PARLIAMENT OF MALAWI

GUIDELINES FOR EVIDENCE USE IN DECISION-MAKING

2016

GUIDELINES FOR EVIDENCE USE IN DECISION-MAKING

2016

Malawi National Assembly
Parliament Building
Presidential Way
Private Bag B362
Lilongwe 3, Malawi

Table of Contents

List of Tables

List of Figures

Abbreviations and Acronyms

ACP-EU	African Caribbean Pacific European Union
AFIDEP	African Institute for Development Policy
AGM	Attorney General's Memorandum
AGORA	Access to Global Online Research in Agriculture
AHILA	Association for Health information and Libraries in Africa
AIM	African Index Medicus
APA	American Psychological Association
ARDI	Access to Research for Development and Innovation
CNHR	Consortium for National Health Research
CoM	College of Medicine
CPA	Commonwealth Parliamentary Association
DFID	United Kingdom's Department for International Development
ECSA-HC	East, Central and Southern Africa Health Community
EIPM	Evidence-Informed Policy-Making
FHI 360	Family Health International 360
HINARI	Health Internetwork Access to Research Initiative
IPU	Inter-Parliamentary Union
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MPs	Members of Parliament
NGO	Non-Governmental Organisation
OARE	Online Access to Research in the Environment
PAP	Pan African Parliament
SADC-PF	Southern Africa Development Community – Parliamentary Forum
SECURE Health	Strengthening Capacity to Use Research Evidence in Health Policy
USAID	United States Agency for International Development
WHO	World Health Organization

Glossary of Terms

A ***policy*** can be defined as a course or principle of action adopted or proposed by a Government, party, business, or individual. It is defined by *Black's Law Dictionary* (2nd Ed) as "the general principles by which a Government is guided in its management of public affairs".

Policy-making is defined as: "The act or process of setting and directing the course of action to be pursued by a Government or business" (*Webster's New World Dictionary*, 5th Ed). Policy-making is seen as the process by which Governments translate their vision into programmes.

Legislation is the act or process of making or enacting laws by a legislative body at the national or local level (in this case Parliament).

Decision-Making is defined as "the act or process of identifying and choosing alternatives based on values and preferences of the decision maker. Making a decision implies that there are alternative choices to be considered, and we want to choose the one that best fits our goals and criteria (Harris, 1980).

Policy Analysis: Although a single definition will most probably not display the full scope and meaning of the theory and practice of policy analysis, the following definitions might be useful in understanding the concept better. Dunn (1981: 35) defines policy analysis as follows: *Policy analysis is an applied social science discipline, which uses multiple methods of inquiry and argument to produce and transform policy-relevant information that may be utilised in political settings to resolve policy problems.*

Evidence-informed decision-making is an approach to policy decisions that aims to ensure that decision-making is well informed by the best available research evidence. It is characterised by the systematic and transparent access to, and appraisal of, evidence as an input into the policy-making process (Oxman et al., 2009).

Southern Academic Organisations refer to academic organisations from third world countries.

Acknowledgements

The development of the *Guidelines for Evidence Use in Decision-Making* has been made possible through the leadership of the Parliament, in collaboration with various partners and stakeholders. The Parliament would also like to acknowledge the technical input from heads of all sections and their staff. The list of people who contributed to the development of the guidelines is attached in the Annex 1.

The development of these guidelines was made possible through the Parliament's collaboration with the Strengthening Capacity to Use Research Evidence in Health Policy (SECURE Health) programme, which is a consortium of five organisations led by African Institute for Development Policy (AFIDEP). The Parliament would like to thank AFIDEP for providing technical assistance for the development of the guidelines. The Parliament would also like to thank other SECURE Health programme consortium partners who provided invaluable inputs into the development of the guidelines, including FHI 360, the College of Medicine (CoM) of the University of Malawi, and the East, Central and Southern Africa Health Community (ECSA-HC).

Finally, the development of these guidelines would not have been possible without the support of the UK's Department for International Development (DFID) through the SECURE Health programme. The Parliament acknowledges and appreciates this support from the UK Government.

Foreword

I have the pleasure to present to you the *Guidelines for Evidence Use in Decision-Making*. The *Guidelines* offer important knowledge and skills in the policy-making and legislative process and the use of evidence to ensure more effective policies and programmes. These Guidelines have been designed primarily for use by the technical staff who support the work of MPs and committees within Parliament. However, the MPs themselves as well as anyone involved in policy analysis and decision-making processes will find the guidelines useful.

The development of the guidelines has been informed by the Government's provisions and guidance contained in the Malawi Constitution, Attorney General's Memorandum, the Guide to Executive Decision-Making Processes, the Standing Orders of Parliament, and the Malawi National Assembly Strategic Plan (2015-2020).

These Guidelines are part of the on-going reforms in the Parliament. It is hoped that the Guidelines will standardise the policy analysis process as well as bring in a high quality standard of research evidence in debating and decision-making process within Parliament. Finally, let me acknowledge the good work by Parliamentary staff for the effort to produce the Guidelines. The Guidelines will hopefully contribute to effective support to the Members and overall service delivery by Parliament.

Mrs Fiona Kalemba
Clerk of the Parliament of Malawi

Preface

Evidence-informed decision-making is an approach to policy decisions that aims to ensure that decision-making is well informed by the best available research and other evidence. The need for ***Guidelines for Evidence Use in Decision-Making*** in Parliament has been identified by the senior officials and staff through interactions with the SECURE Health Programme.

The critical functions of Parliament, of legislation, oversight and representation, make it necessary to have guidelines that promote and enable an increased focus on research and other credible evidence in the delivery of these functions. These Guidelines have been developed primarily for use by technical staff who support the work of Members of Parliament in the House and in committees. This is meant to provide practical guidance to technical personnel on better and more effective ways of finding, appraising, synthesising and applying research evidence in decision-making. The guidelines are also a tool that anyone involved in policy analysis and decision-making processes will find useful. The main purpose of the guidelines is to enhance understanding of the policy-making and legislative process, and strengthen skills for increased evidence use in this process in order to improve the quality of debate and decision-making in Parliament.

The guidelines cannot be fully comprehensive and are not a substitute to consulting detailed guidance on aspects of the institutional framework, legislative and financial processes and statutory obligations within Parliament and within Government.

The Guidelines cover:

a) Public Policy-Making and Legislative Process;

b) Defining a Policy Question in Evidence-Informed Policy Analysis and Decision-Making;

c) Accessing Evidence for Evidence-Informed Policy Analysis and Decision-Making;

d) Appraising Evidence for Evidence-Informed Policy Analysis and Decision-Making;

e) Synthesising Evidence for Evidence-Informed Policy Analysis and Decision-Making;

f) Optimising Evidence Use in Evidence-Informed Policy Analysis and Decision-Making.

It is therefore hoped that the guidelines will be used as a reference tool for technical staff in Parliament.

Rt. Hon. R. Msowoya, MP
Speaker of the Parliament of Malawi

INTRODUCTION

1

1.1 The importance of developing guidelines for evidence use in decision-making in Parliament was identified by the senior officials and staff through interactions with the Strengthening Capacity to Use Research Evidence in Health Policy (SECURE Health) Programme. This was confirmed by the findings of the SECURE Health Programme needs assessment conducted in 2014 on the status of evidence use within Parliament. A similar observation was made in an initial external evaluation of the SECURE Health programme conducted in 2015, which revealed the need for standard guidelines for searching for evidence required for informing decision-making in Parliament. This means that Parliament staff who support the delivery of the legislative, oversight and representative roles of the Members of Parliament (MPs) ought to appreciate and internalise the different levels and stages of policy-making, the steps involved in policy-making, how to go about seeking, appraising, synthesising and applying evidence in policy analysis and decision-making, and most importantly, the relationship between public policy and legislation. The purpose of these guidelines therefore is to fill this gap by providing a clear outline on policy-making and practical guidelines for finding, appraising, synthesising, and applying evidence in decision-making processes in Parliament.

1.2 The guidelines have been developed, and will be operationalised, within the overarching legal and policy framework defined in the Constitution of Malawi, 2010; the Malawi National Assembly Strategic Plan (2015-2020); the Parliament Standing Orders; the Vision 2020; and the Malawi Growth and Development Strategy II (MGDSII). The Constitution of Malawi, 2010 is the overarching legal framework that guides the country's development efforts and the Vision 2020 is the national development blueprint that outlines Malawi's development aspirations for all sectors. The development strategy is the conduit through which the Government of Malawi (GoM) advocates her commitment towards achieving the internally agreed development goals. The National Assembly Strategic Plan guides the Parliament in achieving its goals and objectives. However, the Government in general has policy formulation guidelines. The Office of President and Cabinet launched the document entitled "The Guide to Executive Decision-making Processes" in June 2015. The document, however, does not guide the users on how to engage evidence when making decisions. Therefore, there is need for Parliament to come up with the evidence use guidelines to fill this gap. These Guidelines ensure that there is a systematic approach to procedures that govern all policy and decision-making processes of the Malawi Government.

Rationale for the Guidelines

1.3 The critical functions of Parliament of legislative, oversight and representational make it necessary to have guidelines that promote and enable an increased focus on research and other credible evidence in the delivery of these functions.

1.4 The Constitutional roles of Parliament of legislation, oversight and representation are complex and demanding. For instance, Section 66 of the Constitution vests legislative powers to the Parliament to receive, amend, accept or reject Government bills and private btills. These constitutional requirements have resulted in the legislative duties of MPs and Parliament staff becoming more involving and requiring technical expertise. Therefore, there is need for an increased focus on the use of credible research and other evidence by MPs to ensure issue-based debate and for them to effectively deliver in their new duties. The National Assembly Strategic Plan states that its first strategic objective is to increase the institutional capacity in order to ensure that MPs receive a high level of support and assistance. In addition, the Malawi Parliament recognises that in order to increase the capacity of Members to hold the Executive to account, the Parliament administration needs to provide Members with increased and improved research services. The research experts provide Members with briefings on key issues of importance under scrutiny by Parliament.

1.5 These Guidelines are therefore a resource that offers important knowledge and skills in the policy-making and legislative process and the use of evidence to ensure effective policies, legislation, and programmes.

Who are the Guidelines for?

1.6 These Guidelines are designed primarily for use by the technical staff who support the work of Members in the House and House committees. However, the MPs as well as anyone involved in policy analysis and decision-making processes will find the guidelines useful.

Use of the Guidelines

1.7 The main purpose of the Guidelines is to enhance understanding of the policy-making and legislative process, and strengthen skills for increased evidence use in this process in order to improve the quality of debate and decision-making in Parliament. It is therefore hoped that the Guidelines will be used as a reference tool for MPs and technical staff in Parliament.

1.8 These Guidelines cannot be fully comprehensive and are not a substitute to consulting detailed guidance on aspects of the institutional framework, legislative and financial processes and statutory obligations within Parliament and within Government. For instance, the Attorney General's Memorandum (AGM) is specifically encouraged to be a reference point on legislative process while Standing Orders form a good reference for legislative (Bill) Procedures. Other examples to which the Guidelines will not substitute their purpose include various

handbooks that are devised to guide the smooth functioning of different sections within Parliament. Such handbooks include the Committee and Table Office Handbooks as well as the Handbook on House Procedures.

Guidelines development process

1.9 The development of the Guidelines has been spearheaded by the leadership of the Parliament of Malawi. The Parliament has been implementing a capacity strengthening programme for research use since January 2014 through a partnership with a consortium of institutions led by the African Institute for Development Policy (AFIDEP). The consortium consists of AFIDEP, FHI 360, College of Medicine (COM), and the East, Central and Southern Africa Health Community (ECSA-HC). It is through this partnership that the Guidelines for Evidence Use in Decision-Making have been developed. Initial drafts of the guidelines have been discussed with a wide range of stakeholders including the primary target users (technical staff within Parliament) as well as other stakeholders, and insights from these consultations have enriched the final guidelines.

Structure of the Guidelines

1.10 The rest of this document is in eight chapters. Chapter 2 sets out the foundation of public policy-making, providing some theory on the complexity of this process. It also clarifies the nexus between policy-making and legislation. Chapters 3-7 focus on providing practical guidance on finding and using evidence in policy analysis and decision-making in parliament; Chapter 3 focuses on defining a policy question, Chapter 4 outlines the steps in accessing evidence, Chapter 5 focuses on ways of appraising evidence, Chapter 6 discusses synthesising evidence, and Chapter 7 outlines ways of optimising evidence use in policy analysis and decision-making. The final chapter provides a conclusion for the Guidelines.

2

PUBLIC POLICY-MAKING AND LEGISLATIVE PROCESS

2.1 This Chapter provides an understanding of the public policy-making process, highlighting the complexity, the key stages, the different factors and actors that influence the process, and the facilitators of, and barriers to, evidence use in the policy-making process. Except for a brief highlight of the link between public policy development and the legislative process, this Chapter does not provide an outline of the legislative process in Malawi. This is because the Attorney General's Memorandum provides comprehensive guidance to the legislative process in the executive arm of Government. To avoid duplication, these Guidelines therefore refer readers to the AGM and Standing Orders for an in-depth understanding of the legislative process in Malawi.

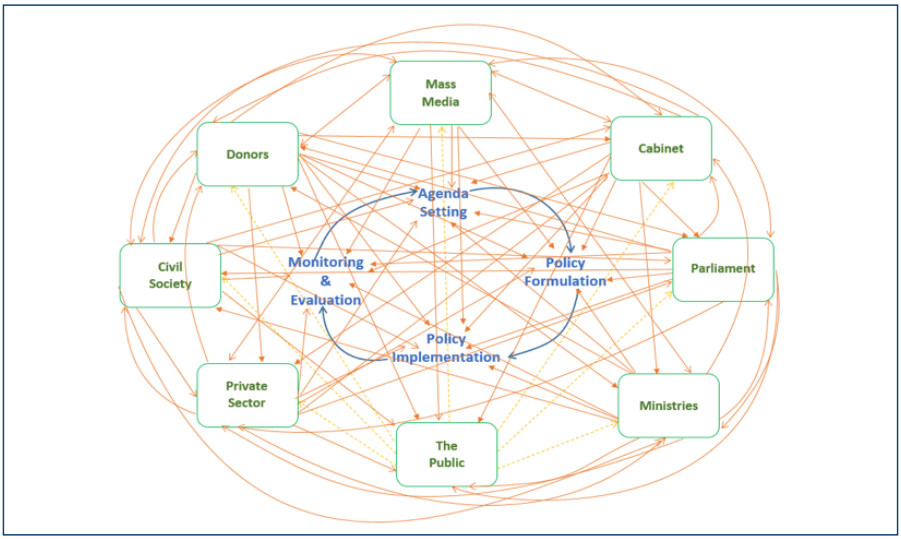
Context of Public Policy-making

2.2 Public policy-making is a political and complex process, influenced by many actors and factors and different kinds of information and priorities. Research evidence has to compete with many other factors and information to influence policy decisions. These other factors include politics, ideology, values, power dynamics, available resources, interests, habits and traditions. Figure 1 attempts to demonstrate the complexity of the policymaking process.

