

## **Meeting the Millennium Development Goals in Sub-Saharan Africa: What about mental health?**

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### **Abstract**

Mental health is a crucial public health and development issue in sub-Saharan Africa (SSA), a region where little progress has been made towards achieving the Millennium Development Goals (MDGs). In this paper we argue that not only will limited progress in achieving these targets have a significant impact on mental health, but it will be impossible to achieve some of these aspirations in the absence of addressing mental health concerns. We consider the strong relationship of mental health with dimensions of human development represented in the MDGs, including reducing poverty, achieving universal primary education, decreasing child mortality rates, improving maternal health, HIV, environmental factors and improving the lives of those living in informal settlements. With these links in mind, we examine the mental health context in SSA settings and provide some specific examples of best practice for addressing mental health and the MDGs. It is recommended that the role of mental health interventions in accelerating the realization of the MDGs is investigated; further efforts are dedicated to probing the impact of different development projects upon mental health outcomes, and that mental health is declared a global development priority for the remainder of the MDG period and beyond.

### **Introduction**

Mental disorders make up five of the ten leading causes of health disability, and by 2020 it is predicted that unipolar depression will be the second largest cause of disability in the world (Lopez, Mathers, Ezzati, Jamison, & Murray, 2006). In spite of this significant disease burden and the impact of these conditions on the lives of those affected, mental health remains a low public health priority, with more than three quarters of mental illnesses remaining untreated in low and middle income countries (Demyttenaere, Bruffaerts, & Posada-Villa, 2004). The deplorable lack of resources for mental health is particularly striking in African settings: nearly 40% of African states have no allocated budget for mental health and at least 20% do not have mental health legislation in place (WHO, 2005). The long-term neglect of mental health as a public health priority is likely to have a significant impact on the health and well-being of both those at risk for poor mental health, as well as those living with mental illness in this region.

The lack of progress that many sub-Saharan African (SSA) countries have made towards achieving the Millennium Development Goals (MDGs) is widely recognized, with rates of maternal mortality

and child health reflecting little improvement in particular. Some countries, such as South Africa even display retrogressive trends in spite of relatively high levels of health expenditure (Chopra et al., 2009). There has been a great deal of debate about the omission of mental health and other non-communicable diseases from the MDGs, with some advocating for a more holistic approach to attaining the targets, through strengthening health systems to improve the provision of integrated care for physical and mental disorders (Miranda & Patel, 2005), and others suggesting that strategies based in MDG initiatives can be used to achieve other development objectives, such as improving population mental health (Sach & Sachs, 2007). We would argue that mental health is intricately woven into the priority development issues outlined in the MDGs. A lack of progress in achieving the MDGs in SSA will continue to have a significant impact on population mental health, while people with poor mental health are at risk of being excluded from MDG-related programmes. Simultaneously, investments in mental health interventions could contribute to the actualization of the MDGs.

In this article we will review the documented links between mental health and the various dimensions of human development as captured in the MDGs,

assess the progress towards achieving the MDGs in the region in light of this relationship, and discuss best practice examples from which we can learn lessons for moving forward.

### **Mental health and MDG 1: Poverty**

Poverty and mental illness have been linked in several studies in sub-Saharan African and other low- and middle-income countries. Associations have been shown between indicators of poor mental health and lack of employment (Ludermir & Lewis, 2003; Patel et al., 1997; Vorcaro, Rocha, Uchoa, & Lima-Costa, 2004), low income (Ludermir & Lewis, 2003), poor housing (Patel, Araya, de Lima, Ludermir, & Todd, 1999), low education levels (Araya, Lewis, Rojas, & Fritsch, 2003), food insecurity (Sabin, Lopes Cardozo, Nackerud, Kaiser, & Varese, 2003), financial stress (Patel et al., 1998), and higher exposure to life events (Myer, Stein, Grimsrud, Seedat, & Williams, 2008). It has been suggested that the relationship is best perceived as a vicious cycle. In this model, people living in poverty are at increased risk of developing mental health problems due to factors such as increased levels of stress, exclusion, and reduced access to social capital, as well as physical factors such as malnutrition, obstetric risks, and exposure to violence (Patel, 2001). Simultaneously, those with mental illnesses are more likely to slide into poverty due to stigma and exclusion from social and economic opportunities (Patel, 2001), the high cost of accessing treatment, or the loss of employment due to diminished productivity (Saraceno, Levav, & Kohn, 2005). The first causal pathway is sometimes referred to as the 'social causation' theory, and the second as the 'social selection' or 'social drift' theory (Dohrenwend et al., 1992; Saraceno & Barbui, 1997). The combined realities that 75% of people with mental disorders remain untreated (Demyttenaere et al., 2004), and that mental disorders lead to high levels of social and economic disability, mean that there is an ongoing and enormous loss of human potential for social and economic development.

