How to Write a Policy Brief

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What is a policy brief?

- A short document that presents the findings and recommendations of a research project to a **non-specialized audience**
- Key tool for communicating research findings to policy actors
- A vehicle for providing policy advice.

Who Are Your Readers?

Ask yourself

- Who am I writing this brief for?
- How knowledgeable are they about the topic?
- How open are they to the message?

Key Characteristics

- A stand alone document
- Focused on a single topic
- No more than 2-4 pages **(1,500 words)**

Policy Brief Template

- Executive Summary
- Introduction
- Approaches
- Results
- Conclusion
- Implications and Recommendations
- References
- Acknowledgement
- Citation

- **Executive Summary**
- **Introduction**
- **What did we do?**
- **What we found**
- **Conclusion**
- **Policy implications and Recommendations**
- **References**
- **Acknowledgement**
- **Citation**

Outlining Policy Brief Content

Use these questions to lay out the framework and basic content of your policy brief.

- 1. What is the **aim** of the policy brief? Write one or two sentences from which the rest of the brief will follow.
- 2.What is the best **hook** for the audience?
- 3.What **background information** does the audience need?
- 4.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)?
- 5.What are the **policy options** (if appropriate to your topic/aim)?
- 6.What **recommendations** will you make?

Designing the Policy Brief

- *Titles: Add a Little Jazz*
- *Sidebars Add Extra Depth*
- *Other Design Choices*
  - Callouts
  - Bulleted Lists

Charts, Photos, Graphics

- Pie charts/bar graphs better than tables
- Graphics can simplify understanding
- Use captions to explain content

Family Planning advocacy core groups in the TCI (the challenge initiative).

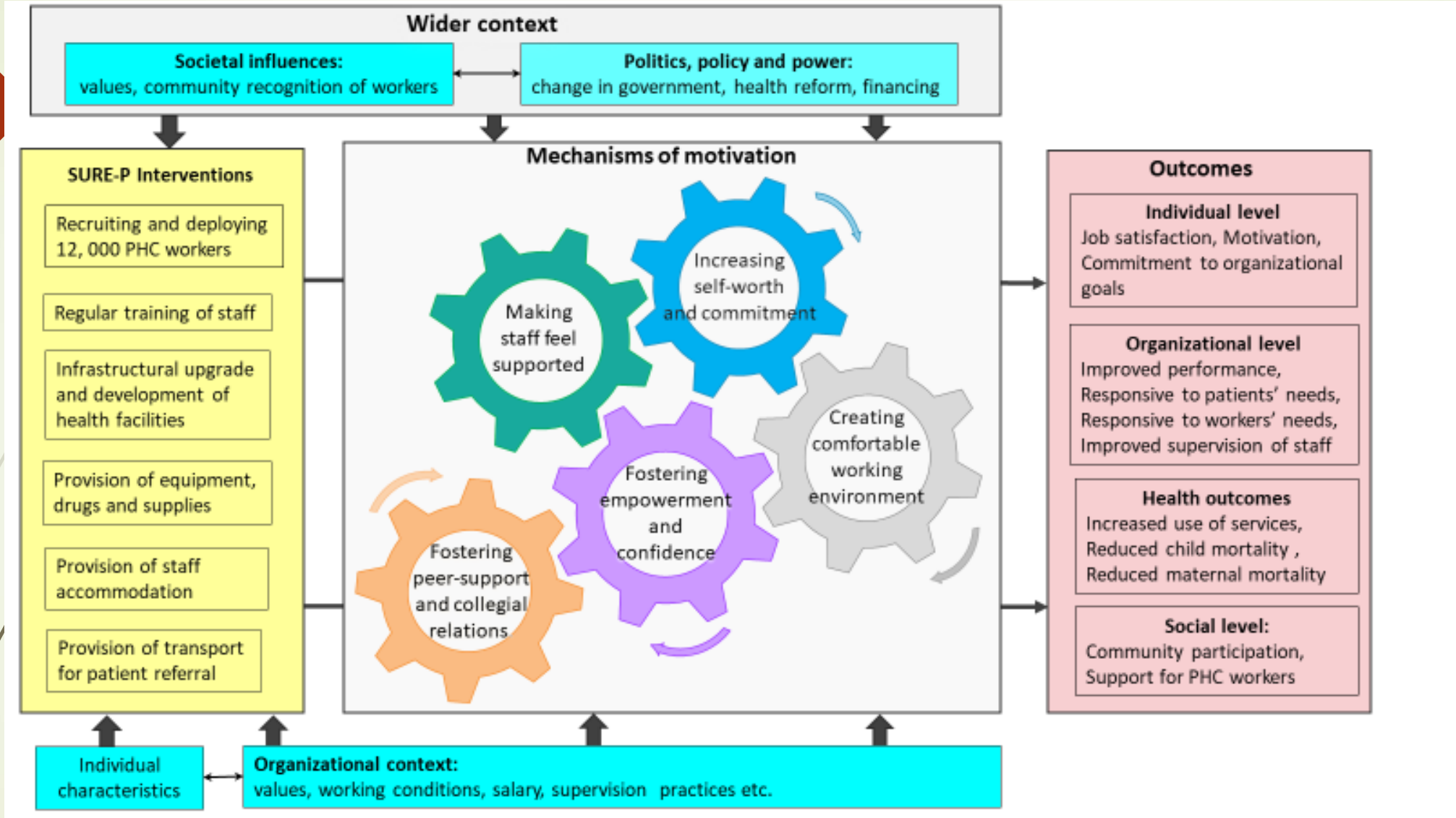


Figure 1: Conceptual representation of the ways in which SURE-P impacts PHC worker motivation

Policy Brief Checklist

Use this checklist to critique your own policy brief or review another author's brief

Argument Flows Clearly

Yes	Needs Work		Comments and suggestions
		Aim is clear	
		Conclusion is clear at the outset	
		Problem is clearly stated and backed with evidence	
		Recommended actions are clear and specific	
		Recommendations flow logically from the evidence presented	
		All information is necessary for the development of the argument	

Content is Appropriate for the Audience

Yes	Needs Work		Comments and suggestions
		Importance to the audience is clear	
		Recommendations are appropriate for the audience	
		Understandable without specialized knowledge	
		Don't overuse statistics	

Language is Clear, Concise, and Engaging

Yes	Needs Work		Comments and suggestions
		Words are not unnecessarily complex	
		Jargon is not used	
		Sentences are not cluttered with unnecessary words or phrases	
		Text is engaging (e.g., active voice, varied sentence structure)	

Visual Cues Help the Reader Navigate and Digest Information

Yes	Needs Work		Comments and suggestions
		White space and margins are sufficient	
		Text is broken into sections with identifiable focus	
		Headings cue the key points that follow	
		Key points are easy to find	

Data Are Presented Effectively

Yes	Needs Work		Comments and suggestions
		All data are necessary for the argument	
		Data are easy to understand	
		Data are presented in the most appropriate format	
		Graphics are not redundant with text	

THE DISTRICT HEALTH SYSTEM IN ENUGU STATE, NIGERIA

An analysis of policy development and implementation

The research presented in this policy brief was conducted by BSC Uzochukwu, OE Onwujekwe, S Eze, N Ezuma, and NP Uguru.

The authors are from the Health Policy Research Group, based at the College of Medicine, University of Nigeria, Enugu-campus (UNEC); and part of the Consortium for Research on Equitable Health Systems (CREHS) and funded by the Department for International Development (DFID) UK.

This policy brief is based on a research report "The District Health System in Enugu State, Nigeria: An analysis of policy development and implementation" The report is available on the CREHS website.

For more information about this publication please contact Benjamin Uzochukwu, email: bscuzochukwu@yahoo.com

METHODS USED

- Case studies of two communities from different district health authorities
- Document review including: DHS policy document, legal frameworks, grey literature and Memorandums of Understanding
- In depth interviews with 21 policymakers
- 12 focus group discussions at the 2 study sites
- Observation of health facilities and infrastructure

INTRODUCTION

The District Health System (DHS) is a form of decentralised provision of health care where health facilities, health care workers, management and administrative structures are organised to serve a specific geographic region or population. The concept of a DHS is closely linked with the primary health care movement and is considered to be a more effective way of providing integrated health services and involving communities than a centralised approach.

Whilst the DHS strategy aims to improve the delivery and utilisation of government health services by eliminating parallel services, strengthening referral systems and creating structures for community accountability, country experiences suggest that implementation of this policy is particularly complex and can be hindered by several factors including: power struggles between State and local level actors, non-compliance or unavailability of health workers, insufficient financial resources and inadequate health system infrastructure.

In Enugu State, Nigeria, the DHS was introduced following the election of a new democratic government in 1999. The Enugu DHS delivers a range of health care services to population groups ranging from 160,000 and 600,000 people through a structured management system (the district health management team) which integrates primary and secondary health services. Research investigated the development and implementation of the DHS in Enugu State in order to reveal the underlying factors that affected the implementation of the policy. It compared the experiences of two communities from different districts that had varying levels of success in implementing DHS.

KEY FINDINGS

PROGRAMME MANAGERS PERCEPTIONS' OF DHS

- Table one shows that when the health system was centralized, health facilities in both districts were characterized by shortages of health workers and poor levels of work attendance, dilapidated buildings, drug stock outs and low levels of monitoring and supervision. As a result of the poor quality of services, utilization of health facilities was relatively low.
- With the emergence of the DHS, many of the characteristics of the old system appear to have disappeared, at least in district 1. Here there was a marked perceived improvement in all of the categories, especially in health worker availability.
- Improved infrastructure, availability of drug supplies and equipment, and shortened waiting times, in conjunction with the removal of user fees, led to a rise in demand for health services.

Nsukka District hospital before and after renovation, carried out following the introduction of the DHS

Table 1: Perceptions' of facilities before and after implementation of the DHS

	Old centralized health system - District 1 and 2	DHS - District 1	DHS - District 2
Health worker availability	• Insufficient numbers of health workers • Low levels of work attendance • Long waiting times	•Health workers are available but shortages persist •Improved levels of work attendance	• Insufficient numbers of health workers • Low levels of work attendance
Monitoring and supervision of staff	• Minimal and irregular	• Regular and improved levels of supervision	• Supervision improved but irregular
Building /renovation	• Dilapidated buildings • No fence	•Proper renovation and fencing of the hospital premises	•Renovation of some buildings and fencing of hospital premises •A functional borehole
Drug supplies and equipment	• Frequent drug stock outs • Lack of equipment	•Drugs and equipment are available	• Drugs are available • The availability of equipment has improved somewhat
Use of facilities by patients	• Low demand for services	• High demand for services	• High demand for services

THE CHALLENGES OF IMPLEMENTATION

Despite significant improvements, challenges to successful implementation persist. These include:

•A lack of government funding for heath in general, at the district level to employ staff to manage the DHS, and at the facility level to hire additional health workers to cope with increased demand.
•A ban on the recruitment of health workers in Enugu State resulting in increased workloads for staff and a lack of 24 hour services.
•Uncertainty about the sustainability of the DHS which currently relies on funding from the PATHS project, from the UK Department for International Development (DFID).
•Irregular monitoring and evaluation of staff due, in part, to logistical problems including a lack of vehicles for supervisors.
•A lack of trust between State and local government officials. This resulted in local government authorities not paying into the State controlled DHS fund due to fear that their contributions would be diverted for other purposes.
•No accountability of local government health workers to the State government

CONCLUSION AND POLICY RECOMMENDATIONS

The implementation of DHS in Enugu State has led to significant improvements in health facilities and has stimulated demand for health services. Additional health workers should be employed to maintain provision of services, ease the burden on current staff and ensure emergency health services are provided 24 hours a day. Without this, it is possible that health worker morale and commitment will suffer resulting in further staff shortages and poor quality of care.

Mistrust between local and state government actors has led to resistance at the local level to policy implementation and, in some instances, the withdrawal of funds for DHS. One reason for this is that local government actors were not fully involved in the DHS policy development process. When planning and implementing new policies, efforts should be made to consult with and engage all actors, especially those who are responsible for implementation at the local level.

