mMoney Remittances: Contributing to the Quality of Rural Health Care

Mirjam van Reisen\(^1\), Harry T. Fulgencio\(^1\), Gertjan van Stam\(^3\), Antony Otieno Ong’ayo\(^4\), Janneke H. van Dijk\(^5\)

\(^1\) Leiden University, The Netherlands
  h.fulgencio@umail.leidenuniv.nl

\(^2\) Tilburg University, The Netherlands
  m.vanreisen@uvt.nl

\(^3\) Scientific and Industrial Research and Development Centre, Harare, Zimbabwe
  gvanstam@sirdc.ac.zw

\(^4\) University of Utrecht, The Netherlands
  fantonyotieno@hotmail.com

\(^5\) SolidarMed, Masvingo, Zimbabwe
  j.vandijk@solidarmed.ch

Abstract. Africa’s rural areas are confronted with an increasing need for quality healthcare. Whilst cities attract the economically active, the rural areas are increasingly a place where young children, women, the elderly, the sick and people with disabilities remain. Financial resources for healthcare to rural areas are stagnating. Mobile phones and mobile money (mMoney) link rural communities with relatives in the diaspora in cities and overseas. Rural communities stretch across borders. The links established constitute, amongst others, information and finance. The hypothesis of this paper is that remittances constitute a means to access and quality of health care services. The hypothesis is researched through a literature review linking remittances to quality of health care in underserved areas and observations in a health care facility in Zimbabwe. It is found that remittances link positively to quality of health care. This article argues that remittances have the potential to facilitate the access and availability of health services in rural areas and can improve the quality of rural health facilities. It is concluded that healthcare remittance may constitute a sustainable source of financing to increase quality of rural healthcare in Africa.

Key words: healthcare systems, remittance, rural community, mobile money, mMoney, person to person remittance, East Africa, Zimbabwe, rural healthcare
1 Introduction

The stability of the resources that the African diaspora share within their extended families and their effectiveness to sustain activities in regions to which they relate, are becoming recognised as a significant source of finance that can sustain operations in vulnerable areas. Remittances from the diaspora is an important source of external financing for social development in so-called developing countries [1, 2]. Remittances do not necessarily sustain economic development [3]. However, some argue that social development is a component of economic development [4]. This paper makes no distinction between social or economic development, but rather sponsors remittances as being a significant factor in development work.

Remittances, as a source of out-of-pocket expenses, cover direct costs for patients is labelled in this article as healthcare remittance. This kind of direct support is useful to the receiving community, as

Inflows of cash constitute more than 10 percent of GDP in some 25 developing countries and lead to increased investments in health, education, and small businesses in various communities. [5]

The definition of personal remittances, used for this article, is:

Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from nonresident households. Personal transfers thus include all current transfers between resident and nonresident individuals. Therefore, personal transfers are a subset of current transfers. They cover all current transfers that are sent by individuals to individuals. [6, 274]

Personal transfers include transfers from migrants to family members and any recipient in their home country or individual to individual transfers. Remittances in rural settings are predominantly dependent on mobile phone and money (mMoney) remittance transfers.

There remains a void in the academic discourse, especially on healthcare remittances. This article introduces the potential of the integration of remittances within the systems of rural healthcare, and investigates the potential to increase access and quality of primary health care in low cost settings. This article examines whether remittances positively impact on rural health care in low-income settings. The research carried out for this article includes a literature review of academic articles studying the link between remittances and the quality of health care in underserved areas. An analysis was carried out based on participation and observation in a rural hospital in South–East Zimbabwe.

