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# Outlining the Scope for Public Sector Involvement in Mental Health

Girindre Beeharry, Harvey Whiteford, David Chambers, Florence Baingana

August 2002





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## **Health, Nutrition and Population (HNP) Discussion Paper**

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# **Health, Nutrition and Population (HNP) Discussion Paper**

## **Outlining the Scope for Public Sector Involvement in Mental Health A Discussion Paper**

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**Abstract:** The paper documents the large and increasingly important contribution made by mental disorders to the global burden of disease. Disease burden, however, does not provide sufficient justification for public intervention (understood as financing, provision, mandates, regulation or information) in the field of mental health. Similarly, while there exist cost-effective interventions for some mental health disorders, the existence of such interventions, on their own, does not provide a sufficient basis for public intervention. The popular burden of disease and cost-effectiveness arguments therefore provide a weak foundation upon which to build a case for public intervention – and, a fortiori, for World Bank support to such intervention – in the field of mental health. This paper applies an algorithm for decision-making borrowed from Musgrove (1999) that orders the main criteria for public intervention to the field of mental health. The application of this framework allows us to systematically work through the reasons why mental health deserves the involvement of the public sector and the forms of that involvement. Having established a theoretical basis for public intervention in mental health (especially as it relates to provision and financing), we discuss existing features of mental health provision and financing in the developing world. The locus for reform efforts in the field is defined by the gap between the existing and the desirable features of mental health financing and provision.

**Keywords:** mental health, mental health financing, mental health provision, cost-effectiveness, burden of disease.

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## PREFACE

Some argue for public funding priority for the treatment of mental health disorders because of the considerable burden these disorders inflict upon individuals, households, employers, health systems and society at large. Public financing is, however, solicited with the same urgency for a wide and competing variety of health conditions (nutrition programs, children's health, maternal health, infectious diseases, elderly care, etc.). It is essential that public policy priorities be identified through a decision-making process that resists partisan motivation from the many stakeholders in the health sector. This paper is an attempt at defining the scope of public intervention for mental health which can be justified in an economically rational way.



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## **POPULAR ARGUMENTS FOR PUBLIC FINANCING OF MENTAL HEALTH CARE**

This paper first documents the enormous burden of disease due to mental disorders, both in terms of morbidity and mortality and in monetary terms. We then explain why disease burden is an inadequate criterion for defining the scope of public intervention. To determine the right scope for government intervention, we apply Musgrove's (1999) algorithm for public involvement in health to the field of mental health. The algorithm orders some of the main criteria in the economic literature for defining the scope of government involvement. Its application allows us to establish which characteristics of mental disorders and mental health care warrant public attention. After having established the theoretical basis for public financing and provision in the field of mental health, we discuss the existing features of mental health provision and financing in the developing world. This section, combined with a review of current health sector reform, enables the policy maker to evaluate whether mental health reform can be integrated with health sector reform. Finally, we briefly discuss specific opportunities for mental health reform that capitalize on trends from high and low-income countries in the mental health sector, and relationships between mental health and other sectors.

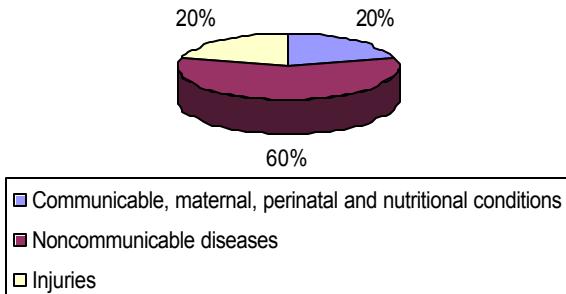
### **MENTAL HEALTH AND BURDEN OF DISEASE**

Biological and psychosocial factors contribute to the etiology of mental disorders. It has, however, not been possible to create a classificatory system based on etiology: the classificatory systems that have been developed are instead based largely on clinical signs and symptoms, supplemented infrequently by laboratory or other investigations. The reliability of these classificatory systems has improved greatly in recent years with internationally accepted systems such as the International Classification of Disease (WHO, 1990) and Diagnostic and Statistical Manual for Mental Disorders (American Psychiatric Association, 1994). While the self-reported prevalence rates of specific mental disorders vary from country to country, there is now good data from developed and developing countries (WHO, 2001; Institute of Medicine, 2001; Andrews et al, 2000; Rumble et al, 1996; Almeida-Filho et al, 1997; Araya et al, 2001) that the 12-month prevalence rates of mental disorder, using these classificatory systems, is in the order of 20-25%.

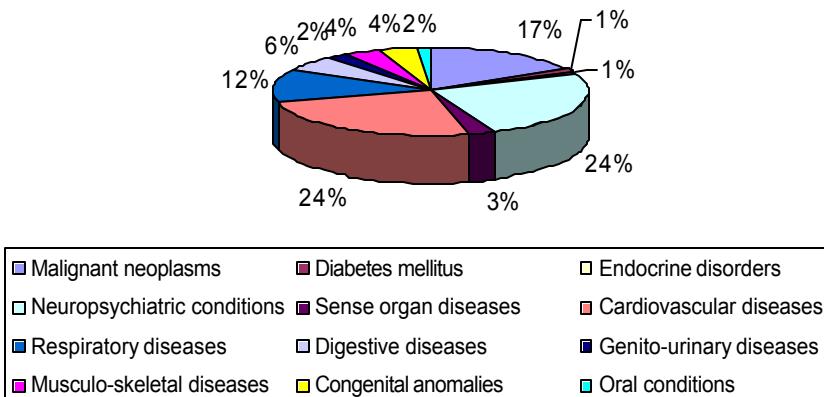
The Global Burden of Disease Project (Murray and Lopez, 1996) has calculated the burden of disease in each country by combining the mortality (years of life lost through premature mortality, YLL) and morbidity (years lived with disability, YLD) associated with each disease. This work contributed to the recognition of the burden associated with disabling but non-fatal disorders such as mental disorders. In 2000, 12.3% of all DALYs lost in the world were estimated to be due to neuropsychiatric conditions (mental and neurological disorders and substance abuse) (WHO, 2001). These disorders accounted for 31% of all disability worldwide, ranging from almost 50% in established market economies to 18% in Africa. Five of the ten leading causes of disability worldwide are mental disorders: major depression, alcohol use, bipolar disorder, schizophrenia and obsessive-compulsive disorder. Depression is estimated to be the leading cause of DALYs lost in the world in the 15-44 age group and the leading cause of disability (YLD) in the entire world (Murray and Lopez, 1996; Ustun, 1999; WHO, 2001). Figures 1 to 3 show the weight of non-communicable diseases in the global burden of disease, then the weight of neuropsychiatric disorders in the burden ascribed to non-communicable diseases, and the contribution of different neuropsychiatric disorders. The figures refer to the estimates for 2020 (Murray and Lopez, 1996). The first two figures indicate: (a) that non-communicable diseases are fast becoming the major

source of morbidity and mortality in the world, accounting for 60% of the burden of disease in 2020; (b) and that a quarter of the burden of non-communicable diseases will be ascribed to neuropsychiatric conditions in 2020. Neuropsychiatric conditions are expected to account for about 15% of the worldwide total burden of disease in 2020 (compared with 10% for infectious and parasitic diseases, 10% for unintentional injuries, 3% for HIV, 3% for respiratory infections, and 1% for nutritional deficiencies). Only cardiovascular diseases (15%) are expected to contribute an equivalent burden. In established market economies, mental disorders, including dementia, are estimated to account for 22% of the total burden of disease in 2020. Figure 3 indicates that depression will account for nearly 40% of the burden associated with neuropsychiatric conditions worldwide in 2020. While there is legitimate debate about the absolute percentages presented above, there appears little doubt that mental disorders constitute a large and growing component of disease burden.

