## Barriers and Facilitators to Integration of Social Determinants into Clinical Practice in Hospitals in Uganda

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#### Abstract

Integration of social determinants into clinical practice is an emerging attractive phenomenon because of its potential benefits to the health system and patients however inadequate understanding of the barriers and facilitators poses immense challenges in designing programs and interventions aimed at enhancing integration of social determinants into clinical practice. This study investigated the barriers and facilitators to integration of social determinants into clinical practice in hospitals in Uganda. Data was collected from 21 key informants using a key informant guide that covered various aspects of integration of social determinants into clinical practice. The study identified barriers and facilitators at institutional and health-worker associated barriers. These barriers were at patient, departmental and community levels. There were similarities and differences in the barrier's ad facilitators observed in this study and those articulated in literature. More so this study revealed some unique barriers and facilitators. The study confirmed existence of barriers and facilitators to integration of social determinants into clinical practice in hospitals in Uganda. Although in-depth interviews were conducted it was not possible to eliminate self-report bias

Keywords: Barriers, Facilitators, Social determinants, Integration, Hospitals.

## Introduction

Integration of social determinants into clinical practice is an emerging attractive phenomenon because of its potential benefits to the health system and patients [1-2]. Attention is increasingly being drawn to this phenomenon as one of the approaches to address disparities in health outcomes such as those precipitated by Covid 19 pandemic [3-7]. Such disparities may be accentuated by resource shortages hence underlining the importance of integrating social determinants into the health care process in low resource settings. From the health services perspective, integrating social determinants of clinical health into practice enhances coordination of health services [2], provision of person-centered care [8], delivery of quality services [1] accessibility to health services, coverage, and continuity of care. Therefore, understanding barriers and facilitators to integration is a major concern for healthcare managers in Uganda and other resource constrained settings.

Social determinants of health a non-medical factors affecting health and are classified into two broad categories: the conditions under which people are born, grow, live, work, and age; and the broader socio-economic context that shape these conditions [1, 9, 10]. Social determinants influence health and disease through a myriad of mechanisms acting singularly or interactively [11]. They influence perception of symptoms and decision about treatment, they shape patients' expectations of care and the nature of interaction between patients and health workers, they moderate the nature of engagement between patients and the health system, they influence patient preferences regarding medical procedures, and affect

willingness and adherence to medical treatment plans and public health protocols [12]. Health workers can integrate social determinants into clinical practice through screening patients for key social determinants, documenting and sharing information about the relevant factors, and taking the required actions to address these factors such as referral of patients to social and community services, supporting, advising and counseling patients, customization of the interaction modification of treatment or approaches, and organisation of services in accordance with the relevant patient's social determinants perspective community or advocacy [1, 13].

Inadequate understanding of the barriers and facilitators poses immense challenges in designing programs and interventions aimed at enhancing integration of social determinants into clinical practice. Previous studies have highlighted several institutional barriers such as staffing shortages, inadequate healthcare financing, low programme implementation capacity [14]. Other barriers that have been identified challenges include with standardization of social determinant measures and tools; paucity of healthcare-based solutions for the social determinants; data management challenges; inadequate diversity of the interprofessional teams; bias of accreditation bodies towards standards that have less focus on innovation; and policy limitations [15]. The institutional facilitators that have been identified include creation of ICD-10 codes for social determinants of health; establishment of standard data collection tools; value-based care and reimbursement methods; interoperable healthcare technologies; use of zip codes; and deployment of a task force to handle social determinants of health issues [16]. Other facilitators include intuitional practices such as providing reminders for healthcare workers and patients; a supportive supervision and training system; and an atmosphere promoting interprofessional and interdisciplinary collaboration. While these barriers and facilitators were

articulated based on studies from developed countries, there were no primary studies in Uganda and other resource constrained countries. Therefore, findings and experiences from these settings cannot be easily extrapolated or interpolated into systems of less developed countries such as Uganda due to differences in health systems and organisation of community social services. Moreover, Uganda expresses additional challenges resulting from extensive cultural and ethnic diversity and a relatively young health system in addition to the triple burden of disease. In addition to the barriers and facilitators identified in literature, this study also investigated issues such as institutional ownership, physical location, size, and type of services had not been investigated in relation to integration of social determinants into clinical practice.

