PARLIAMENT OF KENYA

PARLIAMENTARY SERVICE COMMISSION

GUIDELINES FOR EVIDENCE USE IN POLICY ANALYSIS AND DECISION-MAKING

2017

Parliamentary Research Services is a non-partisan, professional department of the Parliament of Kenya whose core function is to provide information, advice, policy research and analysis that adds value to parliamentary discourse.

Contact:
Parliamentary Research Services,
Parliament Buildings,
Protection House 12th Floor,
P. O. Box 41842 - 00100,
Nairobi, Kenya

Tel: +254 228 48000 | 222 1291
Email: prs@parliament.go.ke

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Table of Contents

List of Tables ..... **vii**
List of Figures ..... **vii**
Acronyms ..... **viii**
Acknowledgements ..... **ix**
Foreword ..... **x**
1 Introduction **1**
Essentials of policymaking 2
Evidence-informed decision-making 3
Rationale for the Guidelines 3
Intended users of the Guidelines 4
Use of the Guidelines 4
The process of developing the Guidelines 5
Structure of the Guidelines 5
2 Public policy-making and legislative processes **6**
Context of public policy-making 7
Models in public policy-making 8
The RAPID model of policy-making 8
Key stages of the policy-making process 9
Nexus between policy-making and legislation 10
Facilitators and barriers to evidence use in policy-making and legislative processes 12
The place of lobbyists in policy-making and legislation 14
3 Evidence-informed policy analysis and decision-making **15**
Identifying and defining a policy issue 16
Features of policy analysis 17
Approaches to policy analysis 17
Defining a policy question 18
Distinction between a policy question or policy issue and research question 18
Steps in defining a policy question or issue 19
4 Accessing evidence for policy analysis and decision-making **22**
Sources of information for policymakers and analysts 23
Researchers and think-tanks as a source of evidence: establishing and maintaining links 24
Online sources of evidence 25
Developing an evidence search strategy 25
Steps in conducting an evidence search 26
Identifying evidence search terms 28
Boolean terms and Google search operators 31
Google search tips: punctuation, symbols and operators in search 33
Assessing source credibility 34
When there is no documented evidence 35

5 Appraising evidence for policy analysis and decision-making 36
Basic research methods primer 37
Research design and methods 37
Types of evidence 38
Assessing the strength of evidence 40
External validity and reliability 43
Assessing the body of evidence 43
Assessing the quality of non-scientific evidence 44
When there is no documented evidence 45

6 Synthesising evidence for policy analysis and decision-making 46
Evidence usability 47
Synthesising evidence: What is it? 49
Differences between summarising and sythesising evidence 50
Steps for synthesising evidence 50
Analysing evidence on policy options for tackling the policy issue 51
Tips for presenting evidence 51
Tips for writing compelling and concise syntheses 52
Format for presenting your synthesis 53
Writing actionable recommendations 54
Writing policy briefs 55
Structure of a policy brief 56
Benchmark for a policy brief 58
Some tips for beginning to write your policy briefs 59
Tips for developing effective presentations 60
Tips for delivering an effective PowerPoint presentation 60

7 Applying evidence in policy analysis 61
Reaching policymakers at the right time with evidence 62
Understanding the working of parliaments and their committees 62
The human element in reaching policymakers 63
Developing a communications strategy 63
What are the indicators of evidence application? 68

8 Conclusion 70
9 References 72
Annexes 76
Annex I: 12 Major types of research designs 76
Annex II: Online sources of evidence 88

List of Tables

Table 1. Key stages of the policy-making process 9
Table 2. Stages in the policy formulation process 11
Table 3. Barriers to evidence use in the Kenyan parliament 13
Table 4. Demonstrating the differences between a policy question and a research question 19
Table 5. Examples of possible questions and types of evidence 20
Table 6. An example of a concept table 30
Table 7. Google search operators 33
Table 8. Principles of research quality 40
Table 9. Assessment of applicability and transferability of evidence 47
Table 10. Differences between summarising and synthesising 50
Table 11. An example of unpacking complex statements into simple statements 53
Table 12. Format of an evidence synthesis 53
Table 13. Structure of a policy brief 56
Table 14. Key ingredients of a policy brief 58
Table 15. Communication versus programme objectives 64
Table 16. Examples of communication objectives and expected outcomes 65

List of Figures

Figure 1. Complexity of the policy-making process 7
Figure 2. The RAPID Framework: Context, Evidence and Links 9
Figure 3. Scope of public policy analysis 16
Figure 4. Major sources of information for policy research and analysis 23
Figure 5. Different features of a mind-map 28
Figure 6. An example of a mind-map 29
Figure 7. Search screen demonstrating the source of more search terms 31
Figure 8. Demonstrating Boolean Operators 32
Figure 9. Demonstrating the critical appraisal process 42
Figure 10. The synthesis process 49

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

Acknowledgements

The development of these *Guidelines for Evidence Use in Policy Analysis and Decision-Making* has been made possible through the leadership of the Parliament of Kenya in collaboration with various partners and stakeholders. Specifically, we would like to acknowledge the leadership of the Director General, Parliamentary Joint Services and the technical guidance of the Director, Information and Research Services in the development of the Guidelines.

The Guidelines have benefited from reviews and inputs from Mr. Paul Ngetich, the Director of Information and Research Services, Mr. Bonnie Mathooko, Head of the Parliamentary Research Service (PRS) and staff of the PRS including Ms. Marale Sande, Senior Research and Policy Analyst, Mr. Humphrey Ringera, Mr. M. Chelang'a, Mr. E. Apaa, Ms. F. Musili and Ms. Sharon Rotino. Many other staff of Parliament have participated in consultations on the Guidelines and provided views that have helped shape the Guidelines. We recognise their invaluable contributions.

The development of the Guidelines was made possible through 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 the African Institute for Development Policy (AFIDEP). Parliament would like to thank AFIDEP for providing technical as well as financial assistance for the development of the Guidelines. In the same vein, Parliament would also like to thank other SECURE Health consortium partners who provided invaluable inputs into the development of the Guidelines, including FHI360, the Consortium for National Health Research (CNHR), 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 United Kingdom's Department for International Development (DFID) through the SECURE Health programme. Parliament acknowledges and appreciates this support and endeavors to deepen this collaboration.

Mr. Clement Nyandiere,

Director General, Parliamentary Joint Services

Foreword

These *Guidelines for Evidence Use in Policy Analysis and Decision-Making* have been developed to provide practical guidance to technical staff and Members of Parliament on better and more effective ways of finding, appraising, synthesising and applying research evidence in policy analysis and decision-making. The Guidelines therefore make a significant contribution towards enabling Parliament to effectively deliver its core functions of oversight, legislation, budgeting and representation, given the critical role of information, including scientific and other types of evidence, in the delivery of these functions.

The Guidelines are designed primarily for use by technical staff and Members of Parliament. Technical staff and Members of County assemblies will also find the Guidelines useful and could consider adopting or adapting them for use in their work. They present an important contribution of Parliament towards strengthening the capacity of county assemblies. Beyond these groups, anyone involved in policy analysis and legislative and policy-making processes, as well as other development spheres, will find the Guidelines useful.

The development of the Guidelines has been spearheaded by Parliament through the leadership of the Directorate of Information and Research Services, with the Parliamentary Research Services taking the lead. Parliament has been implementing a capacity strengthening programme for research use since January 2014 through a partnership of various institutions led by the African Institute for Development Policy (AFIDEP). It is through this partnership that these Guidelines have been developed. They are a product of in-depth consultations with a wide range of stakeholders, including the primary target users as well as other experts in the realm of health research-to-policy.

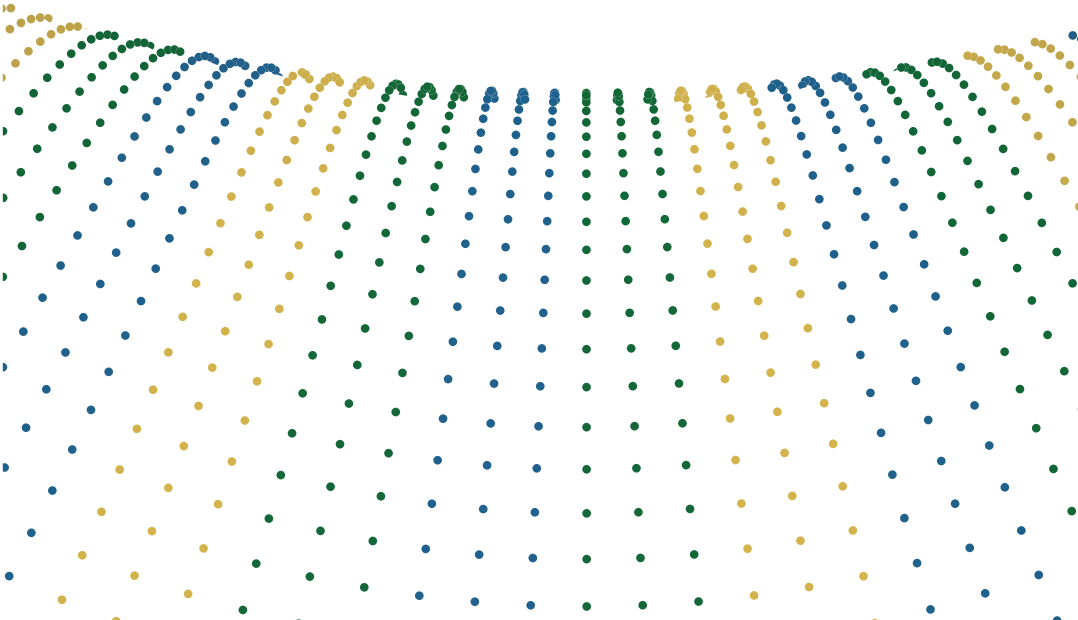
The Guidelines fill an important gap identified by Parliament over the years on the need to have clear directions on evidence use in policy analysis and decision-making processes in order to improve the legislative and other decision-making processes in Parliament. It is our hope therefore that staff and Members of Parliament as well as county assemblies will find them beneficial and enriching to their efforts to ensure policy analysis and decisions are driven by evidence.

Mr. Jeremiah Nyegenye, CBS
Clerk of the Senate
Parliament of Kenya

Mr. Justin Bundi, CBS
Clerk of the National Assembly
Parliament of Kenya

INTRODUCTION

1



1.1 The need for guidelines for evidence use in policy analysis and decision-making in Parliament has been identified by senior parliamentary officials and staff through interactions with the Strengthening Capacity to use Evidence in Health Policy (SECURE Health) Programme. The results of a study conducted by the SECURE Health Programme in 2014 on the status of evidence use for analysis within Parliament, and an initial external evaluation of the SECURE Health Programme conducted in 2015, revealed the need for standard guidelines for searching for evidence required for informing policy analysis and decision-making in Parliament. This means that parliamentary staff whose role is to support the oversight and legislative roles of Members of Parliament (MPs) ought to appreciate and internalise the different levels of policymaking. Specifically, they need to be familiar with the steps involved in policymaking, how to go about seeking, appraising, synthesising and applying evidence for 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 description of policymaking and practical guidelines for finding, appraising, synthesising, and applying evidence in policy analysis and decision-making processes.

1.2 The Guidelines have been developed, and will be operationalised, within the legal and policy framework defined in the Constitution of Kenya (2010) and Vision 2030. The Constitution is the overarching legal framework that guides the public sector in the country. Vision 2030 is the national development blueprint that outlines Kenya's development aspirations for all sectors.

Essentials of policymaking

1.3 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".

1.4 *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 (KLRC, 2015).

1.5 Policy analysis is the systematic investigation of alternative policy options and the process of gathering and integrating evidence for and against each option (Serban, 2015). It therefore involves a problem-solving approach, establishing the means of collection and interpretation of evidence for informing policy decisions, and some attempts to predict the consequences of alternative courses of action (ibid).

1.6 Evidence is therefore an integral part of policy analysis. The focus on policy analysis in these Guidelines is important given the role of Parliament in decision-making, which is largely oversight over the Executive. This means that technical staff and Members of Parliament (MPs) spend most of their time analysing the policy proposals by the Executive, which makes policy analysis knowledge and skills critical to their work.

Evidence-informed decision-making

1.7 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, Lavis, Lewin & Fretheim, 2009).

Rationale for the Guidelines

1.8 The critical functions of Parliament of oversight, representation and making of laws 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. The following factors justify the need for these Guidelines.

1.9 The Constitution of Kenya, in Article 221, increased Parliament's role in oversight and scrutiny, representation and budgeting. The Constitution further shifted the governance system from a parliamentary to a presidential system, thereby giving House Committees overwhelming powers to undertake oversight over the Executive. These Constitutional changes have resulted in the legislative duties of MPs becoming more complex and demanding. Therefore, there is need for an increased focus on access to and the use of credible research and other evidence by MPs to ensure issue-based debate and for them to effectively deliver in their duties.

