Health services and systems for child and adolescent mental disorders in South Africa: Towards a better future

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Few people know that mental illness represents one of the leading causes of disease and disability in children and adolescents worldwide. 1-3 Despite increasing global awareness about the importance of mental health services and systems for children and adolescents, their development lags behind.4 The majority of young people with mental disorders remain untreated - a phenomenon referred to as the 'treatment gap'.4,5 This treatment gap is bigger for vulnerable groups such as children and adolescents, and for people living in low- and middle-income countries (LMICs).4 Considering that the majority of the world's children and adolescents live in LMICs, children and adolescents with mental disorders in these countries are faced with a double disadvantage. In South Africa, the treatment gap for children and adolescents is about 90%;6 in other words, only one in 10 children with a diagnosable and treatable mental disorder is able to access care.

To address the treatment gap, it is important to understand the clinical and service needs of children and adolescents with mental disorders, and the systems in which these services are provided. This is not an easy task because health systems are complex, open to multiple influences, and changes to one part of the system may affect other parts in an unpredictable way.⁷ Child and adolescent mental disorders require active and integrated participation of multiple sectors including health, social services, education and non-governmental organisations (NGOs). In addition, the needs of children and adolescents may emerge or change over time, requiring different kinds of supports from the systems and communities around them.

This chapter: outlines the importance of child and adolescent mental health (CAMH) disorders and services, describes current services and systems for CAMH disorders in South Africa, and proposes a set of immediate, short-term and longer-term actions to strengthen child and adolescent mental health services and systems (CAMHSS) that should

support the shift towards a more integrated community CAMH service.

Why is it important to invest in CAMH services?

Even with the best possible mental health promotion and prevention strategies, approximately 10% - 20% of children and adolescents will develop a mental disorder and/or a neurodevelopmental disability. Beach of these children will require identification and intervention strategies as appropriate to their level of severity, risk and complexity. The focus of this chapter is on the 'illness', 'disorder' or 'disability' end of the mental health continuum, with all three of these terms used throughout the chapter. We will therefore place an emphasis on systems strengthening requirements of curative services.

Prevalence of mental disorders and their treatment gap

It is difficult to give an exact number of children and adolescents in South Africa who live with mental disorders. given that no representative national epidemiological studies of CAMH disorders has been conducted to date. The only national study on the prevalence of mental disorders in South Africa (the South African Stress and Health or SASH study) did not include data on children and adolescents. 11 The likely rates of mental disorders in children and adolescents in the country, therefore, has to be deduced from other LMICs, from studies of specific ages or disorders, and from data in highincome countries. A 2012 review found that almost 20% of children and adolescents in sub-Saharan Africa scored above the cut-off values for risk of mental disorders on screening tools, and that 10% had a specific mental disorder diagnosed by clinical diagnostic tools.9 An authoritative review by Belfer concluded that about 20% of children and adolescents worldwide have a mental disorder that requires diagnosis and treatment.¹² In a South African study, Kleintjes and colleagues used international prevalence data to estimate

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Case 18: Enhancing support for children of parents with mental disorders

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The World Health Organization identifies parental mental disorders and the intergenerational transmission of mental disorders as two important public health priorities. 60

One in five children has a parent with a mental disorder. 61 The impact of a persistent and disabling mental disorder on parents' ability to sustain themselves and their children increases the likelihood that their children will grow up experiencing poverty, housing problems, family disruptions, reduction of social and leisure activities, and social isolation. They are also more likely to be taken into care, have poor communication skills, drop out of school, and develop mental health problems and substance abuse issues themselves. 62, 63 This is partly because people with mental health problems are more likely to drift into poverty, and partly because people living in poverty are at greater risk of developing a mental disorder (see Figure 9 on p45).

Over the past decade, more evidence has come to light showing how children of parents with mental disorders frequently experience the trauma of witnessing their parents' relapse into mental illness and admission to hospital, with children often taking on excessive responsibility at home, blaming themselves for their parent's mental illness, and living with the stigma of their parent's illness, in silence. Yet, children and their parents receive little coordinated support, information or exposure to safeguarding measures from health care professionals to address the challenges. 64, 65

In addition to providing treatment to parents with mental disorders, health care professionals should expand their treatment and support to include therapeutic support and safeguarding measures for their patients' children. This family-focused approach should aim to promote the mental health and well-being of children in a family where caregivers are living with a serious mental disorder, as well as address parental concerns about the impact of their illness on their children, barriers to their recovery which their parenting role presents, and equip them with parenting skills and advance directive planning skills to enhance their parenting roles. Further, a growing evidence base is emerging in low- and middle-income countries on how to improve the long-term outcomes of these children by increasing children's mental health literacy, reducing stigma and isolation, strengthening school and social support, and including children in decisions about their parents' treatment programme.66-68

Over the past 30 years, children of parents with mental disorders have become a priority in the Dutch, Norwegian, Australian, and British prevention sector, and in some countries, health legislation has changed to identify these children, maximise their support networks, improve their competencies and understanding of mental illness, and minimise family dysfunction.^{69, 70} Yet, there are currently no guidelines in place that require South African health, educational and social service professionals to identify and support children of parents with mental disorders.

