Reducing the treatment gap for mental disorders: a WPA survey

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The treatment gap for people with mental disorders exceeds 50% in all countries of the world, approaching astonishingly high rates of 90% in the least resourced countries. We report the findings of the first systematic survey of leaders of psychiatry in nearly 60 countries on the strategies for reducing the treatment gap. We sought to elicit the views of these representatives on the roles of different human resources and health care settings in delivering care and on the importance of a range of strategies to increase the coverage of evidence-based treatments for priority mental disorders for each demographic stage (childhood, adolescence, adulthood and old age). Our findings clearly indicate three strategies for reducing the treatment gap: increasing the numbers of psychiatrists and other mental health professionals; increasing the involvement of a range of appropriately trained non-specialist providers; and the active involvement of people affected by mental disorders. This is true for both high income and low/middle income countries, though relatively of more importance in the latter. We view this survey as a critically important first step in ascertaining the position of psychiatrists, one of the most influential stakeholder communities in global mental health, in addressing the global challenge of scaling up mental health services to reduce the treatment gap.

Key words: Mental disorders, treatment gap, mental health services, primary care, human resources, coverage of care, evidence-based treatments

(World Psychiatry 2010:9:169-176)

The treatment gap for people with mental disorders exceeds 50% in all countries of the world, approaching astonishingly high rates of 90% in the least resourced countries, even for serious mental disorders associated with significant role impairments (1-3). A number of recent initiatives have called for action to scale up services for people with mental disorders based on evidence of effective interventions and respect for human rights (4,5). Evidence on effective treatments has been synthesized in the forthcoming Mental Health Gap Action Programme (mhGAP) guidelines of the World Health Organization (WHO) for eight mental, neurological and substance use disorders (6). Evidence on delivery mechanisms for such treatments has been summarized in a recent series of articles in PLoS Medicine (7). A major question is how these treatments and delivery mechanisms can be scaled up in the context of limited resources in all countries.

One of the goals of the WPA Action Plan 2008-2011 is to partner with Member Societies in their effort to increase the coverage of care for mental disorders across the life course (8,9). The survey reported in this paper aimed to explore the opinions of WPA Zonal Representatives and Member Societies regarding strategies to increase coverage of services, focusing on areas where mental health specialists are scarce. More specifically, we sought to elicit views on the role of different human resources and health care settings and of specific strategies to increase the coverage of evidence-based treatments for priority mental disorders in each demographic stage (childhood, adolescence, adulthood and old age). Since human and financial resource constraints differ between high income (HIC) and low and middle income (LMIC) countries, we aimed to define and compare strategies for these two contexts.

METHODS

The study consisted of two consecutive surveys with two groups of respondents. The first survey was a scoping exercise to identify priority mental disorders and their specific treatments for each of the four demographic stages. All 18 WPA Zonal Representatives were invited to participate in this round. The second survey was carried out with WPA Member Societies and focused on improving the coverage of treatments and the overall outcomes of the priority disorders identified in the first round. In order to maximize country level responses, all Member Societies in a country were asked to participate. In the event that more than one Member Society from the same country responded, the response from the most nationally representative Society was included in the analyses.

Round 1 respondents were asked to identify priority conditions based on their assessment of the burden (prevalence and impact) in their region. Next, they were asked to list the acceptable and affordable evidence-based treatments for these disorders given current resources. Respondents were then asked about the roles of various health care providers and treatment settings (such as primary care) in the delivery of mental health care. Lastly, three open-ended questions were asked to elicit strategies for improving access to mental health care, help-seeking behaviour, and adherence with long term care. Eight disorders were identified as priorities in

this round (hyperkinetic disorder and anxiety disorder for children; depression and substance abuse for adolescents; schizophrenia and depression for adults; depression and dementia for older people). As we considered the overlap between depressive disorder in adults and older people to be large, we merged these two disorder groups for Round 2.

The response categories used for Round 2 were derived from Round 1. Respondents were asked to focus on the most acceptable and cost-effective way to increase coverage of care particularly for the underserved in their country. For each priority condition, respondents rated human resources and settings of care according to their importance for improving the coverage of the priority treatments with respect to diagnosis, medication management and psychosocial interventions. Human resources were: psychiatrists; other mental health specialists; other medical workers (e.g., primary care doctors); non-medical health workers; and service users or families. For dementia in older people, we also inquired about the role of other specialists (geriatricians and neurologists). Settings of care were: psychiatric inpatient and outpatient units; community mental health units; primary care and/or general medical units; HIV/AIDS units for younger age groups; schools (for children and adolescents); and home-based care. Next, respondents were asked to rate the importance of six strategies (increasing psychiatric/specialist human resources; increasing other health human resources; public education campaigns; increasing availability of treatments; increasing diversity of settings of care; and increasing service user/family involvement) for improving four key outcomes for each disorder: access to care; help-seeking; adherence; and effectiveness. One final open-ended question asked respondents to provide examples of any other strategies to increase coverage for each disorder.