1.10 The policy-making process is typically complex and often driven by politics and interests of different actors. Yet, it is well acknowledged that for this process to effectively tackle development challenges, it needs to be informed by credible research and other evidence. This recognition has made research translation into policy and legislation a critical area of interface for MPs, research and library services units in Parliament and external research organisations. These Guidelines are part of efforts to operationalise this interface by improving understanding of the policy-making and legislative process through building technical skills needed to search, appraise, synthesise and apply evidence in policy analysis and decision-making in Parliament.

1.11 Weak capacity of the technical staff in Parliament in seeking, appraising, synthesising and applying evidence in policy analysis for decision-making remains one of the major

barriers to research use in decision-making in the Kenyan Parliament (SECURE Health 2014). The practical directions provided in these Guidelines on finding, appraising, synthesising and applying research evidence will contribute to bridging this capacity gap.

1.12 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 more effective policies and programmes. It is hoped that the Guidelines will standardise the policy analysis process as well as bring in a high quality standard of research evidence consideration in debating and decision-making process within Parliament.

Intended users of the Guidelines

1.13 These Guidelines are designed primarily for use by MPs and the technical staff who support their work and their Committees in Parliament. However, anyone involved in policy analysis and decision-making processes will find the Guidelines useful.

1.14 In these Guidelines, whenever the term policymakers is used, it refers to MPs and other top decision-makers in Parliament including the Parliamentary Service Commission, the speaker of each house, the clerk, the Director General (Joint Services) and other relevant organs of the Parliamentary Service Commission. Technical staff refers to staff who work directly with MPs and Parliamentary Committees to provide advise and information needed to support the effective delivery of their work. These include the research and policy analysts working in the Directorate of Information and Research Services, all technical staff working in other Directorates and departments, and Partisan staff working directly with MPs (i.e. personal researchers and assistants working in MPs' offices).

Use of the Guidelines

1.15 The primary purpose of the Guidelines is to strengthen knowledge and skills in evidence use in policy analysis and decision-making in order to improve the quality of debate, policy and legislative decisions made in Parliament. The Guidelines also seek to enhance understanding of the policy-making and legislative processes in Kenya. It is therefore hoped that the Guidelines will be used as a reference tool by technical staff and MPs in Parliament.

1.16 The Guidelines cannot be fully comprehensive and they are not a substitute to consulting other resources on aspects of the institutional framework, legislative and financial processes and statutory obligations within Parliament and within the Government. Reference to the *Guide to the Legislative Process in Kenya* published by the Kenya Law Reform Commission (KLRC) in 2015 (KLRC, 2015) is especially encouraged.

The process of developing the Guidelines

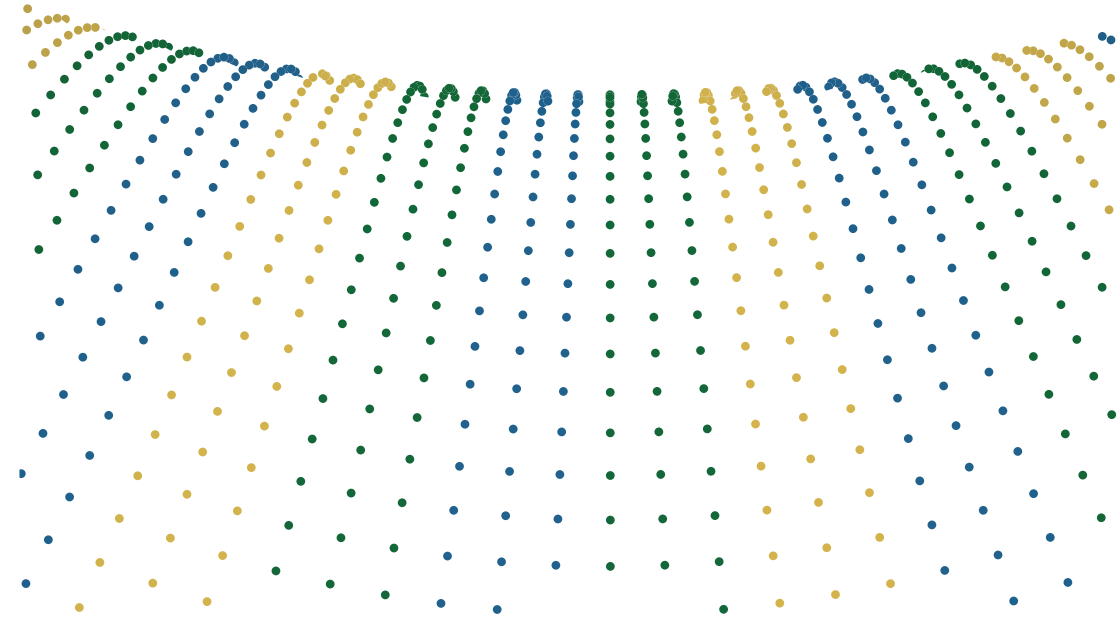
1.17 The development of these Guidelines was spearheaded by Parliament's Directorate of Information and Research Services. Parliament, through this Directorate, has been implementing a capacity strengthening programme for research use since January 2014 through a partnership of various institutions led by the African Institute for Development Policy (AFIDEP). It is through this partnership that the Guidelines have been developed. Initial drafts of the Guidelines were discussed with a wide range of stakeholders including the primary target users (technical staff in Parliament) as well as other stakeholders, and insights from these consultations enriched the final Guidelines. Finally, the development of the Guidelines was informed by the Government's provisions and guidance contained in the *Guide to the Legislative Process in Kenya* published by the Kenya Law Reform Commission (KLRC) in 2015.

Structure of the Guidelines

1.18 The rest of this document is in eight chapters. Chapter 2 sets out the foundation of policy-making, providing some theory on the complexity of the public policy-making 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 applying evidence in policy analysis and decision-making. The final chapter provides a conclusion for the Guidelines.

2

PUBLIC POLICY MAKING AND LEGISLATIVE PROCESSES

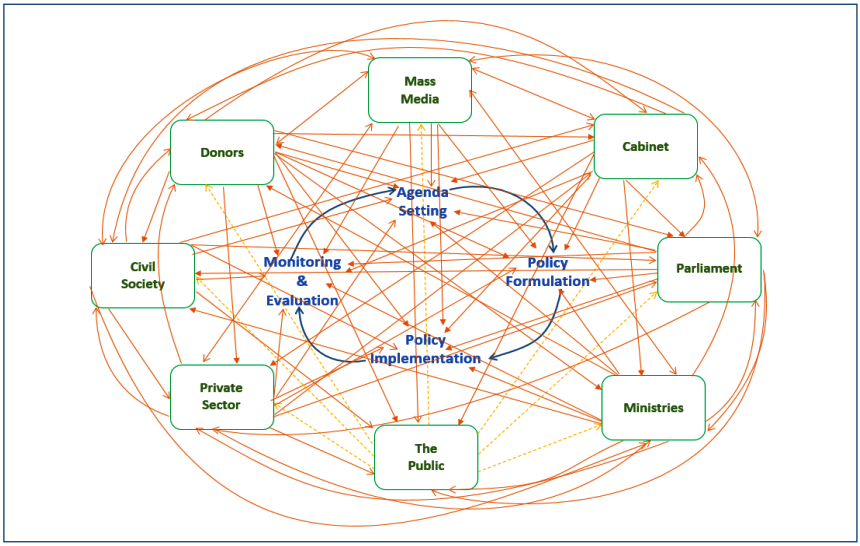


2.1 This Chapter provides an understanding of the public policy-making process, highlighting the complexity, the key stages, the different factors and actors that influence the process, and the facilitators of, and barriers to, evidence use in the policy-making process. Except for a brief highlight of the link between public policy development and the legislative process, this Chapter does not provide an outline of the legislative process in Kenya. This is because the publication: *Guide to the Legislative Process in Kenya,* published by the Kenya Law Reform Commission in 2015, provides comprehensive guidance to the legislative process in the country. To avoid duplication, these Guidelines therefore refer readers to the KLRC Guide for an in-depth understanding of the legislative process in Kenya.

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 demonstrates the complexity of the policy-making process.

Figure 1. Complexity of the policy-making process



Source: Adapted from ODI, (n.d.) Policy Processes are Complex.

2.3 Scholars have identified three main factors that influence decision-making. These are:

- 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.

Models in public policy-making

2.4 There are many models that attempt to explain the public policy-making process in different fields of study including policy analysis, political science, and anthropology. Here, we will only highlight one of the models commonly applied in the development sector, that is, the RAPID model of policy-making. The purpose is to enhance understanding of the complexity of the public policy-making process as well as stimulate MPs and technical staff in parliament to think critically of how the theory applies to the Kenyan context.

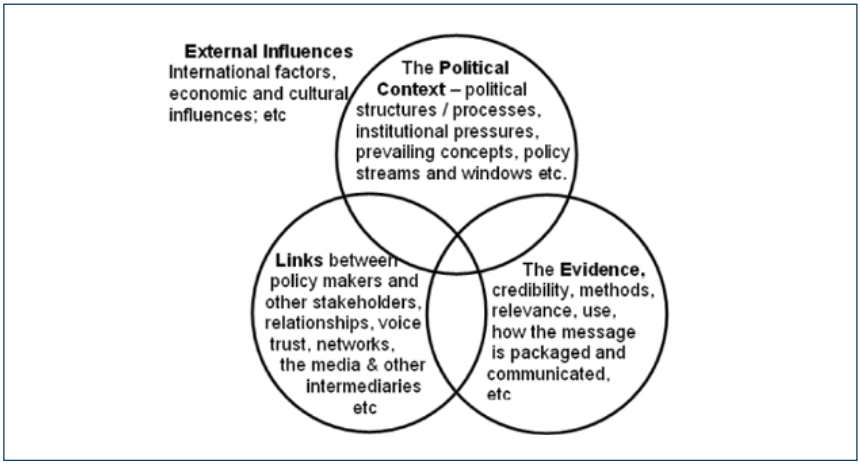
2.5 It is important to note that initial thinking on public policy-making conceived of policy-making as a linear process moving from agenda setting, policy formulation, implementation, to evaluation. This thinking has been challenged by the reality that policy-making is largely an iterative process that does not progress neatly from agenda setting to evaluation; rather that in reality, the different stages are often blurred and policy actors move back and forth at different stages. Even then, four main components of policy-making, namely, agenda setting, policy formulation, implementation and evaluation, provide a simple way of thinking about the entire policy-making process. The model summarised on Page 9 does not therefore perceive policy-making as a linear process, but rather as a complex process involving many actors and factors that constantly interact to shape policy decisions.

The RAPID model of policy-making

2.6 The RAPID research-to-policy framework was developed by the Overseas Development Institute (ODI) in 2004 (see Figure 2 on page 9). The framework explains how information (research evidence or other forms of evidence) can get to influence policy. The framework identifies factors that determine whether evidence is likely to be adopted by policymakers and practitioners. These factors are broadly divided into three overlapping areas, namely: the political context (politics and policy-making), the evidence (research, learning and thinking), and the links between policy and research communities (media, advocacy, networking). These three factors are influenced by external factors such as socio-

economic and cultural influences, and donor policies, among others. The three factors interact with each other and are also influenced by the external environment, and the interaction ultimately determines whether or not knowledge is used in policy processes.

Figure 2. The RAPID Framework: Context, Evidence and Links



Source: Adapted from ODI 2006.

Key stages of the policy-making process

2.7 The models of policy-making have to be understood in the context of the four main components of policy-making, namely, agenda setting, policy formulation, implementation, and evaluation. Table 1 explains the key focus of each of these components.

Table 1. Key stages of the policy-making process

Policy Development Stage	Description	Evidence needs at the different stages
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 important. A key factor here is the credibility of the evidence, but also the way the evidence is communicated.

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.
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.
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.

Source: ODI, 2006.

Nexus between policy-making and legislation

2.8 While laws enable governments to put in place the necessary institutional and legal framework to achieve their aims, policy outlines what a Government Ministry hopes to achieve and the methods and principles to be used to achieve them. Laws therefore set out standards, procedures and principles that must be followed in policy implementation. According to the KLRC (2015: 30), it is best practice for a law to be preceded by a policy. It notes that: "most legislation, including subsidiary legislation, trace their foundation or anchorage on an agreed policy framework. Save for bills emanating from the respective Houses, commonly known as private Member bills, 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."

2.9 KLRC, however, notes that not all policies require laws for their implementation (KLRC, 2015). Some policies do not require enactment of legislation to facilitate their execution, and these are referred to as 'self-executing' policies. KLRC notes that these types of policies lay out a clear administrative framework, mostly relying on the existing structures for their execution (ibid).

2.10 Table 2 below summarises the policy formulation process as detailed by the KLRC (2015). For detailed discussion of each of the stages in the process, refer to the KLRC Guide (see KLRC, 2015).