The study addressed three questions:

- 1. What are the institutional barriers and facilitators to integration of social determinants into clinical practice in hospitals in Uganda?
- 2. What are the health-worker related barriers and facilitators to integration of social determinants into clinical practice in hospitals in Uganda?
- 3. What are the other types of barriers to integration of social determinants into clinical practice in hospitals in Uganda?

## **Materials and Methods**

Study setting: The study was conducted in two Regional Referral Hospitals and ten General Hospitals in Uganda. Two hospitals were government, two accredited to the Uganda Protestant Medical Bureau (UPMB), two to the Uganda Catholic Medical Bureau (UCMB), one accredited to the Uganda Orthodox Medical Bureau (UOMB), one accredited to the Uganda Muslim Medical Bureau (UMMB), and two were private. The hospitals differed on attributes such as level of care; rural-urban characteristic; health worker payment systems; healthcare financing models; number of beds, ownership, and cultural attributes of the catchment population. All together the participating hospitals provided healthcare to over 11 million people, constituting about 26% of the entire population of Uganda, with over 2,000 hospital beds representing approximately 14% of the total hospital beds in Uganda [17].

#### **Study Design**

This was a qualitative cross-sectional hospital-based study. Data was collected from key informants. All heads of departments that directly interact with patients for the purpose of health care delivery were eligible for the study. Heads of departments meeting the inclusion criteria but who did not consent to the study or had been in their position for less than six months were excluded.

#### **Sample Size Determination**

The sample size for key informants was selected based on the figure of 15-25 recommended by the UCLA centre for basic policy research [18]. From this recommendation a sample size of 24 was selected to enable matching of the number of key informants with the size of the hospital.

#### **Sampling Procedure**

The number of key informants at each participating hospital was computed by proportionating the 24 key informants to the participating hospitals based on the estimated number of clinical health workers at the respective hospital. The respondents were then sampled purposively from the clinical departments.

## **Data Collection**

Data was collected over a period of three months, that is September to November 2021.The key informant interview guide was used to collect data from key informants.

#### **Data Analysis**

Data was analyzed thematically to identify the barriers and facilitators for different aspects on

integration of social determinants into clinical practice.

#### Results

Data was collected from 21 key informants from the departments of internal medicine, paediatrics, obstetrics and gynaecology, surgery, and community or public health.

## Method of Detection of Social Determinants

Training of health workers was regarded by all key informants as the most predominant means for ensuring that social factors are consistently identified during healthcare delivery. Other methods highlighted were provision of questionnaire or checklist for screening patients, emphasis on detailed history taking, and provision of a guideline.

#### **Ranking of Social Determinants**

The social determinants regarded as most important by key informants were challenges with access to health care, social and family support, food insecurity and dietary practices, type of housing, health literacy. The others were occupation, religion, childhood experiences, cultural norms, and ethnic background.

#### **Institutional Barriers and Facilitators**

#### **Patient Level**

Barriers and facilitators to screening patients: The main institutional barriers were inadequate training of health workers on how to screen social determinants, heavy workload, and language barrier in rural hospitals. The main institutional facilitators were sensitization of patients and presence of medical social workers on the healthcare team. Barriers and facilitators to reviewing medical records: The main institutional barriers were inadequate documentation of the social determinants in medical records and workload. The main institutional facilitator was sensitization of health workers. Barriers to assisting patients: The were no institutional barriers mentioned for

assisting patients. The main institutional facilitators were presence of a counselling department in the hospital, institutionalization of the practice of assisting patients, and use of outreaches to identify and support vulnerable patients. Barriers and facilitators to discussing social risks: The main institutional barrier was absence of options to address the social risks. The main institutional facilitators were presence of medical social workers on the team, awareness of the options to address the social risks, availability of counsellors, and staff being given audience to share the identified risks with the hospital administration. Barriers and facilitators to documenting social risks: The main institutional barriers were low adoption of the practice in the hospitals and lack of tailored tools for documentation of social risk factors. The main institutional facilitators were availability of stationery and registers and having a surveillance team in place. Barriers and facilitators to adjusting treatment plans: The main institutional barrier was absence of options for addressing the social risks. The main institutional facilitator was availability of trained staff to take decisions on social determinants. Barriers and facilitators to advising patients: The main institutional barrier was inadequate number of social workers. No institutional facilitator was identified for this aspect.