2.3 There are three main factors that influence decision-making which include:

- Policy actors and their networks, including Government officials, political leaders, religious leaders, funding agencies, programme implementers, civil society and interest groups.
- Local and international contexts within which policy decisions are being made, including the political context, socio-economic context, and cultural context.
- Evidence or knowledge available on the policy issue, and the prevailing framing of the issue in development discourses locally and internationally.

Figure 1: Complexity of the policy-making process; adapted from ODI, undated.



Key Stages of the Policy-Making Process and the Role of Parliament

2.4 In general, there are four main components of policymaking, namely, agenda setting, policy formulation, implementation, and evaluation. Table 1 overleaf explains the key focus of each of these components and the role that Parliament plays in each stage.

Table 1. Key stages of the policy-making process

Policy Development Stage	Description	Evidence Needs at the Different Stages	Parliament's entry point (examples)
Agenda setting	Awareness and priority given to an issue	Identifying new problems or the build-up of evidence regarding the magnitude of a problem so that relevant policy actors are aware that the problem is indeed critical. A key factor here is the credibility of the evidence, but also the way the evidence is communicated.	■ Private Member's motions and bills ■ Public hearings ■ Individual Member observations ■ Committee resolutions ■ Questions to ministers by MPs ■ Constituency Statements
Formulation	There are two key stages of the policy formulation process: determining the policy options and then selecting the preferred option.	For both stages, policymakers should ideally ensure that their understanding of the specific situation and the options is as detailed and comprehensive as possible; only then can they make informed decisions about which policy options to go ahead and implement. This includes the instrumental links between an activity and an outcome as well as the expected cost and impact of an intervention. The quantity and credibility of the evidence is important.	■ Amendment of a bill

Implementation	Actual practical activities.	Here, the focus is on operational evidence to improve the effectiveness of initiatives. This can include analytic work as well as systematic learning around technical skills, expert knowledge and practical experience. Action research and pilot projects are often important. The key is that the evidence is practically relevant across different contexts.	■ Oversight of bills and policies passed ■ Execution of the budget ■ Lobbying ■ Public hearings ■ Government responses to committee questions
Evaluation	Monitoring and assessing the process and impact of a policy.	The first goal here is to develop monitoring mechanisms. Thereafter, according to Young and Quinn (2002), 'a comprehensive evaluation procedure is essential in determining the effectiveness of the implemented policy and in providing the basis for future decision-making'. In the processes of monitoring and evaluation, it is important to ensure not only that the evidence is objective, thorough and relevant, but also that it is then communicated successfully to the continuing policy process.	■ Field visits ■ Committee meeting ■ Question Time in the chamber

Source: Adapted from ODI 2006.

Facilitators and Barriers to Evidence Use in Policy-Making and Legislative Processes

2.5 As noted earlier, evidence is not optimally used in decision-making for many reasons. This makes it important to understand the factors that hinder evidence use (i.e. barriers), as well as the factors that facilitate use or increased use and consideration of evidence in decision-making processes. A fair amount of research has been conducted on the facilitators and barriers of evidence use and we will draw on this.

Facilitators of evidence use

2.6 Several factors and conditions have been documented as being facilitative of research use in decision-making. On the supply-side of evidence, these factors include existence of relevant and timely research that is well packaged for use by policymakers, implementers, and the general public, and wide dissemination of the research. On the demand-side of evidence, these factors include policymakers having interest and motivation to use research evidence, having access to research evidence, and having the institutional capacity and individual technical skills to access, appraise, interpret, synthesise and apply research evidence. At the interface of policymakers and researchers, an important facilitating factor is the existence of collaboration and relationships between policymakers and researchers. Other facilitators of evidence use include:

- Results that are congruent with existing ideologies, and that are convenient and feasible
- Policymakers who believe evidence can act as an important counterbalance to expert opinion
- Strong advocates for research and evaluation findings

Barriers to evidence use

2.7 The study conducted in Malawi under the SECURE Health programme identified various barriers to research use as captured in Table 2 overleaf (SECURE Health, 2014).

Table 2. Barriers to evidence use in the Malawi Parliament

Access Barriers	Addressing Access Barriers
■ Lack of a mechanism for accessing research evidence: - No repository - No subscriptions to journals - Poor dissemination and packaging of research evidence ■ Lack of or limited access to operations research or research in some specialised fields ■ Poor data quality and including a deficient health information system	■ Increase budget allocation to strengthen research infrastructure for example Parliamentary library, subscription to online journals etc. ■ Develop networks with key think tanks in the country to access already researched output
Institutional Barriers	**Addressing Institutional Barriers**
■ Weak leadership for evidence use in decision-making ■ Inadequate institutional incentives for promoting evidence use in decision ■ Inadequate funding to support the generation and use of research evidence in decision-making ■ Understaffing ■ Weak institutional linkages with research institutions ■ Lack of institutional forums for communicating research evidence to top-level decision-makers ■ Lack of guidelines for research evidence and data use ■ Suspicion about motives of research funders and the validity of their research evidence ■ Politics and personal interests driving decision-making ■ Lack of equipment, software and systems to support sourcing and using research evidence and data.	■ Incorporate use of evidence and institutional capacity for research use in the Institutions' strategic plan ■ Increase budgetary allocation towards infrastructure likely to promote evidence use ■ Match number of research analysts to increased number of Members of Parliament to increase research outputs likely to match evidence uptake by Parliamentarians ■ Establish forums within Parliamentary Research Service likely to provide a forum to disseminate and communicate research output ■ Encourage and nurture evidence champions in Parliament

Individual Barriers	Addressing Individual Barriers
■ Inadequate technical skills to: - Analyse routine data - Access research - Interpret and synthesise research - Summarise research into clear policy messages ■ Inadequate time due to competing demands, this is made worse by the fact that research evidence is often not well-packaged for ease of consumption by policymakers.	■ Parliament to invest in capacity building of research staff through training, internship programmes among others ■ Key training modules could include: how to write convincing policy briefs, policy analysis, bill digests

2.8 Other barriers not captured in the table above include lack of motivation by technical staff and MPs to use evidence, contextual politics and cultural interests and values, as well as supply-side barriers to research use, including research evidence being irrelevant, untimely, and not well-packaged and widely disseminated.

Link between Policy-making and Legislation

2.9 Laws enable Government to put in place necessary institutional and legal framework to achieve Government's objectives. On the other hand, policies outline Government objectives and the methods and principles to be used to achieve the objectives. Laws therefore set out standards, procedures and principles that must be followed in policy implementation. According to the AGM, it is best practice for a law to be preceded by a policy. Most legislation, including subsidiary legislation, trace their foundation or anchorage on an agreed policy framework. The bulk of other bills spring from policy proposals of the executive, civil society, professional bodies, private sector and individual citizens or other organised groups. Not all policies require laws for their execution. Policies that do not require enactment of legislation to facilitate their execution are referred to as 'self-executing' policies. These types of policies lay out a clear administrative framework, mostly relying on the existing structures for their execution. In this case, the Parliament role is restricted to oversight.

3

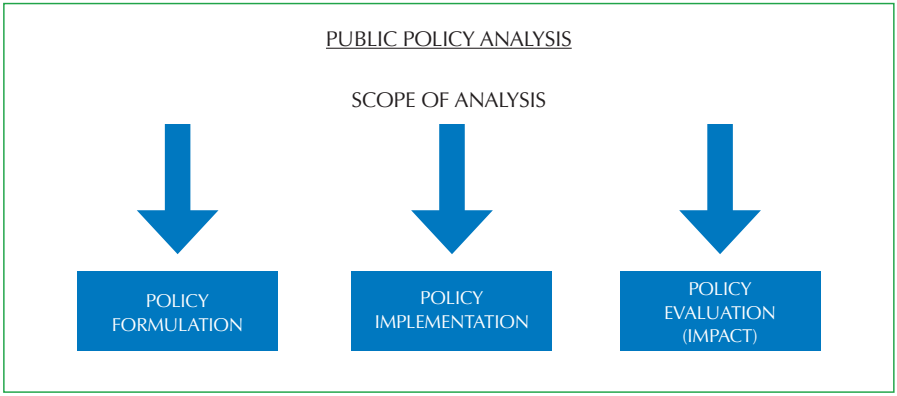
DEFINING A POLICY QUESTION IN EVIDENCE-INFORMED POLICY ANALYSIS AND DECISION-MAKING

3.1 The previous chapter focused on improving the understanding of the policy-making and legislative process. This Chapter kick-starts the process of finding research evidence to use in the policy-making and legislative process. This will be done by focusing on providing guidance necessary to effectively define the policy issue for which the research evidence is being sought.

3.2 Policy analysis is the systematic investigation of alternative policy options and the process of gathering and integrating the evidence for and against each option (Serban 2015). Policy analysis therefore happens at all the different stages of the policy-making process, namely policy formulation, implementation and evaluation. Figure 3 below on the scope of policy analysis demonstrates this. Policy analysis is characterised by systematic access to, and appraisal of evidence as an input into the analysis. Evidence-informed policy-making and analysis therefore depends on research outputs as well as other information.

3.3 In the case of Parliament, MPs rely on policy analysts who utilise evidence arising from research outputs to systematically break down the policy issues in question and advice accordingly so as to facilitate decision-making.

Figure 2. Scope of public policy analysis



Source: http://www.slideshare.net/manoharlaxmi/public-policyanalysis

Defining and Developing a Policy Question

3.4 The first step in evidence-informed policy analysis is to clearly define a policy question or problem. The policy question should be framed in terms of what course of action should be undertaken. This is necessary as it provides the direction for gathering evidence, as we will see in the coming chapters.

3.5 Before proceeding to find evidence to inform a decision, one must have a clear idea about what their decision point or policy objective is. While acknowledging that evidence is an important part of the policy equation, one cannot start looking for relevant evidence without being clear on what the evidence is for. In other words, what is the question to be answered by seeking evidence?

What is the difference between a policy question and a research question?

3.6 Before going any further on developing a policy question, let us first clarify the differences between a policy question or issue and a research question. Both questions are seeking information; however, a research question seeks to generate information for understanding and explaining a phenomenon whereas a policy question generates information for addressing or responding to a specific public policy issue or concern. Public policy-makers are charged with tackling public or developmental issues and so their search for information is geared towards not just understanding the issue, but also finding solutions to addressing the issue.

3.7 Table 3 below attempts to further elucidate some marked differences between policy questions and research questions.

Table 3: Differences between a policy question and a research question

Research Question	Policy Question
What challenges do Members of Parliament in Malawi face in executing their duties?	How can we enhance the capacity of Members of Parliament in Malawi to address the challenges they face in executing their duties?
Why is there low usage of research evidence by Members of Parliament in Malawi?	How can the Parliament's Research Section be strengthened to ensure that it avails research evidence to many Members of Parliament?
Are there any existing gaps in the Marriage Act 2015?	Is the Marriage Act 2015 sufficient in tackling the high rates of teenage pregnancy in Malawi?
How often does Parliament engage local communities?	How can the Civic Education section in Parliament improve its "taking Parliament to the people" programs to ensure that the local communities are constantly engaged?

Considerations when defining a policy question

3.8 The first place to start in defining a policy question is to be very clear on the policy issue that Parliament would like to tackle. Being very clear on where your issue lies in the policy-making process is critical as it determines the way you pose a policy question. It also determines the nature and type of evidence that you look for because evidence is incorporated into policy-making at each of these different points. The specific stage involved will affect how the question is formulated, and therefore, also point toward different types of evidence needs. Table 4 details the different policy stages, the types of policy questions and the types of evidence required. It is important to note that it is unlikely that a policy question will focus on an issue that lies in all the four stages of the policy-making process.

Table 4: Examples of possible policy questions likely to be formulated by a Policy analys at the different policy analysis stages

Policy-making stage	Examples of Policy Questions	Types of Evidence Required
Agenda-Setting Stage: Focus is to create awareness and raise priority for the issue *Your policy question is in this stage if decision-makers are not aware of the problem, the extent of the problem, or the need to consider the problem important.*	■ What is magnitude of the problem? ■ Which sections of the population are most affected by the issue? ■ Which geographic areas have the highest need?	■ Quantitative evidence that reveals the extent of the problem, e.g. the burden of disease. ■ Qualitative evidence that puts a face to the problem, illustrating people's suffering because of the policy problem.
Policy Formulation Stage: Focus is on determining and selecting policy options for addressing the policy issue *Your policy question is in this stage if there is a general understanding of the best program options to address the problem, but challenges in their effective implementation*	■ Which interventions are most effective in responding to the issue? ■ What are the costs associated with the delivery of the different interventions for responding to the issue?	■ Systematic reviews ■ Cost-effective analyses

Policy Implementation: Focus is on actual delivery of interventions *Your policy question is in this stage if there is a general understanding of the best programme options to address the problem, but challenges in their effective implementation*	■ How effective is the implementation of the programme X in tackling this issue? ■ How can we improve the delivery of programme X?	■ Comparative analyses ■ Jurisdiction comparisons
Policy Evaluation: M&E and Impact Focus is on assessing effectiveness of policies and programmes in addressing the policy issue *Your policy question is in this stage if programmes are being implemented to address the problem, but they lack adequate documentation of their effectiveness or impact, and/or there is a lack of communication of that information to the people who need it.*	■ To what extent has the implementation addressed the policy issue? ■ Is the programme meeting its set objectives? ■ What lessons can we draw from the implementation to inform policy reforms? ■ Was the policy effective in tackling the problem?	■ Evaluation and impact assessment studies

4

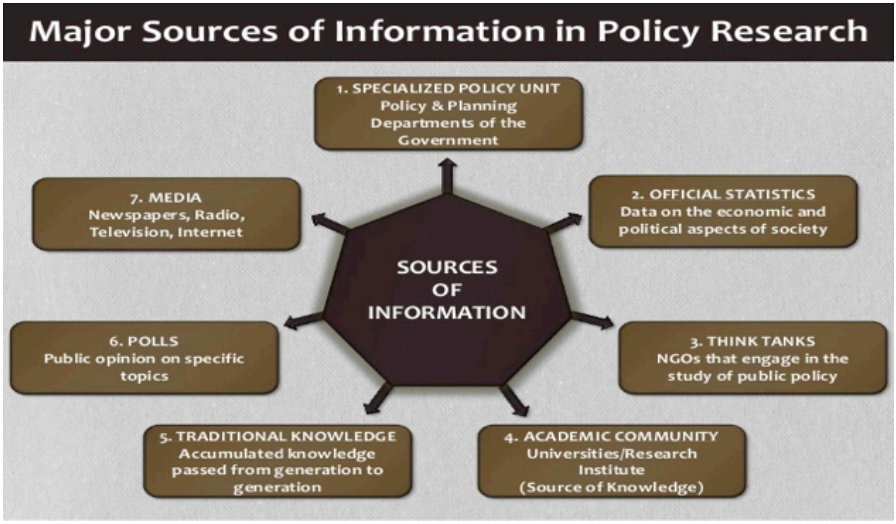
ACCESSING EVIDENCE FOR POLICY ANALYSIS AND DECISION-MAKING

4.1 This Chapter focuses on getting information or finding the evidence for answering a policy question or issue. It covers where to look (top, reputable sources and databases); how to look (Boolean terms and Google search tips); and the information search strategy (how to effectively conduct information search).

