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**Baseline survey on referrals  
and healthcare provider needs  
in view for an electronic  
referral system.**

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## Introduction

**Patient referral:** Patient referral is a process in which a healthcare provider decides to seek assistance due to the limitations of available **skills**, **resources**, and **services** offered locally.

**Referral reasons:** Limited services, expert opinion, special diagnostic investigation, special therapeutic services, etc.



## Problem statement

- Referral process and procedure
- Referral content ( Quality and Quantity)
- Premature referral and by-passing referral
- Duplication of effort (test and cost)
- Time to fill out the referral letter
- Possibility of the referral letter damage
- Patient Privacy



## Aim of the study

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- To enhance the provision of quality healthcare services through an assessment of formats and completeness of the existing paper-based referral system and make a user needs assessment in view of the design of an electronic referral system to improve health information exchange and hence also improve coordination and continuity of care .



## Methodology

This study was performed in three phases





## Phase One

Assessment of formats and completeness of the current “paper-based” referral letters.

Design: Retrospective exploratory

Setting: 11 health facilities

sample size: 307

Instrument: Data capture sheet

Formats: 10 formats available

-External transfer forms: 58,8%



## Phase Two

Assessment of the perception of medical practitioners about the relevance of the content items of the referral notes.

Design: Quantitative

Setting: 11 health facilities

sample size: 181

Instrument: Questionnaire

Total count: 61

Mandatory: 38

Optional: 23



## Phase Three

Perception of healthcare providers on the development of an electronic referral system.

Design: Qualitative FGD

Design: 2 FGDs

Population: 14 healthcare providers

Instrument: Interview guide questionnaire

### - Experience with the existing paper-based referral system

- (i) Delays in the referral process,
- (ii) Incompleteness of paper-based referral sheet,
- (iii) Referral triage,
- (iv) Premature referrals,
- (v) Counter referrals,
- (vi) Patient privacy,
- (vii) Language problems.

### - Development of the electronic referral system

- (i) Digitization, following the same systematic outline as paper-based or not,
- (ii) Features to be included in the electronic referral system,
- (iii) Transition phase,
- (iv) Mandatory and optional constituents,
- (v) Predicted challenges,
- (vi) Expected benefits.



## Proposed Electronic Referral /Counter Referral Form

Referral Elements		Description
Patient identification	Mandatory*	(Name, surname, age, gender, district, sector, cell, village)
Date and time of transfer	Mandatory*	Date and time
Referral from	Mandatory*	Name of the referring hospital
Referral to	Mandatory**	Name of the receiving hospital
Type of transfer	Optional**	Choose from: emergency, not emergency, follow up
Type of transportation	Optional**	Choose from: ambulance, private
Health insurance	Optional**	Choose from: CBHI Mutuelle, CBHI RSSB, MMI, Other (specify), none
Vital sign	Optional	Temperature (Celsius degree), SpO2 (percentage), RR (breaths per minute), Pulse (beats per minute), BP (millimeters of mercury), Weight (kilogram), Height (centimeter)
Significant findings	Optional	Free text with a max of 300 words
Diagnosis	Optional**	Choose from: ICD10 diagnosis
Procedure - treatment	Optional	Free text with a max of 300 words
Reason for referral	Mandatory	Free text with a max of 200 words
Laboratory	Optional**	List of LOINC laboratory test and provision of five attachments
Counter referral elements		
Refer back to	Mandatory**	Name of the receiving hospital
Patient details	Mandatory*	(Name, surname, age, gender, district, sector, cell, village)
Date of admission	Mandatory**	Date
Date of discharge	Mandatory**	Date
Treatment received	Mandatory	Free text with a max of 300 words
Final diagnosis	Optional	Free text with a max of 200 words
Outcome	Optional**	Choose from: cured, died, escaped, to be followed up, referred to high level
Recommendation	Mandatory	Free text with a max of 300 words

\*Elements that will be completed automatically from the EMR

\*\*Elements that will be provided choices to select from



## Conclusion

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- There were inconsistencies in the formats of referral letters used.
  - There were deficits in the completeness of referral letters.
  - We collected perceptions of healthcare providers on features and functionalities which were considered for the design of an electronic referral form.
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- A development of an electronic referral system will follow.



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Thank you!