Respondents were invited to complete an online questionnaire in a personal email from the WPA President, who subsequently followed up the non-responders. Questionnaires for both rounds were divided into four sections: children, adolescents, adults, and older people. Respondents were asked to answer the same set of questions for each demographic stage in order to build up a picture of the continuum of care for mental disorders across the life course.

For Round 1, we conducted a thematic descriptive analysis, defining the priority disorders and treatments identified for each demographic stage. A qualitative analysis of the open-ended questions was used to identify important strategies for improving outcomes for people with mental disorders. The results from Round 1, including additional data on the types of health workers and settings of care most relevant for specific demographic stages, were used to inform the content of the questionnaire for Round 2.

For Round 2, a thematic descriptive analysis of data was done for each demographic stage, focusing on service delivery of interventions and improving outcomes for the priority disorders identified in Round 1. The ratings in Round 2 were based on a four-point scale ranging from "not at all' to "extremely" important. In presenting the results, we used an algorithm to rank categories rated "extremely important" by at least 75% of respondents or "extremely or moderately important" by at least 90% of respondents as "most important"; categories rated "extremely important" by 50-74% respondents or "extremely or moderately important" by 75-89% of respondents as "very important"; and categories rated "extremely or moderately important" by 60-74% of respondents as "important". Qualitative responses to the final open-ended questions for each disorder were analysed thematically. Responses which duplicated the closed rating categories, for example on improving availability of specific treatments, were excluded. Analyses were stratified by resource level.

Countries were classified using the World Bank Atlas method according to 2004 gross national income (GNI) per capita as either high (GNI of $10,066 or more) or middle/low income (GNI of $10,065 or less). We conducted sensitivity analyses using level of mental health professionals derived from the WHO Atlas (10) (number of psychiatrists, psychiatric nurses and psychologists per 100,000 inhabitants) to assess the validity of this classification of countries for the purposes of our study. A good correspondence was found between the World Bank classification and the WHO Atlas figures, apart from a few exceptions such as Spain (a high income country with only 9.7 mental health professionals per 100,000 inhabitants) and Argentina (a middle income country with 122.6 mental health professionals per 100,000 inhabitants).

RESULTS

All 18 WPA Zonal Representatives and Member Societies representing 60 countries agreed to participate in the survey. In Round 1, all 18 WPA Zonal Representatives returned questionnaires (100% response rate). In Round 2, Member Societies representing 57 countries returned questionnaires (95% response rate). Eighteen countries were classified as HIC, and 39 as LMIC.

Priority disorders and treatments

Table 1 shows the mental disorders currently considered the main focus of attention for health services and those regarded by the respondents as needing greater attention, while Table 2 presents the treatments which are currently considered by respondents to be the most common for priority disorders and those which, in their view, should be used more often.

For children, conduct disorders and hyperkinetic disorder were identified as priority disorders in both HIC and LMIC contexts, with anxiety disorders a further priority in HICs and mental retardation the main priority in LMICs. In both contexts, hyperkinetic disorder was thought to need greater attention, together with childhood autism and other pervasive developmental disorders in HICs and anxiety disorders in LMICs. Stimulant medication and psychosocial interventions with caregivers were the most common treatments for

Table 1 Mental disorders currently representing a major focus for health services and those regarded as needing greater attention (in order of importance)

Children		Adolescents		Adults		Older people	
Current priority mental disorders							
HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC
- Conduct disorder - Hyperkinetic disorder - Anxiety disorders	- Mental retardation - Hyperkinetic disorder - Conduct disorder	- Depression - Anxiety disorders - Schizophrenia	- Schizophrenia - Substance abuse - Depression	- Schizophrenia - Depression - Bipolar disorder	- Schizophrenia - Depression - Anxiety disorders	- Dementia - Depression	- Dementia - Depression
Disorders needing greater attention							
HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC
- Pervasive developmental disorders - Hyperkinetic disorder	- Hyperkinetic disorder - Anxiety disorders - Depression	- Substance abuse	- Depression - Substance abuse - Anxiety disorders	- Personality disorders - Substance abuse	- Depression - Anxiety disorders - Bipolar disorder	- Depression - Dementia	- Depression - Dementia