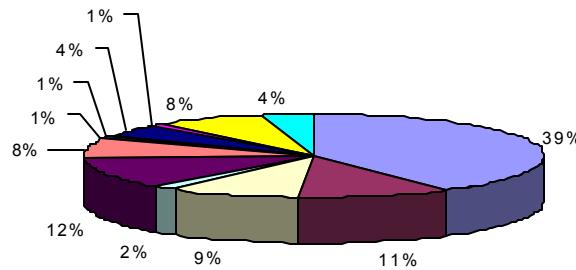
**Figure 1: Distribution of Global Burden of Disease in 2020**



**Figure 2: Distribution of Global Burden of Non-Communicable Diseases in 2020**



**Figure 3: Distribution of Global Burden of Neuro-psychiatric Diseases in 2020**



Unipolar major depression	Bipolar disorder
Schizophrenia	Epilepsy
Alcohol use	Dementia
Parkinson disease	Multiple sclerosis
Drug use	Post-traumatic stress disorder
Obsessive-compulsive disorder	Panic disorder

## MENTAL HEALTH AND COST OF ILLNESS

The burden that mental disorders inflict upon society and on health systems can also be expressed in monetary terms. In assessing these costs, it is important to recognize the wide range of impacts of mental disorders, even though it is often difficult to measure them accurately in practice. The following categorization is drawn from Knapp and McDaid (2000).

### Health Service Utilization

In both developed and developing countries the majority of persons with mental disorders are untreated (e.g., Andrews et al, 2001; Algeria et al, 1991). The cost of providing services is therefore not a good measure of the cost of mental disorder to the community.

Mental health care is provided in primary and secondary (specialist) health sectors. However in virtually all countries the majority of utilization is in primary care. This is especially the case in developing countries (Harding, 1980; Murthy, 1998). A WHO collaborative study on mental disorders in general health care (Ustun and Sartorius, 1995) identified that about 25% of all primary care attendees were suffering from a mental disorder.

The US studies based on the Epidemiological Catchment Area (ECA) Study (Rice et al, 1990) calculated an aggregate cost of \$148 billion (at 1990 prices) for all mental disorders together. Berto et al (2000) reviewing cost of illness estimates for depression, concentrating on the USA, UK and Italy, found that

the most important contributor to the direct costs of depression is hospitalization accounting for around half the total in the UK and three-quarters in the US.

## **Other Social Services**

Many people with mental disorder use social services (social welfare) agencies, housing services and education services. Access to these services, which are often provided outside the formal health system, is critical to the success of primary and community mental health care (Whiteford, 1994). Even in many developing countries, multi-agency support arrangements are now the norm, not the exception.

## **Days Out Of Role**

A substantial proportion of the global economic impact of mental health problems stems from difficulties in finding and keeping paid employment, achieving career progression, and contributing productively when at work (Harnois and Gabriel, 2000). Although more difficult to calculate, there are also substantial costs associated with lost productivity in ‘non-remunerated’ roles.

As would be expected, the burden of mental disorders shown in the Global Burden of Disease Study has been complemented by impressive data, primarily from established market economies, of their contribution to ‘days out of role’. Data from the US National Comorbidity Survey has shown that work impairment is one of the major adverse consequences of mental disorder with approximately one billion lost days of productivity per year in the civilian workforce (Kessler and Frank, 1997). Kessler and colleagues (1999) analyzed data from two US national surveys and found that depressed workers had between 1.5 and 3.2 more short-term work disability days over a thirty-day period than other workers, with a salary-equivalent productivity loss averaging between US\$182 and US\$395. These workplace costs were nearly as large as the direct costs of successful depression treatment. Depression has also been shown to have both a greater length of disability and disability relapse than comparison medical conditions (Conti and Burton, 1994). This study showed that depression was the most common diagnosis encountered in the employee assistance program studied.

Greenberg et al. (1993) reported health care costs in the US for depression in 1990 at \$12.4 billion. They estimated costs for workdays lost at \$11.7 billion, reduced productivity while at work at \$12.1 billion and mortality at \$7.5 billion. Greenberg’s work suggested the employment-related impacts were 2.5 times larger than the health care costs. Unfortunately few cost of illness studies have yet adequately included the costs of reduced productivity in the workplace (work “cut back” days), an impact that could be potentially substantial (Rosenbaum and Hylan, 1999).

Simon et al (2001) reviewed the literature on the impact of depression on work productivity and the potential for improved work performance associated with effective treatment. They concluded that productivity gains following effective depression treatment could far exceed direct treatment costs. Compared with other conditions, workers with mental disorder are more likely to go to work but perform sub optimally (Dewa and Lin, 2000). The magnitude of “work cutback” has highlighted the previously “hidden” disability of mental disorders. Berndt and colleagues (1998) have shown that for chronically depressed individuals, the level of perceived at-work performance is negatively related to the severity of the depressive illness and that a reduction in the severity of depression rapidly improves the patient’s work performance. US data suggests that, for mental disorders, the number of work cutback days is

five times the number of days lost through absenteeism (Kessler and Frank, 1997). With treatment there is a substantial improvement in productivity (Finkelstein et al, 1996) and US data on over 1,500 consecutive insurance claims showed that treatment for migraine, anxiety and depression resulted in the greatest long-term percentage improvement in productivity following treatment (Berndt et al, 1997). In the McDonnell-Douglas program (1990) adequate treatment for mental illness reduced work loss days by 25% and produced an 8% reduction in turnover for people with mental disorder.

Even mild levels of depression can result in social and occupational problems (Magruder and Calderone, 2000). Judd and colleagues studied the socioeconomic burden of subsyndromal (mild) depressive symptoms in the general population and found high levels of household strain, social irritability, and financial strain as well as limitations in physical or job functioning, restricted activity days, bed days, and poor health status in this group.

Studies are limited in developing countries however it has been shown that lost productivity is associated with mental disorders in these countries also (Westermeyer, 1984). Some early results from the World Bank Living Standards Studies (Frank, personal communication) suggest that mental disorder results in lower incomes in affected households. For example in Bulgaria, households with persons with a mental illness were earning 63% of the average household income. Suleiman and colleagues (1997) in Nigeria found that more working days were lost by patients with schizophrenia and their relatives compared to a cohort with diabetes, and that the overall treatment costs were lower for the schizophrenia.

### **Family And Caregiver Impacts**

Illness and disability can reduce productivity where a family member takes days out of their role to care for or support a family member who is unwell. This cause of lost productivity is particularly common in developing countries where health and support services can be seriously deficient. The magnitude of unpaid caring is enormous. The United Nations Development Program estimated that US\$ 16 trillion of unpaid caring work was missing from the 1995 global GDP of US\$ 24 trillion (United Nations Development Program, 1995). This emphasizes the broader social costs of illness and disability.

With mental disorder, the burden of lost employment and days out of role for family members caring for a relative with mental health problems is well documented (Sallah, 1994; Lindström, 1996; Kissling et al., 1999; Ip and McKenzie 1998; Magliano et al., 1998; Goeree et al., 1999).