While child mental health services tend to take a family-oriented focus, this is generally not the case in adult mental health services, where the treatment focus tends to be on the individual patient and the patient's adult support system, with little concerted attention on the children of the patient. This should ideally include the extension of care and support to the children via referral to child mental health services where these might be available, or by engaging other relevant sectors such as social development and education to establish supports within other important settings in the child's life.

In other words, adult mental health care practitioners have a duty to ensure that their circle of care extends beyond their adult patients to actively promote the mental health, care and well-being of their children. This includes prevention and early intervention programmes, including therapeutic counselling and parenting programmes that are designed to improve family functioning and promote positive parenting.

Mental health professionals also need to be attuned to the risk of child abuse and neglect and recognise when family dysfunction is causing serious harm and it becomes mandatory to report children in need of care and protection to social services, as outlined in the Children's Act.71 This statutory duty to report cases of abuse and deliberate neglect to a designated social worker for investigation extends to educators, health, allied and social service professionals.⁷² They also have an ethical responsibility to report a broader category of children in need of care and protection, including those "living in circumstances that may seriously harm the child's physical, mental or social well-being".73

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the number of children and adolescents in the Western Cape who might have mental disorders. They estimated that 17% of children and adolescents in the Western Cape would have a diagnosable and treatable mental disorder. 13

Importantly, a situational analysis by Mokitimi and colleagues, also using Western Cape data, identified that fewer than 10% of children and adolescents in the province who need diagnosis and treatment for a mental disorder ever receive it.14 These data suggest that the vast majority of children and adolescents with mental disorders in South Africa still fall through the cracks and receive no or very limited support.

The impact of mental illness on children and adolescents

Mental disorders in young people not only cause distress and impair their functional abilities in daily life, they often have long-term ramifications that last into adulthood. It is estimated that half of adult mental illness starts before age 14, reinforcing the need for early detection and intervention to achieve the best possible outcomes. 10, 15 In addition, inadequately treated and undiagnosed children and adolescents with mental disorders may develop secondary or additional disorders, e.g. substance use or resort to selfharm to cope with their symptoms. Mental illness in young people may also disrupt family relationships and routines, and the costs of care can affect the family's financial security. Importantly, the converse is also true, with mental illness in parents and caregivers significantly affecting the lives of children and adolescents in their care. Case 18 details why it is crucial for adult mental health services in South Africa to move towards a family-centred approach in the treatment of parents and caregivers with mental illness.

Children and adolescents with mental illness have significantly lower rates of school-readiness and higher rates of absenteeism, grade repetition and drop out16-¹⁸ undermining their economic potential and driving an intergenerational cycle of mental illness and poverty. 12, 19

In addition, children presenting with disruptive behaviour are often labelled as 'badly behaved' or 'difficult', and are more likely to experience difficulties with peer relationships and a likelihood of criminal behaviours.²⁰ Children and adolescents in the criminal justice and social service systems have higher rates of mental disorders than the general population.²¹⁻²³

Taken together, it is is clear that unidentified and untreated child and adolescent mental illness is a powerful driver of a vicious cycle of further mental health problems, poor family functioning, as well as poor educational and economic outcomes and high rates of criminality. It is therefore essential to intervene early to prevent and treat child and adolescent mental disorders if we wish to minimise the immediate and long-term costs for children, families and society.

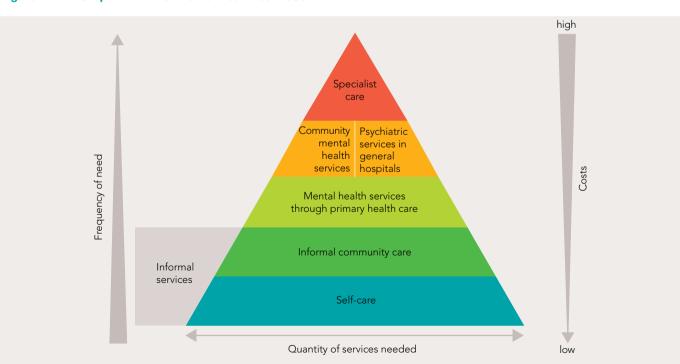


Figure 22: WHO optimal mix of mental health services

Source: World Health Organization. Improving Health Systems and Services for Mental Health. Geneva: WHO. 2009.

