systems research is naturally service oriented, developing capacity for health systems research within health services is important. Health systems research can enhance the ability of these institutions to plan, implement, monitor and evaluate their activities. This in turn will improve the quality of services that they provide.

The Health Systems Trust is therefore committed to promoting health systems research throughout South Africa and has a number of mechanisms to develop this capacity.

Skills development support

The Health Systems Trust provides skills development support to those in the health services and from historically disadvantaged institutions. This support is provided either directly through the Health Systems Trust staff, or by people nominated by the Health Systems Trust. In some cases, Health Systems Trust provides financial support to for attendance of short courses within South Africa. Another mechanism of support is for the Health Systems Trust to link projects between institutions with experienced researchers, and those with less experienced researchers.

Internship Programme

One effective method of developing capacity is through placement of individuals to health systems research projects. Through such a programme the intern receives hands-on training from the early stages of the project, up to the final stage of writing reports and implementing recommendations of the findings.

GETTING STARTED

Involving the right people

The first step in a health systems research project is to ensure that the appropriate people are involved in the project. Health systems research encourages appropriate collaboration between researchers, health care users, communities, health care providers, managers and politicians. Research priorities should originate not just from researchers but also from the health services and policy-makers themselves. This will avoid resources being wasted on studies which will have no useful or practical application. For instance, exclusion of any of the following groups could limit the ultimate effectiveness of a health systems research project:

Decision-makers and senior level managers - Exclusion of this group from the research especially in the identification of the problem and formulation of the research questions, may mean that they chose not to act on the findings.

For example: a study aimed at establishing which mental health services should be available at primary care level must include the relevant health care managers.

Health workers - similarly, if they are not included, they may not take up recommendations of a study or feel any ownership of results.

For example: a study of the effect of service providers attitudes on the health care seeking behaviour of STD patients should include nurses not only to answer questions but also in the planning and execution of the study.

Community leaders or members - if the project focuses on a community issue or is located within a community, community involvement is critical to ensure that recommendations from a study are applicable and appropriate.

For example: a study of the potential of community health workers to distribute family planning services must take into account community attitudes.

A multi-disciplinary team of researchers - issues of economics, logistics or human resource planning may be vital to the success of many studies.

For example: an evaluation of the primary school nutrition programme would require input from nutritionists as well as educationalists, economists, epidemiologists and behavioural scientists.

Formulating the research question

One of the fundamentals for health systems research is to ask the right question, in the right way. A well defined, simple research question is crucial for successful research findings. Once this question has been identified, many other aspects of the project will fall into place. However, defining a suitable question requires time and thought and is a process which is frequently not given enough attention.

The idea for a research question may come from a review of existing practice. This may be used to gather information for the planning of a new service, or to assess the costs and quality of a new service. The common strand between all types of question would be that they address issues which are felt (or seen) to be a hindrance to the functioning of the health system.

The original idea at first may be vague and imprecise. With closer examination it may be that what at first appeared to be a single problem breaks down into several sub-problems. For instance, low rates of attendance at STD clinics can be broken down into issues of access, cost, stigma and staff attitudes. It is vital to be clear about what the key question is from a general research area.

Helpful strategies at this stage are to write down ideas, to discuss them with colleagues or other people involved in research, to read around the subject and to consider the background and cause of the problem which is being focused on. It is important to be aware of who the target audience is for the results of the research and try to get them involved at the earliest possible stage. A systematic analysis of the problem completed jointly by all those concerned (researchers, health workers, managers and community representatives) is a very useful process at this stage.

By the time the question is fully shaped, the researcher should be indicating precisely what the study intends to find out.

There should be some detail on:

❏ the target group to be studied

❏ data to be collected

❏ study design

❏ the implication the findings may have on the health system

In order to do this, the following issues should be considered:

a) Relevance of the study

❏ How large or widespread is the problem?

❏ Who is affected?

❏ How severe is the problem?

❏ Who considers it to be a problem?

b) Avoidance of duplication

❑ Has the problem been investigated before?

c) Feasibility

❑ How complex is the problem?

❑ What resources will be needed to carry out the study? Is enough time available?

❑ Are there people around who can give you technical assistance?