2 Remittance — Volumes and Trends

Remittances in present times are estimated to be four times larger in volume than Official Development Assistance (ODA). Remittances flow mainly in support of
people in low income settings. The volume of remittances is still expanding. Remittances to developing countries that were officially recorded, totalled US$ 431.6 billion in 2015 [7]. Sub-Saharan Africa received US$36 billion of remittances in 2015 [7]. According to other sources remittances to Africa are higher, possibly due to the inclusions a broader spectrum of remittance channels (see below). Remittances within Africa have also been growing. Such growth in remittances takes place despite the high transfer costs, especially in Africa:

Africa alone, the opportunity is compelling: 120 million Africans receive international remittances worth US$ 60 billion, and of all the world’s regions, migration is primarily intraregional. Despite this, the 10 most expensive remittance corridors are all intra-African. Africans pay the highest transaction fees in the world: 12.4% versus a global average of 8.6%. A 5% reduction in fees could pass on an additional US$ 4 billion to Africans. These high costs have contributed to a rise in informal cross-border remittances (via transport companies and hawala systems). [8, p.50]

Among the top ten Eastern Africa, Horn of Africa and East Africa remittance recipients of 2015 were: Kenya $1.6 bn, Uganda $0.9 bn, Ethiopia $0.6 bn, and Sudan $0.5 bn; and among the top ten senders of 2014 in this region were: Uganda $0.3bn, Kenya $0.2bn, Rwanda $0.1 bn, Tanzania $0.1 bn [9]. East Africa community countries are Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda. Horn of Africa countries are Djibouti, Eritrea, Ethiopia, and Somalia. The relevance of remittances is not just in relation to growth and relevance for social services, but also about its steady growth without volatility.

Remittances are person-to-person transfers and increasingly provide the financial basis for the resilience of communities in many parts of Sub-Saharan Africa. Remittances are part of long-term existing support systems, built upon the traditions of communities and family relationships [10]. These flows critically constitute a personal and private relationship. They should be understood as part of resilience systems in a community-based context. Records and statistics of person-to person-remittance do not take into account the relationship and purpose of the transaction [11]. Remittances are purpose-oriented aimed at supporting well-being. A recent report that recognises the relation between migration and remittances is the World Bank Factbook on Migration and Remittances 2016 [9].

3 Remittance — Channels

In order to study the phenomenon of remittances, it is necessary to identify the remittance channels from the remitter to the recipient.

Remittance channels can be distinguished as formal or informal. Formal channels are regulated. It is likely that in some parts of the world, where mobile phone network coverage remains patchy or their quality is relative low, that well-established non-mobile money remittance such as the utilization of public
buses, or hawala and other informal systems continue to provide for alternative remittance channels. These remittance flows, by their nature, have remained outside the scope of the formal remittance statistics.

Remittance channels can be characterized based on the following criteria [11]:
1. Point of remittance transfer - intermediary in the remitter host country
2. Transfer interface such as Messaging and Settlement Infrastructure, and
3. Point of remittance transfer - intermediary in the recipient home country

As the remittance channels increasingly integrate with the use of mobile phones, there are emerging dynamics that have not been previously accounted for. These opportunities grow exponentially with the growth of popularity and the usage of the mMoney. mMoney is a service that is delivered and consumed by making and receiving payments using mobile phones [11, 12]. This definition has been extended due to the availability of mobile phone applications. Through such applications remitters can avail of the services of money transfer companies [8]. mMoney allows the sending of money from any mobile phone, a channel that proves cost effective and reasonably secure. It is reported that Mobile Banking, on average, can turn out to be 50% cheaper than traditional banking [13].

mMoney is a promising innovation from the perspective of the financial inclusion of people in developing countries. Mobile money services includes: person to person transfer, bill payment, bulk disbursement, merchant payment, and international remittance [8]. As several African regions prepare to adopt single currencies, cross-border payment initiatives are being initiated, for instance in East Africa [14]. Cross-border payment enables simplification and removal of extra transaction charges of remittance. Similar initiatives can be seen in the Ivory Coast and Burkina Faso [15] and by the cooperation of mobile network providers, banks, and other private businesses (this paper).