Sources of Information for Policy-Makers and Analysts

4.2 The SECURE Health study on the status of evidence use in Malawi's Parliament in 2014 revealed that technical staff in Parliament rely on information and evidence from online resources, colleagues, conferences, seminars, newspapers and electronic media. Figure 2 below shows the common sources of information for policymakers as documented in the literature.

Figure 3: Major sources of information for policy research and analysts



Source: SECURE Health EIPM Training Curriculum

Researchers and think-tanks as a source of evidence: establishing and maintaining links

4.3 One of the factors that enable use of evidence in policy-making and analysis is meaningful relationships and trust between researchers, policy analysts and policymakers (Innvaer et al., 2002; Oliver et al., 2014).

4.4 Researchers can enrich the policy-making and analysis process by:

i. Ensuring policy analysts utilise and policy decisions are based on the most up to date information.

ii. Enabling innovation in policy by bringing a range of valuable external viewpoints and fresh perspectives.

iii. Bringing extra rigour to decisions, as they can ask and answer difficult questions and challenge and defend complex answers.

iv. Bridging skills gaps in specialist analytical and data handling roles.

Ensuring a sustained contact with relevant researchers and research institutions

4.5 The Guidelines recommend the need for policy analysts and decision-makers to identify and sustain contact with researchers and research institutions in their area of focus.

4.6 Some ways in which policy analysts and policy makers can ensure a sustained contact with relevant researchers and research institutions include:

i. Make an effort to know the main researchers in your area of interest – their names, institutions where they work and their positions, telephone number, and email

ii. Make initial contact – drop them an email asking them to share any new research they are generating, and to keep you abreast of their new findings whenever these emerge

iii. Inform them of the key policy issues that you wish their research could answer

iv. Involve them in decision-making processes

v. Request them to involve you in their conferences, meetings and research studies

vi. Attend key scientific conferences in your area of interest

vii. Subscribe to receive regular newsletters and other publications of the research institutions in your area of interest

Online sources of evidence

4.7 The Internet has become an important but overwhelming source of information. Therefore, working with or through a librarian or knowledge management specialist can be beneficial to one's time and quality of the information generated from Internet search. Such experts also have more knowledge and experience with searching and literature repositories, and may also have access to databases that require fees or subscription costs. Apart from experts, some databases may have online technical support in searching and accessing documents. Parliament staff also access information from inter-Parliamentary organisations' websites such as the Southern Africa Development Community Parliamentary Forum (SADC-PF), Pan African Parliament (PAP), Commonwealth Parliamentary Association (CPA), Inter-Parliamentary Union (IPU), and African Caribbean Pacific-European Union (ACP-EU). Various websites for Malawi Government ministries and departments also provide useful information for Parliament staff.

4.8 In Annex 2, these Guidelines highlight some frequently used databases or search engines as your go-to repositories for evidence. Note that most of these databases or engines have Frequently Asked Questions (FAQ); how to search, and tutorials. These databases are listed alphabetically and not in order of importance. Note, however, that the list is not exhaustive and that there are many more top-tier databases depending on what you are looking for.

What are Systematic Reviews and Why are they Preferred in Evidence-Informed Decision-Making?

A systematic review is defined as "a review of the evidence on a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant primary research, and to extract and analyse data from the studies that are included in the review." (NHS Centre for Reviews and Dissemination, 2001).

Systematic reviews can be invaluable for evaluating available evidence in a methodical manner and providing a critical summary of strength and direction of evidence. They attempt to answer a specific question by systematically searching for, appraising, and synthesising the results of all relevant studies.

Systematic reviews are preferred in evidence-informed policy-making (EIPM) because they not only provide a meticulous way of finding relevant, high quality studies, but also integrate the findings of these studies to give a clearer and more comprehensive picture of an issue than any single study can do (Gough et al., 2013). Systematic reviews enable policy-makers to establish what is known from research, but also what is not known from research (ibid).

Evidence generated by a systematic review is much stronger than evidence generated from the traditional literature review since systematic reviews focus on ensuring a comprehensive review of all existing literature on the issue, and they also appraise the evidence.

Advantages of a systematic review include that they:

- Reduce the risk of bias in selecting studies and interpreting their results.
- Reduce the risk of being misled by the play of chance in identifying studies for inclusion, or the risk of focusing on a limited subset of relevant evidence.
- Provide a critical appraisal of the available evidence and place individual studies or subgroups of studies in the context of all the relevant evidence.
- Allow others to critically appraise the judgments made in study selection and the collection, analysis, and interpretation of the results.
- Resolve controversy between conflicting studies
- Identify gaps in current research

Limitations of a systematic review include that:

- The results may still be inconclusive
- There may be no evidence
- Existing evidence may be of poor quality

Given their comprehensiveness, systematic approach, and critical appraisal of evidence, systematic reviews are preferred in EIPM as opposed to single studies. Policymakers are therefore encouraged to prioritise systematic reviews where they are available in informing policy decisions.

Even then, it is important to note that systematic reviews are only as good as the evidence that they summarise. Like primary research, they are susceptible to bias and error, and it is important to appraise the methods before putting any trust in the results (see Chapter 5 on appraising systematic reviews).

Meta-analyses are often confused with systematic reviews. Meta-analysis (see Table 10) is a method of statistically combining results from several selected studies in order to develop a single conclusion that has greater statistical power. If the individual studies utilised randomised controlled trials (RCT), combining several selected RCT results would be the highest-level of evidence on the evidence hierarchy (see Figure 11), followed by systematic reviews, which analyse all available studies on a topic.

Developing an Evidence Search Strategy

4.9 An evidence or information search strategy refers to the systematic steps you undertake to find the most appropriate information/evidence for answering your policy question or issue. This strategy is especially critical since Internet and database searches can generate a large amount of potentially useful and non-useful information. The search strategy can be a formal tool you use or it can be less formal.

4.10 Developing a search strategy is an iterative process in which the terms that are initially used may be modified based on what has already been retrieved. There are diminishing returns for search efforts, that is, after a certain stage, each additional unit of time invested in searching returns fewer references that are relevant to the review. You can limit by dates and language and country area. Generally, you should not limit when starting. Do not limit at all if doing a systematic review.

4.11 Note that you can get more credible and useful evidence if you search for literature that is tagged as "review" or "systematic review". In this way, you can access information that has already been compiled and evaluated. Similarly, you can prioritise databases comprised only of systematic reviews like Cochrane Library or Campbell Collaboration.

Steps in Conducting an Evidence Search

4.12 There are 7 basic steps of conducting an evidence search.

Step 1: Try to put what you are looking for in the form of a question because that will focus your need and define relationships to get what you are really trying to find out. The structure of a search strategy should be based on the main concepts being examined in a review. Generally, a search strategy to identify studies will typically have three sets of terms: 1) terms to search for the condition of interest, i.e. the population; 2) terms to search for the intervention(s) evaluated; and 3) terms to search for the outcomes (optional).

Step 2: Brainstorm all the terms that could be used in your question. Decide if you want to "start wide" and narrow down (see what's out there and refine) or "start narrow" and then widen (start with pre-conceived ideas and build). There's no right way. It is dependent on how different brains work. But, starting narrow can limit what you get because you are essentially using pre-conceived ideas and may have missed something. Know that there is no "right way", but that precision will reduce retrieving a large number of records.

Decide whether data from unpublished studies are to be included. There are many definitions of grey literature, but it is usually understood to mean literature that is not formally published in sources such as books or journal articles. Conference abstracts and other grey literature have been shown to be sources of approximately 10 percentt of the studies referenced in Cochrane Reviews (Mallett, 2002).

Step 3: Brainstorm the databases you want to search. Once conclusions have been made regarding which databases will be searched, the following key decisions will be required:

i. What limiting features are available to target primary studies only (for example, use of document type codes). Keywords such as "study" or "studies" or "control group" may be used to limit the results to empirical research.

ii. The study designs that will be included in case of need

iii. Any geographic considerations

iv. The time period that you are interested in (keeping in mind that retrieval tools have different beginning dates and may not index very old material)

v. Language of publication that is to be included

Step 4: Launch your database search

Step 5: Evaluate. Look at what you are getting. If you are get nothing helpful, there may be a couple of reasons. For example, there may be not much out there, your terms are wrong, or the relationships are not right. Repeat the process if you do not get anything useful.

Step 6: Record your search strategy. Recording your search strategy is a good practice even if you are not writing a manuscript or conducting a systematic review (where it would be a requirement). Recording the basic fields of information in your strategy is not necessarily for reporting but to help you know what you have already done and what you still intend or need to do. This helps you and your collaborating colleagues not to duplicate work and is particularly helpful if the search effort extends over many months or is done by more than one person.

The following can be used to guide how you record your search strategy:

i. List search terms

ii. List all databases searched

iii. Note the dates of the last search for each database and the period searched

iv. Note any language or publication status restrictions

v. List grey literature sources

vi. List individuals or organisations contacted

vii. List any journals and conference proceedings specifically hand-searched for the review

viii. List any other sources searched (e.g. reference lists, the internet).

Step 7: Document your references. You can use an Excel spreadsheet or even a Word document to collect and organise your references. Alternatively, a reference manager software can be used to organise references. This makes the task much easier and enables you to add notes to references, cite your references and create bibliographies more easily. There are many programs available. Some free ones include Zotero, Mendeley, and basic versions of Endnote (Endnote Online).

Some things to consider when choosing reference manager software are:

i. What your colleagues use. It's easier to collaborate if you're using the same software as the people you work closely with.

ii. Is it compatible with your operating system? This could be a huge help as not all the reference managers are compatible with all the operating systems so this could help you narrow down the field quite quickly.

iii. Have a look at the screen shots on the website of the individual reference manager. Don't like what you see? Use something else. If there are no screen shots or no video tour, this is also a bad sign and may show things are getting a little out of date!

iv. Type the name of the reference manager into You Tube. If there are loads of how-to videos this is a good sign, if there aren't, forget about it.

v. Use Google – type the name of your reference software followed by review or forum and see what kind of results you get back.

vi. Twitter – Does the site have a twitter page? If so try and spark up a conversation. Being active on twitter is normally a sign that they are open and responsive to customer feedback.

Tips for Effective Information Search

Boolean terms or search operators

4.13 Boolean terms are logical operators used in expanding or limiting an Internet information search. The operators include: AND, OR, and NOT.

4.14 Some specialists think that as search engines like Google are becoming more sophisticated, Boolean terms are becoming a thing of the past. However, some repositories still use Boolean terms, as such we include them here along with some Google search tips.

4.15 Boolean operators can provide a powerful way of entering your search as they allow you to specify how the search terms are combined. To do this, you need to use Boolean logic operators, namely: AND, OR, and NOT or their equivalents on the system you are using (see Figure 3 below for demonstration). It is important to find out how the particular resource you are using uses these commands: + (for AND), - (for NOT), * (truncating terms), etc. There is almost always a 'help' section, which will explain how that particular resource works. Although different symbols may be used to represent the Boolean commands or operators, what the operators do is the same.

4.16 Tip: AND and OR and * (truncation/pluralizer) are the three most important. Use NOT sparingly since it will exclude a potential source if the term is mentioned.

4.17 Truncation: place a symbol at the end of the word so you search for variant endings of that word, e.g. litera$ would look for literature, literacy, and literal.

4.18 Wildcards: place a symbol within a word to find variations on it: e.g. analy*e would find analyse or analyze.

4.19 Inserting search phrases in quotation marks ("") ensures you search for the exact phrase. For example, entering the phrase "knowledge uptake" into a search engine will only generate documents that have the phrase "knowledge uptake".

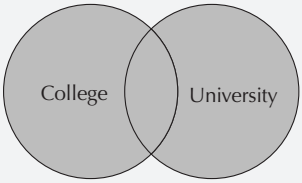
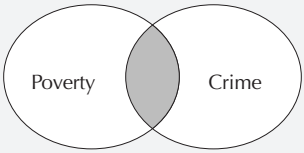
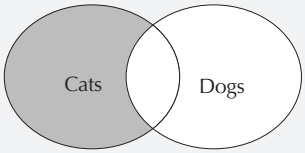
4.20 Boolean operators must be entered in capital letters (e.g. Synergy AND Conflict).

4.21 Different search tools may use OR or AND as a default setting, which means you may not need to enter these operators between your search terms or phrases. Google search engine is such an example.

4.22 A search strategy should build up the controlled vocabulary terms, keywords, synonyms and related terms for each concept at a time, joining together each of the terms within each concept with the Boolean 'OR' operator.

4.23 From a Librarian: "When using web search engines, search strategies should be entered into the Advanced Search screen as this allows the researcher to easily use Boolean logic and limiting commands through the use of menus.

Figure 4: Demonstrating the Boolean Operators

OR  **college OR university**	I would like information about 'college' or 'university'. OR expands your search. In this example, the search will return documents that have both the terms 'college' and 'university'.
AND  **poverty AND crime**	I would like information about both 'poverty' and 'crime'. AND refines your search. In this example, the search will return documents that have both the terms 'poverty' and 'crime', but leave out documents that only have one of these words 'poverty' or 'crime'
NOT  **cats NOT dogs**	I would like information about 'cats' and not 'dogs' NOT limits your search. In this example, the search will return documents that have the word 'cats' and leave out documents that have the word 'dogs'.

Google Search tips: punctuation, symbols & operators in search

4.24 Google is a sophisticated search engine that uses a number of punctuation and search operators to help you to discover information more efficiently and get more specific results.These special characters and words are described in more detail below.

Punctuation

4.25 Google and Google Scholar recognise a number of special characters that can improve the quality of your search results. These special characters are presented in Table 5.