Table 2. Stages in the policy formulation process

Stages in the policy formulation process	
I. Policy initiation	Involves identifying the need for a policy. Anyone can identify the need for a policy including Government Ministries, Departments And Agencies (MDAs), citizens, institutions, and stakeholder groups, among others. Once identified the MDA propels the need to ministry level, which initiates the process.
II. Research	The relevant MDA undertakes comprehensive and comparative research to inform the policy formulation process and drafts a policy framework.
III. Negotiation and public participation	Content of the draft policy framework is debated and negotiated with relevant stakeholders including members of the public as required by the Constitution.
IV. Finalisation of the policy	Draft policy framework is finalised, taking into account the views of the various stakeholders consulted.
V. Cabinet or county executive committee approval	Draft policy is deliberated by the cabinet or county executive committee and approved or sent back to the MDA for revisions.
VI. Parliamentary or county assembly approval	Draft policy is debated in Parliament or County Assembly and approved or rejected. This process involves the introduction of the policy in the House by the relevant legislative body shall, in accordance with the standing orders; the subjected to the relevant House Committee for scrutiny and further consideration; the Committee reports back to the whole house. The draft policy may be approved by the House with or without amendments. If major changes are required, the draft policy is sent back for revisions pending future debate.

VII. Assent	Upon passing by the respective House at either level of Government, the Speaker of the respective House submits the approved policy to the President, in the case of national Government or the Governor in the case of County government, to formally endorse, by affixing the National Seal or County seal respectively, and signing the policy.
VIII. Publication	Upon assent, the policy is published as a white paper. The Executive is expected to widely circulate the policy and to keep the public informed of its likely effects.
IX. Draft bill	The White Paper forms the basis of legislation. If it is determined at the ministerial level that a new law is necessary to achieve its objectives and aid implementation, the concerned MDA then drafts the bill for tabling in parliament for debate.

Source: KLRC, 2015.

Facilitators and barriers to evidence use in policy-making and legislative processes

2.11 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

2.12 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

2.13 The study conducted in Kenya under the SECURE Health programme identified various barriers to research use as captured in Table 3 (SECURE Health, 2014).

Table 3. Barriers to evidence use in the Kenyan 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 making 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 plans 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 the Parliamentary Information and Research Service likely to provide a forum to disseminate and communicate research outputs 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

Source: SECURE Health, 2014.

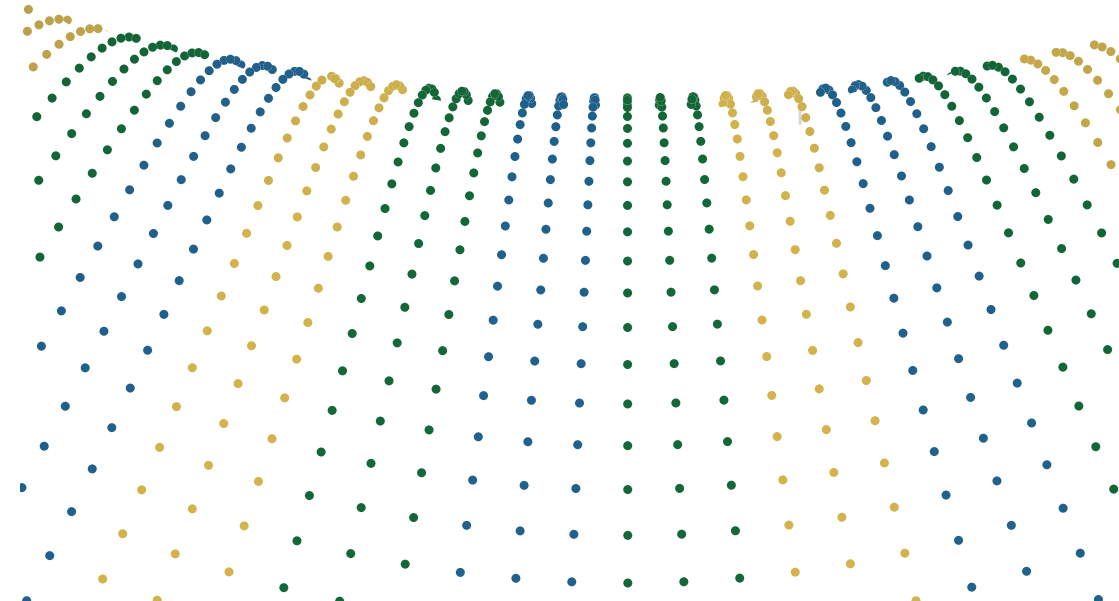
2.14 Other barriers not captured in the table above include lack of motivation by technical staff and MPs or Members Of County Assemblies (MCAs) to use evidence, contextual politics and cultural interests and values, as well as supply-side barriers to research use, including research evidence being irrelevant,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

The place of lobbyists in policy-making and legislation

2.15 Lobbyists play a critical role in influencing policymakers, decision-making and legislative process in Parliaments. In as much as they are yet to be recognised in the policy-making and legislative process in Kenya, lobbyists remain influential when they think a policy or piece of legislation should be introduced. As such, their main purpose is to persuade policymakers and Parliamentarians to enact a bill that they think should be introduced. Lobbyists also are a stepping-stone between citizens and Parliamentarians.

3

EVIDENCE-INFORMED POLICY ANALYSIS AND DECISION MAKING

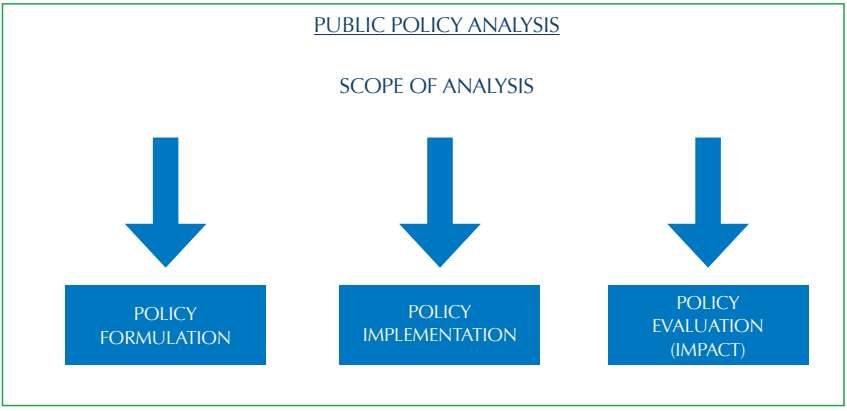


Identifying and defining a policy issue

3.1 While chapter 2 focused on improving the understanding of the policymaking and legislative process, Chapter 3 kick-starts the process of finding research evidence to use in the policy analysis and decision-making. It does this by focusing on providing guidance necessary to effectively define the policy issue for which the research evidence is being sought. Defining a clear policy issue or question is the first step in evidence-informed policy analysis and decision-making. Chapters 4-7 cover the next steps after the first step of defining a policy question, namely, accessing, appraising, interpreting, synthesising and applying evidence.

3.2 As defined earlier, 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. 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 3. Scope of public policy analysis



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

Features of policy analysis

3.3 Policy analysis is multi-disciplinary and involves a wide range of methodologies both quantitative and qualitative. The key features of policy analysis according to Lasswell (1971) include:

- Multi-method
- Multi-disciplinary
- Problem-focused
- Concerned with mapping the context of the policy process, policy options and policy outcomes
- And whose goal is to integrate knowledge into an overarching discipline to analyse public choices and decision-making and thereby contribute to the democratisation of society

Approaches to policy analysis

3.4 There are many approaches to policy analysis, but generally three approaches stand out, namely: the analycentric, the policy process, and the meta-policy approaches. According to Serban (2015), the:

- Analycentric approach focuses on individual problems and their solutions; its scope is the micro-scale and its problem interpretation is usually of a technical nature. The primary aim is to identify the most effective and efficient solution in technical and economic terms (e.g. the most efficient allocation of resources).
- Policy process approach puts its focal point onto political processes and stakeholders involved; its scope is the meso-scale and its problem interpretation is usually of a political nature. It aims at determining what processes and means are used and tries to explain the role and influence of stakeholders within the policy process. By changing the relative power and influence of certain groups (e.g., enhancing public participation and consultation), solutions to problems may be identified.
- Meta-policy approach is a system and context approach; its scope is the macro-scale and its problem interpretation is usually of a structural nature. It aims at explaining the contextual factors of the policy process; i.e., what are the political, economic and sociocultural factors influencing it. As problems may result from structural factors (e.g. a certain economic system or political institution), solutions may entail changing the structure itself (http://en.wikipedia.org/wiki/Policy_analysis).

Defining a policy question

3.5 The first step in policy analysis is clearly defining the policy issue or question that the policy is trying to address. This is the issue or question for which you want to search for evidence to solve or address. The prevailing policy question or policy issue 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. Think of it this way, before you can proceed to find evidence to inform your decision, you must have a clear idea about what your decision point or policy objective is. You may acknowledge that evidence is an important part of the policy equation, but you cannot start looking for the relevant evidence without being clear on what you need it for. In other words, *what is the question you are trying to answer by seeking out evidence?*

3.6 It is important to differentiate between a research question and a policy question. While a policy researcher answers a research question, a policy analyst answers a policy question. A research questions discovers and builds concepts, analyses information, and provides plausible analytical conclusions. A policy question, on the other hand, utilises results of different research studies and builds logical policy scenarios from which optimal policy choices are made.

Distinction between a policy question or policy issue and research question

3.7 Before going any further on developing a policy question or issue, 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 policymakers 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. As such, policy questions or issues are often broader than research questions. Indeed, a policy question often has more than one research question. A policy question moves the research to the next level, that is, what are the research findings telling us in tackling this particular policy issue (the 'so what' question).

3.8 Table 4 below attempts to further elucidate some marked differences between policy questions and research questions.

Table 4. Demonstrating the differences between a policy question and a research question

	Research question	Policy question
1.	What factors explain the lack of progress in reducing poverty levels in Kenya?	What policy reforms and programmes do we need to put in place to effectively reduce poverty levels in Kenya?
2.	Why is poverty more severe in some communities and not others in Kenya?	What poverty reductions programmes do we need to put in place to reduce poverty in most affected communities?
3.	How are communities and non-state actors contributing to TB control in Kenya?	How can we improve the involvement of communities and non-state actors in TB control?
4.	Are there gaps in the Agriculture, Fisheries and Food Authority (ALFA) Act 2012?	Does the ALFA Act 2012 sufficiently address food insecurity in Kenya?

Steps in defining a policy question or issue

3.9 The first place to start in defining your policy question is to be very clear on the policy issue that you or parliament would like to tackle. Being clear on the policy issue calls for a good understanding of where the issue lies in the policy-making process or cycle, that is:

i. Is the issue already on the *political agenda* or do you need evidence to put the issue on the agenda? *(i.e., agenda-setting stage).*

ii. If the issue is already on the *political agenda*, do you need evidence on the possible policy options for tackling the issue? *(i.e., policy formulation stage).*

iii. If there is already a policy for tackling the issue, but it is not being implemented or the implementation is ineffective, do you need evidence on the more effective ways of implementing the policy or do you need evidence to convince Treasury to allocate resources or increase resource allocations needed for effective implementation? *(i.e., policy implementation stage).*

iv. If the policy on the issue has already been implemented, do you need evidence to know how well the implementation tackled the issue, what worked and what did not in order to revise the policy or put in place a new policy in addressing the issue? *(i.e., policy evaluation stage).*

3.10 Being very clear on where your issue lies in the policymaking process is critical as it determines the way you pose your policy question. It also determines the nature and type of evidence that you look for because evidence is incorporated into policymaking at each of these different points, and the specific stage involved will affect how the question is formulated, and therefore, also point toward different types of evidence needs. Table 5 below details the different stages of policymaking, and the types of policy questions that can be asked at the different stages and the types of evidence that you will be looking for.

3.11 It is therefore important to note that your policy question will likely just be in one of these stages, i.e. you are unlikely to have a policy question that focuses on an issue that lies in all the four stages of the policy-making process.