### **Mortality**

Persons with mental disorders have an increased risk of premature death. Some mental health problems have quite high mortality rates through suicide (Harris and Barraclough, 1998). The WHO estimated that, in the year 2000, approximately one million people died from suicide, representing a global mortality rate of 16 per 100,000. In the last 45 years, suicide rates have increased by 60% worldwide (see Annex). Suicide is now one of the three leading causes of death among those aged 15-44 (both sexes). Suicide attempts are up to 20 times more frequent than completed suicides.

Further, suicide rates affecting young people have increased to such an extent that they are now the group at highest risk in a third of all countries. Mental disorders (particularly depression and substance abuse) are associated with more than 90% of all cases of suicide. However, suicide results from many complex socio-cultural factors and is more likely to occur during periods of socioeconomic, family and

individual crisis. Suicide rates are highest in the countries of Eastern Europe and Central Asia (see Annex).

## Transfer Payments

Social security, welfare or income support payments are transfers from one part of society (taxpayers or social insurance contributors) to another (benefit recipients), but not in exchange for goods or services. Such payments can represent a major component of the costs to the community for mental disorders. In Australia, the decision to launch a National Mental Health Reform program in 1992 was strongly influenced by the finding that federal social welfare expenditure on people with mental disorder was almost A\$2 billion in 1991, compared to the combined state expenditure on mental health services of less than A\$1 billion (Whiteford, 2001).

This type of information often highlights policy inconsistencies. In the Australian example, the Federal government spent A\$1.45 billion in 1991/92 on income security for people with mental illness and psychiatric disability, but at the same time excluded them from the programs designed to decrease dependence on welfare payments and help disabled people back into the workforce (Whiteford et al, 2002).

### BURDEN OF DISEASE IS AN INDIFFERENT CRITERION FOR RESOURCE ALLOCATION

Some policymakers argue that if the relative burden of disease or cost of the illness to society is high, then this is a sufficient justification for government involvement (Alarcon and Aguilar-Gaxiola, 2000), usually taken to mean public financing and/or public provision of services. In reality, disease burden/cost of illness studies are largely irrelevant to public financing or provision decisions. It can easily be shown that seeking to associate funding priorities with burden of disease or cost of illness information yields sub-optimal resource allocations (see Hammer, 1993a for a discussion). Here is a simple illustration: a certain country is confronted with two health conditions, and has to decide how to allocate its limited health budget (here \$1,000) between treatment for the two conditions. Condition A inflicts a burden of 9,000 DALYs lost and Condition B a burden of 1,000 DALYs lost to the country. Additionally suppose it costs \$100 to prevent a DALY caused from Condition A and \$10 to prevent one caused by Condition B. The table below summarizes these hypotheses and shows the impact of alternative resource allocation decisions.

	Condition A	Condition B	DALYs prevented
Burden of Disease	9,000 DALYs	1,000 DALYs	
Cost per DALY prevented	\$100	\$10	
Allocation of \$1,000 Proportional to Burden of Disease	\$900	\$100	19
Allocation of \$1,000 to Condition B	\$0	\$1,000	100

In this simple example, if resources are allocated proportionally to the burden of disease associated with each condition, then \$900 should be allocated to programs targeting Condition A and the remaining \$100 to programs targeting Condition B. This resource allocation mix averts the loss of 19 DALYs. If the

same resources are allocated according to cost-effectiveness criteria, then the entire budget (\$1,000) should be used on programs targeting Condition B (which contributes a small share of the burden of disease), in which case the loss of 100 DALYs can be averted, five times more than with the allocation of resources based on burden of disease.

While burden of disease is therefore an ineffective decision criterion upon which to predicate public funding, it is relevant in two ways. For those diseases where there are cost effective interventions, the size of the disease burden is important in priority setting. Secondly among interventions of roughly similar cost effectiveness, priority should be considered for the one which target the disease with the larger burden.

Therefore perhaps, cost-effectiveness may be a better criterion to orient public financing or service provision. In the example above, basing resource allocation upon relative cost-effectiveness clearly led to better outcomes. However, cost effectiveness does not allow the policymaker to determine whether a good should be provided or financed by the *public* sector. Thus, while cost effectiveness is a useful criterion for public policy decisions, it cannot be the only one. Cost effectiveness and availability of a treatment must be supplemented by a discussion, among other things, of whether a good has public or private status. Musgrove (1999) indicates that while a treatment may be cost-effective, public intervention may not be encouraged, if a private market for the good can effectively operate. With respect to the public/private market distinction, Hammer (1993b) suggests that “the net health impact depends on the manner in which private markets respond to policy changes in the public sector; pricing and rationing rules depend on the degree of competition in the private sector.”

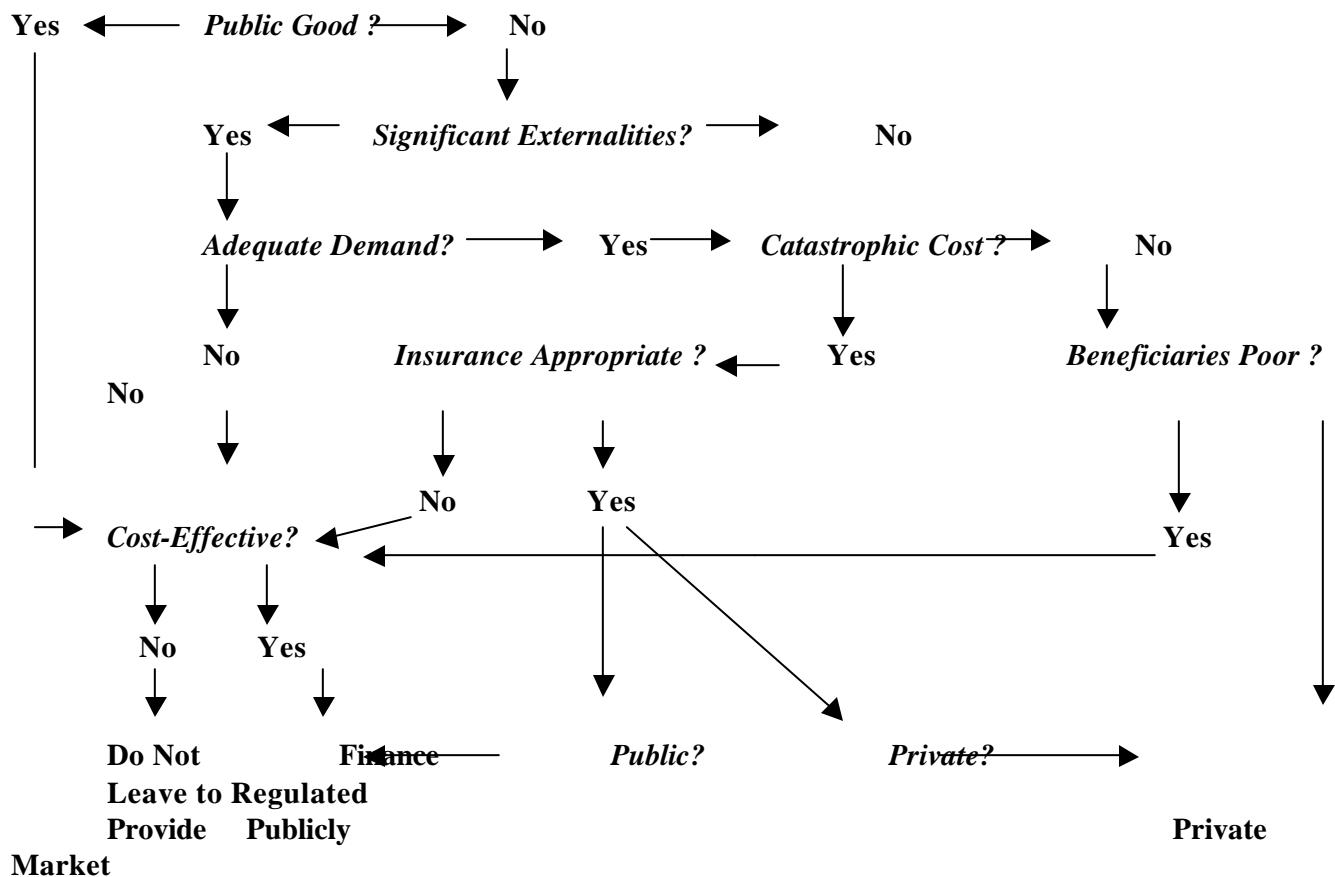
Hammer (1993b) also explains the need for policymakers to look beyond simple cost effectiveness studies for priority setting, noting that “the point [of policy making] is to stretch the public budget as far as it can go in achieving health gains. If a service of comparable quality is readily available and used in the private sector, either it should be left to private practitioners to handle, or at least should not absorb much public subsidy”. (*Ibid*, p. 8) The distinction of public and private markets for a good must supplement traditional cost effectiveness implications for policy. Conversely, the existence of a functioning private market does not constitute a sufficient reason in and of itself to preclude some form of public intervention. For example, if treatment inflicts catastrophic costs upon care seekers, then there is a clear case for seeking to protect the population, and especially the poor, from financial duress. Public intervention may be needed to ensure that the poor have access to health insurance.

