In 2000, Rita Thom published a systematic review of mental health services research in southern Africa, conducted from 1967 to 1999.1 The review suggested a need to shift from centralised institutional care, which characterised apartheid South Africa, towards decentralised, integrated and community-based services provided within a human rights framework. The use of trained non-specialists to provide mental healthcare was also suggested as a strategy to increase access in the context of a shortage of mental health specialists. Research gaps identified included the need for accurate epidemiological studies; intervention studies demonstrating the efficacy of sustainable models of service delivery in line with policy imperatives for deinstitutionalised and integrated primary mental healthcare; and economic evaluation studies of service delivery models.2 The latter included cost-effectiveness, cost-benefit and cost-utility analyses. Policies and legislation in post-apartheid South Africa have been consistent with the suggestions emanating from this review in a bid to increase access and quality of care within a human rights framework.3 4 Emerging from the new Mental Health and Deinstitutionalisation Act No. 17 of 20025 has been the introduction of a legislated 72-hour emergency referral and observation period for mental healthcare users (MHCUs) in designated regional and district general hospitals before onward referral to tertiary hospitals. This innovation aimed to increase availability and accessibility of mental health services locally in less restrictive settings and reduce unnecessary referrals to psychiatric hospitals.4 A further innovation included the introduction of Mental Health Review Boards that have the explicit agenda of upholding the human and health rights of people with mental disorders and intellectual disabilities.6

A recent review of decentralised community-oriented care in Africa suggests, however, that many countries struggle to implement policy imperatives for decentralised community-based care.7 In light of this, we set out to systematically review published literature on mental health services research in South Africa from January 2000 to October 2010, with the aim of assessing how South Africa has fared in this regard over the past decade. Specifically, we aimed to identify progress as well as remaining challenges in the quest for improving access to high quality mental healthcare through decentralised, integrated and community-oriented care, as well as future mental health services research priorities.

Methodology

Search strategies

Literature searches were undertaken in the Medline, PsychInfo and Sabinet databases from January 2000 to October 2010 using the key phrases of ‘mental health services’, ‘mental health systems’ and ‘South Africa’. Hand searches were also conducted of the tables of contents of the following key local journals: South African Medical Journal, African Journal of Psychiatry, South African Journal of Psychology and the South African Journal of Psychology. Inclusion criteria were that articles had to (i) report exclusively on a research study on South African mental health services; and (ii) they had to provide information or recommendations about mental health policy or treatment services in South Africa. Using these search strategies, a total of 215 articles were retrieved. Of these 92 were included on the basis of consensus reached on the above inclusion criteria between the authors and a research assistant. We have distinguished between studies and articles. Where articles report on data sets from a single study, this has been mentioned.

Data extraction

Data were extracted onto a spreadsheet which included the following dimensions: (i) purpose/aim, (ii) design, (iii) sample/location, (iv) main findings and (v) recommendations. The articles were then...
categorised according to: epidemiological studies, status of mental health services, experiences and perceptions of service users and carers, resource and costing requirements, reviews, and intervention studies.

**Data analysis**

The findings and recommendations emanating from the articles were synthesised according to the following main thematic areas covered by the articles: tertiary in-patient care, decentralised psychiatric care for severe mental disorders at primary healthcare (PHC) level, decentralised care for common mental disorders (CMDs) such as anxiety, depression and substance use disorders at PHC level, and cross-cutting issues including HIV/AIDS and mental disorders, stigma and discrimination, cultural congruence and resource requirements.

**Results – summary of relevant mental health services research**

**Overview of studies**

The majority of articles (45 (49%)) were concerned with providing evidence of the status of mental healthcare services and experiences and perceptions of service users. Five of these were published from situation analyses data collected by the Mental Health and Poverty Project, a multi-country study about mental health policy development and implementation in 4 African countries.4 There were fewer epidemiological articles (37 (40%)), with 25 included from the first nationally representative epidemiological study, i.e. the South African Stress and Health (SASH) survey. There were 6 papers published from 3 studies on resource requirements for mental healthcare, 2 intervention study articles, and 3 review study articles. The findings and recommendations have been synthesised according to the main thematic areas outlined above, and are presented in Table 1. The review studies focused on specific issues of HIV threat and treatment of persons with mental illness and substance use disorders; the interface between traditional healing practices and Western allopathic mental healthcare services;10 and service accessibility, utilisation and needs of Black South Africans with psychiatric disabilities.21