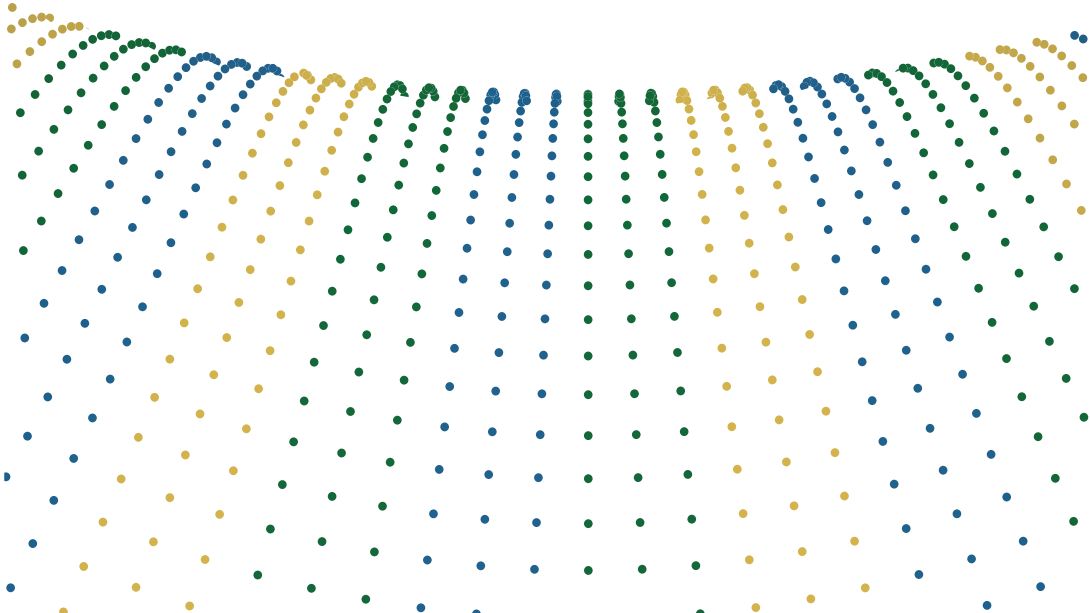
Table 5. Examples of possible questions and types of evidence

Policymaking 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 program 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

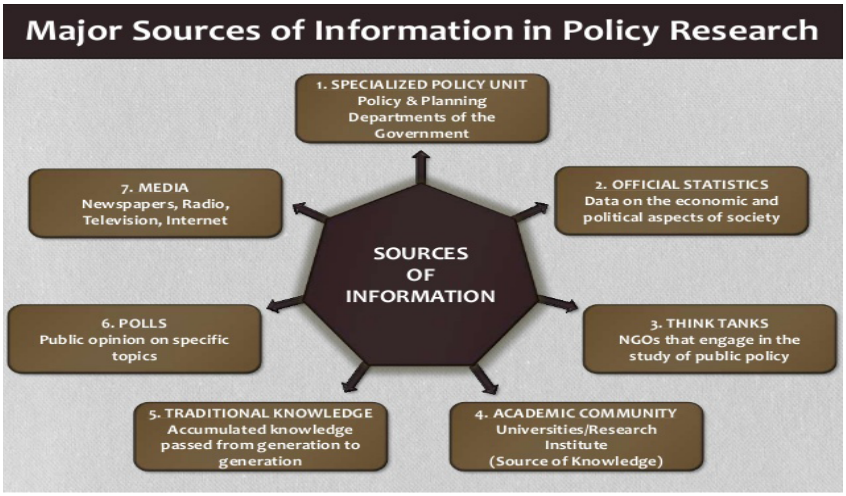


4.1 Now that you have defined your policy question, the next step is to find the evidence that can answer your policy question or issue. This Chapter thus focuses on getting information or finding the evidence for answering your policy question or issue. It covers where to look (top, reputable sources 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 policymakers and analysts

4.2 The SECURE Health study on the status of evidence use in the Kenyan Parliament in 2014 revealed that technical staff in Parliament rely on information and evidence from online resources, colleagues, conferences and seminars, and newspapers and electronic media, more specifically television news. Figure 4 below shows the common sources of research evidence for policymakers as documented in existing literature.

Figure 4. Major sources of information for policy research and analysis



Source: Gurung, 2014

Other credible sources of information in policy research include political party manifestos and mission statements of government ministries. It is therefore important for legislators and technical staff responsible for legislation and policy making to familiarise themselves with these sources.

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

4.3 As noted in Chapter 2, one of the factor that enable use of evidence in policy analysis and decision-making is meaningful relationships and trust among researchers, policy analysts and policymakers (Innvaer, Vist, Trommald, & Oxman, 2002; Oliver, Innvaer, Lorenc, & Woodman, 2014). Researchers can enrich the policy analysis and decision-making process by:

i. Ensuring policy analysts utilise the most credible evidence and similarly that policy decisions are informed by the most up to date evidence

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

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

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

4.4 These Guidelines recommend the need for policy analysts and decision-makers to identify and sustain contact with researchers and research institutions in their areas of focus. They propose some ways in which policy analysts and decision-makers can ensure a sustained contact with relevant researchers and research institutions including:

i. Make an effort to know the main researchers in one's area of interest – their names, institutions where they work and their positions, telephone numbers, and email addresses

ii. Make initial contact – write them an email requesting them to share any new research evidence they are generating, and to keep you abreast of their new findings

iii. Inform them of urgent or key policy issues that their research needs to answer

iv. Involve them in policy-making processes

v. Request to be involved in their conferences, meetings and research studies

vi. Attend key scientific conferences in areas of interest

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

Online sources of evidence

4.5 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 searches. 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.

4.6 In Annex 2 of these Guidelines, several evidence databases and search engines are suggested as go-to repositories for evidence. Note that most of these databases or engines have Frequently Asked Questions, how to search, and also tutorials. These databases are listed in alphabetical order and not the 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.

Developing an evidence search strategy

4.7 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. 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. 8 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 your search when starting. Do not limit at all if doing a systematic review. If you really want to be comprehensive, do not limit to the language, but you may have to translate.

4.9 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 or Campbell.

Steps in conducting an evidence search

4.10 There are seven basic steps of conducting an evidence search:

4.11 ***Define your information need*** - Try to put what you are looking for in the **form of a question** because that will focus your need and define relationships. It gets to what are you really trying to find out? We did this in the last session. The structure of a search strategy should be based on the main concepts being examined in a review. Generally speaking, a search strategy to identify studies will typically have three sets of terms: 1) terms to search for the population of interest; 2) terms to search for the intervention(s) evaluated; and 3) terms to search for the outcomes (optional).

4.12 ***Brainstorm all the terms*** that could be used in your question. What Boolean operators should be used and how should they be logically arranged? *(Boolean terms are discussed in the next section).*

Decide if you want to **"start wide"** and narrow down (see what is out there and refine) or "start narrow" and then widen (start with pre-conceived ideas and build). There is 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 percent of the studies referenced in Cochrane reviews (Mallett, 2002).

Remember, nearly anyone can publish information on the Internet, so academic journals sit next to comics and presidential speeches next to gossip.

4.13 ***Identify 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

4.14 ***Launch*** your search and record the results that emerge.

4.15 ***Evaluate the results*** - Look at what you are getting. If you get nothing helpful, there may be a couple reasons for example, there may be not much out there, your terms are wrong, or the relationships are not right. Go back and try again if not getting what you want.

4.16 ***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 to not repeat 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 the recording 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).

4.17 ***Document your references*** - You can use an Excel spreadsheet or even a Word document to collect and organise your references. Reference manager software makes this 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 are 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 is easier to collaborate if you are 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. Do not 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.

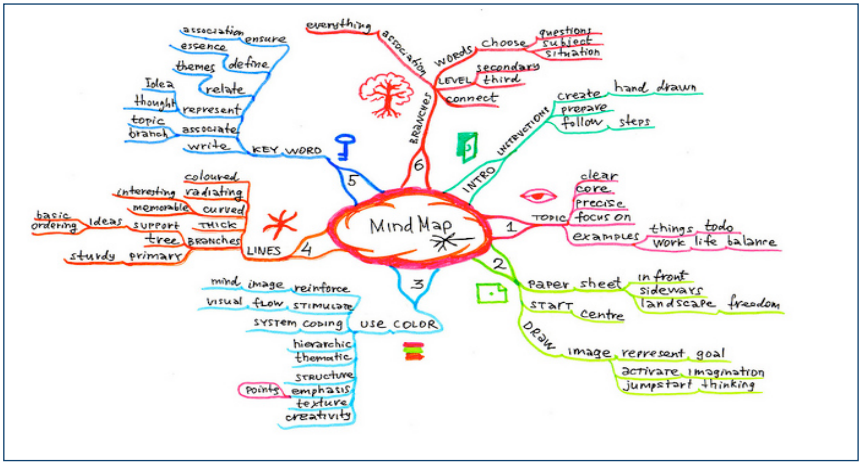
vi. Twitter – Does the site have a twitter page? If so, try and spark up a conversation. Being active on twitter is normally a sign that they are open and responsive to customer feedback.

Identifying evidence search terms

Step 1. Using mind maps

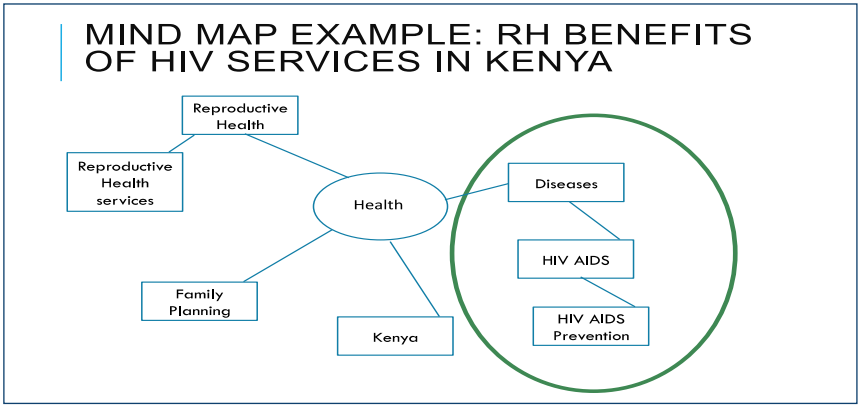
4.18 A great tip for brainstorming and organising terms is to use a mind-map to structure the information. Mind-maps were championed by Tony Buzan as a flexible, organisational tool that uses a visual format to link words, ideas, tasks or other concept items together. Usually mind-maps are developed around a central theme, with linked words (etc.) arranged radically around the central theme. It is an image-centered diagram that represents the semantic connections between portions of information.

Figure 5. Different features of a mind-map



Source: Kolsnik, 2012.

Figure 6. An example of a mind-map



Source: Kolsnik, 2012.

4.19 By presenting these connections in a radial, non-linear graphical format, it encourages a brainstorming approach, eliminating the hurdle of initially establishing an intrinsically appropriate or relevant conceptual framework to work within. Mind maps record the information in the same way that our brains' structure and store information through linked associations. You may find that a mind-map will help you to define your search question, as well as identify the terms associated with the chosen topic. Mind-maps are flexible so you can include different branches for alternative spellings or related terms.

4.20 Figure 5 shows the different features of a mind map. For example, you can use color or images to represent concepts; keywords radiate out from the central theme (i.e. mind-maps) to show the association/relationship between terms (e.g. a mind-map has lines, mind-maps can use color).

4.21 Mind-maps are a great way of identifying what you already know about a given topic, and can expand in detail as your understanding of a specific domain increases. Once you have mapped the information landscape, around a specific topic or research question, you can transfer this information into a concept cluster and then concept tables.

Step 2: Concept clusters

4.22 Once you have an idea of the areas you are interested in, taken from the mind-map, start to cluster these into specific areas and also look for other terms that could be used to describe these areas. These terms are your search keywords, which you will eventually use to formulate a search phrase for locating information.

4.23 Concept clusters enable you to group related terms around a specific theme. These may be concepts or terms that are taken from one branch of the mind-map. For instance, we have the example of terms related to the research issue "Reproductive health benefits of HIV services in Malawi". These terms include concepts that we would look for in our search such as: 'Disease' and more specifically 'HIV/AIDS'. We would also include variants such as 'HIV/AIDS', 'Women'. Concept clusters are collections of related concepts, ideas or terms.

Step 3. Concept tables

4.24 The next step is to transfer clustered terms into concept tables:

i. Transfer clustered terms/phrases into concept tables to create a list of terms that you will use for searching.
ii. List associated terms under an 'umbrella' concept, e.g. 'Disease', 'Kenya'
iii. Clusters form key terms for search strategy or search table
iv. Take the concept 'clusters' and place them into a search/concept table as shown below.

Table 6. An example of a concept table

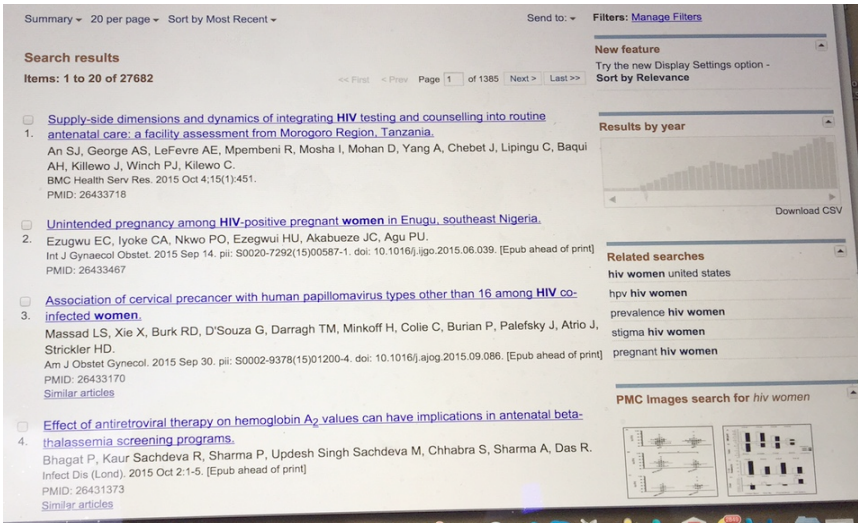
Key Concept 1: Health	Key Concept 2: Kenya	Key Concept 3: Family planning
Diseases	Nairobi	Family Planning Methods
HIV/AIDS	Republic of Kenya	Natural Family Planning
HIV/AIDS Prevention	Eastern Africa	Family Planning Services

4.25 Clustered terms positioned within a concept table will help you to formulate a search strategy. By listing the concepts in a separate cell (under an umbrella term), you can begin to combine terms to create a search strategy. This technique is a great way to systematically record the combination of terms used in your search strategy.