This relationship is particularly concerning in light of the limited progress in income poverty reduction in SSA reported in the recent annual MDGs reports. The 2008 report outlined that unemployment, especially for women, remains high, with the vast majority of those who are employed, in unstable jobs; while a third of children remain underweight (UN, 2009). The 2010 report stated that the recent financial crisis has had an impact on poverty and employment levels across the globe, with 26% of people in SSA remaining undernourished (UN, 2010). Using measures of multiple deprivation, such as the Afrobarometer's scale of 'lived poverty' (or how

often people go without the essentials such as food, water and health care) reveals another concerning trend. This study found that there was a slight overall decrease of poverty in sub-Saharan African countries between 2000 and 2005, but that there were great variations between states surveyed. For example, while lived poverty in Lesotho and Namibia dropped significantly, countries such as Zimbabwe, Nigeria and Malawi experienced sharp increases (Mattes, 2008).

Across the continent the limited recognition at the policy level of the link between poverty reduction and mental health is likely to exacerbate the impact of this relationship. For example, nearly 40% of mental health expenditure in African countries remains out-of-pocket, and employment-related legislative measures to ensure non-discrimination for people living with mental illness are uncommon (WHO, 2009a). More than 50% of African countries have no disability benefits programme in place (WHO, 2005), while those with mental disorders can face exclusion from social security programmes due to the invisibility of their conditions (Lund et al., 2008). In terms of targeting people at risk of developing poor mental health, just over a third of SSA countries report including mental health promotion or illness prevention in their policies (WHO, 2009b), the evidence of implementation of these has not yet been gathered.

Overall, there appears to be limited acknowledgement of the mental health and poverty relationship in African countries, and little to suggest that mental health care users are being protected from sliding into poverty, or that those in poverty are benefiting from targeted mental health promotion or treatment programmes. There are, however, individual best practice cases. For example, BasicNeeds, a non-governmental organization (NGO) working in the SSA countries of Ghana, Kenya, Tanzania and Uganda, has pioneered an approach that combines both mental health care and poverty alleviation. This organization works to empower people with severe mental illness by integrating sustainable livelihood interventions into treatment and care services (BasicNeeds, 2008).

### **Mental health and MDG 2: Universal primary education**

Evidence suggests that increasing levels of education may have a positive impact on mental health through improving one's social status, increasing earning capacity, or by providing protection from mental disorders through optimal brain development during childhood (Araya et al., 2003). There is some African data which appears to support this: a study from

Zimbabwe showed the onset of caseness was associated with low levels of schooling (Todd et al., 1999), while in Ethiopia, there is a decreased risk for severe mental disorders with higher levels of education (Kebede & Alem, 1999). More recently, a study of over 4000 South African adults showed that post-traumatic stress disorder, major depressive disorder, and substance-related disorders were all associated with increased odds of failing to complete secondary education (Myer et al., 2009). On the other hand, a lack of support for learners affected by emotional and learning disorders appears to have an impact on school drop-out. These conditions contribute substantially to drop-out rates, class repetition and poor academic performance (Jenkins, Lopez, & Mubbashar, 2004).