Table 5: Google search operators

Symbol	What you can use it for
+	Include terms in the search results e.g. +Bills and –Motions
-	Remove or exclude these words from search results e.g. +Committee and -House
" "	A combination of words or a phrase in quotation marks, the results will only include pages with these words in the same order

Google Search Operators

4.26 Google has several search operators that can improve the efficiency and speed with which you can search a whole site.

4.27 The "Site:" operator is a powerful search prefix that will enable you to search a specific site or type of site (e.g. ac.uk) for content. You can also combine a key word and search terms with the operator to locate specific information. For example, Site:who.int "malaria control" report – will look for reports that contain the keywords "malaria control" within the WHO website.

4.28 The formula for the search query is as follows:

- Use the site: tag and follow it with the website address (i.e. URL). There should be no space between the colon and the website address. This is a very important point, if you leave a space between site: and the website the search query will not work.

- Also note you do not need the 'www' in front of the website address.
- You can list your terms after the website (leave a space between the website address and terms).
- Google will understand that keywords placed beside each other are combinations of terms, in other words, the Boolean AND.
- If a keyword must be included in the results you can use a + symbol before the term (this applies with or without the site: tag) e.g. no space e.g. +vaccines).
- If you want to exclude a term you should use the – symbol in front of the keyword (no space e.g. -vaccines).
- To combine keywords in a particular order then enclose them in speech marks e.g. "immunisation programmes".

Assessing Source Credibility

4.29 An important aspect of searching for evidence on online databases is to be able to assess credibility of the source so that you are assured that the evidence you found is reliable. Note that the next chapter will address assessing the quality and credibility of studies and content. In this section therefore the focus is only on assessing the source of the evidence.

4.30 To assess the quality of the source of the evidence, use the following criteria:

#1: Reputation

4.31 The source of the evidence is sometimes as important as the evidence itself. Another way to assess quality is knowing whether or not the manuscript comes from a reputable source. For example, if your source is the Cochrane Library, you can have a certain amount of confidence about the credibility of the evidence source.

#2: Journal rankings

4.32 Journal ranking systems can provide an indicative proxy guide regarding the scrutiny with which an academic study has been subjected prior to publication. The principal journal ranking system is the 'Impact Factor' rating. Journals often publish their Impact Factor ranking somewhere on their website. The higher the Impact Factor, the better the journal.

4.33 Not all well designed and robustly applied research is to be found in peer-reviewed journals and not all studies in peer-reviewed journals are of high quality. Journal rankings do not always include publications from southern academic organisations or those that feature in online journals, so a broad and inclusive approach is required to capture all relevant studies.

When there is No Documented Evidence

4.34 Sometimes there is no documented evidence for informing a policy or programme decision. In this case, a policy analyst or decision-maker could assemble a team of experts (including top scientists, practitioners, and programme implementers) to advise Parliament. The policy analyst or decision-maker could also recommend that Parliament commissions research on the issue in order to obtain credible evidence to inform the selection of a viable policy option for tackling the issue.

5

APPRAISING EVIDENCE FOR POLICY ANALYSIS AND DECISION-MAKING

5.1 The goal of evidence-informed policy analysis is not simply to increase reliance on research results to inform decision-making, but to increase reliance on "good" (i.e., rigorous) research. This Chapter focuses on developing knowledge and skills to critically assess the strength of evidence. It starts with a primer on basic research methods in order to build knowledge and skills on the type and quality of evidence generated by the different research methodologies. It then deliberates the criteria for assessing the quality and rigour of research evidence.

Basic Research Methods Primer

Understanding research designs and methods is a critical requisite for assessing the quality of evidence generated. We include here a brief introduction to research designs and methods in order to build knowledge required to assess the quality of evidence generated by different research designs and methods, and their appropriate usage in decision-making.

What is research?

5.2 Research is:

- Process of discovering new knowledge
- A systematic investigation
- Designed to produce new generalisable knowledge/or test a hypothesis
- "Research" comes from French "recherche", which means "to go about seeking"

5.3 Research is different from other forms of discovering knowledge (like reading a book) because it uses a systematic process called the Scientific Method.

5.4 A systematic investigation means that a careful plan is followed to gather and analyse information. It means information gathering is done according to an established plan or system; or in a methodical way, and that it can be replicated.

5.5 Generalisable means the information gathered can be applied to other populations, and has been published and disseminated.

Research design and methods

5.6 No matter what topic is being studied, the value of the research depends on how well it is designed and carried out. A research design is a framework in which a research study is undertaken. A research employs one or more research techniques to collect and analyse data. One may ask: why is research design so important?

- The design is the logical structure that gives direction and systematises the study
- Serves to ensure that relevant information is obtained to answer the research question in a convincing way
- Choice of study design is critical:
  - Affected by type of research question
  - Dictates the type of conclusions drawn
  - Influenced by availability of resources and time needed to accomplish the task

5.7 Annex 3 summarises 12 major research designs, providing definitions of the designs, and the information the research designs generate and how it can be used in policy-making.

5.8 It is important to note that some designs are better suited for demonstrating the presence of a causal relationship, others are more appropriate for explaining such causal relationships, while some are more useful for describing political, social and environmental contexts.

5.9 It is also important to note that in reality, the most rigorous evidence is not always available. In such cases, the available less rigorous evidence is often used to inform policy decisions.

Types of evidence

5.10 Primary research studies empirically observe a phenomenon at first-hand, collecting, analysing or presenting 'raw' data. Primary research studies tend to employ the following designs:

- Experimental
- Quasi-experimental
- Observational

5.11 Secondary review studies interrogate primary research studies, summarising and interrogating their data and findings. Secondary research studies tend to employ the following designs:

- Systematic reviews
- Non-systematic reviews

5.12 Theoretical or conceptual studies: most studies (primary and secondary) include some discussion of theory, but some focus almost exclusively on the construction of new theories rather than generating, or synthesising empirical data.

5.13 Qualitative and Quantitative - Data collection can be either quantitative or qualitative. Data analysis methods can also be quantitative (using mathematical techniques to illustrate data or explore causal relationships) or qualitative (collating 'rich' data and inferring meaning).

5.14 Qualitative data are usually text-based and can be derived from in-depth interviews, observations, analysis of written documentation or open-ended questionnaires. Qualitative research aims to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. The discipline investigates the 'why' and 'how' of decision-making, not just the 'what', 'where' and 'when'. It allows researchers to explore the thoughts, feelings, opinions and personal experiences of individuals in some detail, which can help in understanding the complexity of an issue. Qualitative research uses smaller, but focused samples rather than large random samples.

5.15 Qualitative research is also highly useful in policy and evaluation research, where understanding why and how certain outcomes were achieved is as important as establishing what those outcomes were. Qualitative research can yield useful insights about programme implementation such as: Were expectations reasonable? Did processes operate as expected? Were key players able to carry out their duties?

5.16 Quantitative data, on the other hand, are numerical data that can be manipulated using mathematical procedures to produce statistics. Quantitative research is the systematic scientific investigation of quantitative properties, phenomena and their relationships. The objective of quantitative research is to develop and employ statistical models, theories and/or hypotheses pertaining to phenomena and relationships. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and statistical expression of quantitative relationships.

Assessing the Strength of Evidence

5.17 An important step in evidence-informed policy analysis is learning how to objectively weigh information to determine its value as evidence. It is also important to look at content quality criteria in appraisal, besides strength of evidence, such as:

- Uniqueness – is it original?
- Completeness – is any information missing?

- Coverage – what depth does it go into?
- Timeliness – is it up-to-date?

5.18 Other key questions to ask when reading a research report include:

- What makes the study important?
- Do the findings make sense?
- Who conducted the research and wrote the report?
- Who published the report?
- Did the researcher select an appropriate group for study?
- If comparison groups are used, how similar are they?
- What has changed since the information was collected?
- Are the methods appropriate to the research purpose?
- Does the study establish causation?
- Is the time frame long enough to identify an impact?
- Could the data be biased as a result of poor research design?
- Are the results statistically significant?

5.19 Table 6 below presents various principles of research quality that one could use when appraising evidence:

Table 6: Principles of Research Quality

Principles of quality	Associated questions
Conceptual framing	Does the study acknowledge existing research?
	Does the study construct a conceptual framework? Conceptual framework refers to a visual or written product that "explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them." Miles and Huberman (1994: p.18).
	Does the study pose a research question or outline a hypothesis?
Transparency	Does the study present or link to the raw data it analyses?
	What is the geography/context in which the study was conducted?
	Does the study declare sources of support/funding?

Appropriateness	Does the study identify a research design?
	Does the study identify a research method?
	Does the study demonstrate why the chosen design and method are well suited for the research question?
Cultural sensitivity	Does the study explicitly consider any context specific cultural factors that may bias the analysis/findings?
Validity	To what extent does the study demonstrate measurement validity? Validity refers to the degree to which a measurement method or instrument actually measures the concept in question.
	To what extent is the study internally valid? Internal validity is only relevant in cause-effect studies, or studies that try to establish a causal relationship. Internal validity refers to how well the study was run (i.e., research design, operational definitions used, how variables were measured, what was/wasn't measured, etc.), and how confidently one can conclude that the change in the dependent variable was produced solely by the independent variable and not extraneous ones.
	To what extent is the study externally valid? External validity is the extent to which results of a study can be generalised to the world at large.
	To what extent is the study ecologically valid? Ecological validity refers to the extent to which the findings of a research study are able to be generalised to real-life settings.
Reliability ***Reliability "refers to the extent to which results are consistent over time and an accurate representation of the total population under study … if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable." (Joppe, 2000: p1).***	To what extent are the measures used in the study stable?
	To what extent are the measures used in the study internally reliable? Internal reliability refers to the consistency of data collection, analysis, and interpretation. On ether other hand, external reliability refers to the extent to which independent researchers can reproduce a study and obtain results similar to those obtained in the original study.
	To what extent are the findings likely to be sensitive/changeable depending on the analytical technique used?

Source: DFID (2014). How To Note: Assessing the Strength of Evidence.

5.20 The shortcut to a critical appraisal process before deciding to read and possibly use the evidence contained in a research report or paper can be: First read results/ findings. If one finds these to be relevant or applicable then go on to read the methods section. And if one finds that the methods are appropriate/reliable, one can proceed to read the whole article.

External validity and reliability

5.21 **Internal** and **external validity** and **reliability** are key concepts in evaluating the strength of evidence for policy analysis.

5.22 **Internal Validity** is the approximate truth about inferences regarding cause-effect or causal relationships. Thus, internal validity is only relevant in studies that try to establish a causal relationship. It is not relevant in most observational or descriptive studies, for instance. It is concerned with the questions: Is the intervention is actually causing the desired outcome? Are the changes observed due to the intervention or due to other possible factors? Internal validity means that we are able to rule out competing explanation for observed changes, and are confident that the observed changes are due to the intervention.

5.23 **External Validity** is the validity of generalised (causal) inferences in scientific research, usually based on experiments as experimental validity. In other words, it is the extent to which the results of a study can be generalised to other situations and to other people. Is the programme replicable, will it produce similar results in different settings?

5.24 Reliability of a research instrument concerns the extent to which the instrument yields the same results on repeated trials. Although unreliability is always present to a certain extent, there will generally be a good deal of consistency in the results of a quality instrument gathered at different times.

Assessing the Body of Evidence

5.25 Assessment of the overall strength of a body of evidence with reference to a particular policy or business case is directly linked to the quality, size, consistency and context of the body of the evidence.

5.26 Where you are not able to assess all the individual studies that constitute a body of evidence due to inadequate time or expertise, you should:

i. Seek to use evidence synthesis products which have assessed the quality of individual studies;

ii. Commission evidence synthesis products which assess the quality of individual studies; or

iii. Seek to make a judgement about a body of evidence based on the criteria outlined above.

Assessing the Quality of Non-Scientific Information

Questions to consider when appraising the quality of non-scientific information

- **Who is the author of the information?**
  - Is the author an expert on the issue of focus?
  - What else has the author published related to the issue before?
  - Is the author objectively interested in the issue or is s/he biased for some reasons?
- **Who is the publisher or the publishing institution?**
  - Is it a publisher with a reputation of publishing on the issue?
  - Is the publishing institution an authority on the issue?
- **Is the information consistent with what you may already know about the issue?**
  - Does the information make sense given what you may already know about the issue?
  - If the information contradicts what you already know, is the contradiction explained? And is the explanation convincing?
- **Is the content consistent throughout the document?**
  - Are there any contradictions from one section to the other?
  - Does the 'story-line' flow well?
- **Is the information complete?**
  - Are there any obvious gaps in what the publication should have covered given its title?
  - What is the depth of the information on the issue of focus?
- **Is the information current?**
  - When was the information published?
  - Have there been important changes since the information was published?

- **How was the information generated and who was involved in its generation?**
  - For instance, if the information is a policy document, who was involved in the policy development process (refer to acknowledgement section in the document)?
  - What approach was used in developing the document – was it a consultative process involving all relevant stakeholders?
- **Is the information presented accurate and authentic?**
  - If any information or data is cited, is the cited information or data authentic?
  - In the case of statistics either from government agencies or other sources, one should try interrogate numbers and their interpretation. It is important to pay attention to denominators used to come up with rate
- **Is the information presented in a format that implies it is final and ready for dissemination?**
  - Is the information professionally presented in a format that implies it is final, e.g. is it in PDF format?
  - If it is a policy document or government report, has it been signed off by the relevant official and officially launched?
- **Who funded the production and publication of the information?**
  - Does the funder have interests that may bias the information?

6

SYNTHESISING EVIDENCE FOR POLICY ANALYSIS AND DECISION-MAKING

6.1 This Chapter aims at developing knowledge and skills in critical review of multiple sources of evidence, synthesising these evidences into one new whole that provides clear policy options, implications and recommendations for tackling a policy issue. The Chapter covers skills in determining the usability and applicability of evidence to a different context from where it is generated, steps in conducting evidence synthesis, developing actionable recommendations and writing effective evidence briefs or any document depending on the need.

Evidence Usability

6.2 Take a moment to reflect on your own experience or actions when deciding if a particular piece of evidence is usable to you and your situation. There are two main considerations to address when determining whether to use specific evidence from a different context in your context, namely, applicability and transferability. Usability therefore refers to the applicability and transferability of evidence.

6.3 Applicability refers to the feasibility of an innovation in a particular setting. In other words, is it possible to implement it in your country or institution?

6.4 Transferability, also referred to as replicability, refers to the generalisability of an innovation. In other words, is the innovation relevant to your context, and is it likely to generate the same type of impact in your setting as it did where it was tested?

6.5 Table 3 overleaf provides criteria for assessing the applicability and transferability of evidence generated elsewhere to your context.