4.26 To expand and enrich your search terms, you should also look at related search terms or subject terms in online databases. Figure 7 points to the part of the online page/database where you will find related search terms or subject terms.

4.27 Once you have gathered all the concepts together in the table, you can begin to combine terms to create meaningful search queries that respond to your search question. In this example, the terms "HIVAIDS", "Nairobi" and "Family planning services" have been combined. Note that combinations of keywords, e.g. "HIVAIDS" have been enclosed in speech-marks. This may or may not be necessary in all databases or search engines, but it is good practice as it ensures that the search limits only to documents with these terms following each other.

Figure 7. Search screen demonstrating the source of more search terms



Boolean terms and Google search operators

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

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

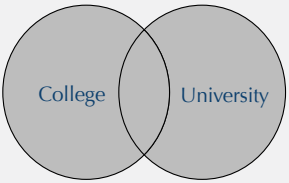
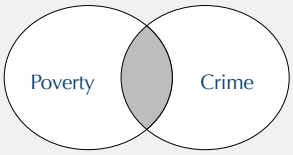
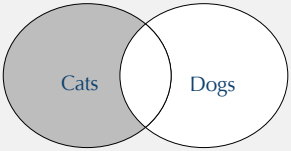
4.30 Boolean operators can provide a powerful way of entering your search as they allow you to specify how the search terms are combined. To do this, you need to use Boolean logic

operators, namely: AND, OR, and NOT or their equivalents on the system you are using (see Figure 8 below for demonstration). It is important to find out how the particular resource you are using uses these commands: some use symbols such as + (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.

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

4.32 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.*

Figure 8. Demonstrating 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'.

Source: Adapted from DeVry University South Florida Campus Community Website, (n.d.)

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

4.34 Different symbols are used by different search engines.

4.35 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".

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

4.37 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.

4.38 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.

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

Google search tips: punctuation, symbols and operators in search

4.40 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

4.41 Google and Google Scholar recognise a number of special characters that can improve the quality of your search results. These special characters are represented in Table 7.

Table 7. Google search operators

Symbol	What you can use it for
+	Include terms in the search results e.g. +Malaria and +Polio
-	Remove or exclude these words from search results e.g. +Malaria –Vaccine
" "	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

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

4.43 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 or 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. 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

4.44 An important aspect of searching for evidence on online databases is to be able to assess the source credibility so that you are assured that the evidence you found is credible. 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.

Proxy for quality #1: Reputation

4.45 The source of the evidence is sometimes as important as the evidence itself. Another way to assess quality is identifying whether or not the manuscript comes from a reputable source. Because your source is Cochrane, for example, you can have a certain amount confidence about the credibility of the evidence. But they can make mistakes too.

Proxy for quality #2: Journal rankings

4.46 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. The Impact Factor is the measure of how many times the average article in the journal has been cited in the last two years. It tells you if people are using it to write about other things. It is good, but not to be oversold. It does not inform you if people are using a particular programme or intervention, but not writing about it. Also, a new journal may be great, but it will not have an Impact Factor because it is not on the playing field yet (remember, the Impact Factor is calculated using a two-year time period for measurement).

4.47 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.

4.48 For more information on this, read the two publications below:

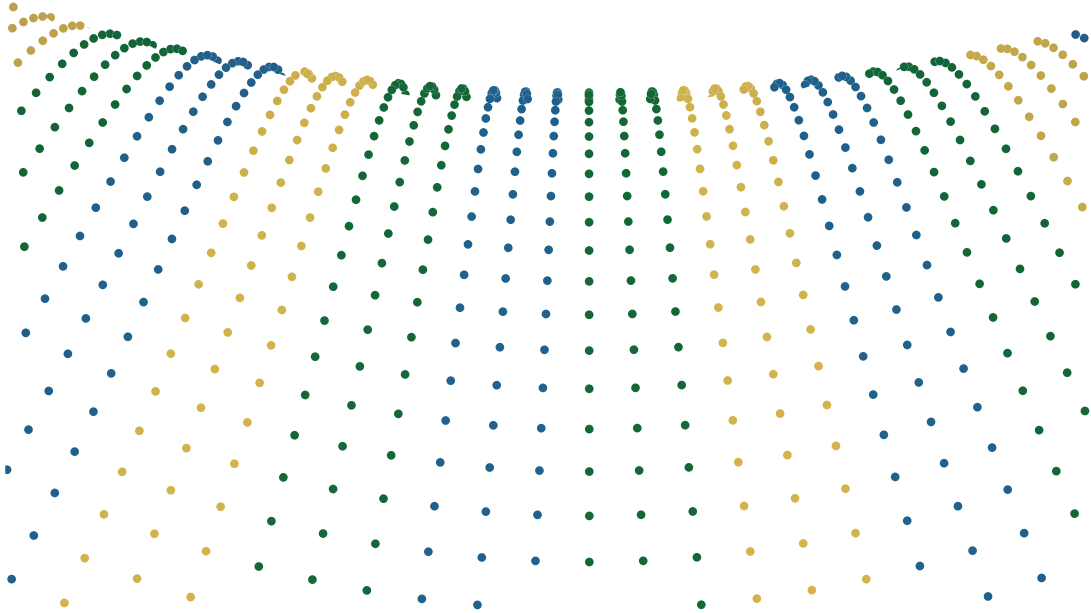
- DfID's *How to Note: Assessing the Strength of Evidence* (available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291982/HTN-strength-evidence-march2014.pdf
- *Searching for studies: Information retrieval methods group policy brief* (available at: http://www.campbellcollaboration.org/artman2/uploads/1/C2_Information_retrieval_policy_brief_new_draft.pdf).

When there is no documented evidence

4.49 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. Given the importance of research design and methods in determining the quality of research findings, this chapter 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 rigor of evidence from single studies and a body of 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 an 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. *Generalisable* means the information gathered can be applied to other populations, and has been published and disseminated.

Research design and methods

5.5 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? This question can be responded

to in various ways as below:

i. The design is the logical structure that gives direction and systemises the study.

ii. Research design serves to ensure that we obtain relevant information to answer the research question in a convincing way.

iii. Choice of study design is critical:

- Affected by type of research question
- Dictates the type of conclusions that can be drawn
- Influenced by availability of resources and time needed to accomplish the task

5.6 Major types of research designs include the following:

i. Action Research Design
ii. Case Study Design
iii. Causal design
iv. Cohort Design
v. Cross-sectional design
vi. Descriptive design
vii. Experimental design
viii. Exploratory design
ix. Historical design
x. Longitudinal design
xi. Mental analysis design
xii. Observational design

5.7 Annex 1 provides a detailed table that describes these designs, including the information the research designs generate and how policy analysts can apply the information in policy analysis. 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 designs are more useful for ***describing*** political, social and environmental contexts.

Types of evidence

5.8 **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

5.9 **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

5.10 **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.

5.11 **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).

5.12 **Qualitative data** are usually text-based and can be derived from in-depth interviews, observations, and analysis of written documentation or open-ended questionnaires. Qualitative research aims to gather an in-depth understanding of human behavior 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.

5.13 **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?

5.14 **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

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

i. Uniqueness – is it original?
ii. Completeness – is any information missing?
iii. Coverage – what depth does it go into?
iv. Timeliness – is it up-to-date?

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

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

5.17 DFID has suggested various principles of research quality, see Table 8 below.

Table 8. 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?

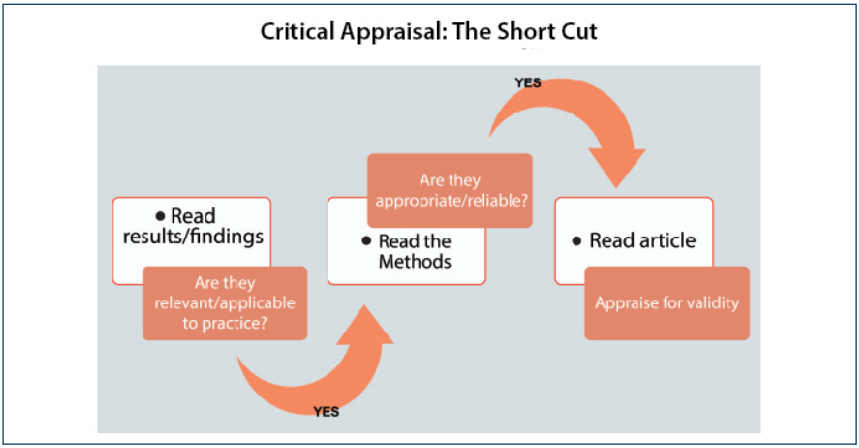
Transparency	Does the study present or link to the raw data it analyses?
	What is the geography/context in which the study was conducted?
	Does the study declare sources of support/funding?
Appropriateness	Does the study identify a research design?
	Does the study identify a research method?
	Does the 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 the 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?
Cogency *Cogency refers to the soundness of the research, is the conclusion truthful given the study's results. It also refers to clarity of the presentation of the research.*	Does the author 'signpost' the reader throughout?
	To what extent does the author consider the study's limitations and/or alternative interpretations of the analysis?
	Are the conclusions clearly based on the study's results?

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

5.18 Figure 9 below depicts a quick critical appraisal process that one should go through before deciding to read and possibly use the evidence contained in a research report or paper.

Figure 9. Demonstrating the critical appraisal process



External validity and reliability

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

5.20 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 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.

5.21 *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?

5.22 *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 strength of a body of evidence

5.23 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. 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.

5.24 DFID's 2014 *How to Note: Assessing the Strength of Evidence* provides detailed criteria for assessing the strength of a body of evidence. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291982/HTN-strength-evidence-march2014.pdf

5.25 Another important reading on assessing the strength of evidence is Nutley, Powell and Davis (2013) *What counts as good evidence?* Available at: http://www.alliance4usefulevidence.org/assets/What-Counts-as-Good-Evidence-WEB.pdf

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?t
- 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

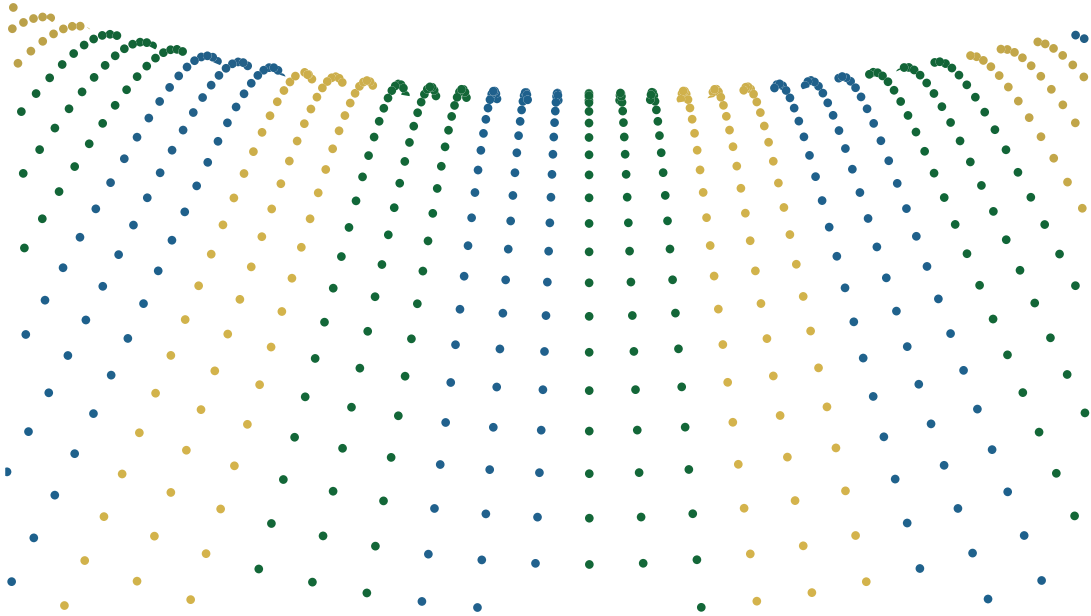
- Is the information presented in a format that implies it is final and ready for dissemination?
    - Is the information professionally presented in a format that implies it is final, e.g. is it in PDF format?
    - If it is a policy document or government report, has it been signed off by the relevant official and officially launched?
- Who funded the production and publication of the information?
    - Does the funder have interests that may bias the information?