The two criteria discussed above—burden of disease and cost-effectiveness of intervention—are clearly insufficient to define the scope of public intervention, as neither accounts for the status of mental health as a public or private good or addresses other issues of interest to the policymaker such as equity. The decision-making process to decide upon the scope of public involvement in mental health must therefore integrate several considerations, among which the need for *public* financing or provision, the availability of cost-effective prevention and treatment measures, the equity impact, etc.

## WHAT CRITERIA EXIST FOR GUIDING PUBLIC SECTOR INVOLVEMENT IN HEALTH CARE?

Musgrove (1999) organizes the main criteria relevant to public health decision-making. This framework was used in the World Health Report 2000 and is reproduced below. While the framework was not specifically intended to be applied to mental health, it can readily be applied to this field to help policymakers define the scope for public involvement (especially public financing).

### Questions to ask in Deciding Which Interventions to Finance Publicly



World Health Organization, World Health Report 2000, Figure 3.2.

In the following sections, we submit mental health to each of the above criteria. Mental disorders are not a homogenous group. Neuropsychiatric disorders, the grouping used in the World Development Report (World Bank, 1993) and the Global Burden of Disease Report (Murray and Lopez, 1996) are even more heterogeneous comprising mental disorders, neurological disorders and substance abuse disorders.

Diagnosis alone is not a good determinant of disability or service need, and it is necessary to disaggregate mental disorders with different characteristics. This leads to the answers to the questions in the algorithm being different for different groups of mental disorders and possibly even different for different interventions for the same group of disorders. This degree of refinement is not attempted in this paper but clearly needs to be done.

While Musgrove's attempt at organizing the criteria germane to public financing decisions is by no means uncontroversial<sup>1</sup>, it still the most practical 'checklist' available to policymakers. The application of the criteria allows us to gain insight into the current financing practices and decide which should be pursued and why.

### **APPLYING THE MUSGROVE CRITERIA TO MENTAL HEALTH**

As noted above, mental disorders are not a homogenous group. Some disorders, such as schizophrenia and bipolar disorder, are less prevalent but (on the whole) more chronic and disabling. Others such as depression and anxiety are more prevalent but (on the whole) less chronic and disabling. This is not to say that some cases of depression and anxiety are not chronic and disabling or that some cases of psychosis are not mild and self-limiting. Work is underway to create case-mix classifications that predict resource utilization with cost weights for mental health services. This work aims to produce a model for describing the products of mental health care in terms of episodes of care, covering both inpatient and community services (Burgess et al, 1999). The outcomes of this work will allow a refinement in the way we can address the criteria discussed below. In the absence of this refinement we argue the merits of each criterion in more general terms.

#### **Is mental health care a public good?**

Laffont (1990) defines a good as public "if its use by one agent does not prevent other agents from using it; that is, individual consumption does not exhaust the good as...for a private good—for example, the eating of an apple by one individual." (p.33). A public good is thus said to be *nonrival* in consumption. Public goods are also often *nonexcludable*. Rosen (1992) states that "the consumption of a good is nonexcludable when it is either very expensive or impossible to prevent anyone from consuming the good who is not willing to pay for it." Because of these characteristics, it can be shown that the market, left to its own devices, will fall short of providing the efficient amount of a public good (Rosen, p. 65 – 80). Public provision or financing may become necessary to compensate for the fact that the market provision of a public good is likely to be inefficient. Musgrove (1999) notes "there is no private market for it [a public good], and so there is no risk that government finance will crowd out private purchases." (p. 210)

By this definition, mental health is very obviously a private good: it is both rival and excludable. A 'public good' argument cannot be made to justify public financing or provision of mental health care. Following our algorithm, a negative answer to this first question leads us to ask a second one about externalities.

#### **Would the absence of public sector intervention exacerbate negative externalities?**

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<sup>1</sup> See in particular Jack (2000) and Musgrove (2000).

For a number of medical treatments, private demand is sub-optimal for society, as it neglects to include the impact of the intervention on members of society who do not receive the treatment. Individuals, choosing whether to pay to receive treatment, will not necessarily consider the total effects of the treatment on society, and demand less than would be “socially desirable.” Infectious diseases, for example, are significantly contained and ultimately eradicated from a population (e.g. smallpox) where prevention and treatment are made available for the population. This removes the potential for the healthy to contract the disease. Since the individual may not consider the impact of smallpox on society, public intervention is necessary to compensate for the sub-optimal demand. Note (Rosen, p. 92) that “the fact that the behavior of some people can affect the welfare of others does *not* necessarily cause market failure. As long as the effects are transmitted via prices, there are no adverse consequences for economic efficiency. An externality occurs when the activity of one entity affects the welfare of another in a way that is outside the market. Unlike effects that are transmitted through market prices, externalities affect economic efficiency.”

In the field of mental health, there are many examples where the activity of one person affects the welfare of another, but this does not always mean that the consequence are not captured by the market, i.e., not transmitted via prices. Negative consequences of the action of a person on another appear, for example, in circumstances where those with severe mental disorders, especially psychotic disorders, are deemed to place others at risk. To the extent that the market does not capture this effect, it constitutes an externality and therefore justifies some form of public intervention. Classic remedies to the externality problem (taxation, subsidies, permits, establishment of property rights – see Rosen, p. 100-107) do not apply in this case, except for regulation, which here can take the form of legislative power to incarcerate patients against their will. The “dangerousness” of this minority of mentally ill persons led to the enactment of specific mental health legislation and contributed to the development of separate psychiatric institutions<sup>2</sup> around the world; this constitutes a *provision* response to the externality problem in addition to the *regulation* response. The development of mental health legislation allowing involuntary hospitalization may imply public funding is necessary but does not imply public provision of care is needed. However, only a minority of persons with mental disorder are dangerous to themselves or others (Taylor and Gunn, 1999) and the scale of these externalities is therefore limited.