Remittances within and between African countries have become increasingly important and over the past one or two years these are being linked to international remittance platforms, illustrated in Figure 1 below. The Figure shows a modified diagram of International Monetary Fund remittance channels [11], including services like Azimo, Worldremit, Remitly, and Transferwise. At present, remitters have more option for the transfer of remittances and this growing reality does pave a way to a more comprehensive study about the nature of remittance.

Customers with no access to banks are particularly present in most developing countries. Most people do not have access to a bank or bank accounts due to various constraints [16]. Traditional banks have long offered money transfer possibilities, including for customers who are not registered with the bank. Dedicated transfer companies are Western Union (started 1851, and by 1871 offered a money transfer service), MoneyGram (started 1940), and the United Arab Emirates Exchange (started 1980). Transfer interfaces such as Western Union and Moneygram have dominated the money transfer operations. E-infrastructure channels opened up new possibilities such as Paypal, which started in 1998.

Instrumental for the realisation of the more integrated potential of remittances is the ubiquitous presence and growing usage of mobile phone technol-
Mobile e-infrastructures paved the way for the financial inclusion business initiatives like M-Pesa. M-Pesa’s success can be attributed to serving the unbanked, and a need for cheaper, faster and more efficient means of moving money across great distances, 24 hours a day [18]. The World Bank followed suit and initiated financial inclusion programs bolstering the utilisation of mobile phones [19].

mMoney is a cash transfer service utilizing mobile phones. M-Pesa was created in 2007 [20]. Kenya’s M-Pesa serves about 14 million users, as of 2012 [21]. Its services mainly reach rural or low-income populations. Sub-Saharan Africa is leading the mobile money services in the world, accounting for 52% of the world’s mobile transactions in 2015 [8]. mMoney opportunities have given rise to new business opportunities for financial technology companies and connectivity hubs like MFS Africa. With the growing availability and the technology leapfrog that mobile phones in Africa represent, other companies have started to offer mMoney services too.

New platforms have been developing in recent years: WorldRemit in 2009; TransferWise in 2011; Remitly in 2011; and Azimo in 2012 [20]. These financial technology companies offer a platform to transfer and deliver remittances, amongst others through mMoney. Financial technology money remittance companies have deployed a platform oriented business approach where they offer e-services utilising various transfer interfaces and e-infrastructures. Take for example, WorldRemit, a platform for money transfers run from the United Kingdom. A remitter has four options or transfer interface for sending money to different parts of world. When sending money to Zimbabwe, WorldRemit provides a remitter with four different channel options and remittances can be claimed in different formats. Meanwhile, the remitter is allowed three payments options: debit card, credit card or bank transfer. When sending money through WorldRemit to the United Kingdom, only the option of sending remittances to a bank account is being offered.

In recent years, the financial solutions specifically designed for health care provision utilising mobile phone payments have rapidly increased. The potential use of mobile phones for mobile health (mHealth), eHealth and universal health-
care coverage is gaining recognition [22]. Some examples are: Linda Jamii, Bima Mkonomi, and Airtel Insurance in Nigeria; MTN Nigeria Y’ello Health Insurance Scheme, Tigo Bima in Tanzania; and MTN LifeCare in Uganda [23].

Linking Remittances to Out-of-Pocket Financing for Health

From the literature review and our observations in Eastern and Southern Africa, it is evident that part of household remittance goes to health care. Remittances appear to be a relative stable source of income for household. An examination of the out-of-pocket health expenditure will allow us to confirm the nature of healthcare remittance.

In High Income Countries, health financing is predominantly sourced from the government and only a very small percentage is covered by out-of-pocket costs. Interestingly and alarmingly, in low income economies around 45% of health services costs are carried by out-of-pocket finance while in lower middle income economies it is more than 50% [24]. The World Health Organization puts the world health expenditure of 2014 to be 45.5%. Depicted below in Figures 3 and 4 are the financial flows regarding out-of-pocket expenses and remittances in low income countries from East African Communities such as Uganda, Tanzania Burundi and Rwanda; and in the Horn of Africa such as Eritrea, Ethiopia and Somalia.