#### **Departmental Level**

Barriers and facilitators to adjusting clinic hours: The main institutional barriers were space constraints, inadequate funds for the extra hours of hours, and the rigid clinic schedules of the hospitals. The main institutional facilitator was maintaining availability of 24-hr service in the hospital. Barriers and facilitators to organizing departmental workflow: The main institutional barriers were inadequate space, poor planning, and resource constraints. The main institutional facilitator was existence of children, youth, and elderly friendly services. Barriers and facilitators to provision of language services: The main institutional barriers were absence of designated

translators, absence of staff with capacity to translator, and the high costs associated with providing such services. The main facilitators were availability patients who can assist in the translation and a nurse to translate. Barriers and facilitators to sharing experiences: The main institutional barrier was absence of forum for sharing the experiences. The main facilitators were availability of social counselors on the team, clinic audits, weekly review meetings, incorporation of social determinants into the care process, and adequately training the providers. Barriers and facilitators to referring patients: main institutional barriers The were inconsistency of services, lack of services and lack of clear referral procedures. The main institutional facilitator was existence of collaboration with the community resources. Barriers to communicating with non-medical personnel: The were no institutional barriers for this aspect. The main institutional facilitators were workshops, and village health teams. Barriers and facilitators to patient experience surveys: The main institutional barriers were inadequate resources, poor feedback mechanism, and inadequate dissemination of information collected. The main facilitators were annual customer satisfaction surveys and client exit interviews.

### **Community Level**

Barriers to connecting patients to community resources: The main institutional barrier was non-availability of a list of community resources for reference. The main institutional facilitator was availability of services. Barriers and facilitators to identifying community resources: There were no institutional barriers and facilitators for this aspect. Barriers to conducting outreaches: The main barrier was inadequate facilitation. The main facilitators were availability adequate means of transport and homecare department in the hospital. Barriers and facilitators to partnering with religious groups: The main institutional barriers are lack of clear procedures for partnering and inadequate facilitation for activities. The main facilitators were religious foundation and community health insurance scheme. Barriers and facilitators to organizing community resources: The main institutional barriers were lack of coordination and inadequate facilitation. The main facilitator was home care department in the hospital. Barriers to working with community organisations: The were no institutional barriers and facilitators for this aspect. Barriers and facilitators to engaging workers: The community health main institutional barriers were lack of funding and private nature of the hospital. The main institutional facilitators were clarity of benefits of the community engagement and involving the churches and local area councilors and administrators. Barriers and facilitators to assessing performance of health workers: The main institutional barriers were absence of tools for the evaluation and non-compatible design of the medical care process. The main facilitators were routine appraisals and engaging competent staff. Barriers and facilitators to community sensitization: The main institutional barriers were inadequate resources and inadequate funds for airtime on radio. The main facilitator was the outreach program.

## Health-worker Related Barriers and Facilitators

### **Patient Level**

Barriers and facilitators to screening patients: health-worker barriers The main were inadequate training on how to screen social determinants, heavy workload, and language barrier in rural hospitals. The main healthworker facilitator was sensitization of patients. Barriers and facilitators to reviewing medical records: The main health-worker barriers were inadequate documentation of the social determinants in medical records and workload. The main health-worker facilitator was detection of a social risk. Barriers to assisting patients: The main health-worker barriers were inadequate knowledge on how to assist patients with social risk factors and perception that this is not their core role. The were no health-worker facilitator. Barriers and facilitators to discussing social risks: The main health-worker barriers were time constraints and cultural limitations. The main health-worker facilitators awareness of the options to address the social risks and being given audience to share the identified risks with the hospital administration. Barriers and facilitators to documenting social risks: The were no health-worker barriers facilitators for this aspect. Barriers and facilitators to adjusting treatment plans: The main health-worker barrier was limited understanding of how to address the social issues. There were no health-worker facilitators for this aspect. Barriers and facilitators to advising patients: The main barriers were time constraints, lack of interest by health workers, patients not recognizing the importance, and inadequate numbers of social workers. The main facilitator was identification of the social risk.

#### **Department Level**

Barriers and facilitators to adjusting clinic hours: There were no health-worker barriers and facilitators for this aspect. Barriers and facilitators to providing language services: There were no health-worker barriers and facilitators for this aspect. Barriers and facilitators to sharing experiences: The main health-worker barriers were time constraints and fear of breaching patient confidentiality. The health-worker facilitator was adequate training on social determinants in health care. Barriers to communicating with non-medical personnel: The main health-worker barriers were lack of confidence in the ability of non-medical providers to handle such social risks and lack of clarity of the role of non-medical providers. There is no health-worker facilitators for this aspect. Barriers and facilitators to organizing departmental workflow: The main health-worker barrier inability to identify social needs. The health-worker facilitator was awareness about the social issues. Barriers and facilitators to assessment of health workers: The main healthworker barrier reliance on voluntary disclosure by patients. There were no health-worker facilitators for this aspect.