When there is no documented evidence

5.26 Sometimes there is no documented evidence for informing policy analysis or a legislative process. In this case, one could assemble a team of experts (including top scientists, practitioners, and programme implementers) to advise the Parliamentary Committee. One could also recommend that the Parliament commissions research on the issue in order to obtain credible evidence to inform Parliament's decision.

6

SYNTHESISING EVIDENCE FOR POLICY ANALYSIS AND DECISION MAKING



6.1 The objective of this Chapter is to develop knowledge and skills in critical review of multiple sources of evidence, synthesising these different types of evidence 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 policy briefs.

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 within a particular institution or geography, 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 9 below provides criteria for assessing the applicability and transferability of evidence generated elsewhere to your context.

Table 9. Assessment of applicability and transferability of evidence

Construct	Factors	Questions to Ask
Applicability (feasibility)	Political acceptability or leverage	Will the intervention be allowed or supported in current political climate? Will there be public relations benefit for local government? Will this program enhance the stature of the organisation? Will the public and target groups accept and support the intervention in its current format?
	Social acceptability	Will the target population be interested in the intervention? Is it ethical?

	Available essential resources (personnel and financial)	Who/what is available/essential for the local implementation? Are they adequately trained? If not, is training available and affordable? What is needed to tailor the intervention 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 intervention?
	Organisational expertise and capacity	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 intervention? Is the current strategic plan/operational plan in alignment with the intervention to be offered? Does this intervention 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?) Are there any organisational barriers/structural issues or approval processes to be addressed? Is the organisation motivated (learning organisation)?
Transferability (generalisability)	Magnitude of health issue in local setting	Does the need exist? What is the baseline prevalence of the health issue locally? What is the difference in prevalence of the health issue (risk status) between study and local settings?
	Magnitude of the "reach" and cost effectiveness of the intervention above	Will the intervention 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: 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 & Hutchins, 2003).

6.7 Synthesising evidence brings information from multiple sources together in new ways and helps you to interpret it for yourself and your audience. 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.

6.8 It is important to synthesise evidence because by using multiple sources you can:

i. Provide more than one opinion
ii. Validate other sources
iii. Validate your research
iv. Defend your research
v. Increase your understanding

6.9 Figure 10 below depicts the process of synthesising evidence from multiple sources into a new whole.

Figure 10. The synthesis process

Source: CADRE Project at the University of Nebraska - Omaha, n.d

Differences between summarising and synthesising evidence

Table 10. 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 unified entity.
Presents a cursory overview.	Focuses on both main ideas and details.
Demonstrates an understanding of the overall meaning.	Achieves new insight.

Source: Eaton, S. E., 2010

Steps for synthesising evidence

6.10 **Identify** the role of a synthesis in your writing as well as the kind of information readers will need.

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

6.12 **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.

6.13 **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?

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

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

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

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

6.18 **Document** - Indicate clearly the sources for your synthesis using a standard style of documentation (i.e. referencing style) such as APA (American Psychological Association).

Analysing evidence on policy options for tackling the policy issue

6.19 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

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

6.21 When you quote, you are reproducing another writer's words exactly as they appear in the writer's publication. Here are some tips to help you decide when to use quotes:

i. Quote if you cannot say it any better and the author's words are particularly brilliant, witty, edgy, distinctive, a good illustration of a point you are making, or otherwise interesting.

ii. Quote if you are using a particularly authoritative source and you need the author's expertise to back up your point.

iii. Quote if you are analysing diction, tone, or a writer's use of a specific word or phrase.

iv. Quote if you are taking a position that relies on the reader understanding exactly what another writer says about the topic.

6.22 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.

6.23 When might you want to paraphrase?

i. Paraphrase when you want to introduce a writer's position, but his or her original words are not special enough to quote.

ii. Paraphrase when you are supporting a particular point and need to draw on a certain place in a text that supports your point - for example, when one paragraph in a source is especially relevant.

iii. Paraphrase when you want to present a writer's view on a topic that differs from your position or that of another writer; you can then refute the writer's specific points in your own words after you paraphrase.

iv. Paraphrase when you want to comment on a particular example that another writer uses.

v. Paraphrase when you need to present information that is unlikely to be questioned.

Tips for writing compelling and concise syntheses

6.24 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 compelling manner

6.25 Keep your *message short by*:

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

6.26 Keep your message simple by unpacking complex issues into simple messages. Table 11 gives examples of complex versus simplified messages.

Table 11. An example of unpacking complex statements into simple statements

58 percent of Kenyans cannot afford maize flour	OR	Nearly six in ten Kenyans cannot afford maize flour
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

6.27 In Table 12, 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 – the evidence that you found and conclusions), 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 12. 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 (5) recent systematic reviews that read.

3. Policy Options	A critical overview of the policy options, including the current and proposed options It should explain why current option is failing, and present other potential policy options. It is 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

* Technical staff who advise parliamentary committees are often not required to make recommendations. Rather, the most important thing for them to provide is a critical review of the 'policy options' from which parliamentary committees draw decisions. Sometimes though Committee Members may ask the technical staff to offer recommendations.

Writing actionable recommendations

6.28 A policy recommendation is simply written policy 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 the recommendations should be active. Therefore, use active language - words like use, engage, incorporate, among others policy recommendations are in many ways the chief product of the work of government managers to create and administer public policy.

6.29 The impact of your policy 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.

6.30 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 policymaker and the society?

6.31 Examples of policy recommendations from the health sector:

- As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health.
- Require hospitals to establish representative pharmacy and therapeutics committees with defined responsibilities for monitoring and promoting quality use of medicines.

Writing policy briefs

Function and elements of policy briefs

6.32 Policy briefs are concise, stand-alone documents focusing on a particular issue requiring policy attention. They can be particularly effective in bridging the research and policy divide. Typical policy briefs have four main functions to:

- Explain and convey the urgency of the issue;
- Present policy recommendations or implications on the issue;
- Provide evidence to support the reasoning behind those recommendations;
- Point the reader to additional resources on the issue

6.33 Policy briefs remain an important research product for use by policymakers. In the 2014 SECURE Health study on status of research use within Parliament, many technical staff indicated that they require skills in developing policy briefs to be able to take up evidence and present it to parliamentarians as key decision-makers (SECURE Health, 2014).

6.34 A policy 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 *(Global Debate and Public Policy Challenge,* n.d). A policy brief should feature five key elements:

i. **Focused on tackling a policy problem:** A policy 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 policy 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 policy 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 policy 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)

v. **Appealing layout:** A professional looking layout helps make a favourable impression on the target audience. The layout and polished look of a policy brief serves to catch the eye of the audience and draw them into reading it. It shows that the ideas and recommendations should be taken seriously. Paragraphs and sub-headings can make the structure clearly visible at first glance. Recommendations can be numbered or listed using bullet points. An easy to read graph can help to illustrate the major argument or trend. Subtle use of images might also be considered. Keep in mind that a well-designed layout reinforces the substance of the message and does not distract the reader from the arguments.

Structure of a policy brief

Table 13 describes the structure and content of a policy brief.

Table 13. Structure of a policy brief

Title of policy brief	Focus on the issue; make title memorable by choosing a provocative or surprising title, so that it sticks in the reader's mind. It is often best to communicate your key message and the need for change in the title.
Executive summary or key messages	The executive summary aims to convince the reader further that the brief is worth reading. It is especially important for an audience that is short of time to clearly see the relevance and importance of the brief in reading the summary. Keep executive summary to just 1-3 statements.

	Instead of executive summary, some people use a 'Key Messages' section or text-box on the first page. This should not have more than 5 messages; in fact, just a list of 3-5 messages is ideal.
Introduction (context and importance of problem)	The purpose of this element of the brief is to convince the target audience that a current and urgent problem exists which requires them to take action. The context and importance of the problem is both the introductory and first building block of the brief. As such, it usually includes the following: A clear statement of the problem or issue in focus. What is the problem? What is the magnitude of the problem? Who is affected by the problem? Why is the problem important? 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.
Methodology	Highly summarised, often just a few sentences on how the information contained in the brief has been sourced and/or analysed. Designed to strengthen the credibility of the brief by explaining how the findings and recommendations were arrived at. Not always applicable or necessary
Critique of the policy options – present the options and discuss their impact (based on evidence)	The main part of your brief should provide a critical analysis of the potential policy options for tackling the issue – this is an evidence-driven section Highlight the shortcomings of the current policy Illustrate both the need to change and focus of where change needs to occur Provide an overview of the potential policy options for tackling the issue and discuss their justification of why these options can address the issue
Recommendations	Based on the evidence in the preceding section, propose 3-5 specific and feasible recommendations required to address the most pressing issues outlined at the beginning of your policy brief Your recommendation should make it clear in detail what policy-makers have to do to adopt your recommendations and why it is in their best interest to do so
Reference list	At the end of the brief, include a list of references to the materials that you cited in the main text

Adapted from Global Debate and Public Policy Challenge (n.d.) and Community-Based Monitoring System (CBMS) Network Coordinating Team, Guidelines for Writing a Policy Brief (n.d.).

6.36 In addition, a policy brief may contain the following:

- Boxes and sidebars
- Tables
- Graphics
- Photographs
- Authors
- Acknowledgements
- Publication details
- References

6.37 The length of your policy brief depends on who your primary audience is. However, policy briefs should not be more than four (4) pages.

Benchmark for a policy brief

6.38 To guarantee the quality and effectiveness of a policy brief, one needs to ensure that the brief has critical ingredients outlined in Table 14 below.

Table 14. Key ingredients of a policy brief

Evidence	Persuasive argument	Clear purpose Cohesive argument Quality of evidence Transparency of evidence underpinning policy recommendations (e.g. a single study, a synthesis of available evidence, etc.)
	Authority	Messenger (individual or organisation) has credibility in eyes of policy-maker
Policy context	Audience context specificity	Addresses specific context > national and sub-national Addresses needs of target audience > social vs economic policy
	Actionable recommendations	Information linked to specific policy processes Clear and feasible recommendations on policy steps to be taken

Engagement	Presentation of evidence-informed opinions	Presentation of author's own views about policy implications of research findings But clear identification of argument components that are opinion-based
	Clear language/writing style	Easily understood by educated, non-specialist
	Appearance/design	Visually engaging Presentation of information through charts, graphs, photos

Source: Jones and Walsh, 200

Some tips for beginning to write your policy brief

6.39 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 organizational 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)?

6.40 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)?

Tips for developing effective presentations

6.41 PowerPoint presentations are commonly used to share evidence with decision-makers. For these presentations to be effective, they need to be made in a clear and compelling manner. Here are some tips for preparing effective presentations:

- Keep the number of slides to a minimum; for example, if one has 15 minutes of presentation time, keep slides to a maximum of 10-12.
- Limit the information on the slide to a single point or idea - no more than six lines, and not more than six words per line (i.e. the 6 by 6 rule)
- Keep slides simple with plenty of open space – avoid complicated figures, complex animations, or long and complex chunks of text.
- Use "powerful" titles that communicate the point of the slide
- Use 'power-points' not sentences – present one point per line
- Use visuals – graphics, pictures
- Use large readable type
- Use strong colour contrast
- Use slide master to create consistent slides

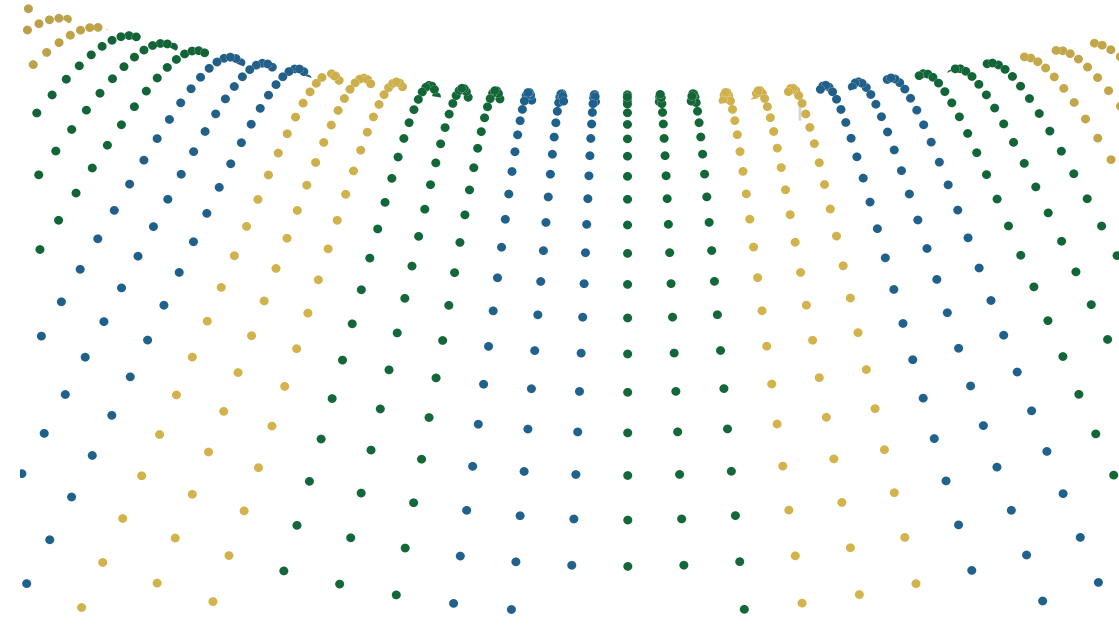
Tips for delivering an effective PowerPoint presentation

6.42 When delivering a PowerPoint presentation:

- Practice is critical. Do not read the presentation verbatim; rather practice so as to deliver from the 'power-points' without reading word by word
- Show up early to ensure your equipment works
- Test the presentation on the actual presentation computer – don't assume it will work
- Spend about one minute on every slide
- Stay on time
- Turn off screen saver (if any)
- Monitor the audience's behaviour/body language to gauge their reaction
- Avoid moving the pointer unconsciously
- Ask the audience to hold questions till the end

APPLYING EVIDENCE IN POLICY ANALYSIS

7



7.1 Chapter 7 focuses on developing knowledge and skills on the application of the evidence as well as the indicators of evidence use. Application of evidence is the final stage in the evidence-informed decision-making and policy analysis processes. These Guidelines look at application of evidence broadly as including: reach, use, capacity building, and collaboration.