Table 7. Assessment of applicability and transferability of evidence

Construct	Factors	Questions to Ask
Applicability (feasibility)	Political acceptability or leverage	Will the policy option be allowed or supported in the current political climate? Will the public and target groups accept and support the policy option in its current format?
	Social acceptability	Will the target population be interested in the policy option? Is it ethical?
	Available essential resources (personnel and financial)	Who/what is available/essential for the local implementation of the policy option? Are they adequately trained? If not, is training available and affordable? What is needed to tailor the policy option locally? What are the full costs (supplies, systems, space requirements for staff, training, technology/administrative supports) per unit of expected outcome? Are the incremental health benefits worth the costs of the policy option?
	Organisational expertise and capacity	Is the current strategic plan/operational plan in alignment with the policy option? Does the policy option fit with its mission and local priorities? Does it conform to existing legislation or regulations (either local or provincial?) Does it overlap with existing programs or is it symbiotic?) Any organisational barriers/structural issues or approval processes to be addressed? Is the organisation motivated (learning organisation)?
Transferability (generalisability)	Magnitude of issue in local setting	Does the need exist? What is the baseline prevalence of the issue locally?
	Magnitude of the "reach" and cost effectiveness of the policy option above	Will the policy option broadly "cover" the target population?
	Target population characteristics	Are they comparable to the study population? Will any difference in characteristics (ethnicity, socio-demographic variables, number of persons affected) impact intervention effectiveness locally?

Source: Adapted from - National Collaboration Centre for Methods and Tools. Available at: http://www.nccmt.ca/pubs/A&T_Tool_-_FINAL_English_Oct_07.pdf

Synthesising Evidence: What is it?

6.6 "Synthesis is the process of ordering, recalling, retelling, and recreating into a coherent whole" (Zimmermann and Hutchins, 2003). A synthesis consolidates summaries of several sources and points out their relationships. It enables you to provide background, explore causes and effects, contrast explanations, or consolidate support for your argument.

6.7 It is important to synthesise evidence because with multiple sources you can:

- Provide more than one opinion;
- Validate other sources;
- Validate your research;
- Defend your research and
- Increase your understanding

Differences between Summarising and Synthesising Evidence

Table 8: Differences between summarising and synthesising

Summary	Synthesis
Basic reading technique.	Advanced reading technique.
Pulls together information in order to highlight the important points.	You pull together information not only to highlight the important points, but also to draw your own conclusions.
Re-iterates the information.	Combines and contrasts information from different sources.
Shows what the original authors wrote.	Not only reflects your knowledge about what the original authors wrote, but also creates something new out of two or more pieces of writing.
Addresses one set of information (e.g. article, chapter, and document) at a time. Each source remains distinct.	Combines parts and elements from a variety of sources into a united entity.
Presents a cursory overview.	Focuses on both main ideas and details.
Demonstrates an understanding of the overall meaning.	Achieves new insight.

Source: Sarah Elaine Eaton 2010

Steps for Synthesising Evidence

Step 1: **Identify the role of a synthesis in your writing** as well as the kind of information the readers need.

Step 2: **Read your sources**, preparing a summary of each with an aim of finding important ideas in all pieces of evidence.

Step 3: **Focus** - Decide on the purpose of your synthesis, and draft a summary of your conclusions about how the sources relate. In essence, summarise before you synthesise.

Step 4: **Think about what you know about these important ideas.** Can you add something the authors have not mentioned? What are your own ideas about the information? What observations can you make about this information?

Step 5: **Arrange, select a sequence for the sources in your synthesis.** Think about how you can rearrange or reorganise the information in a new way.

Step 6: **Write your synthesis, combining your summaries of the sources with your conclusions about their relationships**. Combine them in one summary.

Step 7: **Visualise** - Diagrams are especially helpful tools for synthesising data. By visually representing relationships you are seeing, you can communicate many concepts on one page.

Step 8: **Revise** so that your synthesis is easy to read and readers can easily identify the sources of the various ideas.

Step 9: **Document** - Indicate clearly the sources for your synthesis using a standard style of documentation such as American Psychological Association (APA).

Analysing Evidence on Policy Options for Tackling the Policy Issue

6.8 Critical analysis of the evidence on the likely policy options for tackling the policy issue is an important step in the synthesis process. Basically, if you are going to propose policy solutions or options for tackling the problem, you need a good understanding of the current options being implemented and why they are not working, and strong evidence on other policy options, explaining clearly why these are likely to work and not the current options. This critical review should be well laid out by the way you discuss the evidence on the different potential policy options. This analysis is critical as it is the one that informs the policy recommendations that you make.

Tips for Presenting Evidence

6.9 There are several ways to present evidence from multiple sources. Besides synthesis as text in the body of your paper, you can also use as quotes or paraphrase. Sometimes you might include graphs, charts, or tables; excerpts from an interview; or photographs or illustrations with accompanying captions.

6.10 When you quote, you are reproducing another writer's words exactly as they appear on the page. When you paraphrase, you take a specific section of a text and put it into your own words. Putting it into your own words does not mean just changing or rearranging a few of the author's words: to paraphrase well and avoid plagiarism, try setting your source aside and restating the sentence or paragraph you have just read, as though you were describing it to another person. Paraphrasing is different from summary because a paraphrase focuses on a particular, fairly short bit of text (like a phrase, sentence, or paragraph). You have to indicate when you are paraphrasing someone else's text by citing your source correctly, just as you would with a quotation.

Tips for Writing Compelling and Concise Syntheses

6.11 Present an evidence-based message by complementing quantitative and qualitative evidence, i.e. using statistics as well as stories. Also:

- Simplify complex evidence
- Present it in a persuasive manner

6.12 Keep your message short by:

- Focusing on the policy problem
- Presenting only main findings/points
- Presenting a conclusion/implication and recommendations to address the problem

6.13 Keep your message simple by unpacking complex issues into simple messages. Table 9 overleaf gives examples of complex versus simplified messages.

Table 9: An example of unpacking complex issues into simple messages

58% of Malawians cannot afford private schooling.	OR	Nearly 6 in ten Malawians cannot afford private schooling.
There exist a positive correlation between the level of education and the number of times a woman attends antenatal care clinics, the correlation is especially significant for women who have attained secondary school education and above.	OR	Education helps improve the health of mothers; women with secondary school education or higher are more likely to seek care during pregnancy than women with lower levels of education.

Format for Presenting your Synthesis

6.14 In Table 10, we suggest a possible format for presenting your evidence synthesis. Essentially, your synthesis should include: Introduction (background to the policy issue), Methods (brief indication of how you gathered the evidence and mention of key document/research you drew from), Policy Options (critical analysis of the potential policy options for tackling the issue drawn from the evidence that you found and conclusions), and Policy Recommendations (based on the evidence presented in Policy Options, you identify a few recommendations of what should be done to tackle the issue).

Table 10: Format of an evidence synthesis

Component	Description
1. Introduction (Background)	A clear statement of the problem or issue. A short overview of the root causes of the problem. A clear statement of the policy implications of the problem that clearly establishes the current importance and policy relevance of the issue.
2. Methods	A brief highlight of how you gathered the information that you're presenting in the synthesis. It can also list some of the key research documents that you reviewed, e.g. a list of the five recent systematic reviews that you tread.
3. Policy Options	A critical overview of the policy options, including the current and proposed options Should explain why current option is failing, and present other potential policy options. It's the critical presentation of your evidence on how the policy issue should be tackled.
4.Policy Recommendations	Gives your policy recommendations informed by the discussion in the Policy Options section.
5. References	Lists all the references used in your synthesis

Writing Actionable Recommendations

6.15 A recommendation is simply a written advice prepared for some group or individual that has the authority to make decisions, whether that is the Cabinet, council, House committee or any other body. The word 'actionable' here suggests that your recommendations should be active. Therefore, use active language - words like use, engage, incorporate, among others.

6.16 The impact of your recommendations partly depends on how well the issue and the arguments justifying the recommended course of action are presented. Therefore in addition to keeping your recommendations simple, short, concise and readable, they need to have the highest level of accuracy. You therefore need to review findings from elsewhere and systematically review before making recommendations for policy change or even adoption.

6.17 When thinking about recommendations likely to respond to a policy issue, you need to critically ask yourself:

- What specifically needs to be changed?
- How will this change come about?
- What resources will be needed? Where will these resources come from?
- What is the overall benefit to the policy-maker & to society?

6.18 Examples of policy (statement) recommendations:

i. Parliamentary and party leaders should initiate dialogue to create a female friendly environment within Parliament. Also lobby for women's participation in decision-making structures of parties and governing bodies and more key Parliamentary committees;

ii. The Government should train MPs on mining issues for them to effectively monitor the policies and politics governing the extractive industry;

iii. Government should ban the sale of alcohol sachets.

Writing Briefs

Function and elements of a brief

6.19 Briefing notes are used to keep decision makers informed about the issues they are responsible for. They are normally used in governments as a way of communicating between managers and their political masters. Briefs are considered an opportunity

for advancing an argument. Ideally, briefs are supposed to be short, concise, clear, reliable and readable. They are normally written for the following reasons:

- To keep track of issues;
- To keep decision makers informed; and
- Since they are supposed to be short, they are meant for people who cannot afford to conduct their own research.

6.20 A brief needs to strike a balance between a convincing problem description, which highlights the relevance of the policy issue, an analytical, evidence-driven section explaining policy options for tackling the issue, and the recommendations for tackling the issue. A brief should feature five key elements:

i. **Focused on tackling a public policy problem:** A brief is practical and action-oriented. Its content must focus on the problem and centred on the policy and/or political dimensions of the issue, as well as the practical solutions that can be offered based on evidence

ii. **Analysis-driven:** Building on facts and evidence, a brief demonstrates analytical thinking on the range of possible solutions for the given problem. The arguments put forward for and against different options should be the result of a measured and balanced consideration of the possible solutions. They should take into account the impact and feasibility of the alternate policies in a variety of ways, one of which is by considering the potential costs and benefits of suggested policy options.

iii. **Evidence-based:** A brief must be evidence-based in order to convince policymakers. For this, one needs to provide and cite convincing examples such as data, comparisons, and effects of inactions or policies taken in other countries on this issue. One needs to provide evidence from multiple reputable sources and cite these sources properly.

iv. **Offers viable recommendations:** The goal of a brief is to persuade a decision-maker to address a specific issue and implement the policy recommendations that one has devised. One therefore needs to promote one's ideas from the evidence. The recommendations should take centre stage, but one should also show the audience why proposed recommendations provide the best option for tackling the issue (i.e. the recommendations should be driven by the evidence).

Structure of a brief

Table 11: Structure of Briefs

Introduction	Here you present the issue, topic or purpose or a concise statement of the problem
Background	Details on how the situation started and how it has evolved
Current Status	The current state of the matter and everything else going on
Key Consideration	A summary of Important facts, considerations, developments and everything that needs to be considered
Options	A critical discussion of potential options based on existing evidence, highlighting pros and cons of the different options
Conclusion and/or Recommendations	Conclusions summarises what you want the reader to infer from the briefing note

Some tips for beginning to write your policy brief

6.21 Use these questions to begin thinking about your policy brief's purpose, audience, and contribution:

- What problem will your brief address?
- Who is the audience? Why is the problem important to them? What do you know about the audience (e.g., technical knowledge, political or organisational culture or constraints, exposure to the issue, potential openness to the message)?
- What other policy or issue briefs already exist? How will your brief differ (e.g., different information, perspective, aim, or audience)?

6.22 Use these questions to lay out the outline and basic content of your policy brief:

- What is the aim of the policy brief? Write one or two sentences from which the rest of the brief will follow.
- What is the best hook for the audience?
- What background information does the audience need?
- What data are most important to include for your audience?
- How will you present the data so it best conveys its message (e.g., in text, bar graph, line graph)?

- What are the policy options based on the evidence that you have reviewed (if appropriate to your topic/aim)?

Preparing and Delivering an Elevator Pitch to Make Compelling Case for Action

6.23 An elevator pitch is a brief, persuasive speech used to spark interest in a policy issue that one is concerned about. Elevator pitch is commonly used in the business and corporate world, but it can also be drawn upon by professionals in the public and NGO sectors to give a compelling case for a policy option. Some may know this type of speech to be called "a pitch, snapshot or one-minute message". A good elevator pitch should last no longer than a short elevator (lift) ride of one minute, hence the name. An elevator pitch should be interesting, memorable, and succinct.

6.24 An important point to bear in mind when developing an elevator pitch for a policy issue of concern is to focus on three main messages:

- The problem
- Supporting evidence
- Request (either for a meeting to discuss issue in detail, or appeal to audience to act on the issue)

6.25 An elevator pitch should be relevant to the audience it is intended. For instance, one needs to think about the hook that will get the target audience interested in the issue. One should ask themselves a number of questions: Why should the audience listen? What is in it for the audience?

6.26 An elevator pitch should:

- Have a 'hook'
- Should have passion
- It should end with a request - of what you want from the audience (a meeting to discuss the issue in a bit more depth)

6.27 An important aspect of developing and delivering an effective elevator pitch is to practice. The textbox overleaf provides an example of an elevator pitch. Note that an elevator pitch is delivered orally; preparing a written one is only meant to help one thrash out the key message or the hook they want to use to capture the attention of the target audience, and for practicing purposes.

An example of an elevator pitch

An example of an elevator pitch: Problem of early sexual debut among teenagers

Target audience is the Chair of the Health Committee in Parliament, and the data provided is hypothetical for demonstration and does not represent actual statistics.

Problem and evidence

The biggest challenge that the country is facing right now is strengthening the healthcare system to ensure that more Malawians have access to care. We have been looking at the information coming from health facilities around the country for the last 12 months, and a key point from this information is that young girls seeking pregnancy-related services account for nearly 40% of all hospital admissions. This means that in every 10 admissions, 4 are young girls aged between 12-19 years.

Implications of this evidence

What this data also points out is that there are specific interventions that the country can undertake to considerably reduce hospital admissions of young girls. If we could just reduce the hospital admissions of young girls by half, this will greatly reduce the burden weighing down our health care system.

The ask

I wonder if you would be interested in a longer conversation about this data and the specific actions that Parliament can undertake to contribute to the reduction of hospital admissions of young girls in the country?