#### **Community Level**

Barriers to connecting patients to community resources: The were no health-worker barriers and facilitators for this aspect. Barriers and facilitators to referring patients: The main health-worker barrier was low interest in engaging patients regarding social risk factors. The main health-worker facilitator was ability clearly identify the social issues. Barriers and facilitators to identifying community resources: The main health-worker barriers were lack of confidence in village health teams and low prioritization of social issues. There were no health-worker facilitators for this aspect. Barriers to conducting outreaches: There were no health-worker barriers and facilitators for this aspect of integration of social determinants into clinical practice. Barriers and facilitators to partnering with religious groups: There were no barriers and facilitators for this aspect of integrating social determinants into clinical practice. Barriers and facilitators to organizing community resources: There were no healthworker barriers for this aspect. The healthworker facilitators were opportunities for radio talk shows and participating in social events. **Barriers** working with to community organisations: There were no health-worker barriers and facilitators for this aspect. Barriers and facilitators to engaging community health workers: The main health-worker barrier was risk of infection during pandemics such as Covid 19 and belief that this was the role of Ministry of Health. The health-worker facilitator was clarity benefits of the engagement. Barriers and facilitators to community sensitization: The main health-worker barrier lack of access to public media facilities. The health-worker facilitators were use of political and social events and outreaches. Barriers and facilitators to patient experience surveys: There were no health-worker barriers and facilitators for this aspect.

## Other Sources of Barriers and Facilitators

The other barriers were patients' unwillingness to share information on social determinants with health workers, unwillingness of patients to disclose social needs or issues, high cost of alternative approaches, absence of community resources for referral, limited scope of social services, disconnect between churches and the health system, lack of linkages with community organisation and the health system, lack of linkages with community organisation and the health system. The other facilitators were availability of linkages, existence of collaboration with the community resources, availability of churches accepting referrals from hospitals, availability adequate means of transport, non-communicable diseases groups, collaborations with community organisations, involving the churches and local area councilors and administrators.

Table 1 provides a summary of the barriers and facilitators by activity or action.

Activity	Barriers	Facilitators
Screening patients for	Patient's unwillingness to share	Education of patients
social determinants	information on social determinants of with	
	health workers	
	Inadequate training of health workers on	Presence of medical social
	how to screen social determinants, and	workers, educating health
	heavy workload	workers, and patients

Table 1. Barriers and Facilitators

	Language barrier highlighted in rural hospitals	
Reviewing medical records for social	Inadequate documentation of the social determinants in medical records	Identification of a social risk
determinants	Heavy workload	Patients' adherence to follow up plans
		Sensitization of health workers
Assisting patients with	Unwillingness of patients to disclose social	Presence of a counselling
social risks	needs or issues	department in the hospital
	Inadequate knowledge of health workers	Institutionalization of the
	on how to assist such patients	practice of assisting patients
	Health worker perceiving this as not being	Use of outreaches to identify
	their core role	and support vulnerable patients
Discussing social risks with patients	Time constraints	Presence of medical social workers on the team
	Absence of options to address the social	Awareness of the options to
	risks	address the social risks
	Cultural limitations	Availability of counsellors
		Staff being given audience to share the identified risks with
		the hospital administration
Documenting social	Low adoption of practices of integration in	Availability of stationery and
risks	the hospitals	registers
115K5	Lack of tailored tools for documentation	Having a surveillance team in place
Adjusting treatment	High cost of alternatives treatments that	Availability of trained staff to
plans based on identified risk factors	may be appropriate for the patient's context	take decisions
Identified fisk factors	Absence of options for addressing the social risks	Engagement of the patients
	Limited understanding of how to address the social issues	
Adjusting clinic hours	Space constraints	Availability of 24-hr service
to cater for patients'	Transportation barriers for patients	in the hospital
social risks	Inadequate funds for the extra hours	
	Rigid clinic schedules of the hospitals	
Providing language	Absence of designated translators	Availability of patients who
services to patients		can assist in the translation
services to patients	Lack of training in sign language	can assist in the translation
services to patients	Lack of training in sign language Absence of staff with capacity to translate	Availability of nurses to
services to patients	Lack of training in sign language Absence of staff with capacity to translate High costs associated with providing	