In many developing countries, persons with mental disorders rely on family members to provide care. The impact on the family extends beyond the sufferer to the caregivers, who may have large opportunity costs associated with treating the family member. Time spent on care represents time that might otherwise be spent working in the marketplace. The burden of lost employment and days out of role for family members caring for a relative with mental disorder is well documented (Sallah, 1994, Lindström, 1996; Kissling et al., 1999; Ip and McKenzie 1998; Maglano et al., 1998; Goeree et al., 1999). The effect on caregivers mirrors that of medical conditions, and may be greater due to the stigma attached to mental disorder. It is argued that providing treatment for individuals with mental disorder creates benefits for many parties, other than the person. Employer benefit from reduced absenteeism and higher productivity, family members and friends from lower burden of care and governments and other agencies from fewer transfer payments (Wells and Sturm, 1995). In addition, for individuals with mental disorders such as schizophrenia there are externalities arising from untreated illness that are not found for other health conditions. For example there are costs to the police and judicial system associated with crime and public safety, even though on aggregate, ‘most people with a mental disorder offer no risk to others’ (Taylor and Gunn, 1999).

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<sup>2</sup> Which then contributed to a long period of marginalization of mental health services from mainstream health care.

There is limited evidence, projected from estimates of disease chronicity, that family burden of care exceeds that for other chronic medical conditions. More importantly, lost employment and days out of role are precisely the kinds of welfare effects that *are* captured by the market: they translate into lower income prospects. They do therefore not constitute externalities in the sense defined above and do not pose a threat to economic efficiency. As such there is a limited case for public financing of mental health care on the basis of the existence of externalities. Following Musgrove's criteria, we therefore turn to the catastrophic cost criterion in the following section. Since we also established that there are externalities associated with some forms of mental disorder, we also discuss the adequateness of private demand criterion for these specific conditions in a subsequent section.

### **Do mental disorders lead to catastrophic costs and impoverishment?**

Mental disorders can result in substantial and sustained disability leading to social and occupational disadvantage (Ormel et al, 1994). This has been confirmed in developed countries (Broadhead et al 1990; Olfson et al, 1997 and von Korff et al 1992) and developing countries (Alegria et al, 1991; Patel et al 1997, 1998; and Chisholm et al 2000).

One explanation for the association between mental disorders and impoverishment is that mental disorder impairs psychological and social functioning and this leads to downward "social drift" or social selection (Goldberg and Morrison 1963; Jones et al. 1993). Thus individuals with mental disorder and psychiatric disability end up in more socially disadvantaged circumstances. Schizophrenia for example, can result in dramatic social decline as a result of impaired psychological and social functioning. The symptoms of the disorder interfere with the person's capacity to cope with the usual demands of interpersonal interaction and the decoding of social communication (Murphy 1972). Adverse effects on social and occupational functioning can also arise from the more common mental disorders, such as depression and anxiety (Welch and Lewis 1998). These mental disorders have adverse consequences that include a breakdown in marital stability (Kessler et al. 1998) increased teenage parenthood (Kessler et al. 1997), more distant social relationships (Mickelson et al. 1997) and other factors associated with social deterioration.

However, in order to understand causal relationships between mental health and economic loss, longitudinal studies in developing and developed countries are required. The currently available studies highlight the need for improved measurement of both mental disorder and economic consequences especially in developing countries. Further, most economic indicators have been constructed in developed countries and their relevance to low and middle income countries may be questionable. Some common forms of care are unique to developing countries. Traditional healers are rarely considered in calculating direct care costs in developed countries because the magnitude of their contribution is so much smaller. Further, costs do not stay constant even within countries (e.g., medication costs may fluctuate greatly in developing countries).

The cost of serious mental disorder, such as schizophrenia, is high, long lasting and usually underestimated (de Hert et al., 1998; Knapp, 1997). Even for less severe mental disorders the socioeconomic impact can be substantial (Judd et al 1996). From the onset of illness, many individuals may need treatment to maintain a reasonable level of mental health for many years, sometimes their entire lives. The choice to seek treatment can result in catastrophic costs for individuals, which may lead to poverty.

Combining health care and patient/family costs, the economic impact of depression and anxiety in Bangalore (India) was Indian Rupees 700 per month, and in the Rawalpindi (Pakistan) was more than Pakistani Rupees 3,000 per month (Chisholm et al 2000). This was equivalent to between 7 and 14 days of an agricultural workers' wages in India, and approximately 20 days work in Pakistan.

Furthermore, studies have shown the peak onset of mental disorders to be between ages 15-45 (Desjarlais et al, 1995). Recent increases in life expectancy in high and low-income countries will, as Murray and Lopez (1996) note, affect the burden of disease over the next twenty years. This will both increase the number of people in the population who have mental disorder and increase the length of time for which treatment must be provided (Levkoff et al, 1995). With this, catastrophic costs are likely to be incurred by even more individuals, which in turn will increase poverty. Without ways to share financial risk (insurance), catastrophic costs could have even greater implications in the future.

A possible distinction between mental disorders and certain non-communicable diseases could be made in the breakdown of the total costs to the patient's family. For patients with cancer, for example, the costs of direct treatment might be quite large compared to that of treatment for, say, schizophrenia. However, even if the total costs of direct treatment for cancer exceeds the cost for schizophrenia, the total lifetime cost for schizophrenia, which factors in the opportunity cost for the caregiver —often a family member—could exceed that of cancer, considering that the disease strikes young people and disables them for lifetime but does not kill them. This conjecture still needs to be validated, but it is nonetheless clear that mental disorders can and do inflict potentially poverty-inducing catastrophic costs on families that do not benefit from any protection (insurance coverage) and need to pay for care out of pocket.

Catastrophic costs do not necessarily imply a response in the form of public financing or provision. Risk-sharing – the absence of which constitutes the market failure – can be achieved by insurance. Whether mental health insurance should be provided publicly depends on whether a private mental health insurance market can exist and whether public intervention can mitigate its potential failures (Musgrave, 1999). In countries where insurance is not explicitly provided, public provision of mental health services might be the appropriate way of addressing the catastrophic cost problem. In countries where insurance is provided explicitly (publicly or privately), the catastrophic cost issue could be tackled through mandatory insurance coverage of mental health care (insurance parity). This issue is further analyzed in a subsequent section since certain mental health conditions may not be insurable because they are especially prone to principal-agent problems.

### **Do mental health disorders affect the poor disproportionately?**

There is a well-established relationship between poverty and mental disorder in both developed and developing countries (Desjarlais et al, 1995; Saraceno and Barbui, 1997; Patel et al 1997, 1998, 1999). The poor have been shown to be more likely to have a mental disorder than those with higher incomes. Even in countries with good social safety nets, people with mental disorder make up a large proportion of the homeless population (Jablensky et al 2000).