HIC – high-income countries; LMIC – low- and middle-income countries

Table 2 Interventions for the seven priority mental disorders (in order of importance)

Children		Adolescents		Adults	Adults and older people	Older people
Hyperkinetic disorder	**Anxiety disorders**	**Depression**	**Substance abuse**	**Schizophrenia**	**Depression**	**Dementia**
Commonly used interventions						
HIC: stimulant medication; psychoeducation with caregivers; atomoxetine; educational intervention *LMIC*: stimulant medication; psychoeducation with caregivers	*HIC*: SSRIs; CBT; psychoeducation with caregivers *LMIC*: SSRIs; psychoeducation with caregivers; CBT	*HIC*: SSRIs; CBT *LMIC*: SSRIs; CBT	*HIC*: group psychotherapies; substitution medications; motivational interviewing *LMIC*: anxiolytics; motivational interviewing; group psychotherapies	*HIC*: atypical antipsychotics; social skills training; occupational skills training; family intervention strategies *LMIC*: typical antipsychotics; atypical antipsychotics; family intervention strategies	*HIC*: SSRIs; SNRIs; CBT *LMIC*: SSRIs; tricyclic antidepressants; SNRIs	*HIC*: anticholinesterase drugs; NMDA receptor agonist; risperidone *LMIC*: haloperidol; risperidone; anticholinesterase drugs
Interventions to be used more frequently						
HIC: psychoeducation with caregivers; CBT; social skills training *LMIC*: psychoeducation with caregivers; stimulant medication; social skills training; educational interventions	*HIC*: CBT; group psychotherapies; psychoeducation with caregivers *LMIC*: CBT; psychoeducation with caregivers; group psychotherapies	*HIC*: CBT; interpersonal therapy; family psychotherapies *LMIC*: family psychotherapies; CBT; interpersonal therapy	*HIC*: CBT; interpersonal therapy; family psychotherapies *LMIC*: CBT, family psychotherapies; group psychotherapies	*HIC*: CBT; family intervention strategies; occupational skills training; neuro-cognitive therapy *LMIC*: social skills training; occupational skills training; family intervention strategies	*HIC*: CBT; interpersonal therapy; ECT *LMIC*: CBT; interpersonal therapy; SNRIs	*HIC*: psychoeducation with caregivers; caregiver respite (daycare); caregiver respite (homecare) *LMIC*: psychoeducation with caregivers; caregiver respite (daycare); caregiver respite (homecare)

HIC – high-income countries; LMIC – low- and middle-income countries; SSRIs – selective serotonin reuptake inhibitors; CBT – cognitive behaviour therapy; SNRIs – serotonin and norepinephrine reuptake inhibitors; ECT – electroconvulsive therapy

hyperkinetic disorder in both contexts. Psychosocial interventions and social skills training for the child were identified as treatments that should be used more often for hyperkinetic disorder in both contexts. For anxiety disorders, there was agreement between HIC and LMIC in terms of what treatments were most common (selective serotonin reuptake inhibitors, SSRIs; cognitive behaviour therapy, CBT; and psychoeducational interventions with caregivers) and what treatments should be used more often (CBT, group psychotherapies, and psychoeducational interventions with caregivers).

For adolescents, depression and schizophrenia/other psychoses were ranked as the priority disorders in both contexts, with anxiety and substance use disorders regarded as additional priorities in HIC and LMIC respectively. Substance use disorders and depression/anxiety disorders were identified as requiring much greater attention in both contexts. Medications were the most common forms of treatment for both disorders: SSRIs dominated for depression, while substitution treatment and benzodiazepines were the most common treatments for substance use disorders in HIC and LMIC respectively. Although psychological treatments were reported to be frequently used in both contexts, they were also rated as treatments which need to be used more often.

For adults, nearly all respondents reported schizophrenia/other psychoses and depression as the priority disorders in both contexts, followed by bipolar disorder in HIC and anxiety disorders in LMIC. Greater attention was thought to be needed on depression, anxiety disorders and bipolar disorder in LMIC, and personality disorders and substance use disorders in HIC. Atypical antipsychotics dominated the treatment of schizophrenia in HIC, whereas typical antipsychotics remain by far the most frequently used treatment in LMIC. All other evidence-based treatments are much less frequently implemented, with only family intervention strategies being in relatively common use. There was a consistent feedback from respondents that psychosocial interventions should be more frequently used for people with schizophrenia, with psychiatrists from HIC emphasizing CBT, and those from LMIC focusing on social and occupational skills training. SSRIs were reported by all respondents to be the most common treatment for depression in both contexts, with tricyclic antidepressants still commonly prescribed in LMIC. Respondents from both HIC and LMIC almost unanimously felt that psychological therapies, in particular CBT, deserve to be more frequently implemented in people with depression.