Sharing experiences	Time constraints	Availability of social
on social determinants		counselors on the team
	Absence of forum for sharing the	Regular clinic audits
	experiences regarding social determinants	
	Concern with breaching patient	Weekly review meetings
	confidentiality	Incorporation of social
		determinants into the care
		process
		Adequately trained the
		providers
Advising patients on	Time constraints	Identification of the social risk
social determinants	Lack of interest by health workers	
	Patients not recognizing the importance	
	Inadequate numbers of social workers	
Connecting patients	Absence of community resources for	Availability of services
with social risks to	referral	
community resources	Non-availability of a list of community	Awareness of the community
,	resources	resources, training of staff of
		social risks
	Limited scope of social services	Availability of linkages
	Lack of linkages between healthcare and	
	other social services	
Communicating with	Lack of confidence in the ability of non-	Outreaches
non-medical personnel	medical providers to handle such social	
*	risks	
	Lack of clarity on the role of non-medical	Workshops
	providers	Village health teams
Referring patients to	Inconsistency of services	Existence of collaboration
community social		with the community resources
services	Lack of services	Clear identification of the
	Lack of clear referral procedures	social issues
	Low interest by health workers	
Identifying	Low functionality of community structures	Availability of churches for
community resources	Lack of confidence in village health teams	referrals based on need
	Low priority by health workers	
Conducting outreaches	Inadequate facilitation	Availability adequate means
U	•	of transport
	Lock downs	Homecare department
Partnering with	Lack of clear procedures for partnering	Religious foundation
religious groups	Inadequate facilitation	Community health insurance
0 r ·	Variability in beliefs	
	Disconnect between churches and the	1
	health system	
	· · ·	
	Lack of coordination	Radio talk shows

Organizing community social resources	No buy in from members hence not sustainable	Non-communicable diseases groups Home care department Positive community attitude
Working with community organisations and groups	Lack of linkages with community organisations and the health system Lack of funding and facilitation Narrow scope of partnerships areas No coordination platform	Existence of collaborations with community organisations and groups
Organizing departmental workflow	Inadequate space	Existence of child, youth, and elderly friendly services
Engaging community health workers	Poor planning         Resource constraints         Inability to identify social needs         Lack of funding	Teamwork Staff awareness about the social issues Clear benefits of the engagement
ileanin workers	Private nature of the hospital Risk of infection during pandemics such as Covid 19 Engagement with the community health workers was mainly regarded as the role of Ministry of Health	Involving the churches and local area councilors and administrators
Assessing health workers on integration of social determinants into clinical practice	Absence of tools for the evaluationEvaluation on social determinants notcovered in routine evaluationStructure not permitting the evaluationReliance on voluntary disclosure bypatients	Appraisal system Competent staff
Community sensitization	Inadequate resources Lack of access to public media facilities Inadequate funds for airtime on radio	Use of political and social events Outreaches
Conducting patient experience surveys	Inadequate resources Poor feedback mechanism Inadequate dissemination of information collected	Annual customer satisfaction surveys Client exit interviews

# Suggestions for Promoting Integration of SDH into Clinical Practice

The following suggestions for promoting integration of SDH into clinical practice were proposed by key informants: Having dedicated counsellors on hospital premises; Obtaining and disseminating lists of charity and religious organisations, family support providers, and homecare services.

### Discussion

The overall objective was to assess the barriers and facilitators to integration of social

determinants into clinical practice in hospitals in Uganda. Although the Covid 19 public health protocol in force during the period of data collection affected hospital duty rosters across the country, a reasonable number of key informants were interviewed (21/24=88%).

Training of health workers was regarded by all key informants as the most predominant means for ensuring that social factors are identified consistently during healthcare delivery. This finding which was like observations made by other researchers [15] underpins the importance of incorporating the social determinant perspective into pre-service and in-service curricular.

Key informants identified the challenge of access to health care as a key social determinant of health. This finding is supported by high concentration of hospitals in Kampala and the surrounding regions, low coverage of ambulances and non-emergency medical low health insurance transport services, coverage, relatively high out of pocket expenditure on health, and a large number of people staying in hard-to-reach areas [19]. This underpins therefore the importance of identifying patients with this challenge and seeking ways of supporting such patients. The study highlighted the importance of routinely engaging patients on challenges related to access to healthcare at points of contact.