The sustainability of the DHS is dependent on external funding sources and the State government has yet to fulfil its funding responsibilities. This raises serious concerns about how the DHS will be funded if donor funding stops and stifles long-term planning. Without dedicated funding and support from the State government, local level actors will have limited ability to support effective policy implementation.

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

KEY MESSAGES

- **Numerous data records are incomplete and large amounts of data is missing across the PHC facilities and hospitals.**
- **Existing health records are stored in hardcover notebooks without computerised back-ups. Health staff are unable to account for missing registers in some facilities due to shortcomings in the handover process by exiting staff.**

Quality of Maternal and Child Health data within the Health Management Information System in Nigeria:

A post field reflection

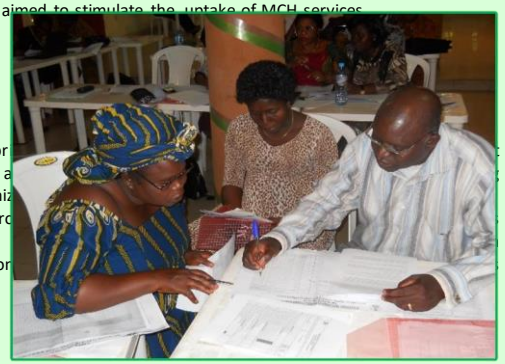
Introduction

In 2012, the Federal Government of Nigeria launched the Subsidy Reinvestment and Empowerment Programme (SURE-P) to invest revenue from fuel subsidy into a social protection scheme to improve the lives of the most vulnerable population in rural areas. As Maternal and Child Health (MCH) is a national and global priority in the efforts to achieve the sustainable development goals, MCH was a component of the SURE-P scheme [1].

The MCH component of SURE-P

The MCH component of SURE-P comprises supply and demand components. The supply component aimed to broaden access to maternity services and improve health outcomes through infrastructure upgrade, supply of medical and surgical consumables and increased number of midwives, community health extension workers and village health workers. The demand component aimed to stimulate the uptake of MCH services

through providing conditional cash transfers to pregnant women to register at a pr included focused a postnatal care for immuniz Selected facilities were gr [1]. Outputs from the Management Information nationwide.



National Health Management Information System (NHMIS)

The NHMIS, which became operational in 1999 and subsequently reviewed in 2004, aims to provide data to assess health status of the population to identify major health problems and set priorities at local, state & national government levels [2]. In March 2015, a realist evaluation project was initiated to evaluate what outputs and outcomes were achieved by SURE-P programme in Anambra state (one of the 36 states of Nigeria) and under what conditions.

Our approach

This mixed-methods evaluation used standardized HMIS proforma to collect quantitative secondary data in 3 general hospitals and 12 PHCs in 3 clusters of Anambra State, to help policymakers and programme managers identify key issues with quality of HMIS data and plan remedial actions for improving data quality.

- **Large number of indicators (233 in total) are being collected, which contribute to poor data recording practices and deficient quality**
- **General hospitals do not use the NHMIS forms and this makes data comparison and harmonization difficult between PHCs and hospitals.**
- **Recommendations include fostering the understanding and use of NHMIS forms across all tiers of healthcare, to enhance the harmonization and consistency of data collection**

UNIVERSITY OF NIGERIA

UNIVERSITY OF LEEDS

For two weeks in August 2015, trained researchers collected facility and state level data. Facility-level data included facilities inputs and programme outputs indicators. Facility data was collected over a 5 year period from May 2011 (i.e. 1 year before SURE-P) to April 2015. Information on staff numbers and remuneration was elicited through staff interviews.

What we found

PHCs

All data were captured on the NHMIS monthly summary form (001). The NHMIS is designed to capture 233 variables in one form including drug stock-outs, however these were often poorly filled and incomplete. Despite these weaknesses, the SURE-P implementation data across PHC facilities (May 2013- April 2015) were more complete than the pre-SURE-P data (May 2012-April 2013). Additionally, there were discrepancies between the daily records and the monthly summary records kept by facilities, thus making it difficult to ascertain the quality of PHC facility records and hence their reliability.

General and Teaching Hospitals

Three key findings from general and teaching hospitals are notable: First, the secondary and tertiary hospitals did not use NHMIS forms. Rather, data from different departments were captured in notebooks and in registers supplied by other vertical programmes such as the malaria control programme. Second, there was no formal data summary or harmonization of data across hospital departments. Third, there was no dedicated register for children under 5 years. Rather data for children less than 5years were lumped together with other paediatric (0-16 years) records.

Conclusion

These findings raise questions about the quality of HMIS data in Anambra State. Incomplete and inconsistent data hinder the use of secondary data for, evaluation of services and programmes, and for evidence-based policy decision-making and research. It is important to have accurate and readily available secondary data in developing countries, where it may not always be feasible to fund primary data collection for evaluations and research.

What can be done to improve quality of NHIMS?

First, promoting a shared understanding and use of NHMIS across all tiers of healthcare can encourage secondary and tertiary hospitals to adopt NHMIS forms for data collection.

Second, promoting harmonization of data collection tools across the three tiers of healthcare and provision of a central data bank can improve consistency of data collection.

Third, building the capacity of health workers across all tiers of healthcare in data management can enhance quality of data produced.

References

1. FMOH, *Subsidy Reinvestment and Empowerment Programme -Maternal and Child Health Services - Implementation Manual*, 2012, NPHCDA: Abuja, Nigeria.
2. FMoH Nigeria, *Revised Policy-Programme and Strategic Plan of Action*, N.H.M.I.S.N. Health Planning and Research, Editor 2006: Abuja, Nigeria.

The research leading to results included in this policy brief has received funding from the Joint DFID/ESRC/ Medical Research Council (MRC)/ Wellcome Trust Health Systems Research Initiative (Grant Reference №: MR/M01472X/1). The views presented in this policy brief are not necessarily representative of the funders' views and belong solely to the authors. The consortium would like to thank all the study respondents and participants for their willingness to take part in the research, as well as the Subsidy Reinvestment and Empowerment Programme (SURE-P) for their support at every stage of the REVAMP project.

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If you have questions or comments please contact: With any questions or comments, please contact: Prof. Benjamin Uzochukwu, University of Nigeria, at: benjamin.uzochukwu@unn.edu.ng

IMPROVING ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH KNOWLEDGE AND BEHAVIOUR USING DIGITAL MEDIA

Key Messages

- Poor adolescents SRH knowledge can negatively influence decisions, leading to risky sexual behaviours such as early sexual debut and unplanned pregnancies.
- These risky sexual behaviours can result in negative health consequences such as transmission of STIs, HIV/AIDs and unsafe abortions.
- The poor knowledge found in this study could be linked to poor parent-child communication on SRH matters; deficient educational curriculum-based programs on SRH in secondary schools and poor health workers attitudes in the health facilities.
- The high level of internet access to adolescents presents an opportunity for more enlightenment on the availability of SRH information online.
- Targeting adolescents who are using emerging digital technology is important for ensuring SRH information equity for adolescents.

Introduction

Adolescence is a critical period of rapid growth, sexual maturation and experimentation often encountered with lots of myths and misinformation concerning sexuality, with poor or no access to SRH information leading to poor health choices and resultant risky sexual behavior such as early sexual debut, unprotected sex and multiple sexual partners. The consequences of these behaviors are poor health outcomes e.g. Sexually Transmitted Infections, HIV/AIDS, unintended teenage pregnancy and unsafe abortions.

Why is this study important?

In order to promote positive behavioural changes among adolescents, it is important to provide the necessary information and skills through adequate, credible, accessible and confidential Adolescent Sexual and Reproductive Health (ASRH) information and services. This in turn can reduce negative SRH outcomes. All these can be achieved through digital media, which also provides an environment where adolescents can get private, confidential, individualized and interactive feedbacks from qualified and skilled health care providers at their comfort with the desired privacy.

This study explored the knowledge and practice of adolescentson the use of digital media for SRH information and services.

Findings

- Although awareness of SRH was high among adolescents, the overall knowledge was poor.
- Although prevalence of adolescents who were sexually active was low, this proportion is still worrisome as sexual activity among adolescents is a strong predictor of future poor sexual health outcomes such as early
- Majority of the respondents owned smart phones and assessed the internet with their personal phones, mostly to chat with friends and to check health information but less than half used it for SRH information or services.

Conclusion

There is need for the government to collaborate with important stakeholders in various sectors including health, communications and technology in order to actively vet online SRH related information and also design interactive credible information literacy programs and health information content for adolescents online.

To cite this document please use: Chinyere J. Nwoagwugwu, Alphonsus R. Isara (2021) University of Benin, Benin City

PREDICTORS OF FULL VACCINATION STATUS AMONG CHILDREN AGED 12-23 MONTHS IN JOS EAST LOCAL GOVERNMENT AREA, PLATEAU STATE

Key Messages

- There is need to educate and encourage women to have at least 8 ANC visits during their pregnancy period as an avenue for vaccine literacy. Post Natal Care visits should also be emphasized.
- Health workers are the main source of information on childhood vaccination for parents, therefore they should be trained and retrained on vaccination basics and on how to ensure patient satisfaction.
- Favourable attitudes towards vaccination are not only formed in health facilities but in families, among friends, in religious places and in educational institutions. These are agents of socialization. Government should therefore direct health education efforts towards the aforementioned places.
- Vaccination ambassadors should be appointed from the religious leaders, music stars, traditional rulers, women and youth leaders, opinion leaders and social media influencers. They should be involved in radio jingles and other means of mass communication in a bid to reduce vaccine hesitancy and improve uptake.

Introduction

Vaccination is a globally accepted public health intervention due to its effect in reducing morbidity and mortality associated with infectious diseases in human population by producing immunity to a definite disease in an individual through the introduction of a vaccine into his/her body.

FMOH defines "full childhood vaccination" as receiving a single dose of the BCG anti-TB vaccine; three doses of Pentavalent vaccine; at least three doses of Polio vaccine and one dose of Measles vaccine.

Why is this study important

Vaccination coverage of at least 95% is needed for sustained prevention and control of VPDs across communities and nations all over the world. In spite of global progress in the use of immunization as a child survival strategy, the coverage values for all the major vaccines for children in Nigeria are still below the target of 95%. In2019, 1 out of 27 children died before their fifth birthday. About 1.3 million of theseunder-5 deaths occurred in children aged 1 to 4 years, while 1.5 million of these deaths occurred in children aged 1 to 11 months. The remaining 2.4 million deaths occurred in neonates.

This study explored the predictors of full vaccine status among children 12-23 months.

Findings

Two-thirds of all the study respondents had a good knowledge of childhood vaccination while 96.1% of the mothers had good attitude towards childhood vaccination.

Independent predictors of full vaccination status of children were maternal attitude towards childhood vaccination, having at least four ANC visits during pregnancy, occupation of the father, father's involvement with his child's vaccination, religion of the parents, level of education of the mother.

The full, partial and no vaccination status of the 12-23 months children in Jos East LGA in this study was 90.2%, 7.5% and 2.3%

Recommendation: The Federal and State governments should strengthen ANC services in line with the current WHO recommendation of 8 visits because the ANC period serves as a time for vaccination education and attitude formation.

To cite this document, please use Pius Odunze, Moses P. Chingle (2021). University of Jos, Jos.
A policy brief presented at NETBRECSIN Conference, July, 2021.

POLICY BRIEF: Comparison of determinants of ownership and utilization of Long-lasting Insecticidal Nets among caregivers of under-five children in Ekiti State, Nigeria

KEY MESSAGES

Knowledge and attitudes of under-five caregivers towards LLINs should be improved. Since it has been proved that LLINs are one of the safest and cheapest means of protecting against mosquito bites at home. This can be done through continuous health education and promotion by the health care-givers and other stakeholders.

Caregivers should be encouraged to have their kitchen away from where they sleep.

Government should ensure the importation of colourful and attractive LLINs to attract under-five caregivers to sleep under it.

Social and Behavioral Change Communication

(SBCC) intervention is necessary.

INTRODUCTION

Malaria is a life-threatening disease associated with a high level of morbidity and mortality in sub-Saharan Africa especially among children under-five years of age. Long-Lasting Insecticidal Nets (LLINs) ownership and utilization are some of the proven interventions to reduce the burden of this disease because, it is simple to use and cost effective.