Reaching policymakers at the right time with evidence

7.2 There is a theory on how 'policy windows' are created including the concept that there are two important domains to consider when reaching policymakers. These are the policy system and the human element.

7.3 What then are 'policy windows' – these are opportunities for reaching policymakers with evidence.

Understanding the working of parliaments and their committees

7.4 A first step in reaching policymakers at the right time with evidence is to **understand the working of Parliament and its legislative agenda.** This includes the differing roles of Parliament compared to other Arms of Government, how laws are made and the interrelationship between policy and laws and the role of the different departments within Parliament. This is in order to ensure synergy and complementarities in supporting the role of MPs. The legislative process was covered in Chapter 2.

7.5 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 remaining relevant as a source of information.

7.6 **It is equally 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 a government think-tank, a different technical office of parliament, a different Committee of the House or even a different House. Therefore, the first s tep in knowing how to reach policymakers in parliament at the right rime is to create a window of opportunity.

7.7 As discussed in Chapter 2, Kingdon (2003) argues that a "policy window" for influence opens when the three streams merge or align (i.e. problem, politics, and policy). Some of the ways that you can contribute to couple the three streams in order to open a policy window of influence include:

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. Engaging with the system

iv. Writing policy briefs, policy notes and anticipatory papers

v. Preparing a document for the Committee on an issue under discussion and therefore in need of evidence for clarification

vi. Getting the evidence on the agenda of a Committee meeting prior to discussion on the issue

vii. Working with other technical Committees of Parliament to develop a brief on certain information, e.g. the impact of the budget on a particular gender.

The human element in reaching policymakers

7.8 Two systematic reviews, conducted in 2002 and 2014 of how evidence influence decision makers, 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 (Innvaer et al., 2002; Oliver et al., 2014).

7.9 "Policymakers believe that the most important contributions scholars [and experts] can make are … as informal advisors or creators of new knowledge. However, severe time constraints limit their ability to use such scholarship in any but its very briefest presentation." http://onthinktanks.org/2014/05/21/what-do-policymakers-want/ (Enrique Mendizabal, 2014).

7.10 The important take-away from these findings 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 policymakers.

Developing a communications strategy

7.11 Building on the foregoing section, it is important to have a clear strategy on how you will communicate your evidence to a targeted policymaker in order to influence its uptake. Before going through the various stages of the developing a communication strategy, let us first review our understanding of the terms 'policy communications' and 'policy advocacy'.

7.12 Policy communications is defined as the exchange of information that is relevant to policy audiences. Information exchange can be either formal or informal (like coffee

with an influential leader), but whatever form it takes - communication is an integral part of the policymaking and legislative processes that we looked at earlier.

7.13 Policy advocacy is a form of policy communication, but it is an exchange of information that tends to plead in favour of or urge publicly for a specific outcome. That is different from informing the policy or decision-making process by simply providing data and facts, which is what is expected of parliamentary staff so as not to be seen as advocating for a certain outcome.

Step 1: Define your communication objectives

7.14 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 house committee that you are attempting to reach or influence, then your communication objective will largely involve increasing awareness and understanding of the issue and its implication.

7.15 On the other hand, if the issue you are seeking to address is already on the agenda of the House Committee, then you will need to understand what particular area requires additional clarification. Your communication objective will seek to 'fill in the gaps'. Table 15 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 15. Communication versus programme objectives

Communications Objectives	Programme Objectives
Raise awareness among policymakers about the need for increased resources for maternity services	Increase the number of women who receive free maternity services by 30 percent in 2016
Prioritise the reversal of the ban on GMOs in the country	Increase the acceptance and use of GMOs to 15 percent by 2018
Promote allocation of resources to the operationalisation of the Cancer Prevention Act of 2012	Increase funds for the operationalisation of the Cancer Prevention Act of 2012

Increase the level of accountability and transparency in line with the Public Finance Act 2012	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

7.16 After defining your communications objectives, the next important thing to do is to define the specific outcome(s) for each communication objective. The outcome(s) will demonstrate success that a specific communication objective has been achieved. Table 16 below provides some examples of communication objectives and their potential outcomes.

Table 16. Examples of communication objectives and expected outcomes

Communications Objective	Expected Outcome
Help the Parliamentary Committee on Health better understand effective health financing strategies for realising health care provision for all	Effective approaches by parliament to use the budgetary process or its law-making function to take actions that enable increased government funding for health care provision
Increase the level of accountability and transparency in line with the Public Finance Act 2012	Amend the Public Finance Act 2012 to provide for stringent penalties for use of revenue collected at source by County governments
Increase understanding among members of parliament on the needs for law amendments that protect girls and women from gender-based violence	Development and presentation of a bill in parliament seeking to protect girls and women from gender-based violence

7.17 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

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

- Who is your primary audience? – The policymakers 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 and other actors who are not necessarily in agreement with your evidence as a result of other competing reasons.

7.19 The next step in analysing your audiences 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)

7.20 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

7.21 These Guidelines have already covered a lot of important elements in developing compelling messages in the section on the development of actionable recommendations, and policy briefs. 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 your message content. The policymaker 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. For instance, it is better to say 'family planning' or 'child spacing' than 'population control'.

7.22 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

7.23 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 (e.g. Parliament website), mass mailing (email)
- Social media - Twitter, Facebook.

Step 5: Create a work plan

7.24 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.

7.25 The work plan should specify:

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

7.26 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.

7.27 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

7.28 Nothing will be achieved unless you implement your communications work plan.

Step 7: Monitor and evaluate your communication activities

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

7.30 In summary, effective communication strategies rely on:

- Audience-centered approach
- Ongoing communications and interactions with audience (through house committees, implementing agencies, and ministries, among others).
- Disseminating information at the right time, and for the right length of time

7.31 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?

7.32 How do we know that evidence has been used?

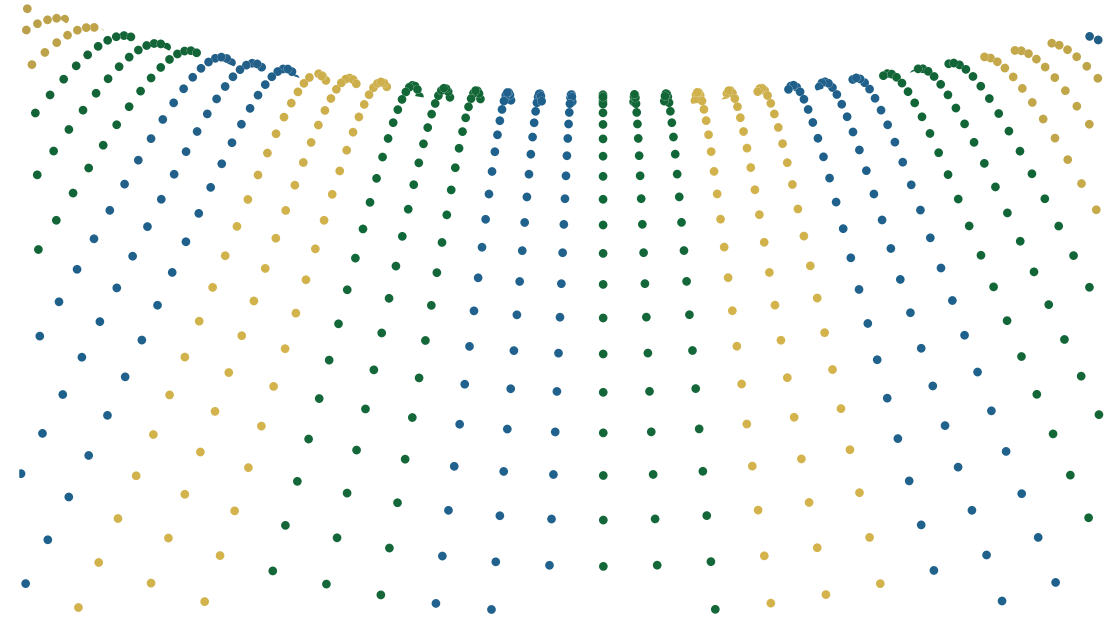
- Amended laws or legislative proposals
- Recommendations adopted by implementing agencies
- Guidelines revised to reflect the evidence
- Inclusion on the agenda of house committee meetings for further debate
- Frequency and quality of interactions with high level policymakers
- Changes made to programmes or services

7.33 It is very complex to measure use of evidence. Acknowledging this complexity is a helpful reminder to us to articulate SMART 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.

8

CONCLUSION

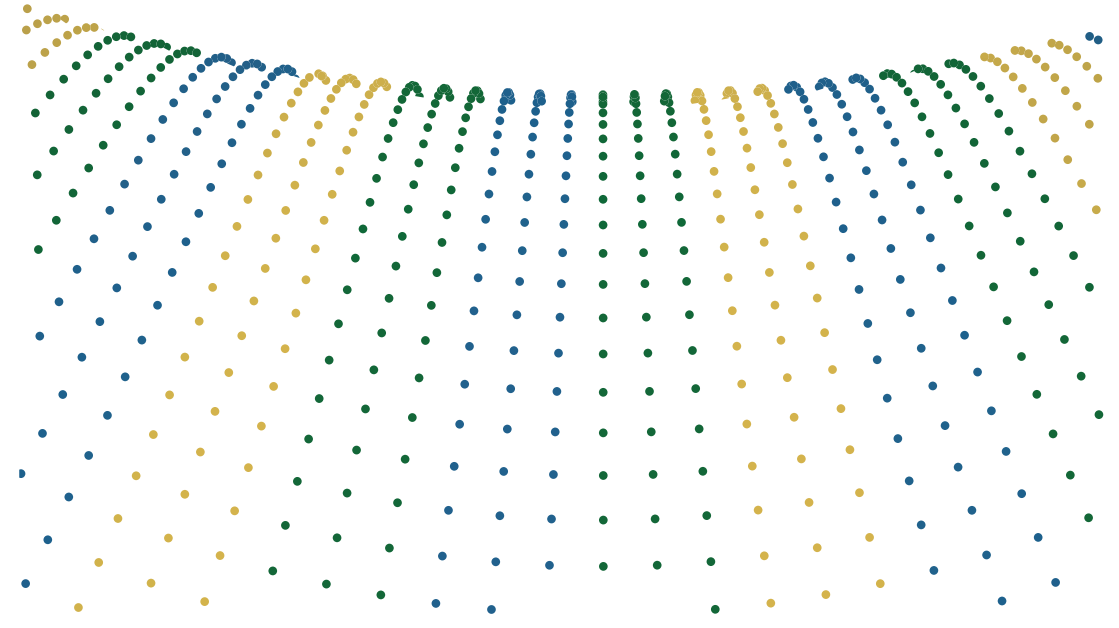


8.1 These Guidelines have provided direction for MPs and technical staff in parliament in using evidence for decision-making and policy analysis. The emphasis on evidence-informed decision-making and policy analysis is because the advantages of the evidence-informed approach to decision-making and policy analysis have been widely recognised by policymakers and researchers alike. It is worth noting though that evidence-informed decision-making and analysis is a process that requires both sustained attention and resources. Even then, its advantages, listed below, justify the resources investment:

- Helps 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 programmes, 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.

9

REFERENCES



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 (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

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

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/

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

Innvaer, S., Vist, G., Trommald, M. & 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. & 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.