Figure 23: Healthy integrated child and adolescent mental health services and systems

mental health services and Provincial lead to oversee Easy referral to primary or secondary disorders covered by NHI Leadership, governance, Representation in district Access to multi-disciplinary team Ring-fenced financing Provides training to primary and Diagnosis and treatment of very Common mental and child and adolescent neurodevelopmental Provincial/Central Hospital implemented policy management teams and finance Referrals from secondary care Inpatient care of acute cases Updated and well Local research development severe and complex cases Tertiary care Access to medicines care once stabilised systems secondary care Good links between health care and community settings Social workers trained to recognise developmental and Social workers at all health facilities and in community Designated age-appropriate spaces Diagnosis and treatment of complex Easy referral to and from primary care facilities Easy referral to primary care once Assessment and management tools available • Access to multi-disciplinary team District/Regional Hospital Inpatient care of acute cases Social development Easy referral to tertiary care Referrals from primary care Secondary care Social welfare of population at large Outpatient care available Access to medicines behavioural problems stabilised cases Infants, children and adolescents screened Initial assessment of most young people diagnose and manage uncomplicated, Nurses and medical officers trained to Basic counselling provided by CHWs Training and supervision from higher Referrals from community settings Access to multi-disciplinary team Clinic times adjusted for school Easy referral to secondary care Primary care at every routine and sick visit Age-appropriate spaces Access to medicine common disorders levels of care Teachers trained in basic counselling Mental health literacy in curriculum Schools and ECD programmes Easy referral to community health can access CHWs/primary care Caregivers and young people Caregivers can identify early Teachers trained to screen for developmental problems Community health workers CHWs initiate counselling during home/school visits Screening tools available Caregivers can identify CHWs identify problems and refer to primary care concerning behaviour Home common disorders workers /clinics

What should CAMH services look like?

The South African government's goal is for mental health services to be decentralised and integrated into general health services, mainly at the primary care level.^{24, 25} This community-based model of care would promote more equitable access to health care which is crucial in South Africa given that most communities do not have access to specialist

According to the Norms for South African Child and Adolescent Mental Health Services (a report commissioned by the National Department of Health in 2004), the World Health Organization (WHO) three-tier approach should be available to all communities.²⁶ This model starts with community-based 'informal' services, supported by three tiers of formal care at primary, secondary and tertiary level as illustrated by Figure 22. The community-based services, which form the base of the pyramid, should be able to cater for the majority of children's mental health needs and have lower associated costs than specialised services in the higher levels of the pyramid.²⁷ In an ideal situation, children and adolescents should have access to mental health services which range from health promotion to preventative, curative and rehabilitative services. Promotion and preventative services should be offered mainly at the community level and can leverage environments that children and adolescents already access on a routine basis, such as schools and religious organisations. These activities would be aimed at all children and adolescents on the mental health continuum, with the aim of promoting resilience, positive coping skills and creating a supportive environment in which they can thrive.

As illustrated in Figure 23, a young person who is mentally ill should be identified early by a primary caregiver, school, community health workers or through screening in routine health services, supported by programmes to enhance mental health literacy in families and community stakeholders. They should then be able to access care at a primary care clinic or community health centre, which should be close to their home, and be offered services in their own language. The child should be assessed, diagnosed and managed at this level, with access to a range of health care professionals, including general medical practitioners trained in early detection and management according to their patients' needs.

If the child's condition is too complicated, they should be referred to secondary level services at their district or regional hospital to be assessed and managed by a team that includes a general psychiatrist. Tertiary services should be available to young people with complex or severe illness who require sub-specialist input from child and adolescent psychiatrists

Figure 24: The building blocks of a 'healthy' child and adolescent mental health system



- Promotive, preventative, curative and palliative care
- Accessible, with limited barriers
- Well-coordinated continuity of care
- Based on patient needs

- Adequately trained and competent
- Well supported
- Multidisciplinary
- Equitable geographic distribution

Information systems

- Reliable, robust and accessible
- Disaggregated data available
- Collect, analyse and synthesise data
- Communicates findings

Essential medicines and technologies

- High quality, safe, effective, and cost-effective
- Medicines, therapies, and technologies
- Equitable access

Leadership/governance

- Dedicated national and provincial authority
- Clear, evidence-informed policy
- Regularly updated policy
- Strategic plans and implementation plans

Financing

• Adequate, proportionate, and dedicated budget

and their multi-disciplinary teams. Once stabilised at the higher levels of care, children and adolescents should then be referred back to their secondary or primary community teams to continue their care. This pyramid of care structure

requires ongoing supervision and training of community and primary health care workers.

Adopting a health systems approach to CAMH

Child and adolescent mental health services function in the context of health (and other) systems. It is therefore important to approach CAMH from a health systems perspective and consider all the factors, organisations and people that ultimately shape the availability and quality of services. The WHO proposed six 'building blocks' of health systems including service delivery, the health workforce, health information systems, access to essential medicines and technologies, financing, and leadership/governance.²⁸ These components of the health system include both 'hardware' (resources, people, medicines etc.) and 'software' (knowledge, attitudes, beliefs etc.).²⁹ A 'healthy' system should have adequate hardware, positive software and a responsive and responsible interaction between the two.²⁹ Figure 24 outlines some of the key building blocks of a 'healthy' child and adolescent mental health system.^{28, 30}

A healthy CAMHSS needs to be rooted in a broader health care system that is healthy, responsive and well integrated with other systems in education, social development, justice and the NGO sector in order to ensure optimal child and adolescent mental health. Some of the links between sectors are shown in Figure 23.