❑ Will there be anyone willing to fund the research?

d) Political acceptability

❑ Change is often political and can lead to resistance. There should be consideration of the "political" environment in which the work will be conducted and possible barriers to the research or its recommendations.

e) Applicability

❑ Will the recommendations of the research be applied? This will involve getting the appropriate authorities involved in the study as well as assessing the likely resources needed to implement the recommendations.

f) Urgency of data needed

❑ How urgently are the results needed for a decision to be made?

❑ Which research should be done first and which can be done later?

g) Ethical acceptability

❑ Is there any possibility of inflicting harm on others while carrying out the research?

Think about the following issues:

❑ How acceptable is the research to those who will be studied? (Cultural sensitivity must be a careful consideration)

❑ Can informed consent be obtained from the research subjects?

❑ Will the condition of the subjects be taken into account? (For example, if individuals are identified during the study who require treatment, will this treatment be given? What if such treatment interferes with your study results?)

HOW TO DEVELOP A RESEARCH PROPOSAL

The following section describes how to prepare a standard project proposal for the Health Systems Trust. Most of its contents are equally applicable for other non-Health Systems Trust project proposals. Where a requirement is specific to the Health Systems Trust, this is made clear.

A research proposal should inform the research team, their advisors and potential funders exactly what it is that the research aims to do; why, how and when. For health systems research in particular, a proposal should be very explicit and spell out why research needs to be done and how it will contribute to health service development.

Writing a proposal is a good way to clarify your ideas and highlight areas in your plan which need more attention. It also forces the researcher to consider how feasible their planned research is in the time provided.

The main characteristics that the Health Systems Trust looks for in a research proposal is whether the project is being demanded by, or is needed by, health service managers and policy makers. This helps us to determine if the research needs to be done, is worth doing and will result in changes to the health services.

Essential ingredients for a health systems research proposal

1. Summary (maximum 300 words)

2. Background and introduction

3. Literature review, or review of available information

4. Aims and objectives

5. Methods

6. Ethical considerations

7. Dissemination of results

8. Work plan

9. Budget

Background and introduction

This section sets the scene for the proposed study.

It should contain the following:

- ❏ a clear, brief definition of the problem into which you are going to do research
- ❏ some background information on the setting of the research
- ❏ the role health service managers and policy makers have had or are likely to have in the research

An important component of this section is a review of available information/literature review. This is important for the following reasons:

- ❏ It prevents the duplication of work that has been done before.
- ❏ It helps the researchers to find out what others have learned and reported on the problem.
- ❏ It helps the researcher to become more familiar with the various types of methodology that could be used in the study.
- ❏ It should provide convincing arguments why this particular research project is needed.

Possible sources of information:

- ❏ Individuals, groups and organisations

- ❏ Published information (books, articles and journals)

- ❏ Unpublished information (other research proposals in related fields, reports, records and computer data bases)

Aims and objectives

The aim of the study should be set out clearly and briefly. It should state the broad question this research is trying to answer.

The aim can then be broken down into several smaller connected objectives. An objective identifies a specific and measurable issue that will be achieved by the study.

The formulation of objectives will help to:

- ❑ Focus the study (narrowing it down to essentials)
- ❑ Avoid collection of data that are not strictly necessary for understanding and solving the problem you have identified
- ❑ Organise the study in clearly defined parts or phases.

Objectives should:

- ❑ Be presented in a logical sequence
- ❑ Say what is going to be done, where and for what purpose
- ❑ Be realistic

Once the objectives are written, it is useful to look back at each of them and think what will need to be produced at the end of the research to prove that this objective has been achieved. This list is very important and will help you to design the methodology.

Note that health systems research should always have an objective focusing on how its results can be used to improve the functioning of the health system.

Methods

Methods will be determined by the objectives which have been set, the type of problem which is being examined, knowledge available about the problem and the resources available for the study.

Consider the following questions:

What **new information** do we need?
When do we need it?

Is a **quantitative or qualitative** methodology needed?

What **study design** will be used?
What are the advantages and disadvantages of this design?

What **population** will be studied?
What are the criteria for entry into the study?
How many participants will be required?
Will a sample be necessary?
How will this sample be chosen?