For older people, almost all respondents considered dementia and depression to be the priority disorders, and also the two conditions that merited more attention. Medications were by far the most currently used interventions in both contexts, though the drug type differed between contexts (antidementia drugs and atypical antipsychotics in HIC, and haloperidol in LMIC). Psychosocial interventions for carers and respite care were considered to be commonly used by around a half of HIC respondents, but by only a small minority of LMIC respondents. In the opinion of respondents from both contexts, non-pharmacological interventions are significantly underused, particularly psychosocial interventions for carers and non-institutional respite care. Around a half of LMIC respondents also felt that antidementia drugs were underused in their countries, and around a third that the atypical antipsychotic risperidone was underused in the treatment of severe behavioural and psychological symptoms of dementia.

Increasing the coverage of care

Tables 3 and 4 summarize, respectively, the responses concerning the perceived importance of different human resources and of different health care settings in increasing the coverage of treatments for the seven priority mental disorders across the life course. Table 5 summarizes the responses concerning strategies to improve outcomes for each of these disorders.

Psychiatrists were ranked as being an extremely or very important resource for all clinical roles for all mental disorders across the age groups in both contexts. Other mental health specialists were regarded as an extremely or very important resource for psychosocial interventions for all mental disorders and for diagnosis (particularly of child and adolescent disorders) in both contexts; they were not, however, considered to have an important role to play in medication prescription or review. Other medical workers (such as primary care doctors) were regarded as being important or very important for diagnosis and medication in child and adolescent mental disorders and adult depression in both contexts, and in schizophrenia and dementia in LMIC. Other medical specialists, such as geriatricians and neurologists, were considered to be extremely important for diagnosis and very important for medication in dementia in both HIC and LMIC. Non-medical health workers were considered to be important for psychosocial interventions in all mental disorders in both contexts. Service users and family members were reported to be important or very important for psychosocial interventions in all mental disorders in both contexts and for diagnosis and medication provision in substance abuse and depression in LMIC.

Psychiatric inpatient or outpatient units and community mental health units were reported to be extremely or very important for all roles in all mental disorders in both contexts, in particular for diagnosis and medication initiation/review. General medical units were considered to be important or very important for all roles in substance use disorders in both contexts, and in depression in LMIC, and for diagnosis and medication of childhood disorders in LMIC. Primary care units were rated as important or very important, in particular for diagnosis and medication management of all mental disorders, with the exception of hyperkinetic disorder and schizophrenia in HIC. In both contexts, schools and other community settings were rated as important to extremely important for diagnosis and psychosocial interventions in child and adolescent mental disorders, as were other community settings for psychosocial interventions in dementia. Home-based care was reported to be important or very important

Table 3 Importance of human resources for increasing coverage of care for priority disorders according to respondents

Human resource	Roles	Children				Adolescents				Adults		Adults and older people		Older people	
		Hyperkinetic disorder		Anxiety disorders		Depression		Substance abuse		Schizophrenia		Depression		Dementia	
		HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC
Psychiatrist	Diagnosis	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
	Medication	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
	Psychosocial	√√	√√	√√√	√√	√√√	√√	√√√	√√	√√√	√√√	√√√	√√	√√√	√√
Other mental health specialist	Diagnosis	√√√	√√√	√√√	√√√	√√√	√√	√√	√√√	√	√√	-	√√	-	√√
	Medication	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Psychosocial	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√	√√√	√√√	√√√	√√√	√√
Primary care doctor	Diagnosis	√	√√	√√	√√	√√	√√	√√	√√√	-	√√	√√√	√√√	√√√	√√√
	Medication	√	√	√	√√	√√	√√	√√	√√	-	√	√√	√√	√√	√√
	Psychosocial	-	-	√	√	√	√	√	√√	-	√	√	√	-	√
Non-medical health worker	Diagnosis	-	-	-	-	-		-	√	-	-	-	-	-	-
	Medication	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Psychosocial	-	√	√	√√	√√	√√	√√	√√	√√	√√	√	√√√	√√	√√
Service users/family members	Diagnosis	-	-	-	√	-	√	√√	√√	-	√	-	√√	√	√
	Medication	-	-	-	-	-	√	-	√	-	√	-	√	-	-
	Psychosocial	√	√√	√√	√√	√√	√√	√√	√√	√√√	√√	√√	√√	√√	√√

HIC – high-income countries; LMIC – low- and middle-income countries; √√√ – extremely important; √√ – very important; √ – important