As well as the “social drift” argument outlined earlier, another possible explanation for this association is that individuals in socially disadvantaged situations are exposed to more psychosocial stressors (adverse life events) than those in more advantaged environments. These stressors act as triggers for the onset of symptoms and the loss of the individual psychological abilities necessary for social functioning

(Bebbington et al. 1993). While loss in income or being in debt is associated with the development of mental disorder in developed countries, it has also been well reported in developing countries (Mumford et al 1996, 1997; Patel et al 2001; Araya et al 2001). Psychosocial pathways identified with the development of mental disorders include higher levels of life events, anomie, learned helplessness, thwarted aspirations, low self-esteem, and less security.

That there is some evidence indicating that mental disorder disproportionately affects the poor should, however, not directly lead us to conclude that public financing is required. Public financing for mental health is justified on the basis that it disproportionately benefits the poor, only if there are also cost-effective ways of spending public funds. Musgrove (1999) puts it as: “The poor also suffer from many health problems which do not now have cost-effective solutions, and it does not automatically follow that public money it should be spent ineffectively, just because the intended beneficiaries are poor.” The issue of whether there are cost-effective interventions for mental health disorders that the poor suffer disproportionately from is addressed below.

### **Is private demand for mental health care adequate?**

We argued earlier that mental health issues do generate negative welfare effects, but that most of those effects do not constitute negative externalities since the market captures them. To the extent that the market does not internalize these negative welfare effects, they do reduce economic efficiency and public intervention may be required. To decide whether public intervention is therefore warranted, we follow our decision algorithm to the next question about the adequateness of private demand. The lack of private demand may not result from inability to spend, but from missing knowledge about the needs, demand, or availability of services (Musgrove, 1996). Because of its characteristics, mental disorder is especially prone to information failures that translate into insufficient private demand for care.

Mental disorder is not necessarily visible to the person with the disorder or the community. There are at least two reasons why the individual may not recognize the existence of mental disorder. Firstly, poor mental health literacy may result in a person not recognizing symptoms as due to a mental disorder. Some communities, especially in developing countries, hold fatalistic beliefs about mental disorder (for example as punishment for past bad deeds) which prevent individuals from seeking professional help (Yousaf, 1997; Laungani, 1997). Alternatively, symptoms of the illness may be given religious significance, for example that the person is “possessed” by an evil spirit. The Yolmo Sherpa of Nepal believe that individuals and families can suffer stress from “spirit loss,” in which the spirit is scared away from the body, which causes the individual to lose the motivation to live. The family treats the condition by summoning a shaman, who may choose to conduct an all-night healing ceremony to ascertain the specific fright, then “capture” the spirit and return it to the host (Desjarlais et al, 1995, p.5).

Secondly, mental disorders affect psychological and cognitive functioning that often results in a lack of insight in the fact that the disorder exists. The person may even believe himself to be in perfect health, as is commonly found in mania. Substance dependence creates a desire to consume alcohol or illicit drugs which is not accounted for in our usual view of rational consumption. These examples highlight the fact that the patient may be incapable of self-assessment and rational decisions regarding consumption. Where the person is considered dangerous to themselves or others, most societies permit treatment to be provided involuntarily. In these ways, mental disorders differ substantially from most other medical conditions.

Further the sufferer may understand that he or she has a mental disorder but be unwilling to seek treatment because of the stigma attached to mental disorder. In countries where community education campaigns have tried to destigmatize mental disorder and services are accessible, there is evidence that stigma still inhibits people from seeking treatment (Jorm, 2000). Even once help seeking behavior has occurred, Wang and colleagues (2000) in their survey of respondents in eleven countries (including three developing countries) found successful initiation and adherence to treatment depends critically on patient's knowledge about their disorder. The lack of information about disorder often extends to a lack of information about what treatments are available and effective.

A study by Andrews and Henderson (2000) of utilization rates of mental health services in Australia established that, even in a comprehensive system of treatment where parity coverage exists for mental disorders, rates of utilization of services were relatively low, and seemed to depend not on health system characteristics, but on the type of illness. The study reported that 90% of schizophrenia patients received care, while 61% of patients diagnosed with depression and only 25% of those diagnosed with a personality disorder or substance abuse, sought care (Andrews and Henderson, 2000). This was considered to be due to inadequate information available to the population, and personal and societal attitudes toward mental disorder. In some countries, the issue of stigma is further complicated by punitive state responses to mental disorders. In the countries of the former Soviet Union, for example, abuses in psychiatry have created barriers to those needing treatment (van Voren and Whiteford, 2000).

Finally, individuals can sense they have a mental disorder, understand potential treatments, even have the resources needed for private treatment, but still refuse to seek treatment. This is quite common in the case of substance abuse.

The largely "invisible" nature of mental health conditions compared to other medical conditions, reinforce the dismissal of mental disorder as a priority at a societal level. Societies may simply be unaware of the effects of mental disorder on social welfare, including employment, physical health, and well being of families and caregivers.

Given the multiple barriers to private demand, policymakers must consider that demand may well be inadequate, requiring some measure of public intervention. When the lack of private demand derives from the lack of information and from stigma, then the appropriate public response is to attempt to address those issues directly. When the lack of private demand derives, not from lack of information, but from the loss of cognitive and psychological functions, then public intervention takes the form of regulation/mandate in a manner that is unique to mental health: incarceration or involuntary hospitalization. The use of involuntary hospitalization extends beyond the patient who is dangerous to others or likely to commit non-violent crimes. When an individual with mental disorder is incapable of taking care of him or herself or is suicidal, the state may serve as an agent of the individual and place the person into care for his or her own good. This power of the state arises from the position that there is a collective (community) interest in providing this care. This collective interest is a consumption externality in that the community benefits from the individual receiving (consuming) mental health care (Frank and McGuire, 2000). Naturally this form of regulation can easily lead to abuse and debate continues about how to achieve the right balance between society's interests and the rights of patients to liberty.

### **Do cost-effective interventions exist for mental disorders?**

Efficacious treatments exist for most mental disorders (Nathan and Gorman, 1998; WHO, 2001; Institute of Medicine, 2001). However, unless there exist cost-effective ways of preventing/treating mental

disorders, public financing may not be justified even if there seem to be good arguments – such as the catastrophic costs and the equity ones – in favor of it.

Measures such as Quality Adjusted Life Years, QALYs and Disability Adjusted Life Years, DALYs have been developed to assess the relative impact of prevention or treatments for different conditions. Setting these measures against the prevention or treatment costs generates cost-effectiveness estimates. Cost-effectiveness is generally expressed in QALYs achieved or DALYs averted per dollar. Like any attempt to generalize potential outcomes across patient populations, the DALY has a number of limitations. First, by using an average disability weight for each disorder, it does not account for variation in intensity of the impact of the disorder over time, or on different people who suffer from it. Methodological refinements in the DALY algorithm are, however, addressing these issues (Chant et al in press). Second, it assumes a specific course of treatment for all patients with a specific disease, and then affixes a value to represent cost per extra DALY. This is somewhat at odds with known variations in treatment of both physical and mental disorders (World Bank, 1995, p.180).

For mental disorders, the course of treatment can be quite variable, depending on the age of the patient, access to services, the training and theoretical orientation of the clinician, the view of mental health by individual and society, and other factors discussed earlier. Because of the many variables, and the added uncertainty of treatment effectiveness for some mental conditions, the variation not accounted for by the DALY measure may be higher for mental disorder than for other conditions. Therefore, the DALY measure may not translate well to low-income systems, specifically those in which alternative treatments have a significant role.