What services and systems are currently in place?

Strengths

It is important to acknowledge the existing strengths in South African CAMHSS that can be leveraged for further system strengthening. South Africa has more child and adolescent psychiatry specialists than any other country in sub-Saharan Africa. In addition, CAMH has been on the radar of government and policymakers for over two decades. Although not yet implemented, the policy guidelines on CAMHSS were developed in 2003, and the norms for South African CAMHSS were commissioned in 2004.31 The publication of the Nurturing Care Framework32 and Sustainable Development Goals (SDGs) have futher added impetus towards actions that support the mental health of children and adolescents.³³ Over the last two decades, medical, nursing, and allied health undergraduate training has evolved to include more mental health training (albeit with very limited exposure to CAMH). Furthermore, community service programmes, which are compulsory for all health disciplines, have attempted to improve distribution of the health workforce by deploying junior staff to rural areas. In general, health care facilities have access to at least one drug in each class of psychotropic medication.

Weaknesses

Even though South Africa has the most child and adolescent psychiatrists in sub-Saharan Africa, there are currently fewer than 60. Of those, no more than 20 posts are in the public sector, and only five funded training posts exist nationally. Therefore, children and families only have access to multidisciplinary CAMH teams in a handful of centres where government-funded specialist CAMH services are available (Cape Town, Johannesburg, eThekwini and Tshwane). Child and adolescent psychiatrists practicing in the private sector are also concentrated in these cities. The National Mental Health Policy Framework and Strategic Plan 2013 - 2020 detailed the central role of district health services in strengthening general mental health services (including CAMHSS) in South Africa.²⁵ District health services were meant to be overseen by a specialist district mental health team (DMHT) responsible for a broad range of activities, including a) the implementation of collaborative care and task-sharing approaches, b) mental health training and supervision of staff at lower levels of care, with support from specialist mental health teams, c) the development of clinical protocols, community based rehabilitation programmes and inpatient mental units, and d) the facilitation of intersectoral collaboration.²⁵

Unfortunately, there were clear provincial implementation plans for DMHTs, and by 2019, there were only two DMHTs in the country - one in the Free State and the other in Mpumalanga.³⁴ The policy was not accompanied by any ring-fenced budget, grants or guidelines on minimum expenditure.³⁴ Most provinces did not appoint mental health directorates to lead the implementation process, and training and supervision of primary care and community health workers (CHW) was not standardised.³⁴ There was also no process put in place to improve data collection and monitoring over the seven-year period to allow problems in implementation to be identified and addressed along the way.34 In essence, there was a failure to engage all the WHO building blocks in a practical way. This, combined with a lack of stakeholder participation and buy-in into the development of the policy, meant that those on the ground were not committed to its implementation.

South Africa is currently reviewing the National Health Insurance (NHI) Bill. The Bill aims to provide universal health care coverage by ensuring access to quality health care

Table 6: Gap analysis of Child and Adolescent Mental Health Services and Systems in South Africa

WHO health system building block	Amajuba district, KwaZulu-Natal (KZN) ³⁸ and various Western Cape (WC) districts ^{14,39,40}		
Service delivery	 Not age-appropriate* (KZN+WC) No or limited psychosocial interventions* (KZN+WC) No services at primary care facilities (KZN) Limited space and lack of privacy (KZN) Inappropriate referral pathways (KZN) Limited community-based interventions (KZN) Limited CAMH promotion and awareness (KZN) Poor mental health literacy of school health teams (KZN) No inpatient facilities (KZN) No specialist services in rural districts (WC) No dedicated hospitals or residential units (WC) Limited CAMH forensic services (WC) Low patient satisfaction (WC) Emphasis on quantity of patients seen rather than quality of care (WC) 		
Health workforce	 Limited training* (KZN+WC) No CAMH specialists (KZN) No CAMH trained nursing staff (KZN) No allied health staff at primary care facilities (KZN) Lack of human resources (WC) Inequitable geographical distribution (WC) Excessive workload demands (WC) Lack of supervision/support* (WC) Lack of acknowledgement for innovations to improve services (WC) Negative staff attitudes* (WC) Siloed working (WC) 		
Information systems	 No age disaggregated data (KZN+WC) Inadequate and inaccessible data (WC) Limited research (WC) 		
Access to essential medicines and technologies	 Lack of equipment required for therapy e.g., toys for play therapy (KZN+WC) Inconsistent availability of psychotropic medications (WC) No technologies to support data collection (WC) 		
Leadership and governance	 No district or provincial CAMH policies or implementation plans (KZN +WC) No functional intersectoral collaboration system (KZN +WC) No reference to CAMH in general health policies (WC) No involvement of CAMH experts/users in policy development or review (WC) No dedicated provincial leadership (WC) 		
Financing	 No ring-fenced budget (KZN+WC) Low priority compared to adult mental health and general health care (WC) 		

^{*} Findings at primary and secondary levels of care

Sources:

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weaknesses, opportunities, and threats in the Western Cape Province. Frontiers in Psychiatry. 2019; 10:841.

