Mental health in Zimbabwe: a health systems analysis

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There has been little external analysis of Zimbabwe’s mental health system. We did a systems analysis to identify bottlenecks and opportunities for mental health service improvement in Zimbabwe and to generate cost-effective, policy-relevant solutions. We combined in-depth interviews with a range of key stakeholders in health and mental health, analysis of mental health laws and policies, and publicly available data about mental health. Five themes are key to mental health service delivery in Zimbabwe: policy and law; financing and resources; criminal justice; workforce, training, and research; and beliefs about mental illness. We identified human resources, rehabilitation facilities, psychotropic medication, and community mental health as funding priorities. Moreover, we found that researchers should prioritise measuring the economic impact of mental health and exploring substance use, forensic care, and mental health integration. Our study highlights forensic services as a central component of the mental health system, which has been a neglected concept. We also describe a tailored process for mental health systems that is transferable to other low-income settings and that garners political will, builds capacity, and raises the profile of mental health.

Introduction

Mental, neurological, and substance use disorders account for between 7–4% and 13% of disability-adjusted life-years and are the leading global cause of years lived with disability.1,2 However, mental health receives less than 1% of health-care funding in many low-income and middle-income countries (LMICs),3 in which up to 98% of patients with mental illness can go untreated.4 Challenges to maintaining mental health services in LMICs include funding and workforce shortages,5,6 supply chain issues with psychotropic medications,7 stigma,8 outdated or inadequate mental health policies,9 and controversy over culturally appropriate diagnosis and treatment.10

Strong health systems are needed to tackle the burden of mental illness.11 A health system is “the sum total of all the organizations, institutions, and resources whose primary purpose is to improve health”.11 According to WHO, health systems strengthening is a priority for global health, and systems analysis is a key first step.11 Health systems analysis identifies bottlenecks and weaknesses in health-care delivery to generate cost-effective, policy-relevant solutions that build on existing structures.11

There are countless examples in global health where health systems research has fundamentally changed the delivery of health care. Researchers in Zimbabwe, for instance, identified suboptimal uptake of provider-initiated testing and counselling for HIV in children.12 By use of mixed methods, they identified several system-level barriers to uptake: children were often brought to the hospital without an appropriate caregiver; health-care workers were uncertain about consent requirements for testing; and long waiting times and lack of stock of testing kits created logistical barriers. In response to these findings, the team worked with the government to implement programmatic changes, including switching to a strategy of routine opt-out testing, training health workers about who can consent for children to be tested, and updating guidelines on consent. With these changes, uptake improved from 71% to 95%.13

WHO has proposed several frameworks for assessing health systems, such as Building Blocks14,15 and the Innovative Care for Chronic Conditions Framework.16 Additionally, several large research and capacity building consortia, in collaboration with WHO, have used a health systems approach to analyse and strengthen mental health services in LMICs.17–21 Broadly, all these frameworks examined common health system building blocks, including services, workforce, information systems, resources, financing, and governance.16 These groups concluded that the most robust mental health systems were those that were effectively integrated into primary care and other services and used broad, system-level analyses to structure transitions to a more integrated model of service provision.17

Zimbabwe is a country with a historically vibrant community of mental health researchers who helped kindle the broader global mental health movement.22,23 On this basis, with increased mental health funding opportunities in recent times, Zimbabwean researchers have been able to make substantial progress. Their studies have explored interventions for depression in people living with HIV/AIDS,24–26 task shifting (ie, delegating health-care duties usually done by specialised staff to less specialised or non-specialised staff) for common mental disorders,27,28 traditional healing,29 and training and capacity building.30 However, there has been no system-wide research on mental health services in Zimbabwe since the 1980s.31 During the past decade, the strain of a hyperinflationary economy has had negative consequences on health services in the form of decimation of infrastructure, supply chain challenges, worsening access to services, and the so-called brain drain of health-care professionals (ie, skilled health workers seeking opportunities outside the country, in other fields, or in the private sector).32,33,34 Furthermore, major economic turmoil and the resulting social stress might increase the burden of mental illness.34 In a recent subanalysis, we found that mental health advocacy was a crucial and desired component for Zimbabwean stakeholders.35 Despite this
finding, the broader evidence base for advocacy has been inadequate. This study aimed to address this gap by providing an overview of public mental health in Zimbabwe, with emphasis on understanding what structures and services exist, how they are interrelated, key challenges, and opportunities and priorities for future action. These system-level findings could inform the work of researchers, policy makers, and advocates in Zimbabwe and other low-income settings where similar challenges and opportunities exist.