**Tertiary inpatient care**

The majority of articles included on tertiary inpatient care focused on the problem of the revolving-door phenomenon that has accompanied policy shifts towards de-institutionalised care. These articles suggest that high rates of re-admission are mostly due to poor treatment adherence and defaulting,13-20 substance abuse13,14,17,18 and early discharge owing to bed shortages.13,14 Concerning the latter, Lund et al. reported a 7.7% reduction in mental hospital bed numbers across all provinces in the 5 years ending in 2005.22 A recent study by Burns also showed that two-thirds of psychiatric hospitals in KwaZulu-Natal surveyed over a 5-year period following 2002, experienced a drop in income at some point.23 Despite these reductions, community-based services remain under-resourced.22 No studies reported any increases in resource allocation for community-based services during the review period. It is not surprising that the main recommendations emanating from these articles relate to the need for reductions in tertiary inpatient resources to be accompanied by improved community-based rehabilitation and care facilities.15-17,23,24,26,27

Other articles concerned the quality of inpatient care. Joska et al.,15 in a case study of a psychiatric hospital in the Western Cape, found that the psychosocial needs of inpatients were not adequately met, with the greatest need among the least educated. The need for improvements in both inpatient and outpatient psychosocial rehabilitation programmes was highlighted. Mayers et al.25 and Mkhize26 reported dehumanising experiences and human rights abuses in psychiatric institutions and general hospitals. Both of these studies were conducted after promulgation of the new Mental Health Care Act.5 They suggest lacunae in the implementation of the Act, which has the explicit agenda of promoting care of MHCUs within a human rights framework.

**Decentralised community-based care**

**Observation and emergency care of MHCUs with severe and acute mental disorders at general hospitals**

As mentioned in the introduction, the new Mental Health Care Act5 introduced a 72-hour emergency management and observation period for MHCUs in designated general hospitals across the country, as well as Review Boards to protect the human rights of MHCUs. Studies conducted after the promulgation of the Act suggest that implementation has not been optimal. Although access to psychotropic medication is largely available at inpatient and outpatient facilities,22 studies by Lund et al.22,23 found that infrastructure and specialist staff for the 72-hour emergency management and observation service are mostly inadequate across the country. A detailed study by Ramllall6 on the implementation of the Act in KwaZulu-Natal over the 5 years ending in 2010 found that 63.9% of designated general hospitals in the province reported inadequate resources, including insufficient designated beds, specialist staff and seclusion rooms to deal with the demand and challenges of caring for disruptive patients – this despite findings that 75.6% of admissions were involuntary or assisted, indicating that the service caters mostly for MHCUs with severe mental illness. Further, while Review Boards are meant to investigate human rights abuses and neglect, the majority of hospital managers surveyed in Ramllall’s study found the functioning of the Review Boards unsatisfactory in that they were not able to address issues of inadequate infrastructure and resources that contribute to human rights abuses and poor care. Similarly, in the Western Cape, which has a concentration of tertiary psychiatric hospitals, many MHCUs (22%) were found by Lund et al.22 to bypass the district hospital 72-hour observation period, being mostly admitted directly to tertiary institutions.

Concerning outpatient services, 3 articles report that PHC nurses and doctors, who are often the first contact with the healthcare system, reported insufficient training and support in emergency management of MHCUs with severe and acute mental illness.26,27 Struwig28 also found that referrals to secondary level care had inadequate information.