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for all South Africans without financial hardship. $^{\rm 35}$ The Bill notes that all children will have access to 'basic health care services', but does not define what will be included in the services.35, 36 This is particularly concerning because there are currently no CAMH-specific disorders on the chronic disease list or the minimum prescribed benefits in South

Africa, and these conditions may therefore be overlooked when the basic services are defined.³⁷ There are also no child and adolescent health experts represented on the benefits advisory committee that will decide what service benefits will be covered by the fund.³⁶ The Bill also notes that school health services will be available to cater for the physical and

Case 19: Three patient journeys into mental health services

Zachary was two years old when his mother noticed that he was not speaking any words. She was worried about this, and took him to the community clinic. At the clinic the nurses told her that 'he is just a boy' and that he will start to speak soon enough. Four years later Zachary was diagnosed with autism spectrum disorder with associated language disorder and many challenging behaviours because he did not know how to communicate with people. His mother had to stop working because no-one else was able to look after him. When the diagnosis was finally made by the specialist child and adolescent psychiatry team, she said: 'If only people had listened to my worries when he was two, our lives could have been so much better'.

Fatima is a 13-year old girl who suffered with anxiety symptoms since early childhood, but she was still able to go to school where she had very supportive teachers. When she started in secondary school, the anxiety became overwhelming. She started having severe panic attacks and was unable to go to school. She became so unwell that she needed to be admitted to hospital. However, she lived in a rural district and was admitted to a psychiatric

hospital ward with adults. Fatima found it a terrifying experience. Fatima said: "Why would the doctor send me to a hospital with adults? Why would the doctor send me to a hospital where people are tied up? I hate it here!"

Andile is a 15-year old boy who has attention deficit/ hyperactivity disorder (ADHD) and lots of difficulties learning in school. He regularly needs to go to the community clinic to have a check-up for his medication. He is very motivated to do schoolwork, in spite of his difficulties. His mother has to take a day off work to bring him to the clinic every time. However, Andile and his mother are very frustrated by the services: "The last time I was there the nurse told me I must be there on Friday, but we only see the psychiatrist on Tuesday. So, I missed the school day and on that day we had to do a project. I could have done my project. It was a waste of money." Andile's mum also explained how files are not always available in the clinics, how they are told to come back the next day, and how they sometimes have to wait for a very long time at the pharmacy without staff seeming to realise that children need to get to school.

mental health of schoolgoing children.³⁵ However, there is no clarity on how these services will be structured, which is likely to hinder their successful implementation.

Recent studies in the Western Cape and KwaZulu-Natal have identified gaps in CAMHSS14, 38-40 and despite the different contexts, the findings were surprisingly similar, with critical gaps outlined in Table 6.

These weaknesses have severely undermined the quality of care for children and adolescents who present with emerging or definite mental disorders, as outlined in Case 19.

What can be done to strengthen systems and enhance quality of care?

With CAMHSS in crisis, there is an urgent need to progress from describing the problem to thinking how to strengthen services and systems for CAMH. This includes developing a long-term vision for CAMH services and identifying innovative ways to strengthen the system in the immediate, short and medium term.

A long-term vision

Given that one in five children and adolescents presents with a diagnosable and treatable mental disorder, we should ideally establish a multidisciplinary CAMH team in each

South African district to ensure a more equitable distribution of child and adolescent psychiatric services and to bring those services close to home.

An ideal district CAMH Team should include a child and adolescent psychiatrist, psychologist, speech and language therapist, occupational therapist, child and adolescent mental health nurse practitioner, social worker and dedicated link professionals from the departments of Basic Education and Social Development. These district CAMH teams would then guide and provide services across primary and secondary levels of care, and would be supported by - and refer to specialist CAMH teams based at tertiary/university institutions. Specialist CAMH teams from tertiary hospitals and university institutions would lead the training of the CAMH workforce, guide development and delivery of services for highly complex disorders, support and supervise district CAMH teams, and conduct CAMH research relevant to the needs of South African communities.

To staff the district CAMH teams, child and adolescent psychiatry would need to be reclassified as a 'specialty' rather than as 'sub-specialty' in the same way that Paediatrics became distinct from General Medicine. This would reconceptualise Child and Adolescent Psychiatry as a community speciality, rather than as a highly specialised ('sub-specialist') discipline.