Methods
Setting
Zimbabwe is a landlocked country in sub-Saharan Africa with a population of 15 million. The broader health system has been decimated by economic and political turmoil and the major focus is on HIV treatment and prevention. No comprehensive studies have examined the burden of mental illness; however, small studies on depression estimate a prevalence of 15–30%, with a particularly high burden in women. Although these estimates are high, similarly high rates (e.g., 21% in Uganda) have been reported in other LMICs. WHO reports an alcohol consumption rate of 5.7 litres per person per year (similar to the average in the WHO African region of 6.0 litres per person per year) and a suicide rate of 16.6 per 100,000 people compared with 3.0 per 100,000 people in neighbouring South Africa.

Study design
Emerald is a mental health system strengthening consortium working in six LMICs. We chose to adapt their national-level needs assessment methods for our study because these tools, created by experts from leading institutions including WHO, generate in-depth system-level data about mental health services. Our team’s contextual understanding and experience in iterative qualitative methods allowed us to adapt these instruments to the Zimbabwean setting and make them amenable to generating open-ended, novel data. We collected data between Jan 5, 2013, and Nov 30, 2015, and analysed only data that were available during this period.

Contextual information about mental health services
Through meetings with officials, practitioners, and other key stakeholders, we collected publicly available background information about public mental health care in Zimbabwe. We documented the numbers and types of health-care workers in the mental health workforce, cross-checked these lists with other local sources, and compiled a list of currently operating mental health facilities (appendix pp 6–7).

Policy analysis
Although several policy analysis tools exist, we used the Emerald policy checklists because they had been used in other sub-Saharan African countries were tailored for mental health; and were designed to be used in concert with other Emerald tools, allowing us to maintain uniformity and completeness across our data. One member of the research team (KK or HJ) read each document and completed the checklists. Other members of the team reviewed the checklists to ensure that they were completed correctly. The wider policy environment was examined via qualitative interviews.

Qualitative interviews
We adapted an interview guide for national-level policy makers and planners from the Emerald Consortium. The interview guide included open-ended questions about the following areas of the mental health system: law and policy, coordination and consultation, financing, integration, human resources, monitoring and evaluation, and quality assurance and ethics. These methods have been described elsewhere and are further detailed in the appendix (pp 1–4).

Before the study, we obtained ethical approval from the Medical Research Council of Zimbabwe, the Joint Research Ethics Committee, and the Icahn School of Medicine Institutional Review Board. Before each interview, the interviewer described the study to the participant in plain English or Shona and obtained written consent.

Results
Study sample
We interviewed a range of leaders and national-level stakeholders in mental health, including policy makers, administrators, providers, and researchers (30 participants; appendix p 5), between Jan 5, 2013, and Nov 30, 2015. The interviews revealed five themes that are key to mental health service delivery in Zimbabwe: policy and law; financing and resources; criminal justice and forensic services; workforce, training, and research; and beliefs about mental illness. Illustrative quotations are provided in panel 1. The following sections are structured on the basis of information from the qualitative interviews and enriched with publicly available data and policy analysis if available.

Policy and law
We have summarised documents governing mental health care by use of criteria adapted from checklists used by Emerald for assessing mental health policies in other LMICs (table). Most interviewees were aware of the existing policies and laws. Three ideas emerged in their discussions: lack of implementation, a need to update the older policies, and minimal consultation of stakeholders in policy formation. The overwhelming concern of all participants was that policies were never fully implemented, generally because of human and material resource constraints. Participants also highlighted that policy creation and revision was not a resource-neutral
process. They explained that the government did not have adequate funding and technical resources to complete policy revisions, which requires funding for meetings, public consultation, and printing.