Kenya Law Reform Commission (2015). *Guide to the Legislative Process in Kenya.* 1st Edition. Nairobi: 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

Lasswell, H. (1971) *A Pre-View of Policy Sciences.* New York: American Elsevier.

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. & 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.

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 (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

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

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/

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

Innvaer, S., Vist, G., Trommald, M. & 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. & 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.

Kenya Law Reform Commission (2015). *Guide to the Legislative Process in Kenya.* 1st Edition. Nairobi: 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

Lasswell, H. (1971) *A Pre-View of Policy Sciences.* New York: American Elsevier.

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

Nutley, S., Powell, A. & 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.

Annexes

Annex I: 12 Major types of 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, Krantz & Ramirez, 1986)

What do these studies tell you?

1. This is a collaborative and adaptive research design that lends itself to use in work or community situations
2. Design focuses on pragmatic and solution-driven research outcomes rather than testing theories
3. 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
4. Action research studies often have direct and obvious relevance to improving practice and advocating for change
5. There are no hidden controls or pre-emption of direction by the researcher

What these studies do not tell you?

1. 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
2. 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]
3. Personal over-involvement of the researcher may bias research results
4. 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

3. 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?

1. 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
2. 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
3. Design can extend experience or add strength to what is already known through previous research
4. 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
5. The design can provide detailed descriptions of specific and rare cases

What these studies do not tell you?

1. 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
2. Intense exposure to the study of a case may bias a researcher's interpretation of the findings
3. Design does not facilitate assessment of cause and effect relationships
4. Vital information may be missing, making the case hard to interpret
5. The case may not be representative or typical of the larger problem being investigated
6. 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?

1. 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
2. Replication is possible
3. There is greater confidence the study has internal validity due to the systematic subject selection and equity of groups being compared

What these studies do not tell you?

1. 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 is just a big, furry rodent)
2. 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
3. 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?

1. 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
2. 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
3. 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.)
4. Either original data or secondary data can be used in this design

What these studies do not tell you?

1. 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
2. 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
3. Due to the lack of randomisation in the cohort design, its external validity is lower than that of study designs where the researcher randomly assigns participants

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?

1. Cross-sectional studies provide a clear 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time
2. 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
3. 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
4. Groups identified for study are purposely selected based on existing differences in the sample rather than seeking random sampling
5. Cross-section studies are capable of using data from a large number of subjects and, unlike observational studies, is not geographically bound
6. Can estimate prevalence of an outcome of interest because the sample is usually taken from the whole population
7. Because cross-sectional designs generally use survey techniques to gather data, they are relatively inexpensive and take up little time to conduct

What these studies don't tell you?

1. Finding people, subjects, or phenomena to study that are very similar except in one specific variable can be difficult
2. Results are static and time-bound and, therefore, give no indication of a sequence of events or reveal historical or temporal contexts
3. Studies cannot be utilised to establish cause and effect relationships
4. 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
5. There is no follow up to the findings

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?

1. The subject is being observed in a completely natural and unchanged 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)
2. 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
3. If the limitations are understood, they can be a useful tool in developing a more focused study
4. Descriptive studies can yield rich data that lead to important recommendations in practice
5. Approach collects a large amount of data for detailed analysis

What these studies don't tell you?

1. The results from a descriptive research cannot be used to discover a definitive answer or to disprove a hypothesis
2. Because descriptive designs often utilise observational methods (as opposed to quantitative methods), the results cannot be replicated
3. The descriptive function of research is heavily dependent on instrumentation for measurement and observation

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?

1. Experimental research allows the researcher to control the situation. In so doing, it allows researchers to answer the question, "What causes something to occur?"
2. Permits the researcher to identify cause and effect relationships between variables and to distinguish placebo effects from treatment effects
3. Experimental research designs support the ability to limit alternative explanations and to infer direct causal relationships in the study
4. Approach provides the highest level of evidence for single studies

What these studies do not tell you?

1. The design is artificial, and results may not generalise well to the real world
2. The artificial settings of experiments may alter the behaviours or responses of participants
3. Experimental designs can be costly if special equipment or facilities are needed
4. Some research problems cannot be studied using an experiment because of ethical or technical reasons.
5. 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?

1. Design is a useful approach for gaining background information on a particular topic
2. Exploratory research is flexible and can address research questions of all types (what, why, how)
3. Provides an opportunity to define new terms and clarify existing concepts
4. Exploratory research is often used to generate formal hypotheses and develop more precise research problems
5. In the policy arena or applied to practice, exploratory studies help establish research priorities and where resources should be allocated

What these studies do not tell you?

1. Exploratory research generally utilises small sample sizes and, thus, findings are typically not generalisable to the population at large
2. The exploratory nature of the research inhibits an ability to make definitive conclusions about the findings. They provide insight but not definitive conclusions
3. The research process underpinning exploratory studies is flexible but often unstructured, leading to only tentative results that have limited value to decision-makers
4. 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 researc problem

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?

1. The historical research design is unobtrusive; the act of research does not affect the results of the study
2. The historical approach is well suited for trend analysis
3. Historical records can add important contextual background required to more fully understand and interpret a research problem
4. There is often no possibility of researcher-subject interaction that could affect the findings
5. Historical sources can be used over and over to study different research problems or to replicate a previous study

What these studies do not tell you?

1. 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
2. Since historical research relies on data from the past, there is no way to manipulate it to control for contemporary contexts
3. Interpreting historical sources can be very time consuming
4. The sources of historical materials must be archived consistently to ensure access. This may especially be challenging for digital or online-only sources
5. 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
6. Due to the lack of control over external variables, historical research is very weak with regard to the demands of internal validity
7. 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?

1. Longitudinal data facilitate the analysis of the duration of a particular phenomenon
2. Enables survey researchers to get close to the kinds of causal explanations usually attainable only with experiments
3. 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)
4. Longitudinal studies facilitate the prediction of future outcomes based on earlier factors

What these studies do not tell you?

1. The data collection method may change over time.
2. Maintaining the integrity of the original sample over an extended period of time can be difficult
3. It can be difficult to show more than one variable at a time
4. This design often needs qualitative research data to explain fluctuations in the results
5. A longitudinal research design assumes present trends will continue unchanged
6. It can take a long period of time to gather results.
7. 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?

1. Can be an effective strategy for determining gaps in the literature
2. Provides a means of reviewing research published about a particular topic over an extended period of time and from a variety of sources
3. Is useful in clarifying what policy or programmatic actions can be justified on the basis of analysing research results from multiple studies
4. Provides a method for overcoming small sample sizes in individual studies that previously may have had little relationship to each other
5. Can be used to generate new hypotheses or highlight research problems for future studies

What these studies do not tell you?

1. Small violations in defining the criteria used for content analysis can lead to difficult to interpret and/or meaningless findings
2. A large sample size can yield reliable, but not necessarily valid, results
3. 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
4. Depending on the sample size, the process of reviewing and synthesising multiple studies can be very time consuming

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?

1. 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)
2. The researcher is able to collect in-depth information about a particular behaviour
3. Can reveal interrelationships among multifaceted dimensions of group interactions
4. You can generalise your results to real life situations

What these studies do not tell you?

1. Reliability of data is low because seeing behaviours occur over and over again may be a time consuming task and are difficult to replicate
2. In observational research, findings may only reflect a unique sample population

5. Observational research is useful for discovering what variables may be important before applying other methods like experiments
6. Observation research designs account for the complexity of group behaviours

3. There can be problems with bias as the researcher may only "see what they want to see"
4. There is no possibility to determine "cause and effect" relationships since nothing is manipulated.
5. Sources or subjects may not all be equally credible
6. Any group that is knowingly studied is altered to some degree by the presence of the researcher, therefore, potentially skewing any data collected

Source: University of Southern California Libraries, (n.d.) Organising Your Social Sciences Research Paper

Annex II: Online sources of evidence

Kenya Open Data (www.opendata.go.ke) is a government information resource that makes core government developmental, demographic, statistical and expenditure data available in a useful digital format for researchers, policymakers, ICT developers and the general public.

NewsBank (http://www.newsbank.com/libraries/colleges-universities/solutions/us-international/access-world-news-research-collection) consolidates current and archived information from thousands of newspaper titles, as well as newswires, web editions, blogs, videos, broadcast transcripts, business journals, periodicals, government documents and other publications.

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

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

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

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. This index is called African Index Medicus (AIM). Printed knowledge generated in African countries is given global exposure in the African Index Medicus. It will promote African publishing by encouraging writers to publish in their country or regional journals, whereas new scientists and researchers in developing countries are competing for publication space in the few worldwide "prestigious" journals.

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. Reviews are extensively peer-reviewed and are fully and freely available online. Online training materials are also available. Campbell reviews have contributed to informing policies and decisions on topics as diverse as bullying prevention, juvenile justice, and welfare-to-work programs. The Campbell Collaboration has established a fast track for selected reviews: are conducted according to the same robust standards of the Campbell review process but within a more rapid time frame.

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. The Cochrane Collaboration identifies the strongest studies addressing a given issue, helping researchers and policymakers to separate reliable information in properly done studies from less reliable or rigorous information. Cochrane Collaboration Library (5 databases):

i. Database of Systematic Reviews – extremely rigorous

ii. DARE (Database of Abstracts of Reviews of Effectiveness) – well-done reviews by others

iii. Controlled Trials Registry – database of controlled trials, much smaller than Medline

iv. NHS Health Technology Assessment (HTA) Database – summaries of HTAs

v. NHS Economic Evaluation Database – appraised summaries of economic evaluations

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. The DEC holds USAID's institutional memory, spanning over 50 years; including documents, images, video and audio materials. The DEC collects research reports, evaluations and assessments, contract information, tutorials, policy and planning documents, activity information sheets, and training materials.

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. The order of search on Google's search-results pages is based, in part, on a priority rank called a "PageRank". Google Search provides many different options for customised search, using Boolean and other options specified in a different way on an Advanced Search page.

The main purpose of Google Search is to hunt for text in publicly accessible documents offered by web servers, as opposed to other data, such as image or database search. Google Search provides several features beyond searching for words. These include synonyms, weather forecasts, time zones, stock quotes, maps, earthquake data, movie show times, airports, home listings, and sports scores. There are special features for numbers, dates, and some specific forms, including ranges, prices, temperatures, money and measurement unit conversions, calculations, package tracking, patents, area codes, and language translation.

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. Google Scholar index includes most peer-reviewed online journals of Europe and America's largest scholarly publishers, plus scholarly books and other non-peer reviewed journals. It is estimated to contain roughly 160 million documents.

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. Up to 13,000 journals (in 30 different languages), up to 29,000 e-books, up to 70 other information resources are now available to health institutions in more than 100 countries, areas and territories benefiting many thousands of health workers and researchers.

Blackwell Reference Online (http://www.blackwellreference.com/public/) is a reference resource from across the social sciences and humanities. It contains 725 titles, and dozens more are added each year.

Britannica Online - Academic Edition (http://info.eb.com/products/britannica-academic-edition/) is a global digital media company with products that promote knowledge and learning. It provides timely, relevant, and trustworthy information and instructional products for homes, schools, universities, libraries, and workplaces around the world.

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

POPLINE (www.popline.org) - POPLINE® contains the world's most comprehensive collection of population, family planning and related reproductive health and development literature. An international resource, POPLINE helps program managers, policy makers, and service providers in low- and middle-income countries and in development-supportive agencies and organisations to gain access to scientific articles, reports, books, and unpublished documents. POPLINE is a free resource, maintained by the Knowledge for Health (K4Health) Project at the Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs and is funded by the United States Agency for International Development (USAID).

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. Citations may include links to full-text content from PubMed Central and publisher web sites. National Center for Biotechnology Information, US National Library of Medicine hosts PubMed.

Research4Life (http://www.research4life.org/) 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. Eligible libraries and their users benefit from: Online access to over 44,000 peer-reviewed international scientific journals, books, and databases, full-text articles which can be downloaded for saving, printing or reading on screen, searching by keyword, subject, author or language. Resources are available in several languages. Research4Life is a public-private partnership of the WHO, FAO, UNEP, WIPO, Cornell and Yale Universities and the International Association of Scientific, Technical & Medical Publishers.

Duke University Press Journals Online (http://dukejournals.org/) is internationally recognised as a prominent publisher of books and journals in the humanities and social sciences. It publishes approximately 120 books annually and over 40 journals, as well as offering five electronic collections.

UNdata (open access; https://data.un.org/) is a 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/) is the international scientific, technical, medical, and scholarly publishing business of John Wiley & Sons, with strengths in every major academic and professional field and partnerships with many of the world's leading societies.

World Bank - World Development Indicators (http://data.worldbank.org/data-catalog/world-development-indicators) is the primary World Bank collection of development indicators, compiled from officially-recognised international sources. It presents the most current and accurate global development data available, and includes national, regional and global estimates.

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