Table 4 Importance of health care settings in increasing coverage of care for priority disorders according to respondents

Setting	Roles	Children				Adolescents				Adults		Adults and older people		Older people	
		Hyperkinetic disorder		Anxiety disorders		Depression		Substance abuse		Schizophrenia		Depression		Dementia	
		HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC
Psychiatric units	Diagnosis	√√√	√√	√√√	√√	√√√	√√√	√√√	√√	√√√	√√√	√√√	√√√	√√√	√√√
	Medication	√√√	√√	√√√	√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
	Psychosocial	√√	√√	√√√	√√	√√√	√√	√	√√	√√√	√√	√√√	√√	√√	√√
Community mental health units	Diagnosis	√√	√√√	√√√	√√	√√√	√√	√√√	√√√	√√	√√√	√√√	√√	√√	√√
	Medication	√√	√√	√√	√√	√√	√√	√√	√√	√√	√√	√√√	√√	√√	√√
	Psychosocial	√√	√√√	√√√	√√√	√√√	√√	√√√	√√√	√√√	√√√	√√√	√√√	√√	√√√
General medical units	Diagnosis	√	√√	√	√√	√	√√	√√	√√√	-	√	√	√	√√√	√√√
	Medication	-	√√	-	√√	-	√√	√√	√√	-	√	√	√	√√√	√√√
	Psychosocial	-	√	√	√	√	√√	√√	√√	-	√	√	√√	√√	√√
Primary care units	Diagnosis	-	√√	√	√√	√	√	√√	√√	-	√√	√√√	√√√	√√	√√
	Medication	√	√	√√	√	√	√	√√	√√	-	√√	√√√	√√	√√	√√
	Psychosocial	-	√	-	√	√	√	√	√	-	√	√	√	√	√
Schools/other community settings	Diagnosis	√	√√	√	√	-	√	-	√√	-	-	-	-	-	-
	Medication	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Psychosocial	√√	√√√	√√	√√	√	√√√	√√	√√	-	-	-	√	√√	√√
Home based care	Diagnosis	√	√	√	√√	-	√	-	√	-	√	-	√	-	√√
	Medication	-	-	-	√	-	-	-	√	√	√	-	-	-	√
	Psychosocial		√√	√	√√	√	√√	-	√√	√√√	√√	√	√√	√√	√√

HIC – high-income countries; LMIC – low- and middle-income countries; √√√ – extremely important; √√ – very important; √ – important

for psychosocial interventions in all mental disorders in both contexts and, in LMIC, for diagnosis of child mental disorders and diagnosis and medication management of dementia. In general, all treatment settings were considered to be important for increasing the coverage of psychosocial treatments, with community mental health units most frequently rated as extremely important for this.

Across all four outcomes (improved access to health services, improved help-seeking, improved adherence and improved effectiveness of treatment), four strategies were regarded as extremely or very important for all disorders and both contexts: increasing psychiatric human resources; increasing appropriately trained non-psychiatric human resources; increased availability of treatments; and increased user and carer involvement. Public education campaigns were also rated as extremely or very important for all mental