Food insecurity was identified as a key social determinant. This points to the importance of screening patients for indicators of food insecurity during healthcare delivery. This detection of nutritional facilitates early challenges especially malnutrition which is still a challenge in several regions Uganda. According to the Agriculture and Nutrition Fact Sheet almost one-third of children under 5 years of age and 33% of women in Uganda suffer from malnutrition with forms such as acute malnutrition (wasting, or low weight-for height), underweight (low weight-for-age), chronic malnutrition (stunting, or low height-for-age), anaemia, vitamin A deficiency, and iodine deficiency [20]. Given this context, and by malnutrition predisposes to infections, health workers should pay keen attention to this determinant especially in women, children, and the elderly.

Housing condition is a key social determinant because it may accelerate transmission of airborne diseases, pest infestation, trigger or worsen respiratory diseases and exposure to dangerous gases such as carbon monoxide. Given the health effects of low-quality housing such as risk of lead poisoning; transmission of respiratory diseases. It is therefore important for health workers to routinely discuss housing challenges and advise patients accordingly especially children, the elderly and slum dwellers.

Social support indicated as a priority determinant by key informants is crucial for helping individuals cope with illness, obtain information of social services, get advice on how to access health services; and receive physical support during illness and recovery. Social support is particularly important for maternal, and child given that maternal health-seeking behaviours are socially reinforced [21] and for chronic diseases such as hypertension, diabetes mellitus and HIV/AIDS that require patients to take medication continuously. Therefore, health workers should consistently engage patients, especially mothers and children on social support challenges. This is even more important in Uganda where the traditional and informal social support systems remain relevant, and the formal social support and social assistance mechanism are nascent [21].

The current study confirmed the existence of barriers and facilitators to integration of social determinants into clinical practice at various levels in Uganda. This study however elucidated additional barriers and facilitators. The findings in this study on barriers to integration were like those highlighted in literature. These include non-availability of social workers, perception that non-medical services were ineffective, heavy workload, lack of community-based social services for referral, lack of information regarding the community-based social services, feeling of emasculation, feeling that this is not the role of health workers, cultural constraints [8]. The others were not knowing the actions to undertake after identifying social factors [15], deficiencies in community social services and limitation in community-based resources. Some of the barriers highlighted in literature such as lack of a systematic screening process, lack of organized internal and external advocacy regarding the value of integration of social determinants into clinical practice, inappropriate payer policies, and misaligned incentives [22] and bias towards the medical model and treatment imperative, prior experiences of stereotypes and discrimination, physical fatigue [15] were not observed in this study. This difference is attributed to the difference in study setting and tools used.

Lack of information on community-based resources can reduce not only the ability but also the morale to undertake actions of screening and assisting patients with social needs and further aggravate the emasculation. Access to an updated directory of community-based resources can help health workers support their patients better [1]. Community-based resources such as charities, labour agencies, government agencies and non-governmental organisations (NGOs) provide support to affected patients in a variety of areas such as housing, food and shelter, legal services, child protection, and psychosocial counselling. These entities provide social assistance and social care services to affected individuals. Five major challenges, however, limit the value of these community-based resources: the services may not be available in the community; the services may be fragmented or poorly coordinated; they may be inactive; health workers may not have information about these services; or there may be no linkage mechanism between the community resources and the hospitals.

This study unveiled several barriers that were not highlighted in literature previously. The

study elucidated lack of training in sign language, lack of access to public media facilities, rigid clinic schedules, lack of linkage mechanisms between the health system and community structures. infrastructural constraints, poor planning and organisation, absence of appraisal and feedback systems, low adoption of strategies for integration of social determinants into clinical practice, and inadequate financing as key obstacles for health workers in relation to undertaking actions related to integration of social determinants into clinical practice.

Lack of training in sign language creates a challenge for health workers in cases of patients with hearing difficulties that is reported to be as high as 10.2% among primary school children and as high as 11.7% among adults in Uganda [23]. Access to public media facilities such as radio and television, which are generally free, not only provides opportunity for health workers to communicate with members of the public but also members of the public to interact with health workers outside the hospital. In addition to providing a platform for community sensitization, members of the public are able to ask questions related to health and healthcare delivery. This underpins the importance of access to public media facilities for health workers. Rigid clinic schedules such as specific clinic days and opening hours make it difficult for certain patients to access services especially those in certain occupations and those living in remote areas. Additionally, services that not friendly children, youth, women, and the elderly limit access to care for these population. Rigid clinic schedules and non-friendly services affect access to healthcare with certain populations affected more than others. This finding resonates well with the identification of access to health care by patients and key informants as a priority social determinant.