Table 7: Strengthening child and adolescent mental health services and systems in South Africa^{41, 42}

Health system building block	Immediate action	Short-term actions (1 – 5 years)	Medium to long-term actions (5 – 10 years)
Service delivery	Create separate clinic days with guidelines for how to run a child/adolescent friendly clinic Times adjusted to suit school times Limit number of visits Have medication and folders ready Set up designated room for children and adolescents with mental disorders admitted at secondary level	Develop appropriate screening tools for common CAMH disorders Improve use of routine developmental screening in Road to Health booklets by caregivers, community health workers and nurses Train community (e.g. early childhood development (ECD) workers and teachers) on early symptoms of CAMH and neurodevelopmental disorders Establish mental health literacy training for local teachers and youth leaders, and provide them with basic counselling skills for children and adolescents Rollout of established caregiver interventions (such as WHO caregiver skills training) Establish clear referral pathways from schools (including ECD centres) to community and primary care health services Establish clear, transparent referral pathways across all levels of care in urban and rural districts	Determine and implement standards for age-appropriate infrastructure in facilities at all levels Develop and implement packages of services and competencies expected at each level of care Develop and implement clear clinical guidelines/protocols for common CAMH disorders and emergencies for each level of care Develop and implement school-based interventions that can be added to curriculum e.g. in life orientation Develop counselling skills of CHWs to deliver psychosocial support at primary care level Develop digital clinical decision support systems
Health workforce	Introduce supervision for primary care staff with designated, ring fenced supervision time	Allocate a provincial/central hospital to supervise each regional hospital Allocate a regional hospital to supervise each district hospital Allocate a district hospital to supervise each Community Health Centre/clinic Establish nationwide training of all primary care providers using existing guidelines e.g. Practical Approach to Care Kit and mental health Gap Action Programme. Training could be provided using various modalities including online, self-paced learning	Develop accredited CAMH short courses for community and primary health workers (e.g. CHWs, nurses, medical officers, general pratitioners, occupational, speech and language therapists, psychologists etc.) Establish specialist CAMH teams in provincial hospitals in all provinces Re-evaluate existing health science curricula to increase academic training and practical exposure to CAMH Develop postgraduate diplomas and masters programmes for non-specialised health professionals Establish specialist integrated CAMH teams at district level Re-classify child and adolescent psychiatry as a speciality instead of a sub-speciality
Information systems	Set up regular (monthly) facility and (quarterly) subdistrict- based meetings, where the compiled statistics are presented and poor outcomes discussed	Develop clear indicators specific to CAMH and tools to gather these data Create disaggregated data systems for under 18-year olds vs over-18-year olds Make the generation and provision of CAMH statistics mandatory for facilities	Capture and analyse CAMH indicators at a provincial and national level Establish annual reporting of CAMH indicators
Access to medicines and technologies	Ensure good and continuous supply chains for all essential medicines used in CAMH		Allow some medications that are traditionally only be dispensed at tertiary level to be dispensed at secondary and primary level

Health system building block	Immediate action	Short-term actions (1 – 5 years)	Medium to long-term actions (5 – 10 years)
Leadership and governance		Introduce provincial CAMH Lead Professionals in all South African provinces	Review and revise the national CAMH guidelines/policy)
			Develop provincial CAMH implementation plans
			Make national policies and provincial plans easily accessible, including to the public
			Government to create suitable communication mechanisms for interaction with service providers and service users
Financing		Disaggregate budgets to allow calculation of CAMH-specific budgets and costings	Establish representation of CAMH in National Health Insurance Benefits Advisory Committee(s)
			Advocacy to add more child and adolescent mental disorders to the Chronic Disease and Prescribed Minimum Benefits lists
			Implement universal basic income grant

Immediate, short and medium term goals

We acknowledge that the ideal vision of a community CAMHSS is unlikely to be realised in the short-term, given the current context of staff shortages and budget cuts. It is therefore important to identify strategies that could strengthen CAMHSS in South Africa in the immediate, short and medium term. Table 7 outlines a set of immediate, shortterm (1 - 5 years) and medium-term (5 - 10 years) CAMHSS strengthening actions across the building blocks of health systems.

Existing and potential CAMHSS strengthening activities in South Africa

Case 20 describes local initiatives to make immediate improvements in the CAMH system in the Khayelitsha Eastern Substructure in Cape Town. This provides a very inspiring example of how local enthusiasm and coordination combined with good and clear evidence-based information can transform clinical services and systems without any significant additional resources.

A recent review by Simelane and de Vries examined a range of CAMH strengthening innovations from various LMICs to inform potential CAMHSS strengthening activities in South Africa. 43 Innovations identified included interventions to promote mental health at a broader socio-economic level, to develop intersectoral collaboration, to build the CAMH workforce, to use digital technologies and develop tools and guidelines for clinical use. Here we summarise some of the key findings from the review and their relevance to the South

African context, and list some local initiatives of potential relevance.