Savings incurred as a result of budget cuts in tertiary psychiatric care facilities have not been transferred to support community oriented care.24,33 There is a shortfall in resources to adequately facilitate de-institutionalisation policy imperatives, so leading to insufficient dedicated beds in general hospitals, insufficient community-based residential care, and poor information systems to monitor the transitions to community-based care.27,28 In particular, there is a substantial shortfall in existing child and adolescent mental health services.35

It follows that recommendations for improving decentralised emergency care and observation of MHCUs with severe and acute mental disorders include: (i) demand for additional resources at the district/regional hospital level, particularly improved infrastructure and specialist staff; and (ii) improved training and support of PHC doctors and nurses for management and referral of cases as set out in the Mental Health Care Act.20,29-31,36 Mayers et al.25 also recommend training of MHCUs and service providers in users’ rights and the
### Table I. Synthesis of studies on mental health services research

<table>
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<tr>
<th>Findings</th>
<th>Recommendations</th>
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<td><strong>Tertiary inpatient care</strong></td>
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- Revolving-door phenomenon due to poor treatment adherence and defaulting; early discharge due to bed shortages and substance abuse.  
- Reduction in mental hospital beds across provinces, drop in income in two-thirds of psychiatric hospitals in KZN in a 5-year period following 2002.  
- Dehumanising experiences and human rights abuses. |  
- Improved community-based rehabilitation and care facilities.  
- Training of MHCUs and service providers in users’ rights; establish programmes to improve attitudes and communication between service providers and users. |

| **Decentralised community-based care – 72-hour observation and emergency care** |  
- Access to psychotropic medication largely available in general hospital inpatient psychiatric units and outpatient facilities.  
- Infrastructure and specialist personnel mostly inadequate for providing the 72-hr emergency management and observation service in general hospitals.  
- Many MHCUs bypass the district and regional hospital 72-hr observation period in the Western Cape.  
- Insufficient training and support of PHC personnel in emergency management of MHCUs.  
- Referral information to secondary level care inadequate.  
- Poor information system to facilitate and monitor de-institutionalisation. |  
- Improved infrastructure and specialist staff in general hospitals.  
- Improved training and support of PHC doctors and nurses in the MHC Act, emergency management and referral of cases.  
- Training of MHCUs and service providers in general hospitals in users’ rights, programmes to improve attitudes and communication between service providers and users.  
- Training of security personnel and SAPS in the MHC Act.  
- Improved information system to facilitate and monitor de-institutionalisation. |

| **Symptom management of severe chronic mental disorders at PHC clinics** |  
- PHC nurses comfortable with prescription maintenance management of MHCUs with chronic severe mental disorders.  
- Psychotropic medication not universally available at PHC clinics.  
- MHCUs would prefer a dedicated psychiatric service over an integrated service at PHC clinic level. |  
- Ensure psychotropic medication is universally available at PHC clinics. |

| **Community-based rehabilitation** |  
- Community-based psychosocial rehabilitation inadequate.  
- Assertive community-based treatment (ACT) approach effective for reducing the revolving door phenomenon and improving social and occupational functioning in high-frequency users. |  
- Adoption of a task-shifting approach to address community-based psychosocial rehabilitation service gaps, given resource constraints.  
- Conduct cost-benefit analysis of assertive community-based treatment (ACT) for high-frequency users.  
- Adopt task-shifting to scale up mental health services including psychological services for CMDs at PHC level.  
- In addition to general PHC clinics, integration of mental health services into ante-natal, postnatal and HIV/AIDS clinics.  
- Integrate screening and early intervention for children with CMDs in PHC settings and schools. |

| **Identification and treatment of common mental disorders (CMDs) at PHC level** |  
- Treatment gap of 75% for CMDs and general practitioner most common treatment source.  
- Identification and treatment of CMDs at PHC level irregular and inconsistent.  
- Reasons for lack of identification and management: inadequate training, insufficient time and paucity of referral pathways.  
- Need for referral pathways for trauma-related mental disorders highlighted by the adverse impact of perceived racial and non-racial discrimination on mental health, the psychological impact of HIV/AIDS bereavement, and high levels of traumatic events experienced by South Africans which are predictive of CMDs.  
- Need for psychological treatment services for CMDs demonstrated by help-seeking when psychological services provided.  
- HIV/AIDS bereavement escalates mental health service needs at PHC level.  
- High rates of maternal depression demand maternal mental health services.  
- Early-life mental disorders negatively affect educational achievement and future socio-economic prospects. |  
- Adopt task-shifting to scale up mental health services including psychological services for CMDs at PHC level.  
- In addition to general PHC clinics, integration of mental health services into ante-natal, postnatal and HIV/AIDS clinics.  
- Integrate screening and early intervention for children with CMDs in PHC settings and schools.
initiation of programmes to improve attitudes and communication between MHCUs and service providers at general hospitals. Given the role played by security personnel and the South African Police Service (SAPS) in involuntary and assisted admissions, strengthening of training of this sector in the Mental Health Care Act was also recommended by 2 studies.17,25