According to the latest MDG report, there has been an increase in primary school enrolment in SSA, with figures reaching 76%, from 58% in 1999 (UN, 2010). On the other hand, in 2006, 41% of secondary school-aged learners were out of school, while a third of this group were still in primary school education (UN, 2008). This indicates a high level of school drop-out, and learners experiencing difficulty moving beyond primary level. It has been suggested that MDG 2 will never be reached without making provision for the large proportion of learners with mental difficulties in low and middle income countries (Patel, Flisher, Nikapota, & Malhotra, 2008). Information about the enrolment and attendance of children with any disability is scarce in low- and middle-income settings, but data from a household survey in 14 developing countries including Burundi, Mozambique, South Africa and Zambia showed that children and adolescents with disabilities were much less likely to be in school than those without disabilities. In South Africa, where disability is significantly associated both with being out of school and low attendance (Fleisch, Shindler, & Perry, 2009), a recent study showed that nearly half the disabled children sampled were not school attenders, and children with mental disability were far less likely to receive rehabilitative services than those with physical disorders (Saloojee, Phohole, Saloojee, & Ijsselmuiden, 2007).

A lack of human resources for mental health, and training of educators in the identification, referral or management of child and adolescent mental health problems pose a significant challenge to improving mental health for this population in sub-Saharan African countries (Kleintjes, Lund, & Flisher, 2010). For example, in Ghana there are no mental health professionals employed in any capacity in the education system (Doku et al., 2008). There is also limited apparent intersectoral collaboration: a recent WHO review revealed that less than half of African countries sampled reported collaboration between

the education department and mental health programme (WHO, 2009a).

There are, however, isolated examples of success from which we can learn useful lessons. From a policy perspective, South Africa's recent Policy Guidelines for Child and Adolescent Mental Health recognizes poor education as a risk factor for the development of mental illness and the subsequent protective effect of involvement in school life. Further, it identifies the school environment as a potential setting for the promotion of positive mental health, early detection and screening of mental disorders and calls for the involvement of the education sector in the provision of support for affected children and adolescents (DoH, 2003). In a further example, Chung, Dalais, and Broadhead (2007) document success in Mauritius in developing an inclusive system which ensures access to education for all children, including those with physical, sensory, psychological and social difficulties. The process involved strategies such as creating a clear policy, setting up an appropriate education system, removing barriers to education, including support programmes in the school environment, implementing screening and early intervention strategies.

### **Mental health and health MDGs: Child mortality, maternal health and HIV**

The variety of physical health disorders associated with poor mental health was extensively explored by Prince and colleagues, leading them to popularize the phrase 'no health without mental health' (Prince et al., 2007). This interaction is particularly pertinent to the some of the major health issues captured in the MDGs, namely MDG 3 (relating to child mortality), MDG 4 (relating to maternal health) and MDG 6 (relating to HIV).

It has been found that women consistently present with higher rates of depression and anxiety than men in low- and middle-income countries (LMIC) studies (Prince et al., 2007). It is possible that the negative poverty-mental health relationship has a more significant impact on women due to gender-specific social factors such as isolation, powerlessness, domestic violence, low education levels and economic dependence (Moultrie & Kleintjes, 2006). Miranda and Patel (2005) argue that child mortality and maternal mental health are linked: poor maternal mental health is associated with a range of negative child health indicators: poor nutrition, stunting, early cessation of breastfeeding, diarrhoeal disease (Adewuya et al., 2008; Rahman, Iqbal, Bunn, Lovel, & Harrington, 2004). The last of these is particularly pertinent to Target 4.3 of the MDGs (to increase the proportion of one-year-old children immunized against measles).

Sub-Saharan Africa's progress in achieving the health-related MDGs has been especially slow (UN, 2009). SSA has the highest rate of child mortality (UN, 2010) and maternal mortality rates decreased only marginally across the region from 1990 to 2005 (UN, 2009). In light of the strong relationship between maternal mental health and child health, it is alarming to note the prevalence of perinatal mental health disorders in some parts of Africa, with studies showing rates between 14% and 41% (Adewuya, Egunranti, & Lawal, 2005; Cooper et al., 1999; Rochat et al., 2006). High levels of maternal substance abuse mean that foetal alcohol syndrome (FAS) is a significant public health concern in countries such as South Africa where 1 in 10 children present with features of FAS in certain areas (Urban et al., 2008).