Despite the demonstration of its' efficacy by various studies, most under-five caregivers are still not using the nets.

OUR APPROACH

We conducted a community-based comparative cross-sectional mixed methods study among 800 under-five caregivers between November 2019 and January 2020 from both urban and rural settlements through multistage sampling technique, using a semi-structured interviewer-administered questionnaire.

OUR FINDINGS

Rural caregiver are slightly more knowledgeable about LLINs than their urban counterparts

- Determinants of ownership of LLINs in rural settlements are: having separate kitchens, awareness and good knowledge of LLINs; positive attitudes towards LLINs
- Determinants of utilization of LLINs in rural settlements were number of under-five children with caregivers and positive attitude to LLINs.

Urban caregivers had more respondents with positive attitudes about LLINs than their rural counterparts

- Determinant of ownership of LLINs in urban settlements was obtaining information about LLINs from health workers.
- Determinant of utilization of LLINs in urban settlements was having positive attitude towards LLINs

WE CONCLUDED

"THERE IS NOTHING IMPOSSIBLE TO THEY WHO WILL T

ALEXANDER THE GREAT

Manuscript Writing

Going Public

1. You must have something to say - a message
2. What you want to say should be of interest to those you are trying to communicate the message to
3. Different ways of scientific communication
   - Study Reports
   - Posters
   - Presentation at a conference
   - Non-peer reviewed or local journals
   - International peer-reviewed journals
   - Policy Briefs

Early considerations

- **Which journal?**
  - Where do you find most papers relevant to your work?
  - Target audience for the publication?
  - Where will you gain most exposure?
  - What is the impact factor of journal?
  - Once a journal is chosen, carefully review the specific requirements for submission!

Early considerations

- **Who is to be an author?**
  - No hard and fast rules
  - Journals often make recommendations.
  - Agree on this at the start
  - Discuss who gets to write the paper as this person is usually the first author.
  - Those who made substantial contributions to the work are also listed as authors.
  - Those who make more minor contributions should be ‘acknowledged’
  - Keep track of who did what!

Basic structure of *a research paper*

- Most original research articles are set around distinct sections:
  - 1) Title
  - Abstract (structured/unstructured
  - 2) The Introduction (Why did we start)?
  - 3) Methods (What did we do?).
  - 4) Results (What did we find?)
  - 5) Discussion (What does it all mean?). May be combined with results in certain instances
  - 6) Acknowledgements (Who helped us out?)
  - 7) References (Whose work did we refer to?)
  - 8) Appendices (Any extra information?)

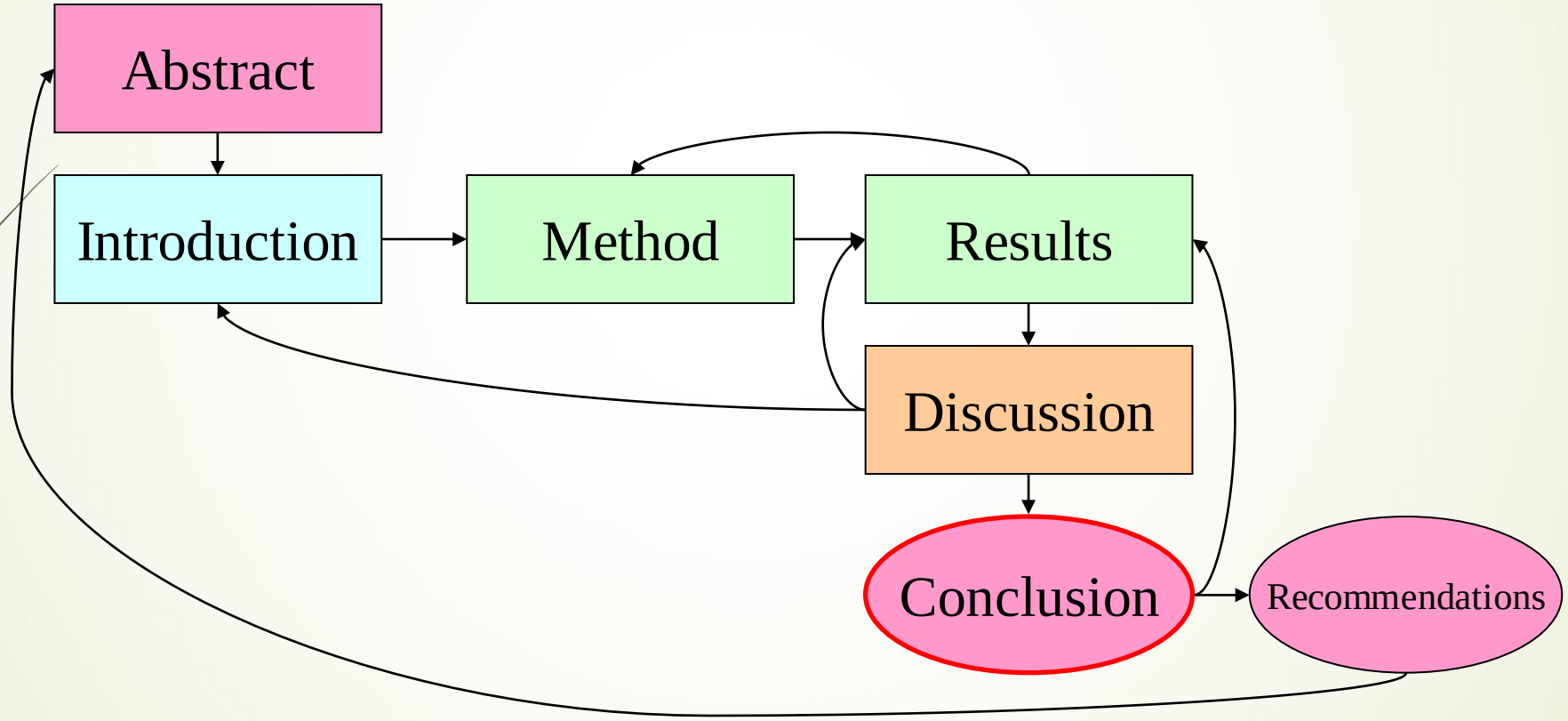
Writing for a Journal

Linear Analytical Model

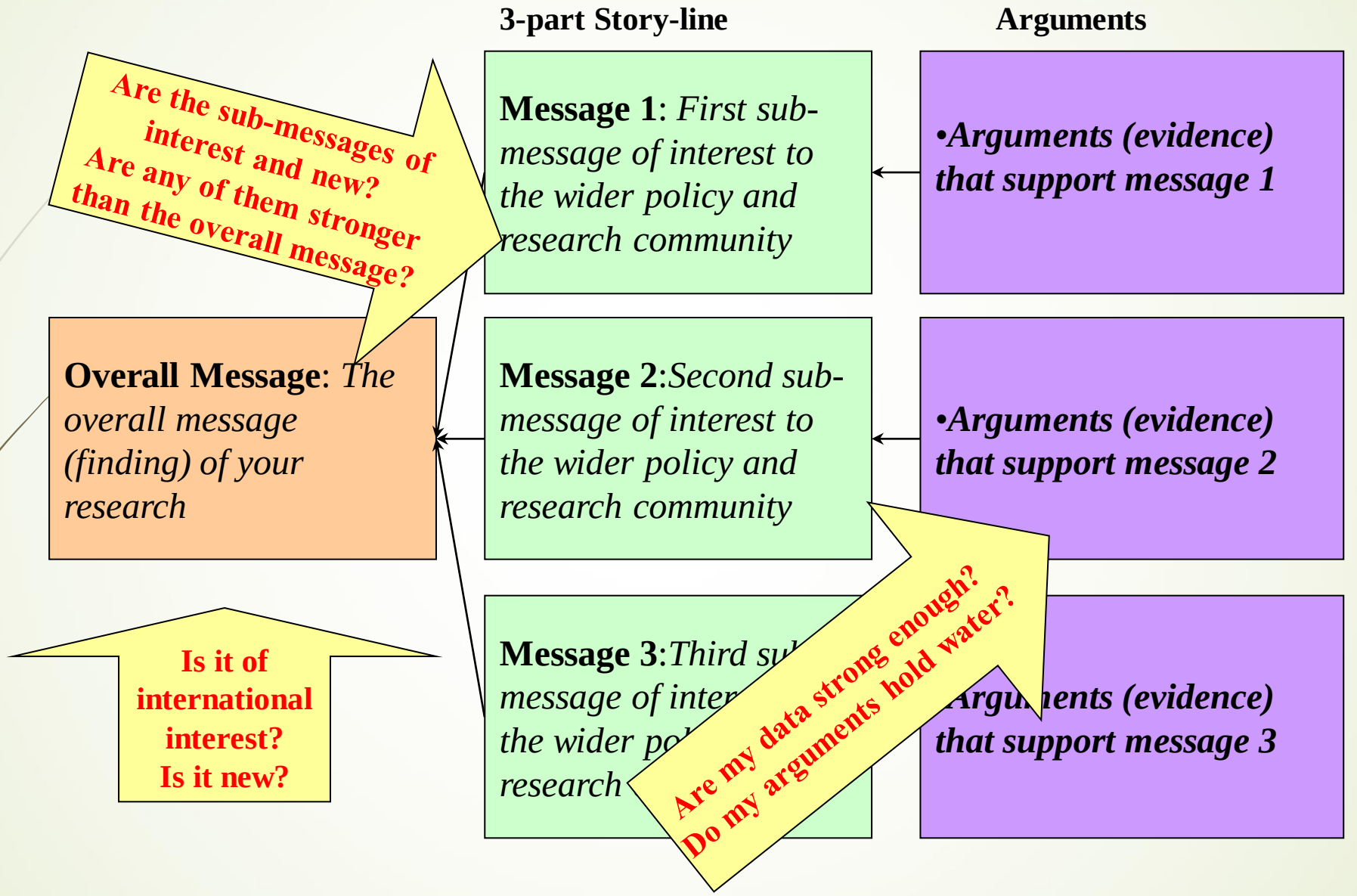
Quantitative	Qualitative
Abstract	Abstract
Introduction	Introduction
Method	Method
Results: Data + Analysis	Descriptive account + Analysis
Discussion Conclusion	Summary Implications

A linear analytical article is not written through a linear process

Writing an article assumes that you have already done your analysis and reached your conclusion; therefore:



Building an argument tree - Manuscript Outline



The results section

Purpose: *Provide the reader with sufficient information to allow him or her to come to the same conclusion as you have -to verify your conclusion*

What to have in the results section

- Data from your study
- Description of the data

The results section turns relevant data into information

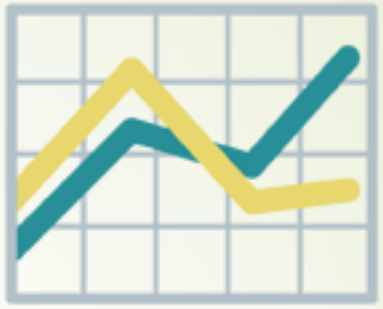
What not to have in a results section

- Background information
- New methods
- Discussion, interpretation, personal views
- Conclusions
- Recommendations
- Data/results that are not used in the discussion section
- [References]

- Be smart in selecting what to present.
  - Not every statistic
  - Not every quote from the interview, etc.

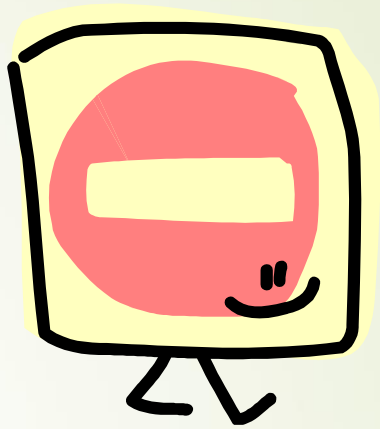
Presenting information in tables, figures,

Tables & figures



- Must refer to each Table/Figure in sequence and indicate the key results that each conveys.
- Tables and Figures are assigned numbers in the sequence referred to them from the text.
  - The first Table you refer to is Table 1, the next Table 2 and so forth.
  - Similarly, the first Figure is Figure 1, the next Figure 2, etc.
- Each Table or Figure must have a title or 'legend'.
  - Table legends go above the table
  - Figure legends go below the figure.