Upstream socio-economic intervention

There is a clear association between poverty and mental illness, and 'economic' interventions are emerging as intervention modalities alongside pharmacological and 'talking' treatments for mental health problems.¹⁹ Recent studies in Malawi and Uganda have shown cash transfers to be effective in reducing symptoms of depression in adolescents.44,45 South Africa has one of the highest rates of unemployment in the world, with an official national unemployment rate of over 30% in 2021.46 It is therefore important to consider the broader socio-economic context of young people living in South Africa when thinking about their mental health. This may provide an important argument for the implementation of the universal basic income grant in South Africa.

Intersectoral collaboration

School mental health programmes and mental health literacy initiatives may have an important role in improving the healthseeking behaviour and coping skills of schoolgoing children and adolescents and their teachers. 47-49 Findings from Malawi showed improvement in the self-confidence of learners and improved detection of at-risk learners. Such programmes may, therefore, represent another important strategy to strengthen CAMHSS in South Africa.43 However, school mental health and mental health literacy programmes require

Case 20: Transforming CAMH services in the Khayelitsha Eastern Substructure - a practical step towards a better future

As described in previous research, there are a lack of dedicated CAMH services at primary health care (PHC) facilities in the Khayelitsha Eastern Substructure (KESS). Services for children and adolescents with mental disorders are mixed with adult mental health services at primary and secondary care level, with age-appropriate services only available at tertiary level. Children aged 12 and under are admitted to paediatric medical wards, exposing them to potentially contagious medical conditions, while adolescents are admitted to adult emergency psychiatry units which may exacerbate psychological trauma and reduce compliance to treatment.

Considering these challenges, KESS set out to establish age-appropriate CAMH services within their resource constraints. A stakeholder engagement process was initiated in August 2021 with community mental health nurses and district hospital facility managers. As a result, community mental health nurses were trained on how to develop a mental health service structure with separate child and adolescent and adult services. Facility and operational managers of primary health care (PHC) clinics were also engaged to ensure buy-in of management for the implementation of the new service structure.

By January 2022, only five months after the initiation of the process, all nine of the PHC facilities which fall within KESS had confirmed that they had created a separate service for CAMH within their existing service structures (100% implementation). CAMH services are offered either in the morning (7am - 1pm) or in the afternoon (1 - 4pm) in different facilities depending on their contexts and user needs. As caseloads increase, service hours will also increase. Following ongoing discussions and hospital walkabouts to try and identify possible locations

for children and adolescents requiring inpatient care, some progress has also been made at the secondary level of care. At least one hospital now has a dedicated adolescent room in the emergency psychiatry ward. This room will be available for all adolescents in KESS who require admission. Two other hospitals have identified 'low-risk' areas in their adult psychiatric wards. These 'low risk' areas are close to the nurse's station and can be used for vulnerable adolescents to ensure better monitoring and visibility. These 'low risk' beds will act as overflow admission areas, should the dedicated adolescent room be full. Shortcomings in ward infrastructure have also been identified, with plans in place to make the spaces more youth friendly.

To formalise this process, a first draft of the standard operating procedures for developing separate CAMHS at primary and secondary level has been circulated to facility managers in KESS for comment and approval. The new service structure will be monitored to measure progress and effectiveness. Important next steps for the programme include training of providers and provision of CAMH resources for assessment and intervention.

This initiative by the KESS service providers and facility managers is an example of how services can be optimised within existing resource constraints. Furthermore, it illustrates the importance of buy-in from all stakeholders to ensure successful uptake and implementation. The documentation and monitoring of this process is an important step towards creating practical guidelines and providing quality care that is feasible in such settings. This may be scaled up to other parts of the province in collaboration with the provincial CAMH coordinator should it prove to be successful.

strong and sustained collaboration between the health and education sector, with clarity about roles, responsibilities and funding, as well as buy-in and support from the highest levels of government.

In South Africa, the First Thousand Days of Life Initiative represents an example of a promotive, intersectoral activity focused on maternal mental health, parenting and the nurturing care of infants and young children.⁵⁰ This involved collaboration between the Department of Basic Education, Department of Social Development, and Department of Health. The initiative provides important lessons about the complexities of intersectoral work and the importance of buyin and agreement across stakeholders. 43, 51 Even though the First Thousand Days of Life Initiative stops at age two (which is far from schoolgoing age), principles of implementation and lessons learnt from the initiative could provide a foundation on which school mental health programmes, as proposed in the NHI Bill, can be built.52

Capacity building and supervision

Capacity building is another priority area and can be used to promote task-sharing through the training of non-specialist health workers. This was done in Uganda, where general health workers from different disciplines were purposively

Case 21: A better future for children and adolescents with mental disorders

Zachary (introduced in Case 19) has a younger brother, Sam. Since Zachary's diagnosis of autism spectrum disorder at the age of six, a programme had been introduced to train community-based and primary care staff on 'red flags' or risk markers for autism. When mum took Sam to the clinic worried about his language development, the nurse immediately recognised his language delay and family history of autism. She used a screening tool which identified many other developmental concerns, and referred Sam to the neurodevelopmental team, who diagnosed his autism within a few months. Sam's mother was offered homebased coaching by a community health worker (who was supervised by an expert from the district team) to help him with his development and communication. She said it was very helpful to do the coaching at home, and that it also helped her with Zachary's communication. In spite of having two children with autism, she felt supported, understood and empowered.