Communication was poor in the policy-making process and some stakeholders, especially patients and providers, were not adequately consulted. For example, psychiatrists said that a set of treatment protocols created by the Ministry of Health and Child Care in collaboration with WHO were written without adequately consulting psychiatrists. This oversight led to delays in the dissemination and implementation of the protocols because psychiatrists felt that the protocols were inaccurate and needed several corrections, which were submitted and ultimately reflected in the final document. Regarding the involvement of patients, the Zimbabwe

Panel 1: Illustrative quotations for the five key themes in mental health service delivery

Policy and law
"I think it was in the Mental Health Policy. I last saw it 2 years ago. I tell you if you are going through it, it’s a brilliant piece of paper with brilliant ideas and brilliant things… Policy is very good but it all comes back to the implementation of what is on the paper…[The authorities say:] ‘We are not allocated enough budget from the treasury. We do not have enough money’… That’s the same excuse every time. budget.” (Participant 10, psychologist)

The current Mental Health Act is actually outdated because according to WHO any policy or legislation should be reviewed every 10 years and this Mental Health Act was launched in 1996. So obviously it expired in 2006 and we are almost going to 2016, which will be 10 years...so it’s outdated. We have been advocating to review it but finances are not coming.” (Participant 14, policy maker)

Financing and resources
“So that’s the challenge of medication: one, short supply; two, old generation [drugs], which have a lot of side-effects... and can lead to medication default... Most [patients] relapse because there are no drugs.” (Participant 4, psychiatrist)

You can have huge sums of money going into HIV and huge sums of money for cancer because these are killing diseases. But for mental health because maybe it’s presumed it doesn’t kill so maybe people [don’t] give [mental health] enough attention.” (Participant 10, psychologist)

Criminal justice and forensic services
"Here the police come direct and say, ‘Sister, inject that person... it’s none of our business... he is mad. We will leave him here.’” (Participant 16, mental health nurse)

“I mean it’s an embarrassing backlog: you would find somebody sitting in prison for 10 years and they are still waiting for that mental health assessment.” (Participant 18, policy maker)

“That relationship [between the Ministry of Health and Ministry of Justice] is not good because there is this misunderstanding about who is responsible for the mental health division in the prisons.” (Participant 2, psychiatrist)

Workforce, training, and research
“...the strength is knowledge and skills of existing professionals. I tell you, we have experienced and skilled people who have got a lot of knowledge, brilliant ideas, but the implementation of those ideas can be limited because of funds.” (Participant 10, psychologist)

“The biggest challenge really is the manpower services because we are saying the structures are laid but there are no personnel to actually occupy those.” (Participant 11, administrator)

“Most of all I think what is needed is, first the baseline research. A very carefully thought-out strategy that builds on what existing resources there are.” (Participant 15, non-governmental organisation worker)

“A lot of work also needs to be done in terms of research and establishing the facts... As an advocate you really need to be very much well based in the issues that you will be advocating for.” (Participant 6, non-governmental organisation worker)

“The traditional healer...is already...working with the people at community care level with mental illness...so...the western-trained person [should] train the traditional healer to identify people who are at risk at [the] community care level.” (Participant 1, physician)

Beliefs about mental illness across the sectors
"Instead of leaving mental health to stand on its own, it should be integrated just like we are talking [for] HIV. We should also say HIV, TB, add it to mental health...even reproductive health, be integrated just like we are talking [for] HIV. We should also say HIV, TB, add it to mental health...even reproductive health, add mental health so that probably it eases the burdens... But today there has been verticalisation of programmes.” (Participant 18, policy maker)