Results: Some problems to avoid



- **Do not** reiterate each value from a Figure or Table - only the key result or trends.
- **Do not** present the same data in both a Table and Figure. Decide which format best shows the result and go with it.
- **Do not** report raw data values when they can be summarized as means, percents, etc.

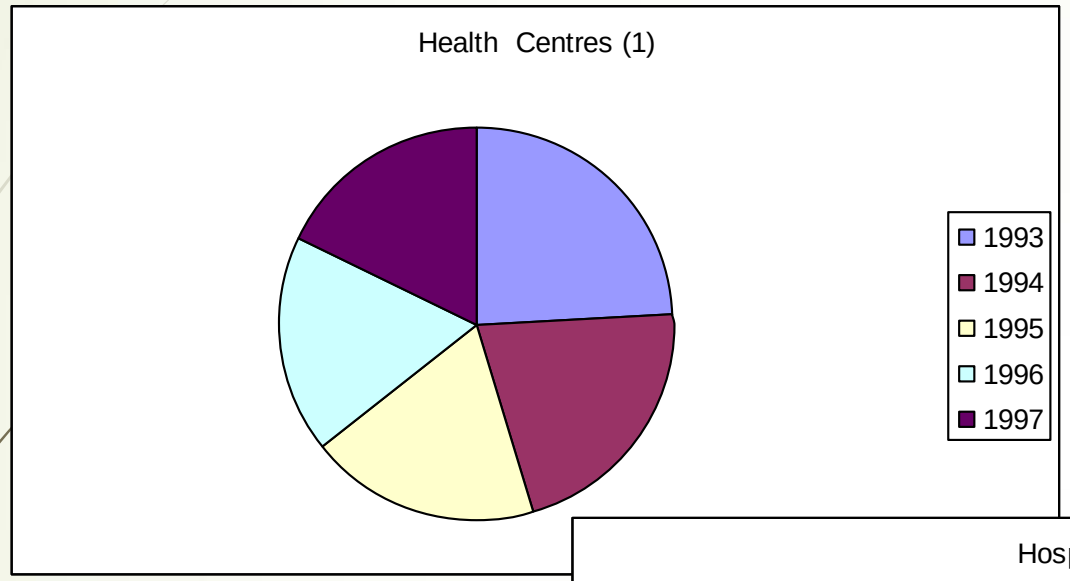
Table 1: Attendances and admissions to health centres and hospitals per 10,000 population by year (Data from 17 districts with a population of 2,636,559 in 1997)

Year	Attendances				Admissions			
	Health Centres (1)	Hospitals (2)	Total (3)	(1) in % of (3)	Health Centres (4)	Hospitals (5)	Total (6)	(4) in % of (6)
1993	11,768.7	3,411.7	15,180.4	77.5%	238.1	759.9	998.0	23.9%
1994	10,227.4	3,192.9	13,420.3	76.2%	227.8	668.1	895.9	25.4%
1995	9,186.1	2,822.4	12,008.5	76.5%	249.4	778.4	1,027.7	24.3%
1996	8,811.1	2,734.2	11,545.4	76.3%	268.3	690.3	958.6	28.0%
1997	8,700.4	2,511.4	11,211.9	77.6%	295.5	657.7	953.2	31.0%

Table 2: Measles vaccinations and deliveries at health centres and hospitals per 10,000 population by year

Year	Measles vaccinations				Deliveries			
	Health Centres (1)	Hospitals (2)	Total (3)	(1) in % of (3)	Health Centres (4)	Hospitals (5)	Total (6)	(4) in % of (6)
1993	195.6	75.3	270.9	72.2%	37.7	126.8	164.5	22.9%
1994	235.3	80.8	316.1	74.4%	42.8	118.6	161.5	26.5%
1995	286.0	84.8	370.8	77.1%	35.7	119.0	154.7	23.1%
1996	259.3	72.5	331.8	78.1%	46.4	112.7	159.1	29.2%
1997	276.5	70.2	346.7	79.8%	56.5	117.8	174.3	32.4%

Figure 1 a & 1b: Health Centre and Hospital attendance per 10,000 population, 1993-97



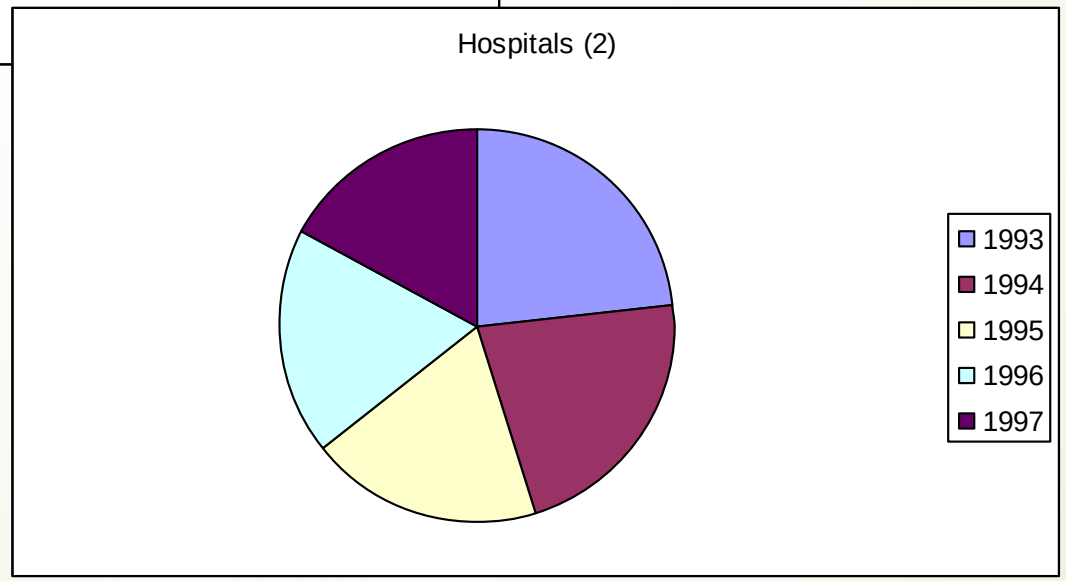


Figure 1 a & 1b: Health Centre and Hospital attendance per 10,000 population, 1993 & 1997