What **data or information** is to be collected?
Are the proposed methods reliable and valid?
Who will collect the data?
How will the data be recorded?
What training will the observers (e.g. field workers) need?
How will the data be processed and analysed?
How will the data be entered?
What analyses are planned?
Who will analyse the data?
What tables and figures will be required?

Is the study **ethical**?
Which ethical committee will consider the proposal?
What information is required of the participants?
How will informed consent be obtained?
Will the participants need referral?
How will this be arranged?
What follow up will be required?

Is a **pilot study** required?
If so, how many participants are required?
How long should the pilot study last?
Will the participants in the pilot study enter the main study?

Work plan

A work plan is a schedule, graph, or chart that summarises, in a clear fashion, various components of a research project and how they fit together.

It should include:

❑ The various **tasks** to be performed

❑ **When** the tasks will be performed

❑ **Who** will perform the tasks and the time each person will spend on them

It should be made clear in the proposal who will be involved in the research, whether they are full-time or part-time, whether they are from the health services or research backgrounds.

ACTIVITY	WHO	JAN	FEB	MARCH	APRIL	MAY
Meeting with clinic staff	All Project Staff	■				
Meeting with District Management	All Project Staff	■				
Design Questionnaire	Researcher	■				
Train Field Workers & Pilot Questionnaire	Researcher and Field Workers	■	■			
Data Collection	Researcher and Field Workers		■	■		
Analysis	Researcher			■	■	
Meeting with Clinic Staff and District Management	All Project Staff				■	
Write up Full Report	Researcher				■	■
Write article for Update and Policy Brief	Researcher					■
Meeting with Clinic Staff and District Management	All Project Staff					■

Plans for the dissemination of results

The key to successful health systems research is its impact on policy. It is conducted to highlight needs for change and recommend ways to bring about change. The proposal should show that you have thought through the process of influencing policy and developed a strategy for the best use of your results.

In the proposal, it should at least be clear:

❑ How others will find out about the results of your study

❑ How you hope to ensure your results and recommendations are utilised

The Health Systems Trust requires that you produce a number of specific products as a result of your research. These include:

1   The full research report or Technical report.

2   Articles for HST UPDATE and for the South African Journal of Public Health

3   Policy briefs and summaries for important stakeholders

Further details on these research outputs will be discussed on pages 18 - 22.

Budget

The work plan can be used to plan your budget.

❑ Specify for each activity in the work plan **what resources** are required.

❑ Determine for each resource needed the **unit cost** and the **total cost** e.g. the salary *for each* researcher per month and the total salary costs .

You may include in your project budget to the HST:

❑ The researchers time, if they are not being paid elsewhere

❑ Transport

❑ Stationery

❑ Secretarial and administrative support

❑ Communications (telephone, fax, postage)

A Budget justification is useful for items which seem questionable or particularly costly. Special consideration should be given to the following items:

Computers and other capital equipment

The Health Systems Trust only allows computers or other capital equipment to be bought as part of project budgets in very exceptional cases. In these instances, the computer/equipment remains the property of the Health Systems Trust and should be returned to the Health Systems Trust on the completion of the project. The times when Health Systems Trust may consider allowing a computer to be bought is when the project is outside the major cities of South Africa, where there is no other possible computer that could be used by the project and where the computer can be safely kept. Your justification needs to be very strong!

Under no circumstances does the Health Systems Trust allow vehicles to be bought with Health Systems Trust funds. We recommend that you discuss the issue of buying any equipment with the Health Systems Trust before you put it on your budget.

Salary and consultancy rates

The Health Systems Trust has salary ranges for each level of staff and consultants. These are regularly updated. We recommend that you put your suggested rates in your proposal, and the Health Systems Trust will advise you as to whether they are appropriate or not.

Travel

Health Systems Trust pays for transport on a per kilometre basis. These rates change over time, so you will need to contact the Health Systems Trust to determine the current rate.

Conference attendance

You should not include conference attendance within your research budget. The Health Systems Trust will consider your application for conference attendance on a case by case basis. You will need to apply separately from your research proposal.

Other financial issues

If you are successful in being awarded a grant from the Health Systems Trust, then a payment schedule will be devised. Following the initial instalment payment, further instalments of the grant will be released following the production of research reports and financial statements.