4 Impact of Remittances on Healthcare

In many African countries, investments in local clinics, especially in rural areas, are lacking. Facilities are delipitated, lacking personnel, medicine, with little infrastructure and systems to support the work [25,26]. Dissatisfaction with rural health services leads to overuse of centralised services [27]. The fragmentation and decline of rural health services has broken ‘the continuity of care’ in the healthcare provisioning chain, at different levels and undermines the referral system [28]. This leads to centralisation and unnecessary overcrowding at higher levels of health facilities, causing long waiting times and inefficiencies in healthcare provision, or, no provisioning of care at all. A bypassing of primary health facilities is supported with informal payments [29].

The challenging financial basis in many African countries translates into less or erratic government funding for rural healthcare. Other coverages are necessary
Fig. 3. Out-of-pocket Health Expenditure of Selected Low Income Economies (1994-2014, World Bank data: http://data.worldbank.org/indicator/SH.XPD.OOPC.TO.ZS)

Fig. 4. Selected African countries, Personal Remittances Received (currency: US$, 2004-2014, World Bank Data: http://data.worldbank.org/indicator/SH.XPD.OOPC.TO.ZS)

to fund rural health clinics and this affects the economy in rural communities. The challenges include, but are not limited to:
1. people living in rural areas spend more on healthcare – but receive less quality in service (showing in a high levels of Out of Pocket coverage of health care)

2. health care costs can cause debts among low income populations and contribute to a poverty trap

3. health-related expenditures include other costs (e.g. transport) which are not a direct payment for actual health services

4. community inflows like remittances are not directly exchangeable for needed or desired services.

The purpose of this section is to cross-validate our observations with findings in the body of academic literature by associating remittance to impact on healthcare. Given the relationship between under-resourcing of primary health care services and the quality of health care, the authors hypothesised that an increase in remittance contributes to an increase of quality of health care services.

In order to confirm the link between remittances and their impact on healthcare systems, a literature review was performed, using the keywords ‘remittance’, ‘health’ and ‘impact’ in Scopus. Due to the low amount of hits, Google Scholar was used as a supplementary source of literature.

Remittances can improve health outcomes by enabling household members to purchase healthcare services, and support healthcare related costs (like food and transport). Also, more resources can bridge a poverty gap and allow for increased access to information about health practices (Mohapatra Ratha, 2011). In general, remittances directly improves living standards for those in destitute circumstances [30].

Here is a summary of some studies about the relationship between remittance and health. Research suggests that remittances have significant impact on:

- overall child health [31,32] and particularly on child health reduction of infant mortality [31,33–36]
- healthcare services and expenditures (preventive and curative) [35,37]
- household health expenditure [38], and
- individual living standards [39]

The analysis of these studies provide the following overall conclusions:

1. cross country analysis indicate that remittances may only be effective for reducing mortality for children, consistently emphasizing that remittance and not health aid can reduce child mortality [31,40,41], noting that impact may not be evenly divided across society

2. country level analysis indicate a significant effect on the improvement of child health, countries like Mexico [33,34], Swaziland [42], while some country studies indicate that remittance can reduce poverty for countries like Ghana [43], and Guatemala [44]

3. micro level analysis of rural areas such as in Kwazulu-Natal, South Africa, shows that an increase in household resource (e.g. remittance, pension) contributed significantly to improvements of child health, especially male remittance and female pensions [32]. The same dataset from 1993 till 1998
in KwaZulu-Natal confirmed previously that remittance can improve child health [45]. Similar studies have confirmed this positive impact for Pakistan [46], and Swaziland [42].

The literature describing the links between remittances and health care included in this analysis hardly cover topics on vulnerable people for curative care, for instance in an ageing population, or cover those with terminal health condition, like cancer patients, or chronic diseases linked with HIV, nor those suffering of non-communicable diseases.