Preparing and Delivering an Effective PowerPoint Presentation

Tips for developing effective presentations

6.28 Remember the following points when developing presentations:

- Keep the number of slides to a minimum
- Limit the information on the slide to a single point or idea --- no more than 5 lines
- Keep slides simple with plenty of open space
- Use “powerful” titles that communicate the point of the slide

- Use 'power-points' not sentences – one 1 line
- Use visuals – graphics, pictures
- Simplicity
- Large readable type
- Strong color contrast
- Use slide master to create consistent slides

6.29 When delivering a PowerPoint presentation:

- Practice
- Show up early to ensure your equipment works
- Test your presentation on the actual presentation computer – don't assume it will work
- Don't read the presentation – practice so that you can deliver from the 'power-points' without reading word by word
- One slide per minute
- Stay on time
- Turn your screen saver off
- Monitor your audience's behavior
- Avoid moving the pointer unconsciously
- Ask your audience to hold questions till the end

7

OPTIMISING EVIDENCE USE IN POLICY ANALYSIS AND DECISION-MAKING

7.1 Chapter 7 focuses on developing knowledge and skills on the optimising use of evidence policy analysis and decision-making, as well as the identifying the indicators of evidence use. Application of evidence is the final stage in the evidence-informed policy analysis and decision-making process. The Guidelines discuss application of evidence broadly looking at: reach, use, capacity building, and collaboration.

Reaching Decision-makers and Parliamentarians at the Right Time with Evidence

7.2 There is a theory that there are two important domains to consider when striving to reach decision-makers with evidence. These are the policy system and the human element.

Understanding the working of Parliament and their committees (i.e. the policy system)

7.3 A first step in reaching MPs and committees at the right time with evidence is to understand the working of Parliament and its legislative agenda. This includes the different roles of Parliament compared to other arms of Government. For example, how laws are made and the interrelationship between policy and laws; and the role of the different departments within Parliament. Ensuring synergy and complementarities in support of the role of MPs.

7.4 It will also be important to understand the legislative agenda of Parliament so as to be able to provide the much needed and relevant evidence while continuing to remain relevant as a source of information.

7.5 It is also important to understand how the topic under discussion is likely to influence future decisions or other related topics and whether there are existing discussions around the topic. It is possible that the topic is also being handled by Government think-tanks, a different technical office of Parliament, or a different committee of the House. Therefore, the first step in knowing how to reach decision-makers in Parliament at the right rime is to create a window of opportunity. This can be achieved by:

i. Networking.

ii. Talking one-on-one with MPs who seem to have a keen interest on the area whose evidence you are in possession.

iii. Get proper instructions from the committee/individual MPs on what type of information is needed.

iv. Engaging with the system.

v. Writing evidence briefs and notes for the committee on an issue that needs evidence for clarification.

vi. It is imperative to know the agenda of a committee meeting.

vii. Working with other committees to develop briefs on certain information e.g. the impact of the Budget on women and children.

The human element in reaching decision-makers

7.6 Two systematic reviews conducted in 2002 and 2014 of how evidence influences decision-making, found that the absence of personal contact between researchers and policymakers and the lack of timeliness or relevance of research were the most common constraints to evidence use (Innvaer et al., 2002; Oliver et al., 2014).

7.7 The important take-away points from the above systematic reviews are:

- Each policymaker has different ways they like to be contacted. Take time to check how they prefer to receive information. Knowing background of your audience informs communication strategies.
- Timeliness is a critical element in influencing policy and decision-makers.

Developing a Communications Strategy

Building on the foregoing section, it is important to have a clear strategy on how you will communicate your evidence to a targeted committee or MPs in order to influence its uptake. There are a number of steps followed in developing a communication strategy as presented below.

Step 1: Define your communication objectives

7.8 What do you want to achieve with your communications activities? Define this in simple, clear and measurable terms. Your communication objectives will be informed by the issue you are seeking to address. For instance, if the issue you are seeking to address is not on the agenda of the committee or on the agenda of the audience you are attempting to reach (as in it is more of anticipatory), then your communication objective will largely involve increasing awareness and understanding of the issue and its implication.

7.9 On the other hand, if the issue you are seeking to address is already on the agenda of the committee (as the committee or the audience requested for additional information), then you will need to understand what particular area requires additional clarification. Your communication objectives will seek to 'fill in the gaps'. Table 10 below illustrates examples of communication objectives versus

programme objectives. What is most important is to think critically about what can actually be achieved by communication activities. This process helps you refine your communication objectives only to what can be achieved by your communications activities.

Table 12. Communication versus program objectives

Communications Objectives	Programme Objectives
Raise awareness among MPs about the need for increased resources for maternity services	Increase the number of women who receive free maternity services by 30% in 2016
Prioritise the reversal of the ban on GMOs in the country	Increase the acceptance and use of GMOs to 15% by 2018
Promote allocation of resources to the operationalisation of the Marriage Act of 2015	Increase funds for the operationalisation of the Marriage Act of 2015
Increase the level of accountability and transparency in line with the Public Finance Act	Increase the number of Audit reports considered by Parliament annually
Increase support for the revision of the current free maternity health services guidelines	Revise the current free maternity health services guidelines
Promote the increase of resource allocations to health research	Increase resource allocation to health research

7.10 After defining your communication objectives, the next important thing to do is to define the specific outcome(s) for each communication objectives. The outcome(s) will demonstrate success that a specific communication objective has been achieved. Table 11 below provides some examples of communication objectives and their potential outcomes.

Table 13. Expected outcomes for communication objectives

Communications Objective	Expected Outcome
Help the Parliamentary Health Committee to better understand what the country needs to do to effectively reduce child deaths	Parliamentary Health Committee initiates actions that will get the Executive arm of government to implement effective strategies for reducing child deaths
Increase understanding among the members of the Public Accounts and Budget Committee on the importance of allocating a budget for research evidence generation in the country.	Introduction of a budget line for research evidence generation in the national budget

7.11 An important point to bear in mind is that policy change and influence in decision-making is a gradual process, and so your communication objectives will need to be informed by this reality. Being realistic on what you can actually achieve with your communications activities means that you do not set yourself up for failure.

Step 2: Identify and analyse your audiences

7.12 An important first step in understanding your audience is categorising them so that you are clear on:

- Who is your primary audience? – The decision-makers who can directly influence policy following evidence provided
- Who is your secondary audience? – The policymakers and other actors who can influence the primary audience (allies)
- Who are your opponents? – The policymakers or decision makers and other actors who are not necessarily in agreement with your evidence as a result of other competing reasons.

7.13 The next step in analysing your audience is to find out:

- What do they know about your topic?
- Are they interested in your topic?
- Who do they listen to?
- What are their information needs about your topic?
- What are their current sources of information?
- What are the best ways to reach them? (formats & channels)

7.14 A good understanding of your audience will inform the next steps of your communication, i.e. developing compelling messages for each of the different audiences and choosing effective formats and channels for reaching these audiences.

Step 3: Developing Messages

7.15 In earlier sections, we have already covered a lot of important elements in developing compelling messages when we covered the development of actionable recommendations, policy briefs and elevator pitch. Here is a recap of four tips for developing effective messages.

- Keep the number of key messages for each group to a maximum of 2-3 messages, and deliver those same messages consistently.

- Tailor the message to fit the audience – it is the audience that should drive message content. The decision maker is likely to be most interested in one aspect of what you have to present - What is in it for me?
- Make sure the message is delivered by a source the audience finds credible - The messenger is often as important or (sometimes) more important than the message itself.
- Keep the message at the level of the audience - avoid technical jargon - using words or phrasing that conjure positive images - better to say 'family planning' or 'child spacing' than 'population control'.

7.16 Effective policy messages often incorporate phrases that are in vogue in the popular culture or that are framed in terms of people's values or conjure positive images in people's minds about an issue.

Step 4: Select the Channels to Use

7.17 There are multiple modes of communication that you can use for reaching your target audience. Select formats that are the most appropriate for your audiences. This requires a good understanding of the target audience and their sources of information. They include:

- Face-to-face (interpersonal) – at workshops, seminars, committee sessions/ meetings (through reports, briefs
- Mass media – Internet (Parliament website); Mass mailing (email)
- Social media - Twitter, Facebook

Step 5: Create a Work Plan

7.18 Key questions to ask yourself when creating a work plan are for whom, by when, by what means, by whom, how often and how many. The work plan should specify:

- Communication activities and the timelines
- What resources are needed (human and financial)

7.19 The work plan should also factor in upcoming 'focus-generating events' that you can take advantage of in order to communicate your evidence or use your evidence to influence policy decisions. Such events may include annual budgeting cycle.

7.20 Pretest your messages – this can dramatically improve the effectiveness of materials, and can be low cost and require minimal effort.

Step 6: Implement your Communications Activities

7.21 Nothing will be achieved unless you implement your communications work plan. Specifically:

- Guide and work with your team in designing and delivering the communications activities.
- Establish and sustain important relationships with external actors needed for the successful delivery of planned communications activities. These could be relationships with other government agencies, civil society, researchers, and media, among others.

Step 7: Monitor and Evaluate your Communication Activities

7.22 Monitoring and evaluating communication activities is critical for understanding your impact as well as drawing lessons for informing future communications activities.

7.23 M&E activities should assess:

- Performance - Were all the key points on the topic raised, explained and on time?
- Evidence that your issue has gained the attention of policymakers (are senior policymakers talking about your issue, or starting initiatives to tackle your issue, e.g. asking for additional background notes for drafting purposes by the legal department)
- Impact - Did activities bring about the desired change? (Have any amendment to a piece of legislation been instituted? Is there any piece of legislation being drafted to tackle the issue?)
- Evidence that your interventions have enhanced understanding of the salient issue
- Evidence that your information is aligned to the legislative agenda of Parliament

7.24 In summary, effective communication strategies rely on:

- Audience-centered approach
- On-going communications and interactions with audience (through House committees, implementing agencies and Ministries), etc.
- Disseminating information at the right time, for the right length of time.

7.25 If well designed, your communications activities will create demand for more information on the issue and may trigger an amendment to a specific law or legislation or cause a law to be drafted to address the issue.

What are the Indicators of Evidence Application?

7.26 How do we know that evidence has been used?

- Amended laws or proposed legislative proposals
- Recommendations adopted by implementing agencies
- Guidelines revised to reflect the evidence
- Influencing the upstream policy dialogue
- Inclusion on the agenda of House committee meetings for further debate
- Number of policies, programmes, or products developed on basis of this study
- Frequency and quality of interactions with high level policymakers
- Incidence of similar projects
- Changes made to programme or services

7.27 It is very complex to measure use of evidence. Acknowledging this complexity is a helpful reminder to us to articulate SMART (Specific, Measurable, Achievable, Realistic and Timely) indicators, but remain flexible. Even experts in developing and monitoring indicators allow for the fact that different people categorise measures differently and the important thing is to develop something that works for your context and can be agreed upon by stakeholders close to the work.

7.34 Sometimes evidence is directly applicable (we see policy guidance developed around it). It can also be applied, but not so obvious (evidence seen in collaboration activities or funds leveraged). Since there are multiple ways that evidence can be applied in the real world, there are also multiple ways to indicate that use has in fact occurred.

CONCLUSION

8

This document provides guidance for technical staff in Parliament in using evidence for policy analysis and decision-making. Parliamentary committees, MPs and others working with Parliament can also find it useful. The emphasis on evidence-informed decision-making and bill/policy analysis is because advantages of evidence-informed approach to decision-making and analysis have been widely recognised by policymakers and researchers alike. It is worth noting though that evidence-informed decision-making is a process that requires both sustained attention and resources.

Even then, the advantages of evidence-informed decision-making, listed below, justify the resource investment:

- Ensure that policies are responding to the real needs of the community, which in turn, can lead to better outcomes for the population in the long-term.
- Can highlight the urgency of an issue or problem, which requires immediate attention. This is important in securing funding and resources for the policy to be developed, implemented and maintained.
- Enables information sharing amongst other members of the public sector, in regard to what policies have or haven't worked.
- Can reduce Government expenditure, which may otherwise be directed into ineffective policies or programs, which could be costly and time consuming.
- Can produce an acceptable return on the financial investment that is allocated toward public programmes by improving service delivery and outcomes for the community.
- Ensures that decisions are made in a way that is consistent with our democratic and political processes, which are characterised by transparency and accountability.

REFERENCES

9

Buffet, C., Ciliska, D., and Thomas, H. (2007). *Can I Use this Evidence in My Programme Decision? Assessing Applicability and Transferability of Evidence.* Hamilton, ON: National Collaborating Centre for Methods and Tools.

CADRE Project at the University of Nebraska-Omaha (n.d.). *Reading Comprehension: Beyond the Text Skills.* Retrieved from: https://sites.google.com/site/capstonef2012/reading-comprehension/beyond-the-text-skills/synthesizing-information

Community-Based Monitoring System (CBMS) Network Coordinating Team (n.d.) *Guidelines for Writing a Policy Brief.* Retrieved from: http://www.pep-net.org/sites/pep-net.org/files/typo3doc/pdf/CBMS_country_proj_profiles/Philippines/CBMS_forms/Guidelines_for_Writing_a_Policy_Brief.pdf

DeVry University South Florida Campus Community Website (n.d.) WWW Resource: Boolean Searching on Internet. Retrieved from: http://www.mir.devry.edu/academics_lib_www2.html

DFID (2014). *How to Note: Assessing the Strength of Evidence Provides Detailed Criteria for Assessing the Strength of a Body of Evidence.* Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291982/HTN-strength-evidence-march2014.pdf

DFID (2013). *Research Uptake Guidance: A Guide for DFID-Funded Research Programmes.* Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200088/Research_uptake_guidance.pdf

Eaton, S.E. (2010). Reading Strategies: *Differences between Summarising and Synthesising.* Retrieved from: https://drsaraheaton.wordpress.com/2010/09/29/reading-strategies-differneces-between-summarizing-and-synthesizing/

Galligan, A.M. and Burgess, C.N. (2003). *Moving Rivers, Shifting Streams: Perspectives on the Existence of a Policy Window.* (Occasional Paper No. 29). Paper Presented at the 29th Annual Social Theory, Politics and the Arts Conference. Retrieved from https://arted.osu.edu/files/arted/paper29.pdf

Gilmore, T., Krantz, J. and Ramirez, R. (1986). "Action Based Modes of Inquiry and the Host-Researcher Relationship," *Consultation* 5.3 (Fall 1986): 161.

Global Debate and Public Policy Challenge (undated). Writing Guidelines: Policy Brief. Retrieved from: http://gdppc.idebate.org/content/writing-guidelines-policy-brief

Gough, D., S. Oliver and J. Thomas (2013) *Learning from research: Systematic reviews for informing policy decisions: A quick guide.* EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Gurung, P. (2014). *Role of Research in Policy-Making* (in terms of policy research). [PowerPoint slides]. Retrieved from: http://www.slideshare.net/PabitraGurung/role-of-research-in-policy-making-in-terms-of-policy-research

Hallsworth, M. and Rutter J. (2011). *Making Policy Better: Improving Whitehall's Core Business.* London: Institute for Government.