You will be expected to maintain complete books and records of revenues and expenditures of the project, together with supporting documentation. Financial support for your project from donors other than the Health Systems Trust must be declared immediately upon receipt of that additional funding. It is advisable that you inform the Health Systems Trust if you are seeking funding from other donors when you submit your proposal.

COMMUNICATING FINDINGS

The purpose of any report is to convey information to the reader. It is important to begin by clarifying:

❑ WHO is the reader?

❑ WHY does he or she want to read the research report?

A well written and structured report will answer four simple questions:

❑ why did you start doing your research?

❑ what did you do?

❑ what did you find out?

❑ what does it mean?

The audience for your research is not only members of the "research community", but also health managers and community leaders. Special attention should be given to preparing reports that are explicit regarding findings and recommendations so that these are helpful to the decision making of health managers and decision makers. These recommendations should take into consideration the local characteristics of the health system, constraints, feasibility, and usefulness of the proposed solutions.

Remember that your reader:

❑ Is short of time.

❑ Has many other urgent matters demanding his or her interest and attention.

❑ Is probably not knowledgeable nor impressed by "research jargon".

Recognising the "reading strategies" of people who read research reports will help you write a good report. New information from the research should be the highlight and focus of the report. This "new information" should be summarised in the **conclusions** of the study. Most readers will begin by reading the conclusions. If this section is interesting, useful and attractively presented, the reader will look at the other sections.

Rules of Report Writing

❑ **Simplify**. Keep to the essentials.

❑ **Justify**. Make no statement that is not based on facts.

❑ **Quantify**. Avoid "Large", "small", instead, say "almost 75%", "one in three", etc.

❑ **Be precise and specific**.

❑ **Inform, not impress**. Avoid exaggeration.

❑ **Use short sentences**.

❑ **Aim to be clear, logical, and systematic in your presentation**.

The Health Systems Trust is most concerned about the following research outputs:

❑ The full research report (or technical report.)

❑ Articles for HST UPDATE and for the South African Journal of Public Health

❑ Policy briefs and summaries for important stakeholders

While you may consider using other forums for disseminating your results, this section will consider only these three outputs.

The Full Research Report

Main Components of a Research Report

Title or cover page

Executive Summary

Acknowledgments (optional)

Table of contents

List of tables, figures (optional)

List of abbreviations (optional)

1. Introduction

2. Objectives

3. Methodology

4. Findings and conclusions

5. Discussion

6. Recommendations

References

Annexes (eg data collection tools, such as questionnaires; additional tables)

Title Page

If you have received funding from the Health Systems Trust, then your title page should contain the words 'Supported by a grant from the Health Systems Trust'.

Executive Summary

The executive summary can only be written after the first or even the second draft of the report has been completed. It should contain:

- ❑ a very brief description of the problem (WHAT),
- ❑ the main objectives (WHY),
- ❑ the place of study (WHERE),
- ❑ the type of study and methods used (HOW),
- ❑ the main findings and conclusions, followed by
- ❑ the major, or all, recommendations.

The summary will be the first, and for busy health decision makers most likely the only part of your study that will be read. Therefore, its writing demands thorough reflection and is often time consuming. The length of the summary should usually be less than two pages. It can often be written in point form. When writing this section ask yourself, 'if a reader is the see nothing else about the project other than this summary, what would I like them to remember?'

Introduction

The introduction is a relatively easy part of the report which may be written after a first draft of the findings has been made. It should contain some background data about the area, the health status of the population, and health service data related to the problem that has been studied. Much of this information will be in the research proposal, so this may be used with some additions and revisions.

Then the problem statement or research question should follow, again revised from the research proposal with comments or additional data, based on the research experience.

There should be a paragraph on what is hoped to be achieved with the results of the study.

A brief review of the literature pertaining to the topic of study should then be given. This section should include relevant points to help the reader:

- ❑ understand the problems providing a review of available information
- ❑ understand methods of investigating or resolving the problem.

  NOTE: This section should NOT be a summary of all the papers and books on the topic. Be selective, remembering that this section serves to lend support for the study, not to display an ability to read the literature.

Objectives

The general and specific objectives, stated in the research proposal should be included. If some of the objectives stated in the proposal have not been achieved, this should be stated in the discussion of the findings.