Lack of linkage mechanisms points to absence of policy guidelines defining roles and mechanisms of interaction between the health system and community structures. The Uganda National Social Protection Policy promulgated in 2015 gives direction on social risks related to age, gender, employment, disability, poverty, health, HIV/AIDS, and disasters [24]. Key services promoted by the policy include child protection, care for older persons and the community-based chronically sick. rehabilitation for persons with disabilities, and mitigation of gender-based violence. Actors such as United Nations Children Fund (UNICEF), World Vision. World Food Programme (WFP), and some projects operate at national or subnational level to compliment government social effort initiatives such as the Social Assistance Grants for Empowerment (SAGE) programme for older persons and vulnerable While households. these opportunities exist, absence of clear policy guidance makes it difficult and challenging for health workers to engage and collaborate with community and social services organisations on issues related with social determinants in clinical practice.

Infrastructural constraints are important because activities such as counselling patients, meetings and organizing workflow require sufficient working space and tools such as filing cabinets, computers, and furniture. These vital inputs are usually in short supply and in some cases are not available in many hospitals in Uganda [25]. Shortage of space and working tools is further aggravated by inadequate financing which also impedes other activities such as outreaches, media engagement, and assistance to patients with social needs. In addition, poor planning and organisation at hospital and departmental level may lead to wastage of resources and has implications on the use of limited resources and it is therefore important for hospital administration. departmental heads and team leads to adequately plan and organize their services appropriately.

Absence of appraisal systems and feedback mechanisms point to a gap in monitoring and evaluation of the actions, processes, and systems regarding integration of social determinants into

clinical practice. This undermines the ability of hospitals and departments not only to review the strategies and actions for identifying and addressing patients' social risk factors but also to undertake corrective actions and continual improvement efforts. Low of adoption of integration strategies is a concern as it implies a weak practice regime, absence of supportive systems and enabling processes, and lack of working tools for health workers to identify, address and manage social risk factors of their patients. A weak practice regime in the hospital implies that there is no consistency in assessing patients for social risk factors and addressing the identified social risk factors. Similarly, absence of a support supervision system and policy guidelines, and lack of screening tools at point of care can adversely affect the ability of health workers to identify, address and manage social risk factors, as well as the need for universal screening for social risk factors of patients.

The findings in this study on facilitators to integration were similar to highlighted in literature include availability of communitybased social support services, training health workers about integration of social determinants into clinical practice, providing information to community-based health workers about resources, and availability of trained social workers [8]. The other facilitators highlighted in literature such as innovative approaches such as food vouchers and community walking trails, screening by organisations, evidence-based guidelines, condition-specific checklists, and population data [22], were not observed in this study. This is attributed to differences in tools and study settings. The findings underscore the importance of training health workers on how to patients with respect to engage social determinants and availing information to health workers about community resources. The elucidated current studv facilitators not previously identified such as appraisal system for social determinants of health; child, youth, and elderly friendly services; home care department; regular clinic audits; counselling services; annual client satisfaction surveys; and access to public media facilities.

### **Conclusion and Recommendations**

## Conclusion

The study revealed barriers and facilitators at patient, health worker, organizational, community, system, and resource levels.

### Recommendations

Hospital administrators should create a support environment for health workers including availing heath workers with a directory social service providers in the community, developing and using appraisal tools focusing on integration of social determinants of health, and setting up a clear referral system to the social service providers. The Ministry of Health should provide policy support including developing policy and operational guidelines for linkages between the health system and other social services.

### **Ethical Considerations**

The study was approved by the research and ethics committee of Makerere University School

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of Health Sciencies, the National Council of Science and Technology was duly informed, permission to conduct the study granted from the respective hospitals, and written informed consent was obtained from the participants. Data was presented anonymously using data masking.

### Limitations

While in-depth interviews helped in clarifying and interrogating views of the key informants it was not possible to eliminate selfreport bias among the key informants due to limited control on cognitive processes, social desirability, and survey conditions.

### **Conflict of Interest**

The author has no conflict of interest with respect to this study.

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