Table 5 Importance of strategies for improving outcomes according to respondents

	Children				Adolescents				Adults		Adults and older people		Older people	
	Hyperkinetic disorder		Anxiety disorders		Depression		Substance abuse		Schizophrenia		Depression		Dementia	
	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC	HIC	LMIC
Improved access to health services														
Increase psychiatric HR	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
Increase trained non-psychiatric HR	√√√	√√√	√√	√√√	√√	√√	√√√	√√√	√√	√√√	√√√	√√√	√√√	√√√
Public education campaigns	√√√	√√√	√√	√√√	√√	√√√	√√√	√√√	√√	√√√	√√√	√√√	√√	√√
Increase availability of range of treatments	√√	√√	√√	√√	√√	√√	√√	√√√	√√	√√	√√	√√	√√√	√√
Increase delivery in non-psychiatric settings	√	√√	√	√√	√√	√√	√√	√√	-	√√	√√	√√	√√	√√√
Increase family/user involvement	√√√	√√	√√	√√√	√√√	√√	√√√	√√√	√√√	√√	√√√	√√	√√√	√√√
Improved help-seeking with health services														
Increase psychiatric HR	√√	√√	√√√	√√√	√√√	√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
Increase trained non-psychiatric HR	√√	√√√	√√	√√√	√√	√√√	√√√	√√√	√√	√√√	√√√	√√	√√√	√√
Public education campaigns	√√	√√√	√√	√√√	√√	√√√	√√	√√√	√√	√√	√√√	√√	√√	√√√
Increase availability of range of treatments	√√	√√	√√	√√	√√	√√	√√	√√	√√	√√√	√√	√√	√√√	√√
Increase delivery in non-psychiatric settings	√	√√	√	√√	√√	√√	√√	√√	√	√√	√√	√√	√√	√√√
Increase family/user involvement	√√√	√√	√√	√√√	√√	√√	√√√	√√√	√√√	√√√	√√√	√√	√√√	√√√
Improved adherence with treatment														
Increase psychiatric HR	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√	√√√
Increase trained non-psychiatric HR	√√√	√√	√√√	√√	√√	√√	√√√	√√√	√√√	√√	√√√	√√	√√	√√
Public education campaigns	√√	√√	√√	√√	√√	√√	√√	√√	√√	√√	√	√√	√√	√√
Increase availability of range of treatments	√√√	√√√	√√	√√√	√√	√√√	√√	√√√	√√	√√	√√√	√√	√√√	√√
Increase delivery in non-psychiatric settings	-	√√	√	√	√√	√	-	√√	√	√	√	√	√√	√√
Increase family/user involvement	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
Improved effectiveness of treatment														
Increase psychiatric HR	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√	√√√
Increase trained non-psychiatric HR	√√√	√√	√√	√√	√√	√√	√√√	√√	√√	√√	√√√	√√	√√√	√√
Public education campaigns	√	√√	-	√	√	√	√	√	-	√	√	√	√	√
Increase availability of range of treatments	√√√	√√√	√√	√√	√√	√√√	√√	√√√	√√	√√	√√	√√	√√√	√√
Increase delivery in non-psychiatric settings	√	√	√	√	√	√√	√	√	√	√	√	√	√√	√√
Increase family/user involvement	√√	√√	√√	√√	√√	√√	√√√	√√	√√	√√	√√√	√√	√√√	√√

HIC – high-income countries; LMIC – low- and middle-income countries; HR – human resources
√√√ – extremely important; √√ – very important; √ – important

disorders in both contexts for improving access, help-seeking and adherence. Increased delivery in non-psychiatric settings was reported as extremely or very important for improving all outcomes for dementia; for improving access for all conditions other than childhood disorders and schizophrenia in HIC; and for improving help-seeking for all conditions other than childhood disorders in HIC.

A total of 135 responses were obtained for the open-ended final question on other strategies for improving outcomes. Many of the strategies proposed were related to those already covered in the main questionnaire (for example, increasing the availability of specific treatments) and are not reported again. Additional strategies focused on building awareness among professional and user communities about mental disorders; provision of services other than those included in the main questionnaire (such as half-way homes for people with schizophrenia and special education for children with mental disorders); expanding the scope of providers (e.g., through traditional or religious healers); strategies to combat stigma associated with mental disorders across the life course; early detection and intervention strategies; and policy initiatives such as for alcohol abuse and older people.

DISCUSSION

We report the findings of the first systematic survey of leaders of psychiatry in nearly 60 countries on the strategies for reducing the treatment gap for seven mental disorders across the life course. This survey was carried out in the context of the severe shortage and inequity in the distribution of mental health resources in almost all countries, and the recent global initiatives leading to the recommendation of specific treatments for mental disorders.

Four broad themes emerge from our findings across both HIC and LMIC contexts. First, the need to increase specialist mental health human resources, both psychiatrists and allied clinical mental health professionals. Second, a need to increase access through primary care by increasing the involvement of non-specialist health workers, including medical and nursing professionals and non-medical health workers. These themes are consonant with the evidence base that, while task-shifting to non-specialist health workers is a cost-effective way of improving outcomes in people with mental disorders, especially in LMIC, continuing supervision and support from mental health professionals is required (11).

Thus, reducing the treatment gap will require more, and more widely distributed mental health professionals to lead the design, implementation and evaluation of community-based mental health care programs. The third theme was the demand for greater access to psychosocial interventions for all mental disorders. Evidence-based care programs need to emphasize psychological treatments such as CBT and interpersonal therapy and social interventions such as carer respite alongside pharmacological treatments. The fourth theme was the need for an increased involvement of service users and family members in mental health care, particularly in LMIC. Service users and family members need to be empowered as active participants in service planning and delivery, as opposed to mere passive recipients of care. While there were more similarities between HIC and LMIC respondents than might have been expected, there were also notable differences, reflecting the discrepancies in available resources. Thus, typical antipsychotics were more widely used than atypicals in LMIC, as expected given the limited availability of newer and more expensive therapies. Also, in LMIC, other mental health specialists and non-specialists were accorded a relatively greater role in increasing the coverage of diagnosis and treatment for most mental disorders.