Methodology

The methodology followed for the collection of the data should be described in detail. It should include:

- ❑ the study type,
- ❑ the variables on which data was collected,
- ❑ the population from which the sample was selected,
- ❑ the size of the sample and method of sampling,
- ❑ the data collection techniques:
    Sources of data (cards, households, clinic registers, etc.),
    How the data was collected and by whom,
    Procedures for data analysis, including statistical tests (if applicable).

If there has been any change from the original study design presented in the research proposal, there should be an explanation of the extent of, and the reasons for the deviation. The consequences of this deviation for meeting certain objectives of the study should be indicated. If the quality of some of the data is weak, resulting in possible biases in a certain direction, this should be described.

Findings and Conclusions

The systematic presentation of the findings and conclusions in relation to the research objectives is the crucial part of the report.

A description of the findings may be complemented by a limited number of tables or graphs that summarise the findings. The text will become more lively if some of the findings are illustrated (eg using the respondents own words; with observations and case-studies from the fieldwork.)

Discussion

The findings can be discussed by objective or by cluster of related issues. The discussion should also mention findings from other related studies that support or contradict your own. It is also important, to present and discuss the limitations of the study. In the discussion of findings some general conclusions may be included.

Recommendations

The recommendations should follow logically from the discussion of the findings. While writing this section you should bear in mind the likely readers of the report. These may include:

- ❑ policy makers,
- ❑ health and health-related managers at district or lower level,
- ❑ health and health-related staff which could implement the activities,
- ❑ potential clients, and
- ❑ the community at large.

Remember that action-oriented groups are most interested in this section. The recommendations should be discussed with all parties concerned before they are finalised.

Articles for HST Update & the Health Systems Trust section of the South African Journal of Public Health

1   Think about the audience

4000 copies of UPDATE are distributed each month, and its audience is very broad. It is essential that the article can be understood and appreciated by as many people as possible; therefore keep it as simple as possible.

The South African Journal of Public Health is an academic publication and therefore writing style for this can be more sophisticated. However, there is no point using impressive words, or quoting complex theories when the message of the work can be said more simply.

2   Keep it short

Most readers will be short of time, and prefer to read short articles. Therefore keep the article within 1000 words. The shorter and more concise, the better.

Articles for the Health Systems Trust pages of the South African Journal of Public Health should ideally fit onto one page of the journal, including tables, charts etc. However, longer articles may also be considered.

3   Content

Remember an article and not a report is being written. People can always contact the researchers if they want more information. Therefore concentrate on two questions; what was found, and most of all, what does it mean? Diagrams, graphs, charts or pictures are powerful ways to tell people about what was found. Using bullet points helps to emphasise issues, particularly the implications and recommendations of the research.

Summaries of your research and policy briefs

As there will have been various stakeholders involved in the research, both during the drafting and implementation of your research proposal, different summaries should be written for each of these groups. For example, there may be different summaries for policy makers and health managers; for health staff of lower levels; for community members or the public at large (newspaper, TV); and for professionals (articles in scientific journals). A policy brief is a type of summary which is specifically directed to policy makers.

What a summary should contain:

❏ The main objectives of the research

❏ A very short summary of how the results were obtained

❏ The most important findings of the research

❏ The recommendations that come from the research

❏ How the reader can find out more information about the project.

OBTAINING MORE INFORMATION

Health Systems Trust - Durban
504 General Building
Cnr Smith and Field Streets
Durban 4001

Tel   031 307 2954
Fax 031 304 0775

Health Systems Trust - Cape Town
46 Sawkins Road
Rondebosch 7700

Tel   021 686 8621
Fax 021 686 8635

E-mail hst@healthlink.org.za

ADDITIONAL RESOURCES

Epidemiology - A manual for South Africa
J.M. Katzenellenbogen, G Joubert and S.S. Abdool Karim
1997; Oxford University Press - Cape Town

Basic Epidemiology
R. Beaglehole, R. Bonita and T. Kjellstrom
1993; World Health Organisation - Geneva

Health Systems Research Training Series - Volumes 1 - 5
1991 and 1992; International Development Research Centre (IDRC) - Canada

Notes