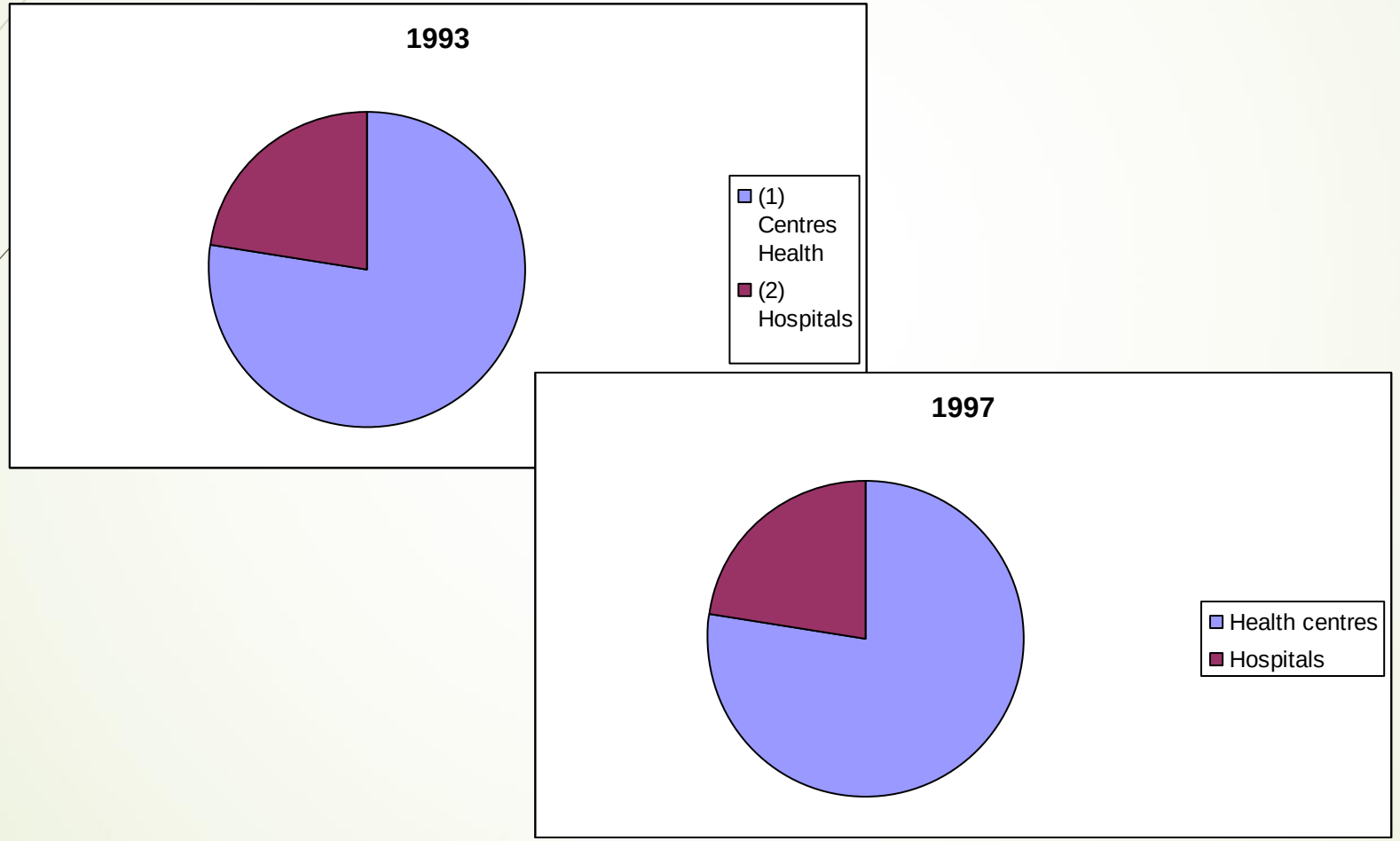


Figure 1: Measles vaccinations per 10,000 populations 1993-97

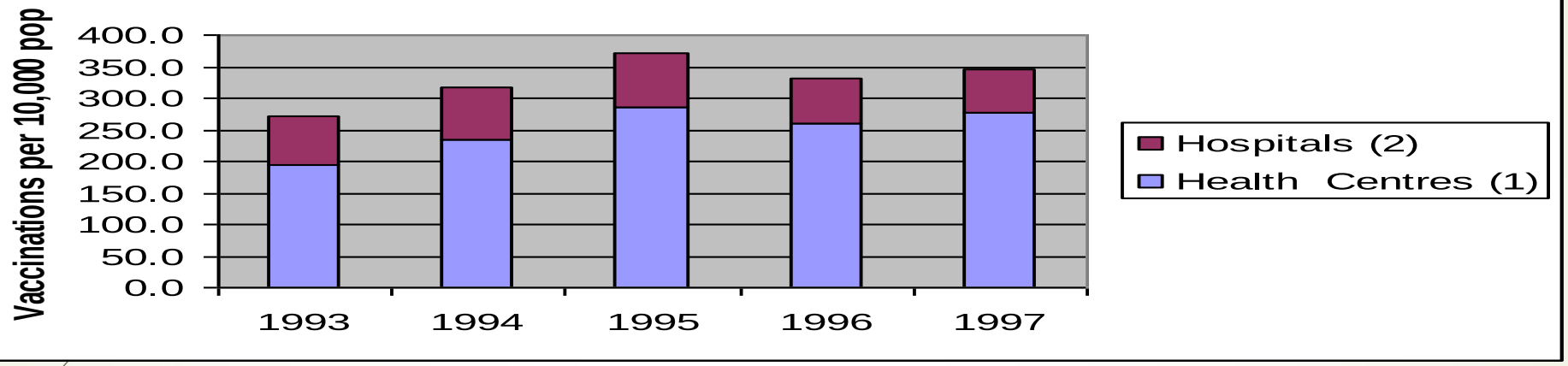


Figure 2: Attendance per 10,000 population, 1993-97

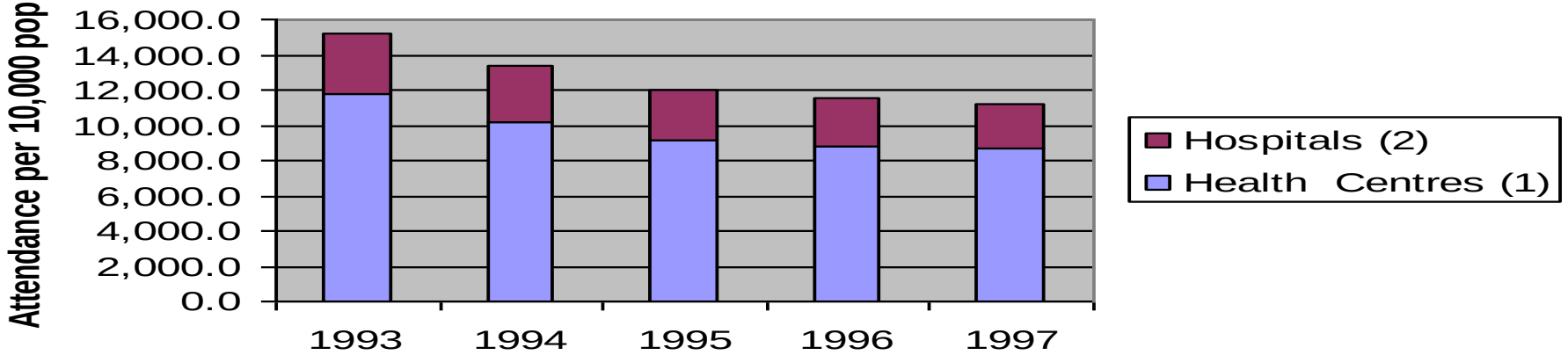


Figure 2: Attendance per 10,000 population, 1993-97

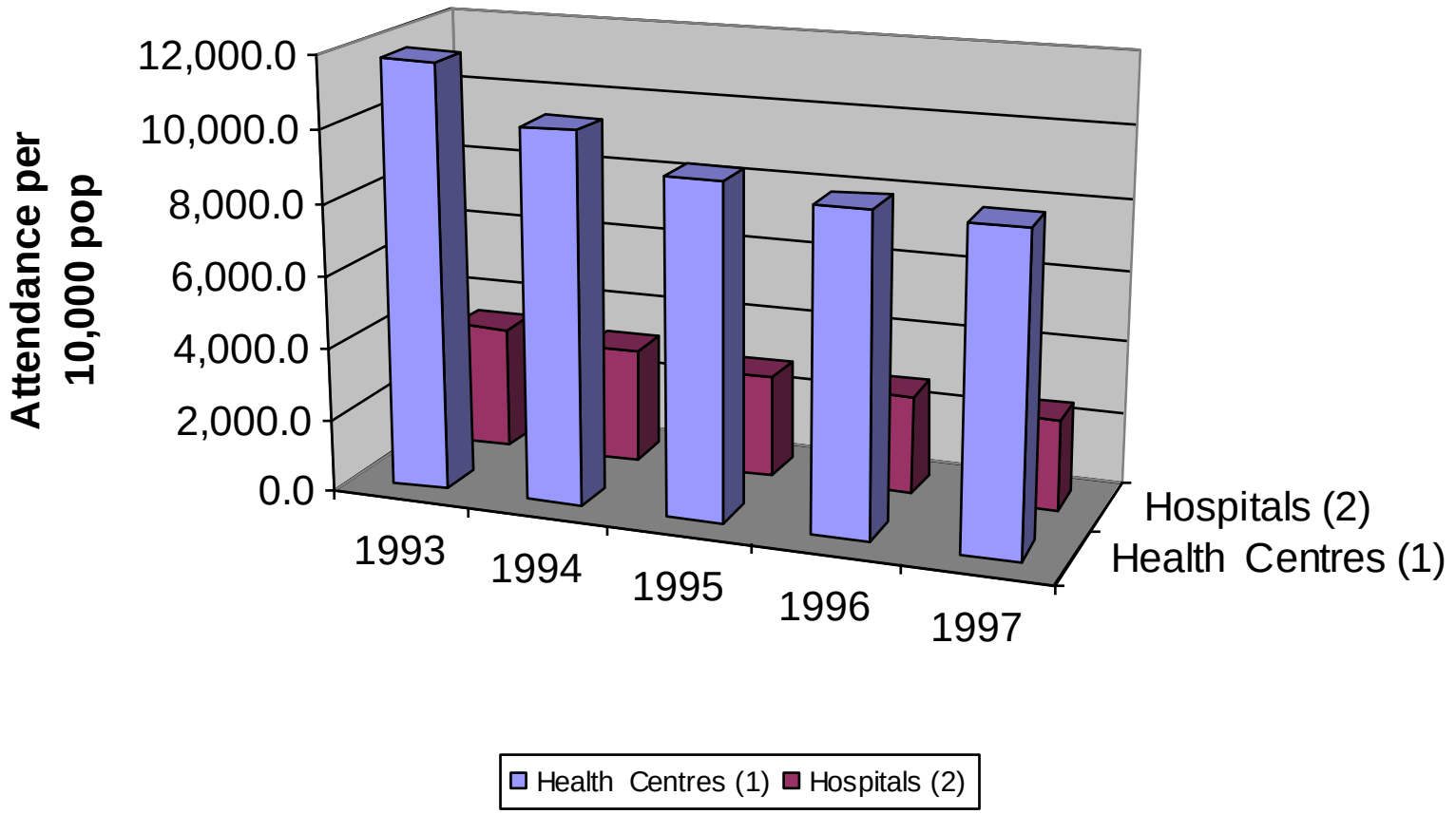
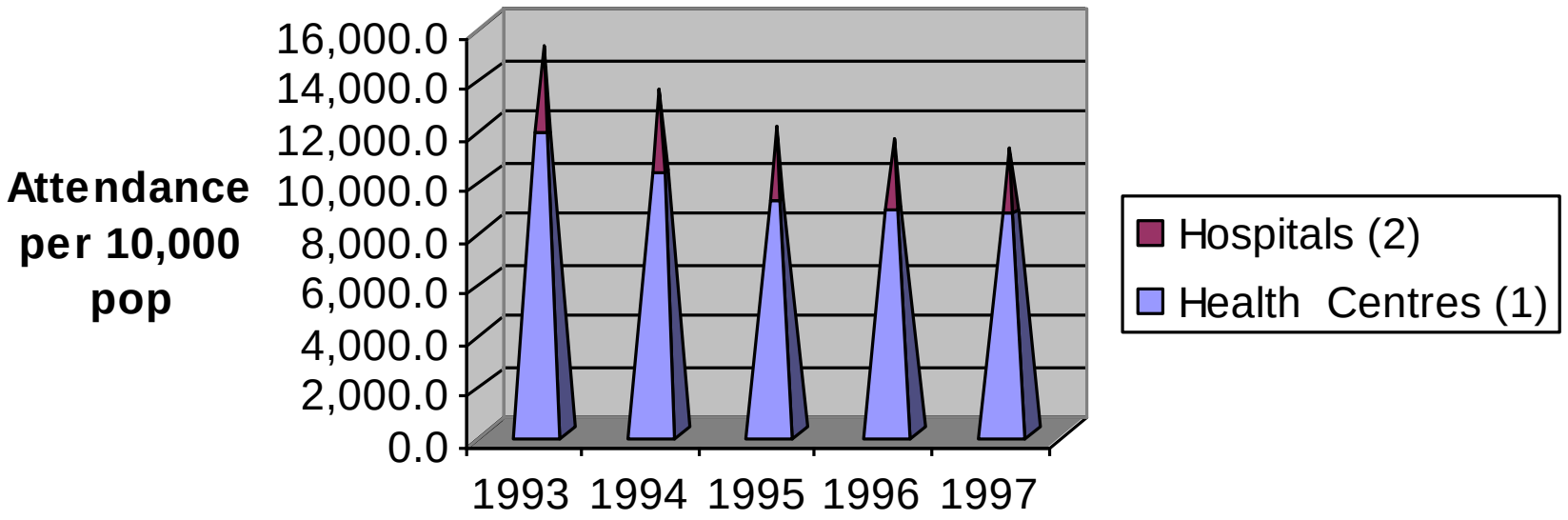


Figure 2: Attendance per 10,000 population 1993-07



Writing the Methods Section

The methods section

Purpose: *Describe, in logical sequence, how your study was designed and carried out and how you analysed your data*

- What to have in the methods section
  - Study area
  - Design
  - Subjects
  - Sample size calculation and sampling methods
  - Data Collection
  - Data Analysis

- What not to have in a methods section
  - Background and introductory information
  - Discussion of validity and reliability
  - Instruments (you may annex them, though…)

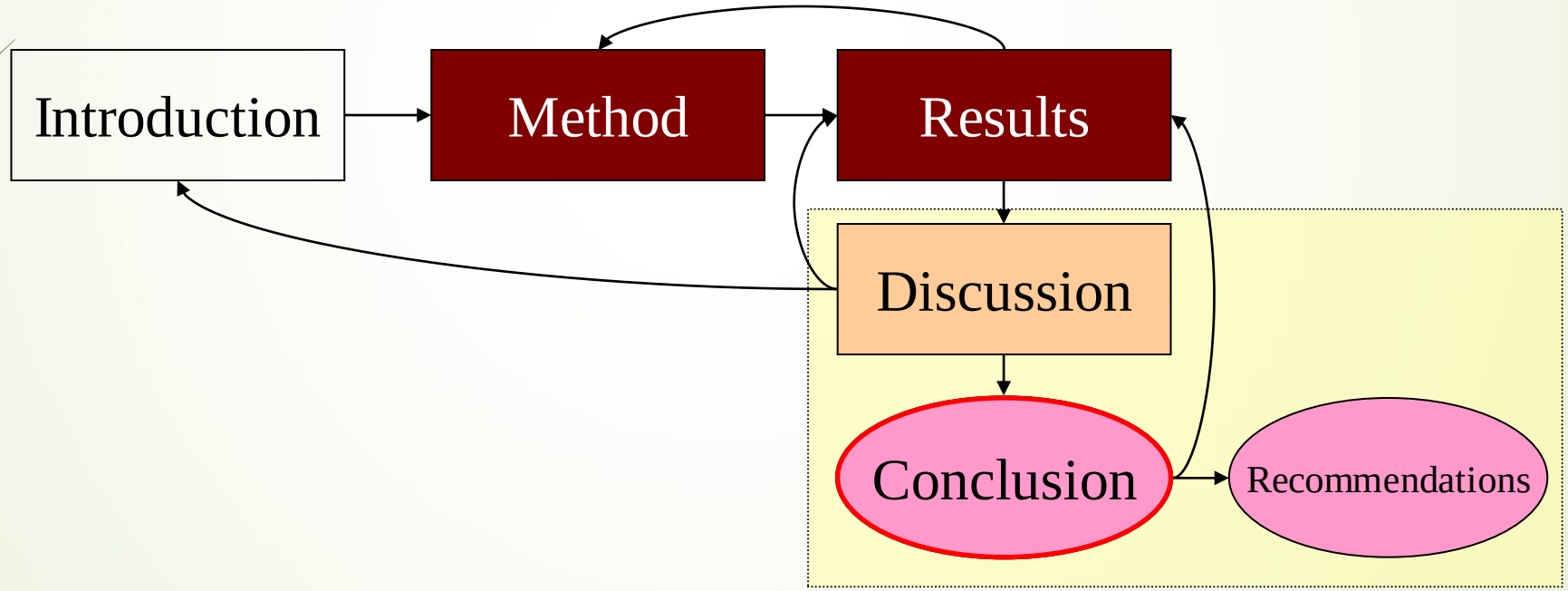
- Two major purposes
  - To understand the study/research
  - To assist in study replication

The methods section is critical to proof both validity and reliability of your study

Writing the discussion and conclusion section

The discussion section is part of the iterative writing process

Your interpretation of the results should depend on how successfully you can convince yourself that alternative interpretations are less valid. Sharing this thought process with the readers should constitute a large part of the discussion