5 Case-study: Zimbabwe

According to Makina [47, p.2], researching remittances to Zimbabwe, “a migrant remits an average of US$ 40 per month, so that on the basis of a total remitting population of 1 million in South Africa, the total remittance flows could be as much as US$500 million per year from that country alone, representing 10 per cent of GDP”. A high portion of the Zimbabwean population of 14 million is working abroad. Data from the Reserve Bank of Zimbabwe show that the Zimbabwean remittance were US$935 million in 2015, up from US$837 million in 2014 [48]. The diaspora are a significant source of foreign finance inflows in Zimbabwe [49]. In early 2016, in conversation with one of the authors, respondents in remote Chikombedzi in Southern Zimbabwe, estimated that, in their community, 75% of the household income arrives from the diaspora. Rural health care facilities depend on this income and must accommodate the procedures involved in acquiring the income, for the coverage of the user fees.

In Zimbabwe, the Ministry of Health and Child Care (MoHCC) allocated US$301 million to health care, which constituted 6.3% of the national budget (2015 budget). This was a 10% decline compared to the US$337 million allocation, accounting for 8.2% of the national budget in 2014, and even less than the 9.9% allocation in 2013. In practice, real funding might be (much) lower as the Zimbabwean government is experiencing a severe shortage of currency. The majority of the financial resources are used to pay for human resources and management costs in the health care system. For running expenses, apart from incidental government contributions, hospitals and clinics in the periphery primarily rely on user fees to keep functioning [50]. Remittances, therefore, constitute an important source for payments covering patients’ out-of-pocket expenses.

According to the South African technology news site IT-Web, in 2015, WorldRemit claimed that 78% of Zimbabwean adults have sent mMoney transfers, 67% of Zimbabwean adults have received mMoney transfers [51]. At the end of 2015, Zimbabwe had over 12 million mobile users in Zimbabwe with 6.7 million mMoney accounts [52]. The analyses for financial coverage of healthcare systems does not recognize the significance of remittances for healthcare. Below, Figure 6 provides an illustration of process to gather the finance to pay for the healthcare services at the rural hospital.
In Zimbabwe, health care, especially in peripheral settings, are thought to be extremely dependent on remittances. Hospitals rely on user fees to provide health care, charging 'direct user fees' for consultation, admission, treatment and investigation. These are part of the out of pocket expenses of patients, additional to indirect costs like transport and lost income. Despite the clear relevance of remittance funding of healthcare services for less advantaged communities, research on health system financing only gives scant attention to this source of funding.

5.1 A Hospital Case Study

We analysed the situation in a hospital in a rural district in Masvingo Province, in South—East Zimbabwe. An analysis of the out-of-pocket payments for the health services reveal a lack of integration of remittances. Figure 5 shows a simplified scenario that a patient follows, to pay for care related costs. Several actors are not included in the scenario, such as: (a) the government who regulates and intervenes in various way in both the remittance company and the hospital, (b) pharmacy services and companies, (c) insurance companies, and (d) institutional donors. Although, in general the African rural context is dominated by the non-availability of monetary resources [54], mMoney is prominently present and, therefore, instrumental in facilitating the flow of monetary resources for rural healthcare provisioning.

Mediating actors between remitter and recipient play a significant and enabling role in the remittance process. Their processes depend on available e-
infrastructures and regulations that facilitate and provide safeguards for these remittances. The remitter not only sends money, but with the money, the patient communicates on the actual events and receives information, advice and notions of mutual expectations. Such information, advice and other messages interact with ideas originating from the contextual setting of the remitter. In this way, the remitter’s expectations of access, quality and effectiveness of health care services and the assessment of the remitter on what constitutes ‘good health care’ could be influencing the decision-making process of the patients.