Fatima continued to need support for her anxiety, but the local district hospital created a dedicated 'adolescentfriendly' area and bed for young people like her who

needed admission. Fatima said it made a huge difference knowing that she did not have to fear going into hospital with severely mentally ill adults.

Andile's community health clinic got a new nurse who was passionate about the mental health of children and adolescents. The nurse negotiated a dedicated day for CAMH, made sure that files were ready and prepared the day before, and checked with families whether they would prefer a morning or afternoon appointment to cause the least disruption to school attendance. She also organised that on those days the pharmacy would be ready to dispense medications to children and families in a dedicated queue. Andile and his mum were very impressed. The clinic nurse realised that Andile's ADHD medication was not optimal and, through a new collaborative care plan, referred him to secondary and tertiary care. He received an additional multidisciplinary intervention from the specialist CAMH team, where his medication was also adjusted. He is now back at his local community clinic for regular check-ups without interrupting his schooling. He is doing very well.

selected from different regions in the country for a two-year training programme.53 The programme resulted in increased CAMH expertise in the peripheral regions of the country and a more than 10-fold increase in the number of children who were seen and treated for mental disorders.⁵³ The Ugandan study adopted a trainees-become-trainers model to increase the sustainability of the initiative, with increasing numbers of trainees each year.53 Adopting a similar approach would not require increased numbers of staff in South African public health facilities, but could increase the efficiency and quality of services offered by those already working in the health system.

Digital technologies

One of the emerging innovations in CAMHSS is the use of digital technologies. In an innovative study in India, a digital clinical decision support system was developed.⁵⁴ This meant that general practitioners at a primary level of care were able to access supervision from a digital platform, with prompts to guide them through the assessment and management of children and adolescents.54 It was less labour intensive than one-on-one supervision from a child psychiatrist, and had the dual purpose of being a training tool for the clinicians.⁵⁴ Such technologies have great potential to increase the reach of CAMH services in South Africa, but it will be important to consider potential barriers to the implementation of digital technologies very carefully to ensure that the pre-existing digital divides between rich and poor, and between urban and rural communities, are not inadvertently increased.⁴³

Clinical service toolkits

Although clinical toolkits were not included in the review by Simelane and de Vries, a scoping review by Babatunde and colleagues identified the lack of contextually relevant screening and assessment tools as a major barrier to improving CAMH services in South Africa.55 The WHO developed the mental health Gap Action Programme (mhGAP) as a tool to support primary care training and clinical decision-making across a range of mental health presentations, and includes child mental health modules.⁵⁶ The PACK Child programme, developed by the Knowledge Translation Unit at the University of Cape Town, was developed to provide primary care clinicians with a basic guide on the identification and management of a range of childhood conditions, including some mental health presentations (such as the depressed or disruptive child).⁵⁷ These kind of tools may have the potential to be implemented in South Africa. However, it is crucial first to understand which conditions should be managed at which levels of care and in which sectors, then to identify the most appropriate people to perform the tasks, to ensure that the training tools provided are a good 'fit' to the practitioner's needs and baseline knowledge. Such training programmes, therefore, need to be accompanied by clear guidelines on what services and competencies are expected at each level of care, including the roles and responsibilities of different members of the team and the referral criteria between each level of care to ensure continuity of care and a smooth functioning CAMH system.

These investments in strengthening CAMH systems in South Africa have the potential to enhance the quality of care and to improve outcomes for children, adolescents and their families, as outlined in Case 21.

Conclusion

We do not underestimate the procedural requirements of the changes and strengthening innovations proposed in this chapter. However, the paradigm shift from hospitalbased, highly-specialist CAMH services to community-based specialist services may represent our best chance to meet the urgent and increasing mental health care needs of children and adolescents in South Africa, and to ensure parity for the mental health of children and adolescents alongside their physical health. We argue that investing in CAMHSS now will

provide the early interventions needed to prevent the longterm, multi-level costs associated with poorly functioning CAMHSS.

We acknowledge that comprehensive strengthening of CAMH services and systems in South Africa does not depend on a single action, but rather on sustained action across multiple services, systems and levels of care. Crucially, the journey towards sustainable and scalable systems strengthening will require participatory engagement with stakeholders across all levels of the health care system, including senior government policy-makers, funders, grassroots service providers, and families and young people themselves.58,59

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