The discussion section

Purpose: *Provide the reader with an interpretation of your results and what they might mean. The discussion section is a reasoning towards a conclusion based on the results and the background sections.*

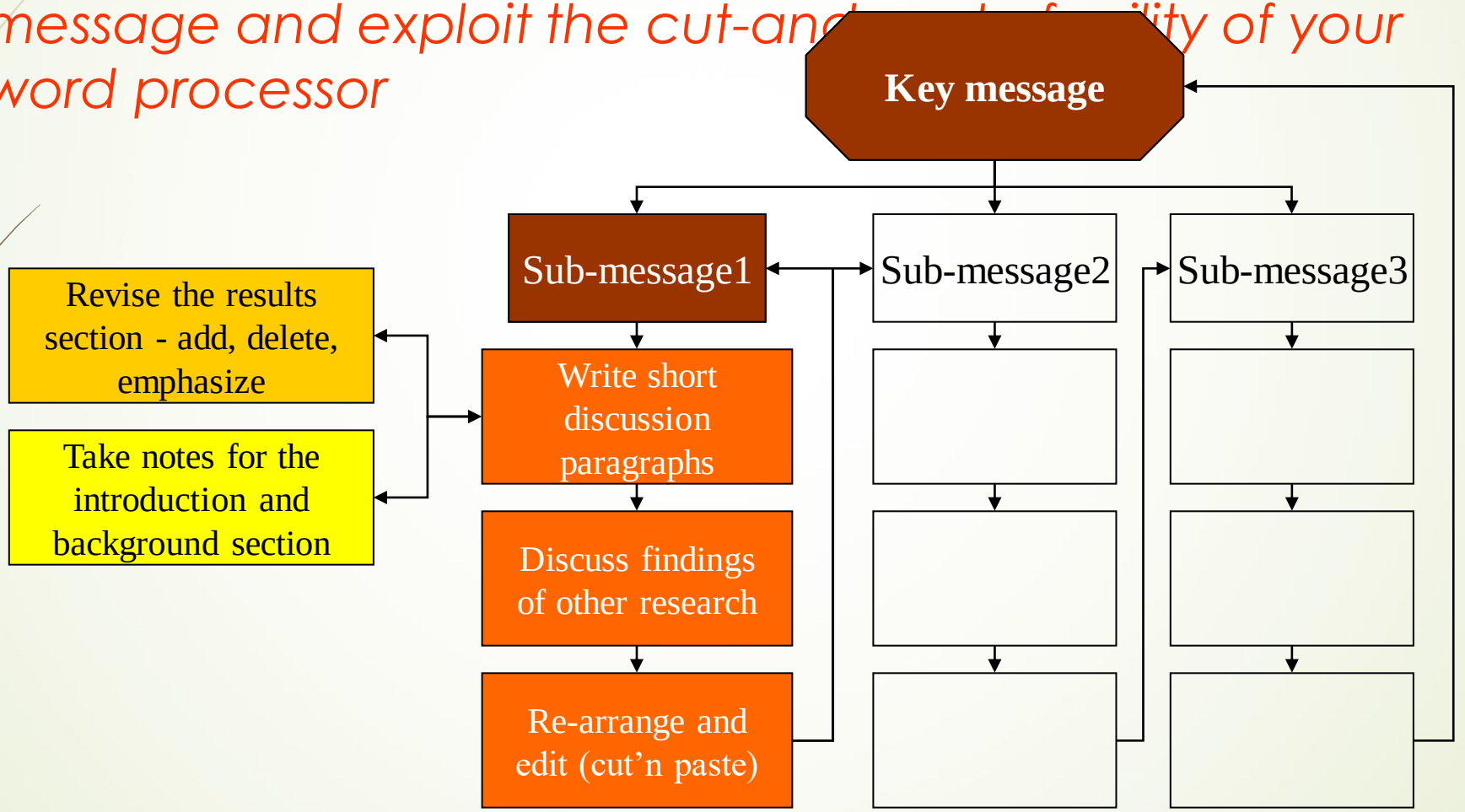
- What to have in the discussion section
  - What exactly did the study show?
  - What might that mean?
  - How else could the results be interpreted
  - Have other studies had similar or dissimilar results, show that you know the field?
  - What are your study's strengths and weaknesses?

The discussion section turns the results into knowledge and messages

- What not to have in a discussion section
  - New data or new results
  - **Repetitions of the results**
  - Views and conclusions that are not grounded in the results and background sections
  - Tables, figures, and [many] numbers
  - Criticism of other researchers

Putting it all together

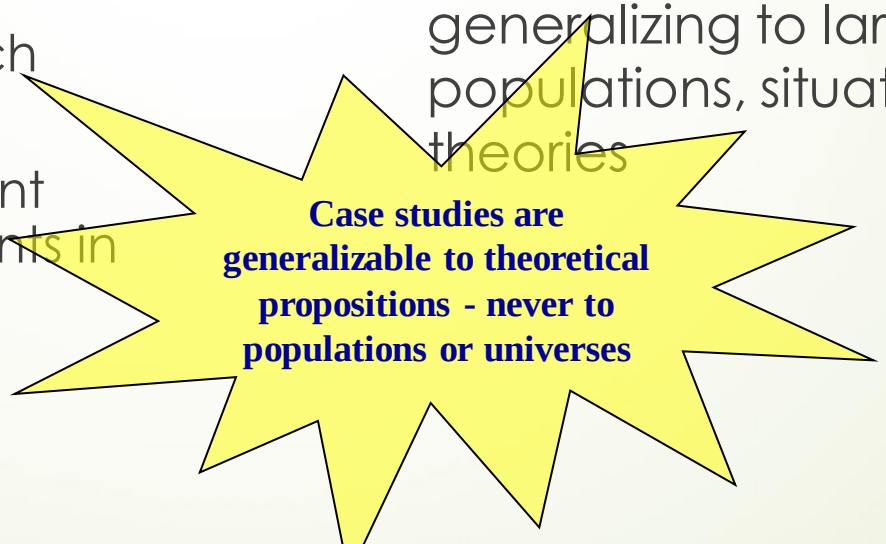
Don't attempt to write the discussion from 'start-to-end', begin with a structure reflecting your end-message and exploit the cut-and-[illegible]ility of your word processor



Limitations of the study

All studies have limitations - including yours

- Purpose
  - it forces you to critique your own work and may improve your understanding of the results
  - a clear assessment of the weaknesses indicates to the reviewer that you are a serious scientist who understands research
  - helps the reader to understand important methodological points in the field
- Validity
  - Address possible weakness in representing the real or true situation
- Generalizability
  - Address weaknesses in generalizing to larger populations, situations, or theories



The conclusion and recommendation [sub] section

Purpose: *Provide the reader with the key take-home message, to highlight the implications of your findings and to make key recommendations for policy-making*

- What to have in a conclusion [sub] section
  - *The* key message
  - What should happen next?
    - In research
    - In policy
  - Recommendation should be based on the results

The conclusion sub-section is the crown of the article - you are the expert - don't be a wimp

- What not to have in a conclusion sub-section
  - New information
  - Repeat of the results
  - Conclusions that are not grounded in the discussion
  - References

Writing the Introduction Section

The Introduction section

Purpose: *Tells the reader **why** you have undertaken the study, what is known and not known about the topic and what the significance of the study is*

- What to have in the Introduction section

- Topic under study
- Background
- Current scientific knowledge
- Gaps in knowledge
- Theoretical / practic significance
- Study a

The Introduction section attracts the attention of a reader and indicates the significance of the study

- What not to have in a Introduction section
  - Detailed information on site
  - Results, Methods
  - Conclusions
  - Detailed literature review

Introduction section: structure

1. **Problem statement**: Introduce the underlying problem - the topic - of your study
2. **Background:** problem and problem area, health sector reform, malaria, irrational drug use, description of situation.
3. **Current scientific knowledge:** Review the literature and tell the reader what is known about your specific topic
4. **Gaps in knowledge:** Mention what is *not* known about the topic of your study
5. **Theoretical and practical significance**: Place this problem in a larger body of knowledge
6. **Study objective(s)/Research questions:** Why did you do the study and what were your research questions?

The introduction should:

- Provide background that puts the manuscript into context and allows readers outside the field to understand the purpose and significance of the study
- Define the problem addressed and why it is important
- Include a brief review of the key literature
- Note any relevant controversies or disagreements in the field
- Conclude with a brief statement of the overall aim of the work and a comment about whether that aim was achieved

Introduction section: Recommendations

- Keep it simple & short (KISS)
- Make sure that you are aware of earlier studies
- Be sure your readers are convinced of the importance of your question, but don't overdo it

Introduction section: Example

(Green 2000, Int J Health Plann Mgt 15, p. 39f.)

Article's research focus	The need for reform of the health sector is recognized in many health systems…
Current scientific emphasis	Significant attention has been paid to the *content* of such reforms (Cassels 1994) with emphasis on alternative financing mechanisms, new forms of organization and management and a redefinition of the public/pivate interface...
Gap in knowledge	Less attention, however, has been paid to the processes (Walt and Gilson 1994, Reich 1995, Evans 1997, Frenk 1994) whereby such reform policies are formulated and implemented….
Author's specific intentions	This paper focuses on this latter aspect, providing a study of aspects of the factors affecting the structure of the health sector in Thailand focusing on the decade up to 1996.

Writing the abstract/summary

(and a note on titles and keywords)

The abstract or summary of a paper

Purpose: The abstract briefly describes the study's purpose, methods, results, and conclusions. It should be intelligible when read apart from the rest of the paper.

The abstract is your hook!

- What to have in the abstract
  - Study rationale
  - Basic design and methodology
  - Basic results
  - Main conclusion
- What not to have in a abstract
  - Introductory notes
  - Description of study site
  - Details on methods
  - Discussion

the abstract should be short, informative and interesting.

Abstract or summary: structure

1. **Study rationale**: Why what was done?: One or two sentences to orient the reader and indicate the reason for the study (from Introduction)

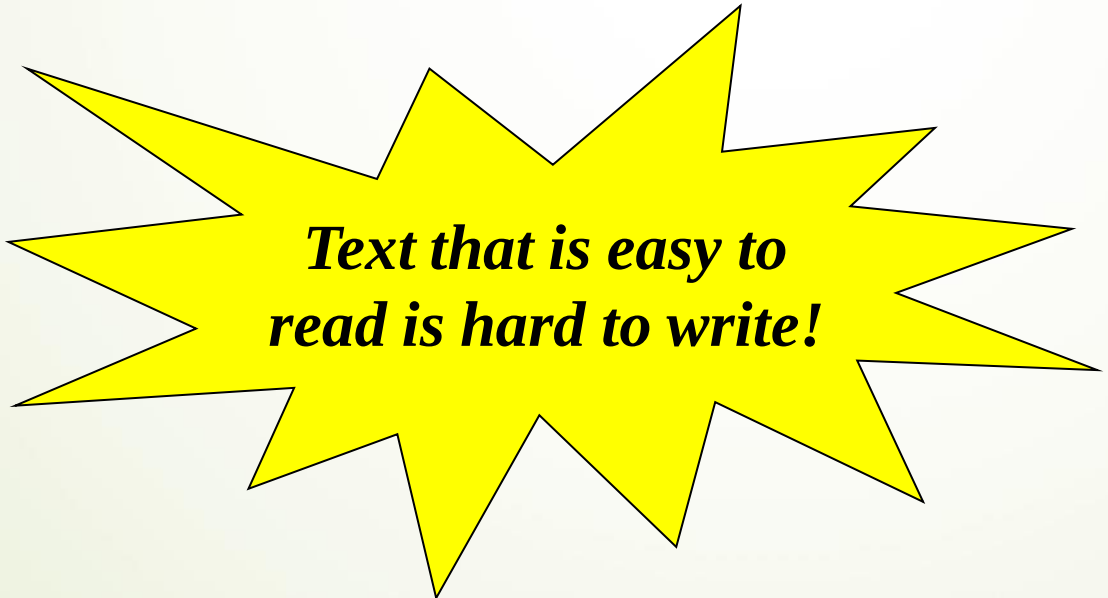
2. **Basic design and methodology**: What was done?
   A brief description of the methods used (from methods)

3. **Basic results:** What was found? A summary of results, including basic figures (from Results)

4. **Main conclusion:** What can be concluded?
   The "message to the world" (from Discussion)

Abstract/Summary: Recommendations

- Be clear and concise and avoid unnecessary detail!
- Does the text of the abstract "flow"?: Read it aloud to a colleague!
- Stick to the word limit (200-300 words)!