Often-times, a remitter will be asked to render financial support as the remitter will be living an area that is more affluent than the person who receives the remittance [55]. It can therefore be construed that the remitter may have access to better quality health care services. The induced understanding of what good health care means could influence how the patient views the services available and being provided. During the interactions of several authors with remitters in the diaspora, keen interests were noted in the decision-making process on the patient’s health care; remitters showed interest in the efficiency of the use of resources remitted; the link between the sender and receiver of the remittance may create an alignment of the remitter with the patient to expect a favourable outcome and the connected engagement of remitter and patients can influence the timing and location of the health care services sought. These expectations can be relative to the perceived availability of ‘good services’. In circumstances where increased remittances may help to create multiple services and health care solutions, an upward pressure for quality may be created by the connected expectations of remitters and patients.

The figure below shows a taxi advertising the services of mobile operators (Cell C, South Africa and EcoNet, Zimbabwe) in facilitating remittances from South Africa to Zimbabwe. It is the texts of the advertisements that tells something about the purpose of remittances. One text reads: ‘Call Home: life and
love have no borders’. This advertisement shows the value that underpins remittances: the intention of unconditional love across borders [56]. Such texts can tell something about the support transmitted with remittances.

The support provided through remittances carries much more than just financial means. It carries a connected responsibility of care for someone’s life, carried out in the context of communal loving. It is in this understanding that remittances can be seen as more than just transfer of financial resources, but carries meaning and desire for access to quality health care. It is this desire to be connected, to express communal responsibility and to be part of a loving community that provides the transformative power through which the access and quality of health care services may be improved.

6 Conclusions

While economic growth and employment in cities and overseas have attracted migrants, the care of the children, the women, the elderly, the disabled, and those generally in need of care is taking place in the ‘home village’ in rural areas.

Mobile phone technology is currently revolutionising remittance transfers in developing countries. This impacts on payments for healthcare among other public and private services. In this paper, the dependency on patients in low income settings on mobile phone transfers using e-infrastructures has been studied. Remittances are an underestimated and significant source of sustainable financial income for rural healthcare in low income settings.
This article examines the relationship between remittances and the volume of remittance streams, and the access and quality of health care in low income settings. Remittances may increase the potential to transform health care in low-income settings in the following ways:

- volume and expansion – remittances are four times larger than ODA and focused on supporting people in low income settings, and are still expanding. Remittances have the potential to fund much-needed investment in rural healthcare infrastructure;

- intended purpose for direct services – remittances directly link to service delivery in priority areas, amongst which healthcare scores high. Remittances have the potential to provide sustainable income for healthcare providers, provided the remitters can reach the healthcare providers directly. This will cut out unnecessary expenditure unrelated to the core of health services and so greater efficiency in service provision can be achieved. An increased availability of resources for health services in rural areas is expected to bring greater confidence in investment for such service provision which in turn will lead to greater choice;

- push potential on quality – the expectations of remitters concerning quality and professional approach to healthcare have the potential to improve the quality of healthcare services through the influence of diaspora experiences with augmented expectations of healthcare standards. As migrants commonly have access to better quality health services, they can expect the same for their relatives who stay behind. The values and expectations of remitters may impact on decisions of patients, and their greater exposure in cities or overseas in quality health provision institutions, may guide the expectations of the quality of healthcare services in rural areas. This will create an upward push for quality and these combined results are expected to help create an upward spiral for improved availability, choice and quality of healthcare services in rural areas in parts of Africa where remittances are embedded in health system approaches.

The private nature of remittances may allow a more competitive approach to services. A key question is whether the increasing volume of remittances may help to diversify services in rural areas. An increased competition of health services would provide an expanded selection of services; which may allow remitters and patients to go for the better service providers in terms of quality/cost balance.

In order to realise the full potential of remittances leveraging improved health services, the role of the remitters should be acknowledged, especially in terms of the impact they may have on the selection, choice and appreciation of services by patients.

A choice-based expanded selection of healthcare services may help to optimise health systems, by providing greater diversity and therefore enhance the possibility of choice. Such a healthy expansion of services associated with healthcare, may help push upward the potential for enhanced quality services in healthcare in low-income African rural settings. Future solutions may consider integrating
remitters in communications with regard to services available and to provide information and explain why these are a good choice for patients.

References


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