Our study has some obvious limitations. The most important one is the small coverage of countries in some areas, such as Africa, where only few national psychiatric societies exist. Secondly, respondents were all psychiatrists, which may explain the high salience attributed to psychiatric treatment settings in increasing the coverage of mental health care. What was noteworthy, however, was the equally emphatic readiness to acknowledge the crucial role of users of mental health services and their families, and the important role of non-specialist providers (primary care doctors, non-medical health workers) in diagnosis, medication management and psychosocial support. To the extent to which these professional leaders represent or influence the opinions of their members, this suggests that task shifting and collaborative care is considered both practicable and desirable. This is an important finding in the context of observations that psychiatrists can, on occasions, represent an obstacle to reform in this direction (12). On the other hand, this is the first systematic survey of the opinions of leading psychiatrists worldwide on strategies for reducing the treatment gap, supported by the largest professional body in global mental health. We acknowledge the need to consult all relevant stakeholders in planning the scaling up of mental health services to meet the need and reduce the treatment gap, and see this survey as a critically important first step in ascertaining the position of psychiatrists, arguably one of the most influential stakeholder communities in global mental health.

Our findings clearly indicate three strategies for reducing the treatment gap: increasing the numbers of psychiatrists and other mental health professionals; increasing the involvement of a range of other non-specialist providers and settings in mental health care; and the active involvement of people affected by mental disorders. This is true for both HIC and LMIC, though relatively of more importance in LMIC. The strong support for the increased role of those affected by mental disorders in mental health care is in line with the goals of the Movement for Global Mental Health**,** which advocates a broad-based approach to addressing mental health needs and reducing the treatment gap, with a strong partnership between practitioners and those affected by mental disorders. Through the implementation of its Action Plan 2008-2011 (8-9), the World Psychiatric Association is working to increase the number of psychiatrists and to improve the quality of psychiatric training and continuing education.

In conclusion, scaling up of mental health services can only be achieved effectively if three elements are in place: task shifting to non-specialist providers; an increase in the specialist mental health resources to provide effective and sustained supervision and support; and a decentralization of those specialist mental health resources. The WPA will continue to promote the development of mental health care and its integration into primary care in all countries, promoting the implementation of all the strategies identified in this study.

APPENDIX

The WPA Zonal and Member Society Representatives participating in the survey include: Raymond Tempier (WPA Zone 1 and Canadian Psychiatric Association), Michelle B. Riba (WPA Zone 2 and American Psychiatric Association), Mauricio Sanchez (WPA Zone 3), Fabrizio Delgado Campodonico (WPA Zone 4), Luis Risco (WPA Zone 5), Linda Gask (WPA Zone 6), Henrik Wahlberg (WPA Zone 7), Miquel Roca (WPA Zone 8), Dusica Lecic-Tosevski (WPA Zone 9), Armen Soghoyan (WPA Zone 10 and Armenian Association of Psychiatrists and Narcologists), Driss Moussaoui (WPA Zone 11), Charles Baddoura (WPA Zone 12), Joseph Adeyemi (WPA Zone 13), Solomon Rataemane (WPA Zone 14), S. Ahmed Jalili (WPA Zone 15), E. Mohandas (WPA Zone 16 and Indian Psychiatric Society), Naotaka Shinfuku (WPA Zone 17), Julian Freidin (WPA Zone 18), Juan Carlos Stagnaro (Association of Argentinean Psychiatrists), Ines Josefina Puig (Foundation for Interdisciplinary Investigation of Communication, Argentina), Kenneth Kirkby (Royal Australian and New Zealand College of Psychiatrists), Michael Musalek (Austrian Association of Psychiatry and Psychotherapy), Nadir Ismayilov (Azerbaijan Psychiatric Association), Golam Rabbani (Bangladesh Association of Psychiatrists), Sharon Harvey (Barbados Association of Psychiatrists), Bernard Sabbe (Society of Flemish Neurologists and Psychiatrists, Belgium), Nils Noya-Tapia (Bolivian Society of Psychiatry), Marija Burgic-Radmanovic (Psychiatric Association of Bosnia-Herzegovina), Luiz Alberto Hetem (Brazilian Association of Psychiatry), Fatima Vasconcellos (Psychiatric Association of Rio de Janeiro State, Brazil), Juan Maass (Society of Neurology, Psychiatry and Neurosurgery, Chile), Carlos Miranda (Colombian Psychiatric Associa-