Summary: Example

(Uzochukwu et al.2014, Plos One Journal.)

Why what was done?

This paper reports on the economic costs of irrational medicine use by Patent Medicine Dealers for malaria, acute respiratory infection (ARI) and diarrhea diseases (DD) in Nigeria. This is because irrational use could have great impact on the household income.

What was done?

Exit interviews were conducted with 395 respondents who sought care for their children from 15 PMDs in Abakpa district of Enugu state Nigeria.

What was found?

Of the total re... for malaria while 12.0% and ...ely. The average number o... age percentage of patients ... of patients giv... percentage of patients given non essen... 45. ...adan... costs to the standard treatment in Naira was ...50 and ...5 for malaria, ARI and DD respectively. The losses a...butable to irrational dispensing was 4,500 Naira.

These are 178 words

What can be concluded?

Irrational dispensing of drugs for malaria, acute respiratory infection and diarrhea diseases by patent medicine dealers in Nigeria is high, posing unnecessary cost on health care users

How do you know when you have enough information in your Abstract?

A simple rule-of-thumb is to imagine that you are another researcher doing an study similar to the one you are reporting. If your abstract was the only part of the paper you could access, would you be happy with the information presented there?

Title and keywords

Purpose: To convey, in easily understandable terms, what the article is about

Title

- Succinctly describe *content* and *breadth*
- Most papers are found via electronic database searches that rely on words found in the title.
- Do not promise more than you are capable of delivering in your title!
- short and simple
- attracting interest
- avoiding jargon

Keywords

According to Medical Subject Headings (MeSH) of *Index Medicus*

The title is the first thing the editor, reviewers and readers will see!

Title

- For a paper reporting on the cost-effectiveness of different malaria medicines, a poor title would be:

  Economic Evaluation of Combination Therapy

- Why? Very general, and could be referring to any of a number of types of evaluation tools. It could also refer to different combination therapies across many different settings. A better title would be:

  The Cost-effectiveness of Three Anti-malarial Drug Combinations in South-East Nigeria

Reference list

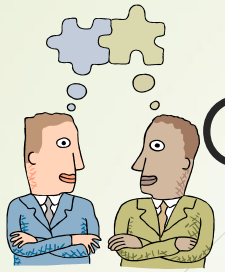
- The reference page must follow journal guidelines.
- Ensure that no references in the text have been omitted from the final list.
- Most researchers use Endnote to assist with referencing.
- The Internet has no standards for posting information. So beware. If you find useful information on the Internet, make sure a source is cited. If the Internet source makes reference to another study, find that study for yourself.

Citations

- This section gives a listing of the references that you actually cited in the body of your paper.
- Instructions for writing full citations will be provided by the journal.
- Do not label this section "Bibliography". A bibliography contains references that you may have read but have not specifically cited in the text.

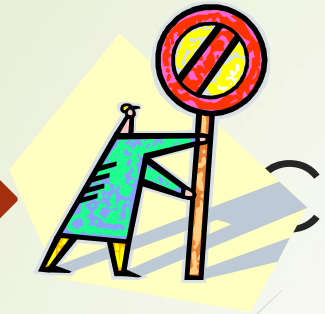
Appendices

- Contains information that is non-essential to understanding of the paper but may present information that further clarifies a point.
- It is an *optional* part of the paper that is rarely found in published papers.
- What material might be put in an appendix?
  - raw data
  - maps (foldout type especially)
  - extra photographs
  - explanation of formulas, either already known ones, or especially if you have "invented" some statistical or other mathematical procedures for data analysis.
  - questionnaires



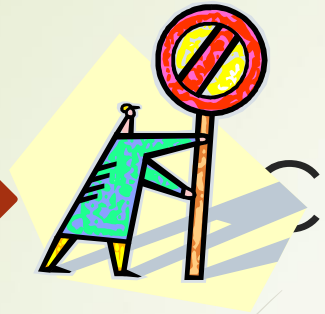
Common mistakes

- General
  - Going it alone – make sure you have an experienced mentor/co-author to guide you
  - Poor writing skills. The primary criteria for good scientific writing are accuracy and clarity.
  - Failing to follow the instructions of the journal. No easier way to annoy an editor!
  - Exceeding word limit
  - Failing to understand who your audience is! Most often we are targeting an audience wider than our own discipline and it is important to bear this in mind.



Common mistakes

- Presentation
  - Placing a heading at the bottom of a page with the following text on the next page (insert a page break!)
  - Dividing a table or figure - confine each figure/table to a single page
  - Submitting a paper with pages or tables out of order
  - Too much jargon! Jargon is the specialized vocabulary of a discipline and most journals are multi-disciplinary
  - Terminology is not uniform throughout the paper
  - Omit needless words – good writing should be economical for the same reason that a machine is designed to have no unnecessary parts!



Common mistakes

- Structure
  - Review the literature in a superficial way
  - Begin to interpret results in the Results section
  - Introduce new results in the Discussion
  - Re-state results in the discussion section.
  - Failing to explore results in adequate depth. What are the theoretical, methodological, policy or even the political implications of the results? Including tables and figures that have not been referred to in the text
  - Ending with a whimper rather than a bang!

Final piece of advice

- The simpler the better,
- Don’t use overly complicated statistical methods,
- we are writing for a policy audience

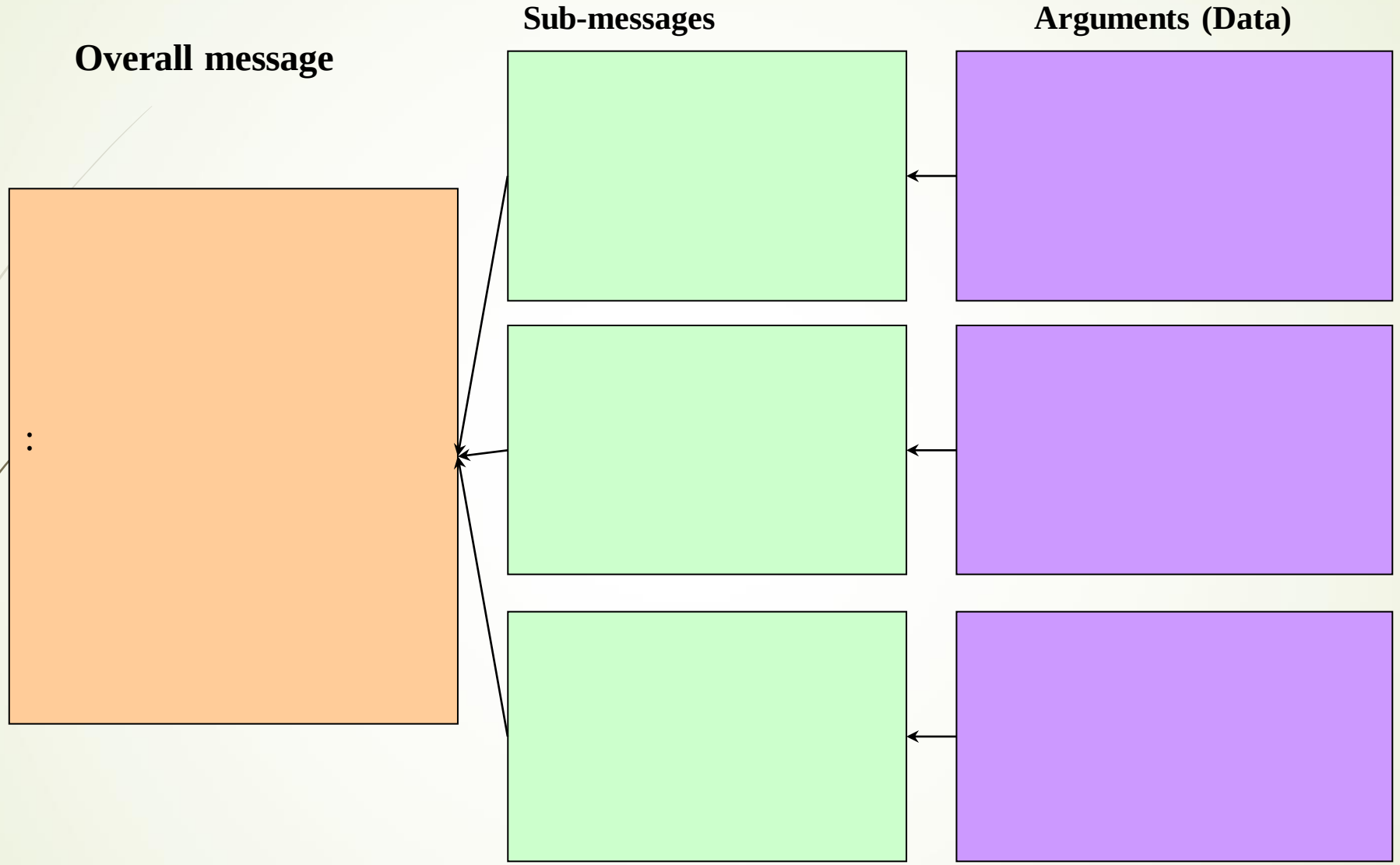
Resources

- **Further reading**
  - Neill U.S. (2007). How to write a scientific masterpiece. *J Clin Invest.* [illegible] doi:10.1172/JCI34288. (http://www.jci.org/articles/view/34288)
  - Robert S. Day, How to Write and Publish a Scientific Paper, 4th edition, Oryx Press, Phoenix, 1994. Earlier editions also good. Quite advanced, intended for those writing papers for publication. Fun to read.
  - Bowler S. Common Reasons why academic papers are rejected by journal editorshttp://www.deakin.edu.au/hmnbs/research/reasons_papers_rejected%20_24.08.pdf
  - Bem D Writing an Empirical journal Article. http://dbem.ws/WritingArticle.pdf
- **Look at 'guide to authors for the following journals:**
  - PLoS Medicine: http://www.plosmedicine.org/static/authors.action
  - Social Science and Medicine: http://www.elsevier.com/wps/find/journaldescription.cws_home/315/authorinstructions
  - Malaria Journal : http://malariajournal.com/info/instructions/
  - TMIH : http://www.wiley.com/bw/submit.asp?ref=1360-2276&site=1

Tasks for you:

- Identify one key message and up to three sub-messages of your article
  - The message(s) should be internationally relevant, 'new' and supported by your data
- Select and present the relevant data to support your sub-messages
  - Tables, figures, narratives, etc.