“That’s why you find that many of our patients here are shunned. Once they suffer mental illness no one wants to take responsibility because they feel like probably the spirits are there, or something, so if I take responsibility that same thing will come to me as well... Some just come and dump their relatives and disappear. They give wrong phone numbers and wrong addresses and they disappear for good because they don’t want to have anything to do with this person anymore.” (Participant 1, physician)

“In our setting, you find people think that mental health is due to spiritual things more than they think it’s a medical problem. That’s why even in private practice, when you see a patient coming, he is actually afraid to see a psychiatrist. Because they would rather go to a prophet or other people.” (Participant 20, psychiatrist)
National Association for Mental Health, a leading local non-governmental organisation that has been advocating for the inclusion of service users in policy formation, was not consulted in the writing of the Mental Health Strategy in 2013.

**Financing and resources**

Although efforts were made to deinstitutionalise mental health in the 1980s, no facilities or community services were created for care of patients with chronic mental disorders. Only two non-governmental organisations are dedicated to mental health in vulnerable populations, one that provides mental health care for victims of torture and another focused on advocacy and rehabilitation services. These organisations rely on funding from international organisations such as USAID and provide services primarily in several small facilities outside Harare in northern Zimbabwe.

Most government funding is allocated to public mental health facilities (figure and appendix p 6), which submit annual budgets to the Department of Mental Health Services at the Ministry of Health and Child Care via the provincial medical director for their respective districts. The Ministry of Health and Child Care submits a final
budget to the Ministry of Finance, which is ultimately responsible for allocating funds for health.

Participants overwhelmingly believed that funding allocation for mental health care was insufficient and inequitable and had worsened because of Zimbabwe’s economic downturn. Administrators struggled to communicate their mental health budget justifications to national-level decision makers, who viewed other areas of health care (such as HIV, tuberculosis, or malaria) as more important. Additional funding in areas such as HIV and tuberculosis allowed government-health-worker salaries to be augmented, aiding recruitment and retention. Funding priorities suggested by participants included increased salaries for mental health workers, expansion of rehabilitation and chronic care facilities, and improving the supply of psychotropic medications (panel 2).

Some psychiatric units had been closed down or were non-functional because of inadequate resources. For example, Sakubva Hospital in Mutare was closed because the building was condemned and there was insufficient funding to repair it. Although psychotropic medications are technically available for free in the public sector, many facilities do not have a steady supply chain for the three main drug classes (antipsychotics, antidepressants, and mood stabilisers), even though these drugs are available in Zimbabwe to paying users in the private sector. Health-care workers often used one or two medications to treat a wide range of psychiatric disorders, because these were the only medications available.

Criminal justice and forensic services

Many participants explained that if a law enforcement official determines that a person who has committed a crime is mentally ill, that individual will be tried before a judge who will decide whether or not to sentence him or her to Mondolozi or Chikurubi: facilities termed in policy as special psychiatric institutions for the care and custody of offenders with mental illnesses. The Zimbabwe Correctional and Prison Services, a branch of the Ministry of Justice, governs these facilities. Participants were uncertain whether forensic patients should be managed by the Ministry of Justice or the Ministry of Health and Child Care and believed that coordination between these two ministries was limited. There are three forensic psychiatrists in Zimbabwe, two of whom only work part-time in the prison system. Two bodies are responsible for upholding the rights of these patients: the Special Board and the Mental Health Review Tribunal. The Special Board reviews patients who the mental health-care team at the facility deem fit for reintegration into society and then refers them to the Mental Health Review Tribunal. The Tribunal, which regulates the legal welfare of forensic patients, is supposed to review every case within 30 days of detainment, and ultimately determines a patient’s release date.

Nearly every respondent voiced concerns about human rights in the forensic system and spoke about the centrality of forensic care within mental health services since this system houses a large proportion of patients requiring chronic care. Participants working in the forensic system noted that police officials often did not correctly complete the appropriate paperwork to commit an offender who is mentally ill. Consequently, missing or inaccurate documents could prolong the pre-trial holding period. Participants were also concerned about the low frequency of meetings and inaccessibility of the Mental Health Review Tribunal, which reviews patients for release. Without frequent meetings, patients in the prison system often stay far longer (sometimes several years) than the official review period of 30 days.