One important limitation to the use of cost-effectiveness ratios results from the possibility that professional knowledge of mental disorders may be limited in certain countries. In many developing countries there are grossly inadequate numbers of health professionals trained to deal with the highly prevalent mental disorders. Even mental health professionals may not be aware of the most recent treatment guidelines and clinical evidence, offering sub-optimal care to their patients. Under-recognition of mental disorders is reported in virtually all health systems that have examined this issue.

Another information gap relates to the effectiveness of traditional healing therapies, often utilized within low-income countries instead of research-based therapies. The study of Saeed et al (2000) which found 61% of attenders at faith healers in Pakistan suffered mental disorder, also showed there was little agreement between faith healers classification and psychiatric diagnosis. However, this does mean traditional interventions are useless. The Yolmo Sherpa shamans in Nepal are often able to treat patients they have diagnosed with “spirit loss,” using a variety of techniques that use traditional rituals to identify social tensions within individuals and community. While treatments do not effectively improve all patients, and relapses are common among some patients, the benefits of traditional treatments should not be ignored. Furthermore, attempts to introduce new methods of treatment without conserving traditions can have disastrous consequences. (Desjarlais et al, 1995)

In developing countries there are few cost-effectiveness studies (Shah and Jenkins, 1999). However, cost effective interventions can often be developed at a local level in developing countries (Institute of Medicine, 2001 pp 397-404). For example, Salleh (1994) reported on an intervention for families of schizophrenic patients appropriate for China's complex family relationships and unique social environment. With this intervention, the proportion of subjects re-hospitalised was lower, the duration of re-hospitalisation was shorter, family burden less and the duration of employment was longer in the group

receiving the intervention, than in the control group. The intervention was less costly than standard treatment.

The table below reproduces cost-effectiveness data (in dollar per DALY terms) on the treatment of selected diseases in developing countries.

*Treatment Cost-Effectiveness (\$/DALY) for Selected Medical and Mental Health Conditions*

Condition	\$/DALY
Tuberculosis	1–4 (short-course chemotherapy) <sup>3</sup>
Acute Respiratory Infection	37 (46 for high mortality strand of illness, 19 for low) <sup>4</sup>
Measles	16–12 (depending on course of vaccine) <sup>4</sup>
Cataracts	15–32 (bilateral or unilateral, various costs per eye) <sup>4</sup>
Malaria	3.6 – 1,759 (depending on country fatality rate) <sup>4</sup>
Schizophrenia	223 <sup>4</sup>
Manic -Depressive Disorder	268 (lithium, case management) <sup>4</sup>
Leukemia	1,000 <sup>3</sup>
HIV	1,200 (antiretrovirals), 75 (palliative, home care)

The table includes too small a sample of conditions to allow general statements about the relative cost-effectiveness of treatment of mental health vis-à-vis other health conditions. Treatment for manic-depressive disorder or schizophrenia appears to be much less cost-effective than the treatment of certain conditions such as acute respiratory infection and measles, but more cost-effective than treating HIV or leukemia. The data on the cost-effectiveness of HIV is from 1993: since the price of antiretrovirals has fallen dramatically since, it is likely that treatment for HIV/AIDS is now much more cost-effective than what is indicated in the table above.

Recall that the cost-effectiveness criterion is one among several in the decision process; if the need for public funding has been determined (for the reasons discussed above: public goods, externalities, catastrophic cost, benefits the poor, etc.), and if it shown that there are cost-effective ways to spend the public funds, then the public funding decision should be made. Focusing *only* on cost-effectiveness of treatments misses out on the distinction between public and private goods that began this discussion. Certainly, the impact of the treatment on the population is an important factor in decision-making.

<sup>3</sup> Source: World Bank, World Development Report, 1993.

<sup>4</sup> Source: Jamison et al. Disease Control Priorities in Developing Countries, 1993.

However, if the good can adequately be represented in the private market, the public policymaker's decision to finance the treatment will crowd the private market, resulting in inefficient resource allocation. Therefore, the policymaker must always consider the cost-effectiveness of a treatment, in the context of its identification as a public or private good.

### **Can the treatment adequately be covered by insurance?**

In an earlier section we argued that mental disorders could well inflict catastrophic costs upon households and suggested that the first line of response to this issue is insurance coverage. In this section, we explore the feasibility of this option. Insurance can serve to spread risk and cost of treatment over a wider population. In general, insurance is successful in encouraging people to pay premiums, because of a shared probability that any subscriber may contract a specific medical condition: subscribers are willing to pay to offset potential costs of future illness.

Many people, influenced by the stigma that society attaches to mental disorders and the perception that one cannot contract a mental disorder, do not believe they are at risk and are therefore unlikely to pay for others who might require treatment. Recent developments have been made in high-income countries to circumvent this problem by incorporating mental health conditions into existing plans and producing payment parity<sup>5</sup> for mental health conditions within plans. Thus, the subscriber pays to alleviate both medical and mental health risks in the same payment, with the notion that they are covering a more comprehensive series of medical conditions, not merely focusing on the mental disorder that the subscriber believes he or she will never get.

There are two theoretical arguments why a market for mental health insurance on its own is likely to unravel. These are the moral hazard argument and the adverse selection arguments.

#### *Moral hazard*

In several health systems (United States, United Kingdom, etc.), stakeholders have debated whether mental health should be packaged as part of a comprehensive plan that includes medical health coverage, or whether it should be administered as a separate, potentially smaller risk pool. Frank and McGuire (2000) note the implications of moral hazard on having a comprehensive health plan or one that excludes mental health. "The moral hazard argument for special treatment of mental health care is based on the proposition that the demand response to insurance coverage for mental health services is greater than that of other medical services and therefore the welfare loss from coverage is larger while the risk spending benefits are smaller." (p. 908) In other words, patients are more likely to ask for mental health treatment if they are better covered.

The result of moral hazard may be an over-utilization of mental health care, which would cause the insurance market to fail. Policymakers can consider possible regulation (e.g. demand-side cost sharing

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<sup>5</sup> Several high-income countries, notably the United States of America and Canada, have moved toward the situation in which mental health conditions and medical conditions are treated with equal expenditure, as determined by the severity of the condition. According to the US Mental Health Parity Act of 1998, insurance companies are prohibited from assigning different levels of annual or lifetime expenditure limits on mental health coverage than they do on general medical coverage. (Burnam et al, 1999) However, under this law, insurance companies can still vary day and visit limits, as well as the size of deductibles and co-payments. (*Ibid*)

and/or supply-side payment mechanisms and limiting the supply of providers) to introduce incentives for both providers and consumers to limit the delivery of less necessary care. This could be quite important given that ambulatory mental health care, at least in the US has greater price elasticity (consumers use less services if they have to pay more) than for other health conditions (Frank and McGuire, 2000). Also the findings of a study in Australia, which has essentially unrestricted parity coverage for mental disorders, found that 3% of respondents with no mental disorder sought treatment, accounting for 8% of all office visits (Andrews and Henderson, 2000). Of those with no diagnosable disorder seeking treatment, 46% were given medicine or tablets, and the group averaged 3.8 individual visits.

In developing countries, however, where providers are undersupplied relative to the disease burden (Desjarlais et al, 1995) there is likely to be less risk of any insurance pool being overwhelmed by unnecessary utilization. Supply side regulation, in addition to demand side control, exists for mental health in many countries and can limit the risks associated with moral hazard in insurance systems.