Building an argument tree - Manuscript Outline



Journal issues: authors, acknowledgement and how to respond to reviewers

Authorship

Being an author can be important in many relations, e.g., for academic career, becoming known in the field and can be a requirement of continued employment. Issues of authorship frequently cause problems

Criteria for authorship

- Provided 'intellectual contribution'
  - Involved in more than just following instructions, helped determine how the study was done, analysed, or presented
- Participated in preparing the particular publication
- Willing to take responsibility

Not qualifying as author

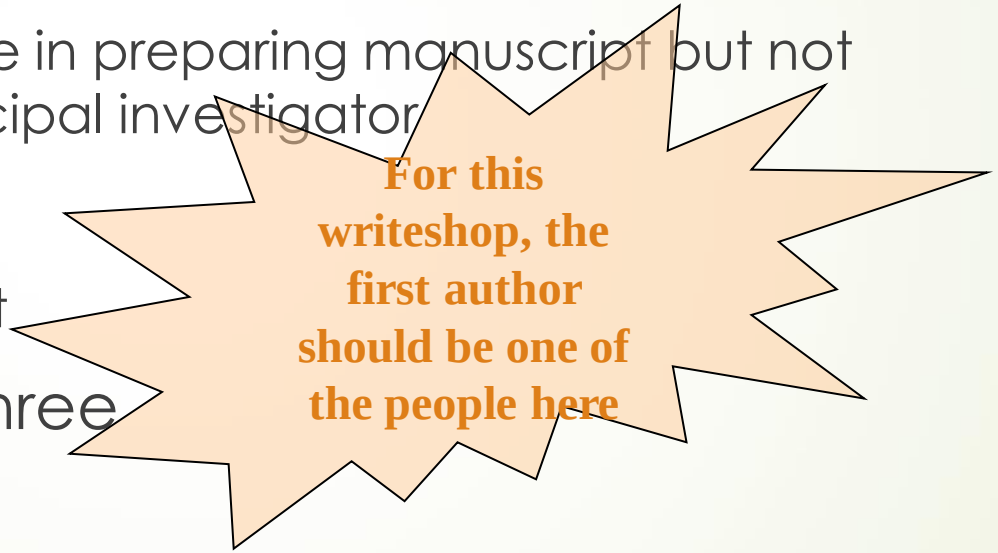
- Just followed instructions, e.g.,
  - Conducted interviews, provided or recruited subjects, running data analysis , etc.
- Providing money or other resources
- Being listed as investigator in the proposal
- Being chief of the unit where research was done

Clarify the authorship early on

Order of authorship

The order of authors is important for recognition and 'marketing' purposes - it frequently causes problems

- First author
  - Far the most important
  - Person with lead role in preparing manuscript but not necessarily the principal investigator
- Second author
  - Next most important
- Big drop after first three
- Last author
  - May be 'place of honour' for senior colleague who provided guidance but was not involved in day-to-day activities of study



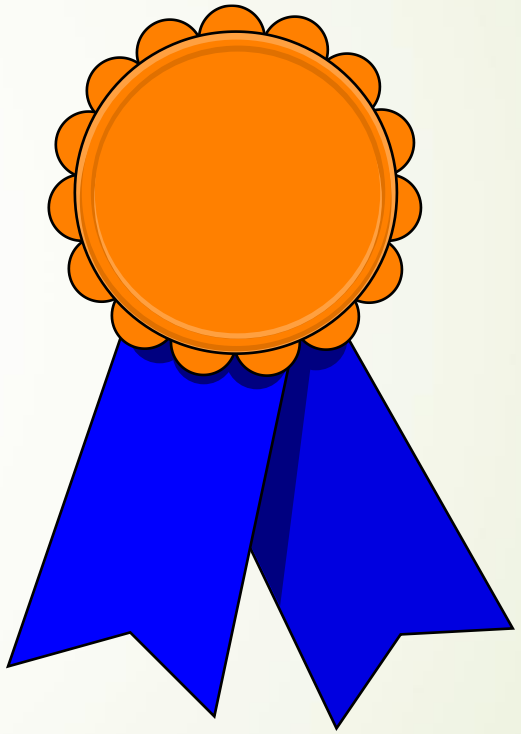
Acknowledgements

- Title page
  - Name(s) of any sponsor(s) of the research contained in the paper, along with the grant number
- Acknowledgement note at the end
  - Other contributors that were unpaid or went beyond what was expected
  - A good place to put your boss

Peer review

Gold standard

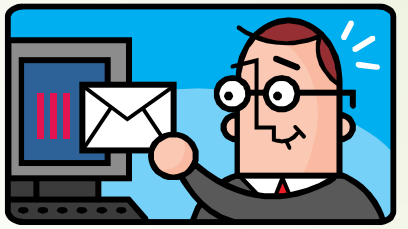
- Independent experts
  - anonymous
  - usually two
- Makes the difference
  - To be in public databases
  - ‘Stamp of approval’



Review process

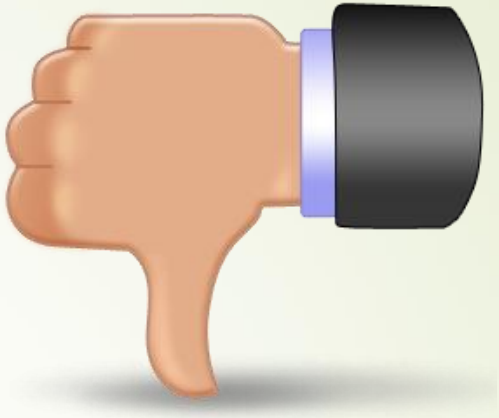
- Two stage review process.
  - Initially papers are read by the **editor** and assessed for quality, relevance and style. Some articles may be rejected at this stage.
  - Successful manuscripts then enter the second phase – **peer review**. These are the experts who have knowledge, experience and interest in the manuscript topic. After completion of these stages, manuscripts may
- Manuscripts may be returned to authors with suggestions for improvement or rejected.
- Papers returned to authors with a request for revision does not necessarily guarantee acceptance. Papers are reassessed before final decisions are made.

Submission



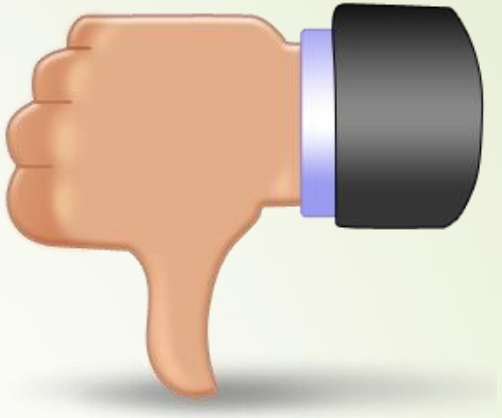
- Prepare a covering letter
  - Do not forget the importance of a good cover letter; one that is well worded can be a very important weapon in your arsenal!
  - A good cover letter helps the editor understand the implications of the manuscript and appreciate how you, the author, believe it fits into the broader field and makes a significant contribution.

Why (clinical) journals reject papers



- General
  - Not relevant to journals readership
  - Does not address an important scientific issue.
  - Not original (someone else had recently published a similar study).
  - Does not meet established ethical standards
  - Poorly written.
  - Paper has not been prepared according to journals guidelines

Why (clinical) journals reject papers



- Specific
  - Study did not test the authors hypothesis.
  - Different type of study should have been done.
  - Practical difficulties (in recruiting subjects, for example) led the authors to compromise on the original study protocol.
  - Sample size was too small.
  - Study was uncontrolled or inadequately controlled.
  - Statistical analysis was incorrect or inappropriate.
  - Unjustified conclusions from the data.
  - Significant conflict of interest.

Final word…

- Revise your manuscript.
- Polish it.
- Proof read it.
- Only then submit it

Example of letter from the editor

First review

Dear Name

Title

Thank you for submitting this paper to *Health Policy and Planning* for the TDR/HSR special issue. We have now received comments from a reviewer on the above paper, a copy of which follows. Our decision is **basically revise and resubmit** according to the comments made. The reviewer refers to a couple of published papers - I am mailing copies of these for your information.

When resubmitting, please send two copies of the revised manuscript and a covering letter detailing the changes made.

Thank you for giving us the opportunity to consider your work.

Yours sincerely,

Example of letter from the editor

First review

Dear Name

Title

We have now received comments from a reviewer on the above paper, a copy of which follows.

The reviewer is generally positive so we would like to provisionally accept the paper pending revisions according to the reviewer's comments.

When resubmitting, please send two copies of the revised manuscript and a covering letter detailing the changes made. Please enclose a disk copy in either Word or WordPerfect (not Mac format) - or email the paper.

Thank you for giving us the opportunity to consider your work.

Yours sincerely,

Example of letter from the editor

First review

Dear Name

Title

Thank you for submitting the above paper to *Health Policy and Planning* as part of the TDR/HSR special issue. We have now received comments from two reviewers, copies of which I attach for your information.

Unfortunately, after careful consideration of the paper and the reviewers' comments, the editors are **unable to accept** the paper for publication. However, we hope the enclosed comments are useful for you.

Thank you for giving us this opportunity to consider your work.

Yours sincerely,

Example of letter from the editor

Second review

Dear Name

Title

We've now received comments (attached) from one of the original reviewers on the above resubmitted paper. She feels **further revision should be made** before the paper is published, relating to three points identified previously, which hopefully 'can be accomplished in a few hours'.

As before, when returning the revised paper, please also attach a letter detailing the changes made in response to the reviewer's points.

Assuming the revisions are satisfactory, we should then be able to accept the paper for the special issue.

Best wishes,

Example of letter from the editor

Second review

Dear Name

Title

We've now received comments from one of the original reviewers on the above resubmitted paper. I attach them for your information. You **may wish to take them into account** in the paper; we leave this up to you.

We look forward to publishing this paper in the special issue.

Best wishes,

Example of letter from the editor

Second review

Dear Name

Title

We've now, at last, received comments (attached) from the original reviewer on the above resubmitted paper. She recommends **some further minor revision** before the paper is published. We therefore would **like to see these changes** made before we progress to publication.

As before, when returning the revised paper, please also attach a letter detailing the changes made in response to the reviewer's points.

With best wishes,

Example of letter from the editor

Second review

Dear Dr ….

Thank you for revising and resubmitting the above paper to *Health Policy and Planning*. Please accept my apologies for the delay in giving you a decision. We have had the paper re-reviewed by the original reviewer. Unfortunately, he was unable to recommend publication of this revised paper. His comments were as follows:

> **It appears that only cosmetic changes have been made. The only significant changes I could ascertain in the text are in the section entitled "Inequality in ……", but I found the discussion somewhat confusing and disjointed. The tables don't show any change that I can detect, neither presenting pre-1990 data nor including the absolute spending changes in Table 4. Also, the English is very difficult.**

Unfortunately, after careful consideration of the resubmitted paper, the editors are **unable to accept** it for publication as the revisions do not sufficiently respond to the concerns of the reviewers.

Thank you for giving us this opportunity to consider your work. I am sorry the outcome was not favourable this time.

With best wishes,

Yours sincerely,

Responding to reviewers' comments

Comments from reviewers are mostly useful and constructive, taking them seriously will improve your article

How to respond

- Read the comments and put them aside for a day of two, while reflecting
- Address all comments and suggestions one by one
- Provide evidence through your response letter, telling comment by comment what you have done

What if you disagree

- Never say outright that you disagree, even if you do - the reviewer has the last word
- If not important - accept
- If important - find a way around.

Blog: What is it?

- A way of communicating research
- As a scientist with in-depth knowledge in a certain field, you are better equipped to doing this than someone else such as a journalist who may not be familiar with the concepts.

Blogs

- Some points to consider include:
- **Target audience**: Who are they and how will you reach them?
- **Discoverability**: How will you promote your blogs? Will you make interesting comments with a link to your blog using social media?
- **Tone:** Blogs are informal; therefore, your tone should be **conversational** and should address the reader directly.
- Shorter blogs are preferable to long essays.

- Use strong and entertaining **keywords** that will help your blog pop up in web searches.
- Will you add videos and images?
- Be **patient**: People tend to comment more frequently on platforms such as Twitter compared to a blog. It will take time to build an audience.
- **Guest blogs**: Writing for well-known bloggers can help you become established

Template for planning academic publications

- **Notes:**
- This 2-page template should help you plan the overall idea for your paper, which can gradually grow into a full draft to be submitted
- Complete all fields but if you cannot do it at this stage identify the actions/information needed
- Use bullet points to identify the main arguments / contents in the outline structure
- The template is not 'set in stone', so please feel free to adapt it as you see appropriate
- PROVISIONAL TITLE:
- PROPOSED AUTHORS: *(specify the lead author)*
- TARGET JOURNAL(S)

- OVERALL IDEA / OBJECTIVES OF THE PAPER:
- KEY MESSAGES THE PAPER WILL COMMUNICATE *(2-4 maximum)*:
- PLANNED TIMELINE FOR SUBMISSION

- Agreeing authorship and outline\
- Developing first version of full text
- Peer-review by co-authors, revisions by lead author: by
- Finalisation, proofreading and submission:

Outline structure (adapt depending on the journal/your idea):

- ***In*troduction / background**
  - *Provide a key background to 2-4 key messages and identify gap in literature the paper addresses*
- **Methods**
  - *Specify methods used*
- **Results**
  - *Key results you need to include to support the 2-4 key messages the paper communicates*

- **Discussion**
  - *What do results suggest, and how compare with existing literature (linking with 2-4 key messages)*
- **Conclusions**
  - *Key conclusions from the manuscript (can often replace 2-4 key messages)*