Hammerstrøm, K., Wade A., Hanz K., Jørgensen A.K. (2009). *Searching for Studies: Information Retrieval Methods Group Policy Brief.* Oslo, Norway: The Campbell Collaboration. Retrieved from: http://www.campbellcollaboration.org/artman2/uploads/1/C2_Information_retrieval_policy_brief_new_draft.pdf

Hedin A, and Kallestal C. Knowledge-based public health work. Part 2: Handbook for compilation of reviews on interventions in the field of public health. National Institute of Public Health. 2004. http://www.fhi.se/shop/material_pdf/r200410Knowledgebased2.pdf

HM Treasury, United Kingdom Government (2011). *The Green Book: Appraisal and Evaluation of Central Government.* London: UK Government.

Innvaer, S., Vist, G., Trommald, M. and Oxman, A. (2002) Health policy-makers' perceptions of their use of evidence: a systematic review. *Journal of Health Services Research and Policy*, 7: 239–244.

Jones, N. and Walsh, C. (2008). *'Policy Briefs as a Communication Tool for Development Research', Background Note.* London: Overseas Development Institute.

Joppe, M. (2000). The Research Process, *The Quantitative Report Journal,* 8(4): 597-607. Retrieved from: http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf

Kingdon, J. (2003). *Agendas, Alternatives, and Public Policies.* 2nd Edition. New York: Longman.

Klassen TP, Jadad AR, Moher D. Guides for Reading and Interpreting Systematic Reviews. 1. Getting Started. *Archives of Pediatric and Adolescent Medicine,* 1998;152:700□704.

KLRC (2015). *Guide to the Legislative Process in Kenya.* 1st Edition. Nairobi: Kenya Law Reform Commission (KLRC). Retrieved from: http://www.klrc.go.ke/index.php/reports-and-publications/562-a-guide-to-the-legislative-process-in-kenya

Kolsnik, V. (2012). *Mind Map on How to Create a Mind Map.* Retrieved from: https://www.flickr.com/photos/ult/7577744858

Mallett, S., Hopewell, S., Clarke, M. (2002). *Grey literature in Systematic Reviews: The First 1000 Cochrane Systematic Reviews.* Fourth Symposium on Systematic Reviews: Pushing the Boundaries, Oxford (UK).

Miles, M.B. and Huberman. A.M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Ministry of Health (2014). *Kenya Health Policy 2014-2030.* Nairobi: Ministry of Health.

Ministry of Health, Government of Malawi (2014) *Guidelines for Policy Development and Analysis for the Public Health Sector in Malawi.* Lilongwe: Government of Malawi.

NHS Centre for Reviews and Dissemination (2001). Undertaking Systematic Reviews of Research on Effectiveness. CRD's Guidance for those Carrying Out or Commissioning Reviews. CRD Report Number 4 (2nd Edition). NHS Centre for Reviews and Dissemination, University of York.

Nutley, S., Powell, A. and Davies, H. (2013). *What Counts as Good Evidence?* Alliance for Useful Evidence. Retrieved from: http://www.alliance4usefulevidence.org/assets/What-Counts-as-Good-Evidence-WEB.pdf

Oliver, K. S., Innvaer, T., Lorenc, J., Woodman, J. T (2014). A systematic Review of Barriers to and Facilitators of the Use of Evidence by Policymakers. *BMC Health Services Research,* 14:2.

Office of the First Minister and Deputy First Minister, Northern Ireland Government (n.d.) *A Practical Guide to Policy-Making in Northern Ireland.* Belfast: Government of Northern Ireland.

Overseas Development Institute (n.d.) *Policy Processes are Complex.* Retrieved from: https://kirstyevidence.files.wordpress.com/2012/09/rapid-diagram1.jpg

Oxman, A.D., Lavis J. N., Lewin S. S. and Fretheim, A. (2009). *Support Tools for Evidence-Informed Health Policy-Making (STP) 1:* What is Evidence-Informed Policy-Making? Health Research Policy and Systems, 7(Suppl 1): S1. Retrieved from: http://www.health-policy-systems.com/content/7/S1/S1

Pollard, A. and Court J. (2005) *How Civil Society Organisations Use Evidence to Influence Policy Processes: A literature review,* ODI Working Paper No. 249, London: ODI.

SECURE Health Programme (2014). *An assessment of Capacity Needs for Application of Research Evidence in Decision-Making in the Health Sector in Kenya.* Nairobi: SECURE Health Consortium.

SECURE Health Programme (2015). *Evidence-Informed Policy-Making Training Curriculum.* Nairobi: Secure Health Consortium.

Shea, B.J., Grimshaw, J.M., Wells, G.A., Boers, M., Andersson, N., Hamel, C., Porter, A.C., Tugwell, P., Moher, D., and Bouter, L.M. Development of AMSTAR: a measurement tool to assess the methodological quality of systematic reviews. BMC Medical Research Methodology 2007, 7:10.

Sutcliffe, S. and Court J. (2006). A Toolkit for Progressive Policymakers in Developing Countries. London: Overseas Development Institute. Retrieved from: http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/190.pdf

University of Illinois at Chicago *(n.d.) Evidence-Based Practice in the Health Sciences: Evidence-Based Nursing Tutorial.* Information Services Department of the Library of the Health Sciences-Chicago, University of Illinois at Chicago.

University of Southern California Libraries (n.d.) *Organising Your Social Sciences Research Paper: Types of Research Designs.* Retrieved from: http://libguides.usc.edu/writingguide/researchdesigns

Zimmerman, S. and C. Hutchins. (2003). *Seven Keys to Comprehension: How to Help Your Kids Read It and Get It!* New York: Three Revers Press.

Annexes

Annex 1: List of Parliament Staff who contributed to the development of the Guidelines

Name	Designation
Dr. Rose Oronje	Director, Science Communications & Evidence - AFIDEP
Dr. Abiba Longwe-Ngwira	Knowledge Translation Scientist - AFIDEP
Nissily Mushani	Policy And Advocacy Coordinator - AFIDEP
Leonard Tilingamawa	Principal Research Officer
Kettie Musukwa	Committee Clerk
Isabel Tambala	Table Clerk
Kettie Kwalira	Committee Clerk
Kondwani Chikafa	Researcher
Velia Manyonga	Researcher
Mr. J.J Manzi	Clerk assistant
H.H Njolomole	Deputy Clerk of Parliament
W.M Kazembe	DD (LR and CE)
Lawson Chitseko	Principal Clerk Assistant
Paul Ng'oma	HR Officer
Kizito Pheleni	Senior Clerk Assistant
Jeffery Mwenyeheli	Chief Clerk Assistant
Moffat Makande	Principal Clerk Assistant
Ollium Phiri	Chief Clerk Assistant
Ulemu Chiuye	Research Intern
Lovemore Nyongo	Principal Policy Officer
Ulemu Chiuye	Researcher
Grace Mganga	Clerk
Longani Kabitchi	Clerk

Annex 2: Online Sources of Evidence

Africa Portal (open access)
A full-text collection of books, journals and documents on African policy issues. Covers conflict resolution, food security, health, migration and climate change.
https://www.africaportal.org/

African Digital Library
A multi-disciplinary collection of online books. Users need to register for free access
http://www.africaeducation.org/adl/

African Journal Archive (open access)
A full-text open access, multi-disciplinary digital archive of research published in Africa
http://www.ajarchive.org/

African Index Medicus (AIM) (http://indexmedicus.afro.who.int/Journals/Indexj.htm) - The World Health Organization, in collaboration with the Association for Health Information and Libraries in Africa (AHILA), has produced an international index to African health literature and information sources.

Campbell Collaboration Library of Systematic Reviews
(http://www.campbellcollaboration.org/lib/) – The Campbell Collaboration is an international research network that produces systematic reviews of the effects of social interventions in Crime & Justice, Education, International Development, and Social Welfare.

The Cochrane Library (www.Cochrane.org) - The Cochrane Library is published on behalf of The Cochrane Collaboration and strives to improve healthcare decision-making through systematic reviews of research on the effects of healthcare interventions.

Development Experience Clearinghouse (DEC) (https://dec.usaid.gov/dec/home/Default.aspx) - USAID's Development Experience Clearinghouse (DEC) is the largest online resource for USAID-funded technical and project materials, makes nearly 200,000 items available for review or download, and continuously grows with more than 1000 items added each month.

Google Search (www.Google.com) - Google Search, commonly referred to as Google Web Search or just Google, is a web search engine owned by Google Inc. It is the most-used search engine on the World Wide Web, handling more than three billion searches each day. *From a librarian: "Using general Internet search engines such as Google to identify potential studies may be a good resource as these may be used to retrieve current (both published and unpublished) studies. Google will have more grey literature."*

Google scholar (https://scholar.google.com/) - Google Scholar is a freely accessible web search engine that indexes the full text of scholarly literature across an array of publishing formats and disciplines. *From a librarian: "Google scholar is good because it is peer reviewed. Both Google and Google Scholar will give you a lot (neither is indexed, that is read by staff who apply index terms to the articles) – and you'll have duplicates between them. These two are simply matching your terms – so you may have to put in a lot of different terms. That is, you can't assume "vaccine" will get everything vaccine related term (e.g. vaccines, immunise, immunisations). You have to put in all possible alternatives."*

HINARI (http://www.who.int/hinari/en/) - HINARI Access to Research in Health Programme provides free or very low cost online access to the major journals in biomedical and related social sciences to local, not-for-profit institutions in developing countries.

Blackwell Reference Online
http://www.blackwellreference.com/public/

Britannica Online - Academic Edition
http://info.eb.com/products/britannica-academic-edition/

Cambridge Journals Online A multidisciplinary database providing full-text access to the journals published by Cambridge University Press http://journals.cambridge.org/action/login;jsessionid=95E4187DF3916746B4DB259BEE7C924F.journals

POPLINE (www.popline.org) - POPLINE® contains the world's most comprehensive collection of population, family planning and related reproductive health and development literature. From a librarian: "Information searches in Pubmed and Popline are great but can be overwhelming. Have patience!"

PubMed(www.pubmed.gov) - PubMed comprises more than 24 million citations for biomedical literature from MEDLINE, life science journals, and online books.

Research4Life(http://www.research4life.org/)-Research4Life is the collective name for four programmes – HINARI, AGORA, OARE and ARDI – that provide developing countries with free or low cost access to academic and professional peer-reviewed content online.

Duke University Press Journals Online http://dukejournals.org/

UNdata (Open access) https://data.un.org/
This database service is part of a project launched by United Nations Statistics Division (UNSD) in 2005, called "Statistics as a Public Good", whose objectives are to provide free access to global statistics, to educate users about the importance of statistics for evidence-based policy and decision-making and to assist National Statistical Offices of member countries to strengthen their data dissemination capabilities.

Wiley Online Library http://onlinelibrary.wiley.com/

World Bank - World Development Indicators
http://data.worldbank.org/data-catalog/world-development-indicators

Annex 3: 12 Major Research Designs

Action Research Design

Definition and Purpose

Action research…aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process. (Gilmore et al, 1986)

What do these studies tell you?	What these studies don't tell you?
This is a collaborative and adaptive research design that lends itself to use in work or community situations	It is harder to do than conducting conventional research because the researcher takes on responsibilities of advocating for change as well as for researching the topic
Design focuses on pragmatic and solution-driven research outcomes rather than testing theories	Action research is much harder to write up because it is less likely that you can use a standard format to report your findings effectively [i.e., data is often in the form of stories or observation]
When practitioners use action research, it has the potential to increase the amount they learn consciously from their experience; the action research cycle can be regarded as a learning cycle	Personal over-involvement of the researcher may bias research results
Action research studies often have direct and obvious relevance to improving practice and advocating for change	The cyclic nature of action research to achieve its twin outcomes of action (e.g. change) and research (e.g. understanding) is time-consuming and complex to conduct
There are no hidden controls or pre-emption of direction by the researcher	Advocating for change requires buy-in from participants

Case Study Design	
Definition and Purpose	
A case study is an in-depth study of a particular research problem rather than a broad statistical survey or comprehensive comparative inquiry. It is often used to narrow down a very broad field of research into one or a few easily researchable examples. The case study research design is also useful for testing whether a specific theory and model actually applies to phenomena in the real world. It is a useful design when not much is known about an issue or phenomenon.	
What do these studies tell you?	**What these studies don't tell you?**
Approach excels at bringing us to an understanding of a complex issue through detailed contextual analysis of a limited number of events or conditions and their relationships	A single or small number of cases offers little basis for establishing reliability or to generalise the findings to a wider population of people, places, or things
A researcher using a case study design can apply a variety of methodologies and rely on a variety of sources to investigate a research problem	Intense exposure to the study of a case may bias a researcher's interpretation of the findings
Design can extend experience or add strength to what is already known through previous research	Design does not facilitate assessment of cause and effect relationships
Social scientists, in particular, make wide use of this research design to examine contemporary real-life situations and provide the basis for the application of concepts and theories and the extension of methodologies	Vital information may be missing, making the case hard to interpret
The design can provide detailed descriptions of specific and rare cases	The case may not be representative or typical of the larger problem being investigated
	If the criterion for selecting a case is because it represents a very unusual or unique phenomenon or problem for study, then your interpretation of the findings can only apply to that particular case

Causal Design

Definition and Purpose

Causality studies may be thought of as understanding a phenomenon in terms of conditional statements in the form, "If X, then Y." This type of research is used to measure what impact a specific change will have on existing norms and assumptions. Most social scientists seek causal explanations that reflect tests of hypotheses. Causal effect (nomothetic perspective) occurs when variation in one phenomenon, an independent variable, leads to or results, on average, in variation in another phenomenon, the dependent variable.

Conditions necessary for determining causality:

Empirical association -- a valid conclusion is based on finding an association between the independent variable and the dependent variable

Appropriate time order -- to conclude that causation was involved, one must see that cases were exposed to variation in the independent variable before variation in the dependent variable

Non-spuriousness -- a relationship between two variables that is not due to variation in a third variable

What do these studies tell you?	**What these studies don't tell you?**
Causality research designs assist researchers in understanding why the world works the way it does through the process of proving a causal link between variables and by the process of eliminating other possibilities	Not all relationships are casual! The possibility always exists that, by sheer coincidence, two unrelated events appear to be related (e.g., Punxatawney Phil could accurately predict the duration of Winter for five consecutive years but, the fact remains, he's just a big, furry rodent)
Replication is possible	Conclusions about causal relationships are difficult to determine due to a variety of extraneous and confounding variables that exist in a social environment. This means causality can only be inferred, never proven
There is greater confidence the study has internal validity due to the systematic subject selection and equity of groups being compared	If two variables are correlated, the cause must come before the effect. However, even though two variables might be causally related, it can sometimes be difficult to determine which variable comes first and, therefore, to establish which variable is the actual cause and which is the actual effect

Cohort Design

Definition and Purpose

Often used in the medical sciences, but also found in the applied social sciences, a cohort study generally refers to a study conducted over a period of time involving members of a population, which the subject or representative member comes from, and who are united, by some commonality or similarity. Using a quantitative framework, a cohort study makes note of statistical occurrence within a specialised sub-group, united by same or similar characteristics that are relevant to the research problem being investigated, rather than studying statistical occurrence within the general population. Using a qualitative framework, cohort studies generally gather data using methods of observation. cohorts can be either "open" or "closed."