Some participants felt that the paucity of chronic care facilities might have contributed to the additional burden on the forensic system because patients with chronic disorders who have no community-based care might be charged with minor crimes, such as petty theft, and then be arrested and admitted to Chikurubi or Mondolozi. According to respondents, forensic facilities were substantially under-resourced. Patients lived in very overcrowded holding cells with unhygienic living conditions, a high prevalence of sexual assault and HIV transmission, minimal access to psychotropic medications and psychiatric care, and little food. The Ministry of Justice, together with Médecins Sans Frontières (MSF), began a project at Chikurubi Prison in 2013 to provide mental

![Figure: Public mental health facilities in Zimbabwe](image-url)
health care and material resources, such as food and blankets.

Workforce, training, and research
Since the mental health workforce was primarily trained at local academic institutions that performed research, many participants working in this part of the system had substantial overlap between education and research. On the basis of data from national registries in 2016, there were 17 psychiatrists, 25 clinical psychologists, 463 psychiatric nurses, and 150 occupational therapists registered in Zimbabwe. The actual number of providers in the Zimbabwean workforce is generally lower. For example, of the 17 registered psychiatrists, only 14 work in mental health care in Zimbabwe. 12 of the 14 psychiatrists are based in Harare, leaving most of the country without access to specialist care. The country’s 2014 directory of private mental health practitioners lists 26 private clinicians (unpublished). However, only one psychiatrist and two clinical psychologists work in full-time private practice. Prices in the private sector are typically high (for instance, one psychiatrist charges US$150 per hour) and unaffordable for most of the country’s population.

Because of cultural beliefs surrounding the causes of mental illness and the paucity of public mental health care, traditional and faith healers are often the first providers that individuals or families with a mental health concern consult for help. Zimbabwe African National Traditional Healers’ Association and Traditional Medical Practitioners Council govern traditional healing services. Some patients also consult faith healers, who, unlike traditional healers, are associated with specific churches.

Although participants noted that there were not enough mental health workers, they praised the current mental health workforce for being skilled and motivated and for working well in care teams. Respondents raised three concerns about the workforce: communication, retention of trained providers, and a health worker hiring freeze.

Although members of the mental health workforce work well together, they do not communicate well with other health-care workers, such as primary care doctors or traditional and faith healers. This shortcoming creates duplication of services and incompatible treatment plans from different providers. Siloing (when stakeholders in one part of a system isolate their activities from stakeholders in another part of the system) also occurred between researchers and practitioners.

The brain drain of health-care professionals has been a persistent problem in Zimbabwe and many LMICs; however, within the past decade, this trend has increased in Zimbabwe because of the economic instability. Although many nurses have been trained in mental health, a large proportion have not stayed in this field or have taken jobs at non-governmental organisations for higher salaries. Stigma and poor compensation make psychiatry the least popular specialty among Zimbabwean medical school graduates; however, an initiative funded by the National Institutes of Health has improved incentives for trainee psychiatrists, such as research funding, external mentorship, and opportunities to travel to further training.

According to participants, the government instituted a hiring freeze for health-care workers in 2012. Since that time, many psychiatric nurses have been diverted to
other areas of care such as HIV and their roles in positions in mental health have been left empty. Several job positions in psychiatric wards at regional hospitals have been assigned for hiring in accordance with the country’s mental health strategy, but no funding is available for their salaries.

Several research programmes and training opportunities exist (appendix p 7). Most notably, the Friendship Bench, a task-shifting intervention for common mental disorders, has been scaled to more than 70 primary health-care sites nationwide in a cluster-randomised controlled trial funded by Grand Challenges Canada.18

Researchers, clinicians, and non-governmental organisation workers noted that mental health research was a strength for Zimbabwe; however, several practitioners called for better dissemination of findings and more data and evidence about mental health care in the country. Participants were able to identify several key priorities for future research (panel 2).