tion), Neophytos Papaneophytou (Cyprus Psychiatric Association), Jiri Raboch (Czech Psychiatric Association), Anders Fink-Jensen (Danish Psychiatric Association), Ahmed Okasha (Egyptian Psychiatric Association), Jyrki Korkeila (Finnish Psychiatric Association), Julien Daniel Guelfi (Medical Psychologic Society, France), Frank Schneider (German Association for Psychiatry and Psychotherapy), Sammy Ohene (Ghana Psychiatric Association), George Christodoulou (Hellenic Psychiatric Association, Greece), Constantin R. Soldatos (Hellenic Society of Neurology and Psychiatry, Greece), See King Emilio Quinto Barrera (Guatemalan Psychiatric Association), Mario Mendoza (Honduran Society of Psychiatry), Roy Abraham Kallivayalil (Indian Association for Social Psychiatry), Shahrokh S. Gudarzi (Iranian Psychiatric Association), Mohammed R. Lafta (Iraqi Society of Psychiatrists), Mariano Bassi (Italian Psychiatric Association), Massimo Clerici (Italian Association for Research in Schizophrenia), Roger Gibson (Jamaica Psychiatric Association), Takuya Kojima (Japanese Society of Psychiatry and Neurology), Saltanat Nurmagambetova (Kazakh Association of Psychiatrists and Narcologists), Soo-Churl Cho (Korean Neuropsychiatric Association), Tamilla Kadyrova (Kyrgyz Psychiatric Association), Nabil Mikati (Lebanese Psychiatric Society), Sojan Bajraktarov (Psychiatric Association of Macedonia), Teck Hoe Yen (Malaysian Psychiatric Association), Bayanhuu Ayushjav (Mongolian Mental Health Association), Lidija Injac Stevovic (Montenegrin Psychiatric Association), José Santiago Sequeira Molina (Nicaraguan Psychiatric Association), Oye Gureje (Association of Psychiatrists in Nigeria), Jan Olav Johannessen (Norwegian Psychiatric Association), Haroon Rashid Chaudhry (Pakistan Psychiatric Society), Bassam Al-Ashhab (Palestinian Psychiatric Association), Aleksander Araszkiewicz (Polish Psychiatric Association), Dan Prelipceanu (Romanian Psychiatric Association), Valery Krasnov (Russian Society of Psychiatrists), Anatoly Bogdanov (Independent Psychiatric Association of Russia), Miroslava Jasovic-Gasic (Serbian Psychiatric Association), Livia Vavrusova (Slovak Psychiatric Association), Peter Pregelj (Psychiatric Association of Slovenia), Alberto Fernandez Liria (Spanish Association of Neuropsychiatry), Abdallah Abdelrahman (Sudanese Association of Psychiatrists), Pichet Udomratn (Psychiatric Association of Thailand), Halis Ulas (Psychiatric Association of Turkey), Peykan Gokalp (Turkish Neuro-Psychiatric Association), Fred N. Kigozi (Uganda Psychiatric Association), Greg Richardson (Royal College of Psychiatrists, UK).

References

1. Saxena S, Thornicroft G, Knapp M et al. Resources for mental health: scarcity, inequity, and inefficiency. Lancet 2007;370:878-89.
2. Demyttenaere K, Bruffaerts R, Posada-Villa J et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. JAMA 2004;291:2581-90.
3. Kebede D, Alem A, Shibre T et al. Onset and clinical course of schizophrenia in Butajira-Ethiopia – a community-based study. Soc Psychiatry Psychiatr Epidemiol 2003;38:625-31.
4. Editorial. A movement for global mental health is launched. Lancet 2008;372:1274.
5. Lancet Global Mental Health Group. Scaling up services for mental disorders – a call for action. Lancet 2007;370:1241-52.
6. World Health Organization. Mental Health Gap Action Programme (mhGAP): scaling up care for mental, neurological and substance abuse disorders. Geneva: World Health Organization, 2008.
7. Patel V, Thornicroft G. Packages of care for mental, neurological, and substance use disorders in low- and middle-income countries: PLoS Med 2009;6:e1000160.
8. Maj M. The WPA Action Plan 2008-2011. World Psychiatry 2008; 7:129-30.
9. Maj M. The WPA Action Plan is in progress. World Psychiatry 2009; 8:65-6.
10. Saxena S, Sharan P, Garrido M et al. World Health Organization's Mental Health Atlas 2005: implications for policy development. World Psychiatry 2006;5:179-84.
11. Patel V. The future of psychiatry in low and middle income countries. Psychol Med 2009;39:1759-62.
12. Saraceno B, van Ommeren M, Batniji R et al. Barriers to improvement of mental health services in low-income and middle-income countries. Lancet 2007;370:1164-74.