

also likely to be maximised.<sup>11</sup> More information is, however, still required for prescribers to be able to make rational decisions about the use of these agents, particularly in older people in whom comorbidity is common and for whom the stakes are high. The stakes are also very high for the manufacturers of these drugs, who must ensure the highest standards of research governance in future studies.

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## The global response to mental illness

*An enormous health burden is increasingly being recognised*

The scale of the global challenge posed by mental illness has become increasingly clear in recent years.<sup>1</sup> The inadequacy of our international response is only now apparent with the publication of three ground breaking reports from the World Health Organization.

We know that about a tenth of adults, an estimated 450 million people worldwide, are affected by mental disorders at any one time. They now account for about 12.3% of the global burden of disease,<sup>2</sup> and this will rise to 15% by the year 2020.<sup>3</sup> For disability alone, without the effects of premature mortality, the impact of neuropsychiatric conditions is starker still: they account for 31% of all years lived with disability. Such averages conceal substantial global variations. In Europe and the Americas, for example, these conditions now make up 43% of the total burden of disability.<sup>2</sup>

How far is our response commensurate with these challenges? The WHO has just published the first ever global profile of mental health services.<sup>4</sup> This vast undertaking brings together comparative data from 185 of the 191 WHO member states, totalling 99.3% of the world's 6057 million population.<sup>5</sup> This report, together with a volume showing the results as a series of global maps,<sup>6</sup> shows comprehensively that mental illness, in most countries of the world, is simply not taken seriously.

In terms of relevant government action, 40% of all countries (60% of African nations) have no national mental health policy; 30% have no relevant action programme; and 25% have no legislation. In the WHO European Region (which extends from western Greenland to eastern Siberia) only about half of states (55%)

have a clear national mental health programme, of which two thirds have been agreed since 1990, indicating a rapid catch-up phase for former totalitarian nations. Similarly, mental health legislation has been enacted within 74% of countries in the European region in the past decade, compared with only 17% of South East Asia. In 15% of countries worldwide, mental health laws operate that are at least 40 years old.

Services also show huge international variations. Community care facilities, the cornerstone of current WHO recommendations, are related to poverty. They are provided in 94% of high income countries and 48% of low income nations.<sup>7</sup> A fifth (19%) of countries cannot offer a common set of essential neuropsychiatric drugs: amitriptyline (an antidepressant), chlorpromazine (an antipsychotic), and phenytoin (an antiepileptic). Where these drugs are available, there are often steep financial barriers to access. Although low income countries have a gross national product per capita of less than one twelfth of high income countries, the mean price of these basic drugs is only two to three times higher in the established market economies. In other words, basic drugs are relatively less affordable in low income countries, where 40% of mental healthcare costs are paid out of pocket.

The most vivid indication of the global neglect of mental illness concerns financial investment. Despite the relatively high contribution to the total burden of disease, 28% of nations have no specified budget for mental health. About one third of people (33 countries with a combined population of two billion) live in nations which invest less than 1% of their total health budget in mental health.<sup>4</sup> In general, lower income countries invest proportionately less in mental

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health, and this is especially the case in Africa and South East Asia.

Do these profiles show a picture of consistent disregard for mental illness, a form of worldwide stigmatisation?<sup>8</sup> Paradoxically not. Mental health treatment and care facilities are now present at the primary care level in 87% of countries, and centres to train primary care staff in treating mental illness are found in 59%. Over a third of psychiatric beds are now provided outside traditional psychiatric asylums. Non-governmental organisations in the mental health sector are active in almost all parts of the world, including in 86% of low income countries, and are often the pioneers of mental health service reform.<sup>9</sup> Where mental health policies exist, half have been formulated during the past decade and a quarter within the past five years.

These first attempts to map how we respond to the global challenge of mental illness will of necessity be incomplete and inaccurate.<sup>10</sup> Even so they offer an invaluable baseline to track future trends. National inputs, such as policies, laws, and financial investments, are necessary but not sufficient to deliver effective treatments to individuals.<sup>11</sup> Nevertheless the picture that emerges from these country profiles is a rapidly developing global recognition of the magnitude of the response that is needed properly to address the scale of the challenge posed by mental illness.

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## Preventing and treating eclamptic seizures

### *Magnesium sulphate is effective and recommended for use*

Ninety nine percent of all maternal deaths occur in developing countries. Pre-eclampsia or eclampsia is responsible for many of these, accounting for 50 000 deaths annually. Large randomised trials in developing countries and systematic reviews have shown the usefulness of magnesium sulphate in treating recurrent eclamptic seizures and in the prophylaxis of eclampsia.<sup>1-3</sup> Despite this evidence magnesium sulphate remains underused.

In 1995 the Eclampsia Trial Collaborative Group did an impressive study in developing countries and showed unequivocally that magnesium sulphate given intramuscularly or intravenously is superior to phenytoin or diazepam in reducing recurrent eclamptic seizures.<sup>1</sup> Seizures were a half or a third less likely to recur after treatment with magnesium. Maternal mortality was also lower in women allocated magnesium rather than phenytoin or diazepam, although this did not achieve statistical significance. Recent Cochrane reviews, however, indicated a significant reduction in maternal mortality with magnesium.<sup>2</sup> Magnesium was also associated with less maternal and neonatal morbidity than phenytoin.

Recently the findings of this study were extended to indicate the value of magnesium as prophylaxis for eclampsia.<sup>3</sup> In the Magpie study, 10 000 women with

pre-eclampsia were randomised to receive magnesium sulphate before or during labour, or after giving birth. About two thirds of the women in this study were from developing countries with high or moderate perinatal mortality. The results were again impressive. Magnesium was effective, reducing seizures by more than half. Treatment was also safe in this setting, without any excess of serious maternal morbidity. There was no reduction in deaths due to eclampsia. Total maternal mortality was, however, lower in treated women, although this did not achieve statistical significance (mortality for treated women was 55% of controls (95% confidence intervals 26 to 114)).

It is counterintuitive that magnesium, which is used as an anticonvulsant, should reduce deaths from renal failure, pulmonary embolism, and infection (the causes of mortality that were reduced in the group treated with magnesium). But the significant reduction of placental abruption in treated women suggests alternative mechanisms of action of magnesium.

Is magnesium safe to use in developing countries? Magnesium was used safely in both the eclampsia trial and the Magpie trial. None the less, as indicated in the Magpie study, magnesium is associated with side effects, and some of these (for example, respiratory and cardiac arrest) can be life threatening. For safety in