Symptom management of severe mental disorders at PHC clinics

While 2 studies suggest that PHC clinic nurses are generally comfortable with symptom management of chronic severe mental disorders through the provision of maintenance medication,22,23 psychotropic medication is not universally available at PHC clinics across the country.22,27 This poses a threat to adequate treatment adherence and increases the likelihood of defaulting, which was identified as contributing to the revolving-door phenomenon.22,23,27,29,39,40 Two studies investigated MHCUs’ experiences of symptom management at PHC level,20,28 both revealed that MHCUs would prefer a dedicated psychiatric service over an integrated service at PHC clinic level. In the main, this was to obviate having to wait in long queues, which was reported in one study to contribute to defaulting.45

Community-based psychosocial rehabilitation

A large number of articles (10) reveal gaps in community-based psychosocial rehabilitation programmes,13,17,21,22,29,39,43 particularly in rural areas. These articles corroborate those which suggest that the revolving door phenomenon is partly due to inadequate community-based care, including psychosocial rehabilitation. There has been only one intervention study investigating the efficacy of a modified assertive community-based treatment (ACT) approach that was shown to have good outcomes for reducing the revolving-door phenomenon and improving social and occupational functioning in high-frequency users.44 ACT is individually based and fairly resource-intensive. It may therefore not be appropriate for all service users in LMICs where specialist resources are scarce, but may be cost-effective for high-frequency users. Botha et al.44 suggest the need for a cost-benefit analysis of this approach for high-frequency users who are likely to consume costly resources through frequent admissions and use of police and prison services. An alternate option for more low-frequency users is the adoption of a task-shifting approach to address community-based rehabilitation service gaps, which was suggested by a number of studies in the review period.17,26,27 However, there are no intervention studies that provide evidence of the effectiveness of this approach in South Africa.

Identification and treatment of CMDs at PHC level

The SASH study revealed a 16.5% 12-month prevalence of CMDs45,46 and a lifetime prevalence of 30.3%,46,47 CMDs included anxiety, mood, impulse control and substance use disorders. The SASH study found CMDs to be associated with chronic physical illness, including hypertension,46 as well as being reported to be more disabling than physical disorders by respondents.46 However, a number of studies indicate irregular and inconsistent identification and treatment of CMDs at PHC level,22,29,62,63,65 corroborated by the SASH finding of a 75% treatment gap for CMDs nationally,22,65,66 with this gap being greater (>80%) when co-morbid with a personality disorder.22

Several factors have been identified as contributing to this gap, including inadequate training of PHC personnel, limited time of PHC personnel, and under-developed referral pathways.24,31,55 The need to address these issues through training and support of PHC staff to close the treatment gap for CMDs in adults is underlined by the SASH finding that the most common access to treatment is via general practitioners.52

Integrated primary mental healthcare for CMDs needs to adopt a stepped care approach which ensures identification and referral of CMDs for either medical or psychological treatment as indicated.
In addition to mood and anxiety disorders, this approach needs to include substance abuse as well as suicide risk. Substance abuse was identified by the SASH study as being particularly problematic in men,64,65 while South Africans at higher risk of non-fatal suicide attempts were found to be younger, female, less educated, from the Coloured ethnic group, and have one or more DSM IV disorders.64,65

The need for referral pathways for trauma-related CMDs is highlighted by the adverse impact of perceived racial and non-racial discrimination on mental health,66-69 the psychological impact of HIV/AIDS bereavement,62,65 and findings from the SASH study that South Africans have experienced and continue to experience a high number of traumatic events, including politically motivated human rights violations committed under the apartheid regime.64,65 Stressful life events, including traumatic events and relationship problems, were found to be predictive of CMDs.64,65

Psychological treatment can assist with many of these trauma-related CMDs. While psychological services have been integrated into PHC to a limited extent through the development of community psychology service placements,82 the need for increased access to psychological treatment is given impetus by several case studies that show that, where such services have been provided, help-seeking for treatment of CMDs is evident.59,62,63 In the context of scarce psychological resources, two articles recommend the adoption of a task-shifting approach for scaling up psychological services whereby non-specialist workers provide evidence-based psychological treatment packages, with support and supervision from specialists.59,73