In terms of Goal 6, there are two pathways through which HIV and poor mental health are linked: firstly, there is an increased vulnerability to HIV through mental illness- or substance abuse-related behaviours, and second, there is a greater risk for developing mental disorders (such as depression and anxiety) following confirmation of one's HIV status (Freeman, Patel, Collins, & Bertolote, 2005). There are also mental health sequelae associated with disclosing one's status to family and friends, providing care to a family member infected with the virus and the death of close family members (Patel, Flisher, Hetrick, & McGorry, 2007). Finally, robust evidence shows the negative impact of poor mental health on adherence to anti-retroviral treatment (Freeman et al., 2005).

The latest MDG report states that SSA is home to 72% of all new HIV infections in 2008, but that there are some indications that prevention programmes are making an impact in the region and that antiretroviral therapy is reaching a larger proportion of people who need it (UN, 2010). There is also, however, growing evidence of co-morbidity with mental health conditions in sub-Saharan African settings. For example, a 2006 Ugandan study showed that 47% of people with HIV were found to have concurrent depressive symptoms, and this morbidity was strongly associated with a low CD4 count (Kaharuza et al., 2006). High levels of co-morbid mental illness have also been recorded in pregnant HIV-positive women: two thirds of HIV-positive Angolan women were found to present with significant emotional distress, which was more than twice that detected in the HIV-free control group (Bernatsky, Souza, & de Jong, 2007). A review of 23 SSA studies looking at this issue found that HIV-positive adults were more likely to experience depression, PTSD, anxiety, psychosis, alcohol abuse and poorer quality of life than those who are not affected (Brandt, 2009).

As can be seen in the examples above, there is evidence that mental health conditions contribute to, exist alongside, and often result from other physical health problems, lending further urgency to the need to develop accessible mental health services that are fully integrated into primary health care systems. In most SSA countries mental health services continue to consist primarily of mental hospitals which are often based in urban areas, and attract a high level of stigma, meaning that access to mental health care services remains severely curtailed. According to data gathered as a part of the Mental Health Atlas Project (World Health Organization (WHO), 2005), at least half of all African countries report having no community-based mental health care facilities. Up to 40% of countries report having no integration of mental health into their primary care services, while a similar figure had no training facilities for primary care staff in mental health (WHO, 2005).

Integration of mental health into broader health services can be successfully undertaken, as is evident in the following two examples, both of which work with mothers in SSA. The Perinatal Mental Health Project in South Africa provides a holistic mental health service at the same place at which women receive obstetric care (Saxena & Garrison, 2004). To date the Project has screened over 6000 pregnant women for mental health problems and many have gone on to receive mental health care at the site. Mothers2Mothers, working in Kenya, Lesotho, Malawi, Rwanda, South Africa, Swaziland, and Zambia, provides an example of an HIV organization that is integrating aspects of mental health into their work by using peer education to address social, emotional and psychological barriers to improved medical treatment for HIV positive mothers.

### **Mental health and MDG 7: Ensure environmental sustainability**

While the mental health implications of environmental degradation are little known or discussed, environmental catastrophes such as climate change and extreme weather events have the potential to pose a significant threat to population mental health, especially for those living in poverty (Fritze, 2008). There is a particularly pertinent link to mental health in Target 11 of this MDG, which relates to improving the lives of those living in informal settlements. Currently, SSA has the world's highest prevalence of slums (UN, 2010). The importance of housing for mental health cannot be underestimated. Structural aspects of housing (Araya, Rojas, Fritsch, Acuna, & Lewis, 2001) and overcrowding (Abas & Broadhead, 1997) have been linked to mental ill-health, while increased exposure to toxins and infection experienced by those living in informal

settlements can lead to developmental delays and epilepsy (Jenkins et al., 2004). Further, the development of mental health conditions can lead to the loss of one's housing through reduced income and stigma in communities, particularly in the absence of a supportive housing agenda for people with mental illness.

There remains, at this time, little in the way of special housing provisions for those with mental illness or community-based residential facilities for people in African settings. Most African countries sampled in a WHO study showed no links with the housing sector, with none having legislative or financial provisions against discrimination in housing (WHO, 2009a).