Open Cohort Studies [dynamic populations, such as the population of Los Angeles] involve a population that is defined just by the state of being a part of the study in question (and being monitored for the outcome). Date of entry and exit from the study is individually defined, therefore, the size of the study population is not constant. In Open Cohort Studies, researchers can only calculate rate based data, such as, incidence rates and variants thereof.

Closed Cohort Studies [static populations, such as patients entered into a clinical trial] involve participants who enter into the study at one defining point in time and where it is presumed that no new participants can enter the cohort. Given this, the number of study participants remains constant (or can only decrease).

What do these studies tell you?	**What these studies don't tell you?**
The use of cohorts is often mandatory because a randomised control study may be unethical. For example, you cannot deliberately expose people to asbestos, you can only study its effects on those who have already been exposed. Research that measures risk factors often relies upon cohort designs	In cases where a comparative analysis of two cohorts is made (e.g., studying the effects of one group exposed to asbestos and one that has not), a researcher cannot control for all other factors that might differ between the two groups. These factors are known as confounding variables
Because cohort studies measure potential causes before the outcome has occurred, they can demonstrate that these "causes" preceded the outcome, thereby avoiding the debate as to which is the cause and which is the effect	Cohort studies can end up taking a long time to complete if the researcher must wait for the conditions of interest to develop within the group. This also increases the chance that key variables change during the course of the study, potentially impacting the validity of the findings
Cohort analysis is highly flexible and can provide insight into effects over time and related to a variety of different types of changes (e.g., social, cultural, political, economic etc.)	Due to the lack of randominisation in the cohort design, its external validity is lower than that of study designs where the researcher randomly assigns participants
Either original data or secondary data can be used in this design	

Cross-Sectional Design

Definition and Purpose

Cross-sectional research designs have three distinctive features: no time dimension; a reliance on existing differences rather than change following intervention; and, groups are selected based on existing differences rather than random allocation. The cross-sectional design can only measure differences between or from among a variety of people, subjects, or phenomena rather than a process of change. As such, researchers using this design can only employ a relatively passive approach to making causal inferences based on findings.

What do these studies tell you?	What these studies don't tell you?
Cross-sectional studies provide a clear 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time	Finding people, subjects, or phenomena to study that are very similar except in one specific variable can be difficult
Unlike an experimental design, where there is an active intervention by the researcher to produce and measure change or to create differences, cross-sectional designs focus on studying and drawing inferences from existing differences between people, subjects, or phenomena	Results are static and time-bound and, therefore, give no indication of a sequence of events or reveal historical or temporal contexts
Entails collecting data at and concerning one point in time. While longitudinal studies involve taking multiple measures over an extended period of time, cross-sectional research is focused on finding relationships between variables at one moment in time	Studies cannot be utilised to establish cause and effect relationships
Groups identified for study are purposely selected based on existing differences in the sample rather than seeking random sampling	This design only provides a snapshot of analysis so there is always the possibility that a study could have differing results if another time-frame had been chosen
Cross-section studies are capable of using data from a large number of subjects and, unlike observational studies, is not geographically bound	There is no follow up to the findings
Can estimate prevalence of an outcome of interest because the sample is usually taken from the whole population	
Because cross-sectional designs generally use survey techniques to gather data, they are relatively inexpensive and take up little time to conduct	

Descriptive Design

Definition and Purpose

Descriptive research designs help provide answers to the questions of who, what, when, where, and how associated with a particular research problem; a descriptive study cannot conclusively ascertain answers to why. Descriptive research is used to obtain information concerning the current status of the phenomena and to describe "what exists" with respect to variables or conditions in a situation.

What do these studies tell you?	What these studies don't tell you?
The subject is being observed in a completely natural and unchanged natural environment. True experiments, whilst giving analysable data, often adversely influence the normal behaviour of the subject (also known as, the Heisenberg effect whereby measurements of certain systems cannot be made without affecting the systems)	The results from a descriptive research cannot be used to discover a definitive answer or to disprove a hypothesis
Descriptive research is often used as a pre-cursor to more quantitative research designs with the general overview giving some valuable pointers as to what variables are worth testing quantitatively	Because descriptive designs often utilise observational methods (as opposed to quantitative methods), the results cannot be replicated
If the limitations are understood, they can be a useful tool in developing a more focused study	The descriptive function of research is heavily dependent on instrumentation for measurement and observation
Descriptive studies can yield rich data that lead to important recommendations in practice	
Approach collects a large amount of data for detailed analysis	

Experimental Design

Definition and Purpose

A blueprint of the procedure that enables the researcher to maintain control over all factors that may affect the result of an experiment. In doing this, the researcher attempts to determine or predict what may occur. Experimental research is often used where there is time priority in a causal relationship (cause precedes effect), there is consistency in a causal relationship (a cause will always lead to the same effect), and the magnitude of the correlation is great. The classic experimental design specifies an experimental group and a control group. The independent variable is administered to the experimental group and not to the control group, and both groups are measured on the same dependent variable. Subsequent experimental designs have used more groups and more measurements over longer periods. True experiments must have control, randomisation, and manipulation.

What do these studies tell you?	What these studies don't tell you?
Experimental research allows the researcher to control the situation. In so doing, it allows researchers to answer the question, "What causes something to occur?"	The design is artificial, and results may not generalise well to the real world
Permits the researcher to identify cause and effect relationships between variables and to distinguish placebo effects from treatment effects	The artificial settings of experiments may alter the behaviours or responses of participants
Experimental research designs support the ability to limit alternative explanations and to infer direct causal relationships in the study	Experimental designs can be costly if special equipment or facilities are needed
Approach provides the highest level of evidence for single studies	Some research problems cannot be studied using an experiment because of ethical or technical reasons.
	Difficult to apply ethnographic and other qualitative methods to experimentally designed studies

Exploratory Design

Definition and Purpose

An exploratory design is conducted about a research problem when there are few or no earlier studies to refer to or rely upon to predict an outcome. The focus is on gaining insights and familiarity for later investigation or undertaken when research problems are in a preliminary stage of investigation. Exploratory designs are often used to establish an understanding of how best to proceed in studying an issue or what methodology would effectively apply to gathering information about the issue.

The goals of exploratory research are intended to produce the following possible insights:

Familiarity with basic details, settings, and concerns

Well-grounded picture of the situation being developed

Generation of new ideas and assumptions

Development of tentative theories or hypotheses

Determination about whether a study is feasible in the future

Issues get refined for more systematic investigation and formulation of new research questions

Direction for future research and techniques get developed

What do these studies tell you?	**What these studies don't tell you?**
Design is a useful approach for gaining background information on a particular topic	Exploratory research generally utilises small sample sizes and, thus, findings are typically not generalisable to the population at large
Exploratory research is flexible and can address research questions of all types (what, why, how)	The exploratory nature of the research inhibits an ability to make definitive conclusions about the findings. They provide insight but not definitive conclusions
Provides an opportunity to define new terms and clarify existing concepts	The research process underpinning exploratory studies is flexible but often unstructured, leading to only tentative results that have limited value to decision-makers
Exploratory research is often used to generate formal hypotheses and develop more precise research problems	Design lacks rigorous standards applied to methods of data gathering and analysis because one of the areas for exploration could be to determine what method or methodologies could best fit the research problem
In the policy arena or applied to practice, exploratory studies help establish research priorities and where resources should be allocated	

Historical Design

Definition and Purpose

The purpose of a historical research design is to collect, verify, and synthesise evidence from the past to establish facts that defend or refute a hypothesis. It uses secondary sources and a variety of primary documentary evidence, such as, diaries, official records, reports, archives, and non-textual information (maps, pictures, audio and visual recordings). The limitation is that the sources must be both authentic and valid.

What do these studies tell you?	What these studies don't tell you?
The historical research design is unobtrusive; the act of research does not affect the results of the study	The ability to fulfil the aims of your research is directly related to the amount and quality of documentation available to understand the research problem
The historical approach is well suited for trend analysis	Since historical research relies on data from the past, there is no way to manipulate it to control for contemporary contexts
Historical records can add important contextual background required to more fully understand and interpret a research problem	Interpreting historical sources can be very time consuming
There is often no possibility of researcher-subject interaction that could affect the findings	The sources of historical materials must be archived consistently to ensure access. This may especially be challenging for digital or online-only sources
Historical sources can be used over and over to study different research problems or to replicate a previous study	Original authors bring their own perspectives and biases to the interpretation of past events and these biases are more difficult to ascertain in historical resources
	Due to the lack of control over external variables, historical research is very weak with regard to the demands of internal validity
	It is rare that the entirety of historical documentation needed to fully address a research problem is available for interpretation, therefore, gaps need to be acknowledged

Longitudinal Design	
Definition and Purpose	
A longitudinal study follows the same sample over time and makes repeated observations. For example, with longitudinal surveys, the same group of people is interviewed at regular intervals, enabling researchers to track changes over time and to relate them to variables that might explain why the changes occur. Longitudinal research designs describe patterns of change and help establish the direction and magnitude of causal relationships. Measurements are taken on each variable over two or more distinct time periods. This allows the researcher to measure change in variables over time. It is a type of observational study sometimes referred to as a panel study.	
What do these studies tell you?	**What these studies don't tell you?**
Longitudinal data facilitate the analysis of the duration of a particular phenomenon	The data collection method may change over time.
Enables survey researchers to get close to the kinds of causal explanations usually attainable only with experiments	Maintaining the integrity of the original sample over an extended period of time can be difficult
The design permits the measurement of differences or change in a variable from one period to another (i.e., the description of patterns of change over time)	It can be difficult to show more than one variable at a time
Longitudinal studies facilitate the prediction of future outcomes based on earlier factors	This design often needs qualitative research data to explain fluctuations in the results
	A longitudinal research design assumes present trends will continue unchanged
	It can take a long period of time to gather results.
	There is a need to have a large sample size and accurate sampling to reach representativeness

Meta-Analysis Design

Definition and Purpose

Meta-analysis is an analytical methodology designed to systematically evaluate and summarise the results from a number of individual studies, thereby, increasing the overall sample size and the ability of the researcher to study effects of interest. The purpose is to not simply summarise existing knowledge, but to develop a new understanding of a research problem using synoptic reasoning. The main objectives of meta-analysis include analysing differences in the results among studies and increasing the precision by which effects are estimated. A well-designed meta-analysis depends upon strict adherence to the criteria used for selecting studies and the availability of information in each study to properly analyse their findings. Lack of information can severely limit the type of analyses and conclusions that can be reached. In addition, the more dissimilarity there is in the results among individual studies [heterogeneity], the more difficult it is to justify interpretations that govern a valid synopsis of results.

A meta-analysis needs to fulfil the following requirements to ensure the validity of findings:

Clearly defined description of objectives, including precise definitions of the variables and outcomes that are being evaluated

A well-reasoned and well-documented justification for identification and selection of the studies

Assessment and explicit acknowledgment of any researcher bias in the identification and selection of those studies

Description and evaluation of the degree of heterogeneity among the sample size of studies reviewed

Justification of the techniques used to evaluate the studies

What do these studies tell you?	What these studies don't tell you?
Can be an effective strategy for determining gaps in the literature	Small violations in defining the criteria used for content analysis can lead to difficult to interpret and/or meaningless findings
Provides a means of reviewing research published about a particular topic over an extended period of time and from a variety of sources	A large sample size can yield reliable, but not necessarily valid, results
Is useful in clarifying what policy or programmatic actions can be justified on the basis of analysing research results from multiple studies	A lack of uniformity regarding, for example, the type of literature reviewed, how methods are applied, and how findings are measured within the sample of studies you are analysing, can make the process of synthesis difficult
Provides a method for overcoming small sample sizes in individual studies that previously may have had little relationship to each other	Depending on the sample size, the process of reviewing and synthesising multiple studies can be very time consuming
Can be used to generate new hypotheses or highlight research problems for future studies	

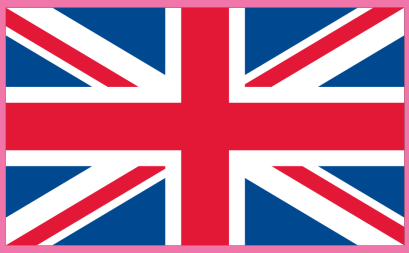
Observational Design

Definition and Purpose

This type of research design draws a conclusion by comparing subjects against a control group, in cases where the researcher has no control over the experiment. There are two general types of observational designs. In direct observations, people know that you are watching them. Unobtrusive measures involve any method for studying behaviour where individuals do not know they are being observed. An observational study allows a useful insight into a phenomenon and avoids the ethical and practical difficulties of setting up a large and cumbersome research project.

What do these studies tell you?	What these studies don't tell you?
Observational studies are usually flexible and do not necessarily need to be structured around a hypothesis about what you expect to observe (data is emergent rather than pre-existing)	Reliability of data is low because seeing behaviours occur over and over again may be a time consuming task and are difficult to replicate
The researcher is able to collect in-depth information about a particular behaviour	In observational research, findings may only reflect a unique sample population and, thus, cannot be generalised to other groups
Can reveal interrelationships among multifaceted dimensions of group interactions	There can be problems with bias as the researcher may only "see what they want to see"
You can generalise your results to real life situations	There is no possibility to determine "cause and effect" relationships since nothing is manipulated.
Observational research is useful for discovering what variables may be important before applying other methods like experiments	Sources or subjects may not all be equally credible
Observation research designs account for the complexity of group behaviours	Any group that is knowingly studied is altered to some degree by the presence of the researcher, therefore, potentially skewing any data collected

The development and production of these Guidelines was funded by the UK's Department for International Development (DFID) through the Strengthening Capacity to Use Research Evidence in Health Policy (SECURE Health) Programme.



UKaid
from the British people

AFIDEP
African Institute for Development Policy
Bridging Development Research, Policy and Practice

fhi360
THE SCIENCE OF IMPROVING LIVES

East, Central and Southern Africa Health Community
Fostering Regional Cooperation for Better Health