Beliefs about mental disorders

Many interview responses focused on the impact of politics and the economy on the prevalence of mental illness, cultural interpretations of mental disorders, and the pervasiveness of stigma surrounding mental illness. Some researchers and non-governmental-organisation workers believed that the burden of mental illness was unusually high in Zimbabwe because trauma and political violence, together with financial stress from the economic climate, have fuelled the prevalence of depression, anxiety disorders, post-traumatic stress disorder, and suicide. Clinicians also felt that, in recent times, the burden of substance use disorders (especially alcohol and several illegal energy drinks with unknown, unregulated ingredients imported from neighbouring countries) was rising in both urban and rural settings and that they were not well prepared for clinical work in this area because of a paucity of training and available treatments. However, there was great interest in research about substance use disorders from ministry officials, researchers, psychiatry trainees, and practising clinicians. Many respondents called for additional inquiry into prevalence and management of substance use disorders in the country.

When discussing the causes of mental disorders, respondents noted that many people in the community, although not the respondents themselves, thought mental illness had a spiritual cause. Some participants believed mental health was highly dependent on cultural context and that mental illness should be viewed contextually by obtaining collateral information from family members during treatment. Local idioms for mental distress, such as “kufungisisa” (thinking too much) and “mooyo unorwadza” (burdened heart) were regarded by participants as far more prevalent than classic symptoms seen in high-income countries, such as depression, anxiety, or sadness. All participants noted that stigma surrounding mental illness continues to be a major challenge. In addition to affecting help seeking, it prevents individuals with mental illness from integrating into the community, particularly after an inpatient hospital stay. To help tackle stigma, participants, particularly practitioners, explained the importance of advocacy, clear communication with family members about a patient’s care, and promoting community-based mental health services. For example, as part of the Mental Health Strategy, many mental health facilities were allocated a post for a public relations officer, whose job description includes community outreach and contacting willing family members of patients. However, these posts, deemed non-essential, have not been filled because of insufficient funding.

Discussion

To our knowledge, this is the first in-depth study of the Zimbabwean mental health system in nearly three decades.13 Since then, some strengths have anchored the system. We identified several facilities dedicated to mental health and a motivated, skilled workforce. Substantial progress has been made in terms of mental health laws and policies, which were standalone (rather than part of broader documents) and fairly up-to-date relative to those seen in the 1980s and those currently seen in many other LMICs.11,12,44–46 Despite these successes, resource constraints and communication and coordination challenges emerged as cross-cutting themes and were barriers for policy implementation and service provision. These challenges were most pronounced in the forensic system: another central issue across our data. We discuss lessons learned from and limitations of our work and explain how we have used our research for advocacy.

Resource shortages

In view of the country’s recent economic instability, resource constraints have been particularly detrimental for the Zimbabwean mental health system, even relative to other LMICs.11,13,44 These constraints affected medication supply chains and policy implementation, and created workforce challenges. Access to psychotropic medication is a core component of strong mental health systems; however, supply and demand side issues are prevalent in low-income settings.47 Aspirational policies (eg, provision of free psychotropic medication in the public sector) were difficult to implement in Zimbabwe because of few resources. Policy makers had little funding for creating diverse steering committees, technical assistance, and associated expenses needed to draft and disseminate new policies. Similar findings have been described in South Africa,19 underscoring that policy formation and implementation are not resource-neutral interventions in low-income settings. Finally, low salaries, minimal incentives, and adverse working conditions have made it difficult to recruit and retain health-care workers and to maintain an equitable treatment base.
distribution across the country. The Global Health Observatory shows 0-08 psychiatrists per 100,000 people in Zimbabwe, which is consistent with our findings and is typical for most countries in the region.\textsuperscript{12-14} Similar workforce challenges were identified in Ghana\textsuperscript{15} and other sub-Saharan African countries,\textsuperscript{4,24} but these challenges have been intensified in Zimbabwe by the adverse economic and political climate.\textsuperscript{10} Human and material resource constraints increase the urgency for development of community-based interventions that build capacity among non-specialist providers, an area where Zimbabwean researchers have quickly reached substantial scale.\textsuperscript{7,28} Concurrent work establishing the effectiveness of lay health workers for delivering interventions for depression and anxiety has been successful in Pakistan,\textsuperscript{16} India,\textsuperscript{17} and several other LMICs.\textsuperscript{4,56,37,38} In Uganda, group interpersonal therapy has been another successful approach for overcoming workforce gaps.\textsuperscript{39} These interventions are transforming mental health services in low-resource settings and should continue to be prioritised by researchers and funders.