### To 2015 and beyond

Research evidence from sub-Saharan Africa makes a compelling case for the inclusion of mental health in the MDGs and future international development targets. Moving forward, there are several areas for action. Firstly, we need to increase the profile of mental health as a human development issue. In their review of the links between mental health and other health conditions, Prince et al. (2007) conclude that in addition to being notably absent from the Millennium Development Goals, 'mental health is missing from the policy framework for health improvement and poverty reduction; missing from health and social research; and missing from targets for interventions'. For example, mental health is rarely raised in discussion about 'sustainable development', in spite of the fact that mental health interventions have great potential to address mechanisms that drive life course and intergenerational poverty. Harper, Marcus, and Moore (2003) highlight the importance of doing this through targeting interventions to counter negative conditions experienced in childhood. The importance of parental mental health in determining care-giving behaviour, and the resultant impact on child physical and mental health, has been documented (Jenkins et al., 2004; Patel et al., 2008), while positive childhood experiences and adequate psychosocial stimulation during early childhood are key factors in building resilience that continues to benefit individuals into adulthood (Patel et al., 2007).

Secondly, we need to continue to further develop our knowledge about the links between mental health and the dimensions of human development outlined in the MDGs. One way of doing this is through determining the extent to which mental health interventions can accelerate the realization of the MDGs. Studies from other regions such as south Asia indicate that improving population mental health has the potential to translate into better

physical health and human development outcomes. For example, a randomized controlled trial of pregnant mothers receiving a cognitive behavioural therapy intervention from community health workers showed a range of positive health effects beyond mental health outcomes. This included mothers' increased contraceptive use, and decreased episodes of diarrhoea and higher rates of vaccination in their children (Rahman, Malik, Sikander, Roberts, & Creed, 2008).

Concentrating solely on isolated health conditions does not contribute to the meaningful, long-term strengthening of health systems (Travis et al., 2004). Mental health services must be fully incorporated into wider primary health care programmes in both health and non-health settings, such as schools. Learning lessons from the best practice examples already existing in SSA countries, and, taking into account the documented challenges associated with achieving the MDGs such as limited financial and human resources (Sachs & McArthur, 2005), these systems should be developed within SSA, and adaptable to the wide range of scenarios that are represented in the region.

Thirdly, further examination of the extent to which development projects impact upon population mental health is also indicated. For example, there is evidence to suggest that higher levels of education provide a protective effect against the development of mental illness (Araya et al., 2003). More robust study of the impact of the provision of housing, income generation opportunities, and basic services needs to be completed to inform development efforts in SSA countries. Mental health concerns should be mainstreamed into programmes of development, drawing lessons from campaigns to create awareness about the cross-cutting nature of other issues such as gender, HIV-AIDS and disability. The mechanisms of interaction between mental health and poverty, and potential strategies to address the link should be brought to the attention of policy makers in the region to ensure that mental health promotion is integrated into the policies and programmes of all sectors involved in poverty alleviation and community upliftment (Lund et al., 2010). In addition, the generation of evidence-based support to promote recovery and inclusion of people with mental disability in community life is essential. Examples include improved access to education and skills development, income generation opportunities for users, reasonable accommodation provisions for employees and, where income generating work is not possible, social support, housing and transport may be required.

As we enter the final stretch of the MDG period, in addition to gauging our progress, it will be necessary to assess the MDGs themselves and establish new

targets to direct global development efforts beyond 2015. The WHO has thrown its weight behind the call for including mental health in development plans and programmes, with the launch of its Mental Health and Development report in September 2010 (WHO, 2010). With clear evidence that mental health is intricately linked with a range of other development measures, and the knowledge that it remains severely under-prioritized, it is time to declare mental health as a global development priority. Including mental health in the sequel to the MDGs will draw long-overdue attention to this issue, and highlight its importance for both those providing and receiving funding for development projects. Unless mental health is mainstreamed into social and economic programmes, people with mental health problems will continue to slip through a 'development net'. Improving mental health at the population level would build, enhance and harness the individual, family and community level capabilities needed by citizens of SSA countries to better contribute to growth and development in their countries.

### Conclusion

While moving forward to 2015 and beyond, there is a need to intensify recognition of mental health as a priority on the public health and development agenda. We advocate for increased investment in research into mental health interventions and their impact on the progress towards the MDGs, how development projects affect population mental health, and the promotion of inclusion of people with mental disability in development efforts. Finally, we call for the inclusion of mental health in a new set of global development targets.

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