In addition to ensuring identification and treatment of CMDs in general primary healthcare services for adults, the need for screening and early intervention in children within both PHC settings and schools is also highlighted by SASH findings that early-life mental disorders have a negative effect on educational achievement and future socio-economic prospects of individuals.10,11 The high prevalence of CMDs in prenatal and postnatal women as well as HIV/AIDS co-morbidity also suggests the need for mental healthcare for CMDs to be integrated into vertical antenatal, postnatal and HIV/AIDS clinic services. A study in 3 antenatal clinics in northern KwaZulu-Natal revealed an extremely high prevalence of antenatal depression (41%).61 Having an HIV-positive status has also been found to increase the risk of CMDs,62 as well as elevating the risk of suicide.77

Cross-cutting issues
Modelling of resources required
Lund et al.57,63,72 have done extensive work in South Africa calculating the resources required (beds, staff and facilities) to meet the service needs of people with severe mental disorders; as well as the beds, staff, facilities and budgets required to develop community-based mental health services83 and to develop child and adolescent mental health services.35 These modelling studies take into consideration the need to balance de-institutionalisation with the development of community mental health services.

Cultural congruence
There have been several studies in the past decade that explored the cultural congruence of mental health services in South Africa given the diversity of cultures and languages.62,75-81 These studies indicated that a large proportion of the population hold traditional explanatory models of illness; that MHCUs with severe mental disorders often utilise both Western public healthcare facilities and traditional healing systems concurrently or sequentially; that a minority of people with CMDs (about a fifth) seek help from alternative healers including traditional healers and spiritual advisors;57 and that there is little co-operation between the two systems of healing. It is not surprising that recommendations emanating from these studies and two other review studies10,11 include the need for greater co-operation between the two systems of healing to promote cultural congruence, increased training of traditional healers to promote mental health literacy, and research to assess the efficacy of traditional treatments.81

In addition, Ruane64 identified language and class differences as barriers to accessing psychological services in particular, with translation services not being optimal or desirable, suggesting the need for more African psychological service providers.65,86

Stigma and discrimination
Two studies suggested that some traditional explanatory beliefs promote stigma and discrimination.56,57 One of these found that being a beneficiary of a disability grant and having no employment can contribute to these problems.56 Stigma and discrimination can in turn contribute to defaulting80 and social isolation.42 Recommendations for reducing stigma and discrimination include psychosocial rehabilitation and mental health literacy programmes for service users, families and communities.80,87 A recent study suggests that while there are numerous anti-stigma activities across the country, there is a need for more evaluation of these activities and better understanding of what is effective.88

HIV/AIDS
As mentioned under the sub-heading of identification and treatment of CMDs at PHC level, the need for HIV/AIDS treatment programmes to include mental healthcare services is highlighted by a number of studies reporting on the co-morbidity of HIV/AIDS and mental disorders.76,89,90 These studies reveal high levels of CMDs associated with HIV (47.3%),76 especially depression, HIV-related post-traumatic stress disorder (PTSD), alcohol abuse,76,80,90 and elevated suicide risk.77 Given the high rate of HIV in psychiatric patients, 2 studies also indicated the need for mental health services to include HIV/AIDS prevention interventions for MHSUs with severe mental disorders, recommending staff training and institutional support to this end56,72 as well as the introduction of provider-initiated HIV testing for this population.51-54 One study indicates that individuals with anxiety or depressive disorders are more likely to engage in inappropriate behaviour change strategies86 and a further study demonstrated that men with CMDs may also be more prone to high risk sexual behaviour.86 These studies suggest the need for HIV risk reduction interventions with individuals with CMDs as well.

Concluding discussion
Building on research gaps identified in Thom’s review of mental health services prior to 2000, this review indicates that there has been significant progress with epidemiological studies, with the SASH study providing the first nationally representative epidemiological data base on CMDs. There has, however, been little progress made with intervention and economic evaluation studies. These remain research gaps, with close to 50% of the mental health services articles reviewed reporting on descriptive studies of the status of mental health services since 2000. A large number of these studies focused on the effects of the new Mental Health Care Act.2 The need for this comprehensive systematic review of mental health services research is highlighted by the finding that there had only been 3 related review studies since 2000, all of which focused on specific issues.