**Communication and coordination**

An issue that cut across themes was poor communication and coordination between stakeholders and institutions and with the community. Our findings parallel those from South Africa where collaboration was poor at the district level and with the justice sector,\textsuperscript{40} making it difficult to intervene on forensic services.

**Panel 3: Lessons learned from our work that are transferable to other low-income settings**

- Mental health systems data collection and analysis is not a one-size-fits-all process. Tailored methods, based on existing frameworks but iteratively adapted by experts with deep contextual understanding, can elicit novel findings that can help pave the way for future change. Triangulating publicly available quantitative and contextual data with policy analysis and rigorous qualitative methods increases the utility of any of these components alone.
- Performing health systems research can help build networks and capacity. By approaching and involving stakeholders at every corner of the system, it is possible to develop key partnerships for advocacy and system change. Health systems research also strengthens communication throughout the system and builds capacity among local researchers.
- Diverse research teams are best equipped to study mental health systems. Team diversity builds capacity in conducting health systems research and increases the validity of findings. We believe that ideal teams should include:
  - Members from multiple disciplines and areas of practice, including research and policy experts and practitioners.
  - Local researchers familiar with the culture and context, and international members able to provide comparative input.
  - Early-career and experienced researchers.
- Broad, ethical, and iterative dissemination of health systems data is essential. Health systems data should be shared widely, as soon as it is available. This strategy allows for cross-checking of facts, gives stakeholders evidence of where to make change in their practice, and increases the profile of mental health by highlighting areas for discussion.

General medical providers rarely communicated with mental health workers, and received only minimal training in mental health. Thus, poor communication and coordination have made it difficult to integrate mental health care into other health-care settings. Findings from other sub-Saharan African countries have shown that integration can be challenging,\textsuperscript{41} and that education and strong communication channels with district-level coordinators are crucial for achieving well-integrated and decentralised mental health-care systems.\textsuperscript{42}

Poor communication and collaboration also hinder community engagement because providers and planners tend not to involve service users or their family members in policy making or advocacy.\textsuperscript{43} These obstacles are pervasive and require future work in LMICs, where strong community mental health services are key for closing the mental health treatment gap.\textsuperscript{44}

**Forensic services**

Across our data, forensic care was a primary means for service delivery for those requiring chronic care and an area with concern for human rights abuses. Conditions for patients with mental illnesses in prisons, although improved after the joint efforts of the government and MSF, remain unacceptable. Since multiple stakeholders and government departments are responsible for offenders with mental illnesses, policy making and implementation for these patients has been fragmented. This issue possibly only came to the fore in our study because Zimbabwe has a relatively developed referral pathway for criminals with mental illnesses compared with other African countries.\textsuperscript{44-47} In LMICs where forensic pathways are less clearly defined, patients with mental illnesses who commit crimes are likely to be equally as neglected. This situation combined with political barriers, probably explains the dearth of literature on the topic.\textsuperscript{48-50} In view of the bureaucratic and legal challenges to understanding this important component of mental health systems, researchers and policy makers in the region must prioritise future inquiry into prison mental health.

**Applications for practice**

In Zimbabwe, our study created dialogue about mental health. We found that the data collection and dissemination process, including the stakeholders’ meeting and subsequent policy meetings, gave rare opportunities for people who were interested in mental health to voice their opinions. Our findings will provide current information for practitioners and policy makers and identify priority funding areas and key gaps for future research. Many of the gaps exist in other LMICs, which have similar barriers to the implementation of policy and provision of equitable mental health care (panel 2).

There are several lessons from our research process and findings that are generalisable to other settings (panel 3).
We believe that diverse research teams, capacity building, and broad dissemination are key ingredients for high-quality systems research. Additionally, our tailored research process—which triangulated quantitative data from stakeholders, stakeholder meetings, worker registries, and official documents; systematic analysis of policy documents; and rigorous qualitative methods—adds to existing frameworks for collecting and presenting data on mental health systems in LMICs.

**Limitations**

Our research had several limitations. First, it was often difficult to discern the accuracy of information provided by participants. Some participants were guarded in interviews because of concerns about retaliation or the confidentiality of their work. We worked to resolve this by cross-checking opinions with written reports and the views of other respondents and by holding a stakeholders’ meeting. Second, our study did not include service users, a group that is too often marginalised from discussions about challenges and priorities within mental health. In view of the ethical challenges posed by conducting qualitative research with vulnerable populations (such as some people with mental illness), we believed that a preliminary study to understand the mental health system was essential before designing a tailored, sensitive interview guide for completing thorough interviews with a range of patients. Because service users might have a range of perspectives, we do not believe that including one or two service user voices (as would have been appropriate in the context of a broad study such as this one) would have adequately conveyed the depth and diversity of experiences. Finally, this study was limited by how quickly the Zimbabwean mental health system was changing. Some of the data we obtained became outdated during the 3-year data collection period (eg, the number of mental health workers); however, we have striven to provide information that is correct at the time of publication.

**Progress since this study and research as advocacy**

There has been some progress since our data collection. For example, the government, in collaboration with MSF, has worked in Harare to reopen a large acute psychiatric ward and provide forensic psychiatric services at Chikurubi. Despite the challenging political and economic climate, these recent successes are testament to the resilience of the Zimbabwean health system.

Since the study closed, our team has disseminated our findings broadly. We wrote a summary report of our findings and a series of targeted policy briefs. On the basis of a stakeholder analysis, we contacted and met with many of the participants and other key personnel in health services in Zimbabwe to present these documents, describe our findings, make recommendations, and obtain further feedback on the study. We realise that there are still many gaps leaving patients with mental illness underserved. By building trusting relationships and engaging the very people who can take action on the basis of our findings, we hope this dissemination strategy will help to raise awareness about mental health, combat stigma, and provide ideas and contextual information that facilitates action to strategically close existing gaps in service provision.

**Contributors**

KK, HJ, GT, MS, WM, and DC conceptualised the study. RH was responsible for data curation. KK, HJ, RH, MC, and DM contributed to formal analysis. KK acquired funding. KK, HJ, and DM conducted investigations. KK, HJ, and MS designed the methods. GT, MA, DC, and WM supervised the study. KK and DM wrote the first draft and HJ, RH, WM, MA, GT, MS, DC reviewed and edited subsequent versions of the manuscript.

**Declaration of interests**

We declare no competing interests.

**Acknowledgments**

This project was supported in part by an Alpha Omega Alpha Carolyn I. Kuckein Student Research Fellowship to KK. GT and MS are supported by the European Union Seventh Framework Programme (FP7/2007-2013) Emerald project. The development of the tools used to collect the data for this publication was funded in part by the European Union’s Seventh Framework Programme (FP7/2007-2013) under grant agreement number 305968. GT is supported by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care South London at King’s College London Foundation Trust. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR, or the Department of Health. GT acknowledges financial support from the Department of Health via the NIHR Biomedical Research Centre and Dementia Unit awarded to South London and Maudsley NHS Foundation Trust in partnership with King’s College London and King’s College Hospital NHS Foundation Trust. The funders had no role in study design, data collection, data analysis, the decision to submit for publication, or preparation of the report. We would like to thank Alex B Hill for preparing the illustration of mental health facilities in Zimbabwe.

**References**


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Health Policy