Collectively, studies on tertiary inpatient admissions and care, symptom management at PHC level, and community-based psychosocial rehabilitation provide corroborative evidence that there has been some progress with decentralised care, but that a number of setbacks and challenges remain. On the positive side, there is relatively wide availability of psychotropic medication, and PHC clinic nurses

October 2011, Vol. 101, No. 10 SAMJ 755
are generally comfortable with providing follow-up maintenance medication for MHCUs with severe and chronic mental disorders. On the negative side, while there has been a reduction in psychiatric hospital bed numbers, there has not been sufficient investment in the development of community-based psychosocial rehabilitative services to support de-institutionalisation. The result has been ‘dehospiatalisation’ and the development of the classic revolving-door phenomenon. This has also been the case in other countries where there were insufficient community-based rehabilitation programmes to support de-institutionalisation. Further, a number of studies indicate that the introduction of the 72-hour emergency management and observation period in designated regional and district hospitals in the absence of sufficient dedicated infrastructure and specialist staff as well as inadequate training and support of general staff, has negatively affected the quality of care provided. The review suggests that, in the absence of dedicated resources and adequate training and support of general staff, this additional responsibility places further strain on an already overburdened primary healthcare system, introducing the possibility of human rights abuses that the MHC Act seeks to prevent.

De-institutionalisation is not a cheaper option, and Lund et al. have done extensive work on calculating the resources required for tertiary and community-based care. In keeping with international recommendations (e.g. Thorncroft et al.), it is suggested that money saved from reduced spending on psychiatric institutions be ring-fenced and decentralised, following MHCUs into their community to ensure adequate community-based care. This would provide the necessary finances for supporting the following key recommendations to improve de-institutionalised care emanating from this review: (i) The need for more dedicated resources to support decentralised care within hospitals designated to provide the 72-hour emergency management and observation service, (ii) the development of community-based psychosocial rehabilitation programmes harnessing task shifting and self-help strategies that have been shown to have good outcomes in other developing countries, (iii) public education to improve mental health literacy and access to care as well as reduce stigma and discrimination, and (iv) the establishment of collaborative arrangements with traditional healers to promote culturally congruent care, understood to involve the development of community-based psychosocial rehabilitation programmes harnessing task shifting and self-help strategies that have been shown to have good outcomes in other developing countries.

Regarding CMDs, descriptive service studies indicated poor identification and treatment of these disorders at PHC level, corroborated by epidemiological data from the SASH study that showed a large treatment gap of 75% for CMDs. This treatment gap is a public health concern, given that CMDs have frequent co-morbidity with cardiovascular disease, diabetes and poor maternal and child health. They also increase risk for sexually transmitted disease, poor ARV treatment adherence, and accelerated disease course of AIDS.

In the face of limited specialist resources, a recommendation for closing the treatment gap for CMDs is the adoption of task shifting within a stepped care approach. PHC staff serving general as well as vertical antenatal, postnatal and HIV/ARV clinics would need to be trained and supported to identify CMDs, and manage and refer where appropriate. Because PHC staff are overstretched, harnessing trained community care workers to deliver manualised psychosocial interventions for specific conditions, where appropriate, is suggested. There is emerging international evidence of the effectiveness of such approaches from other low- and middle-income countries. This approach also provides the potential for promoting culturally congruent care by overcoming racial, class and language barriers that act as impediments to help-seeking behaviour.

In line with the above service recommendations, future mental health services research needs to focus on intervention and economic evaluation studies of evidence-based culturally appropriate packages of care using a task-shifting approach at the health facility and community levels of care. These should include community-based psychosocial rehabilitation and the identification and management of severe and common mental disorders. Organisational, intervention and economic evaluation research is also needed to understand the human resource mix and costing for the delivery of integrated packages of care at district level, including training and supervisory needs, organisational arrangements that promote cultural congruence, and capacity development needs for staff, e.g. training and sensitisation workshops and evidence-based programmes to improve communication and attitudes of staff towards users with mental disorders.

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