### *Adverse selection*

Adverse selection predicts that persons more likely to need coverage will select better coverage (Frank and McGuire, 2000). The converse principle is that persons unlikely to desire coverage will not select a coverage plan. This is particularly relevant in mental health service schemes in which mental health is “carved out” of financing plans and administered separately. The potential outcome, for insurance plans, is for people who presume to be of low risk for mental disorder “opt-out” of the insurance scheme, leaving the potential sufferers to bear the entire risk burden. When this happens, insurance, which is intended to spread risk across healthy and non-healthy populations, fails.

Subscribers to private insurance, if given the choice, would not pay for services that they don't believe they will ever use. Individual subscribers are far more likely to predict that they will not develop a mental disorder than that they will not have a medical problem in the future (Frank and McGuire, 2000). Therefore, the private market will likely fail without regulation.

Because insurance is likely to fail without public intervention, the policy maker must determine the appropriate policy response. In countries where private insurance is predominant, the adequate response maybe to mandate insurance companies to include mental health care in their benefits plans. Countries that have social insurance systems should ensure that mental health services are included in the insurance regime. Where no health insurance exists, it is quite unlikely that a mental health insurance plan can be sustained. In those countries, public provision of mental health services might be only available option in the short term.

In any case, providing explicit insurance coverage for mental health is likely to generate a cost escalation problem since, as argued above, demand for mental health is price-elastic. So that this does not translate into big increases in premiums (whether contributory or subsidized), public and private insurers will need to implement cost-control measures such as the incorporation of mental health services into primary care. By requiring a primary care provider to act as a gatekeeper on referrals to the specialist mental health provider, the less severe disorders can be treated at a lower cost since specialist care is only used for the more complex or severe disorders.

## **Is there a need for regulation?**

Traditionally, in high and middle-income countries, mental health services have been provided by the public sector or subsidized in the private sector. Inpatient facilities were initially opened to provide “societal protection” from, and treatment for, specific individuals who demonstrated the potential to harm themselves or others. However, research has now provided treatments for more conditions and professionals have gained a better understanding of the causes and impacts of specific mental disorders. This has resulted in a larger market, which can include more subtle improvements for healthier individuals.

Mental health services currently exist in both private and public sectors in virtually all countries. In the United States, for example, inpatient facilities have often been funded publicly, either through Federal, State, or local government expenditure, generally focusing on treatment of more severe disorders (Hogan, 1999). At the same time, private markets for psychotherapy and pharmaceutical treatments have expanded, through managed care and out-of-pocket expenditures, and private inpatient facilities also provide treatment to wealthy patients (Leslie & Rosenheck, 1999). In developing countries, treatments are often provided privately, including through traditional healers. Saeed et al (2000) found 61% of attendees at faith healers in Pakistan suffered mental disorder.

When the provision and financing of a good is deemed better left to the private market, the public policymaker must decide whether any potential market failures exist that would necessitate some form of correction. For mental health, there appear to be two major topics, additional to insurance regulation, which make public intervention seem necessary. These are information failures and quality control.

### *Information*

As previously discussed, the mental health sector runs the risk of market failure due to imperfect information, for patients, society, and mental health professionals. Patients may not be aware of the need for treatment, the existence of treatment, the accessibility to treatment, and may not be able to seek treatment because of the effects of the illness on psychological or physiological function. Society may have a built in stigma against mental disorder, or may simply not understand what these disorders are, how to treat them, and how to finance that treatment. Health professionals may lack the knowledge about appropriate treatments, or may not have access to resources needed to provide most effective treatments.

This information gap can be addressed by public sector, in two important ways. First, educational programs can be implemented for all three groups, giving patients more information about recognition and treatment options for their disorder, giving society better understanding of how mental disorder can be addressed and understood, and providing better training for caregivers which in turn will lead to better provision of care. Second, outcome data can be collected in local areas, and then disseminated to the three groups, to better inform them about the prevalence/incidence of mental disorder in local areas, and how populations have responded to different treatments.

### *Quality control*

The quality of mental health care in virtually all countries has been seriously questioned, and at times considered “scandalous” (Frank and McGuire, 2000). Numerous human rights enquiries have criticized the conditions of psychiatric facilities and the behavior of staff. To improve the quality of mental health

care and reduce the marginalization and discrimination reported, calls have been made to mainstream mental health with general health policy and care (Whiteford, 1993; Ustun, 2000).

First, licensing agencies can indirectly improve standards of treatment, providing a quality control for traditional and modern mental health caregivers, ensuring that caregivers must have a certain level of knowledge to receive a treatment license. This concept has been implemented within Sub-Saharan Africa, with some degree of success (DeJong, 1991). De Jong's study has found that traditional healers have been receptive to both licensing and ongoing training, modifying their practice to include both treatment and "institutional practices" (wearing white lab coats, prescribing non-homeopathic medicines). While licensing does not dictate control over practice, it does ensure some degree of consistency in modern mental health practices that can help combat harmful treatment methods.

Second, the supply of appropriate treatments for mental disorder can be addressed through proper certification of approved therapies by acknowledged experts, which will ensure that harmful treatments are not adopted as standard practice across mental health services. In addition, policy can mandate to only supply services needed by the patient population. Third, where involuntary treatments are provided, the issue of quality is more important as the right of the patient to refuse the treatment is removed by legislation.

The policymaker must assess the potential market failures for mental disorder and determine whether specific methods of regulation should be implemented to remove the potential failures. This goes beyond the determination of a good as public or private status, extending to determine how quality of the service can be ensured. Quality improvement may require both prospective measures (licensing of mental health professionals, certification of pharmaceuticals) and retrospective measures (monitoring services through audit, staff assessments, mandating clinical standards).

### **Does the rule of rescue apply to mental health?**

The last criterion from Musgrove's framework refers to the rule of rescue criterion. It involves comparisons among individuals "between those who will die without an intervention and those for whom the appropriate health care will not make such an all-or-nothing difference." (p. 217) Mental disorders are not often seen as a life or death situation. Suicide is the exception and is a serious problem in developing countries (see annex). One can argue that the rescue of suicidal patients requires treatment of the medical consequences of the person's condition when admitted to hospital, and is therefore related to their physical, not mental, health. On the basis of this argument, the rule of rescue would not apply to mental disorders. However, the prevention of suicide attempts is usually a mental health issue and the argument that the rescue should be applied before the suicide attempt is made, has some legitimacy.

In summary, the criteria set out by Musgrove (1999) provide a suitable framework for exploring the potential for public intervention in mental health. While the case for providing a comprehensive public mental health service in developing countries cannot be made on the public goods or the externalities criterion, the issues of catastrophic cost, the potential market failures for insurance, barriers to information and the existence of involuntary treatment do highlight the need for public sector involvement. The public sector's main roles in the field of mental health are: (a) information provision and stigma reduction; (b) regulation to ensure quality of care; and (c) ensuring financial protection (mandating the inclusion of mental health within health insurance coverage, provision) against catastrophic costs. The combined effect of encouraging private demand for mental and increasing

access to it has cost implications. In countries where the provision of mental health services is largely public, this means that the public sector also has to look into cost containment techniques.

## IMPLICATIONS FOR DEVELOPING COUNTRIES

### MENTAL HEALTH PROVISION AND FINANCING IN DEVELOPING COUNTRIES

To better determine appropriate circumstances for public intervention in mental health services in developing countries, policy makers need to understand current features of provision and financing of mental health services. Though specific data on services in developing countries is scarce, we can characterize four main features that exist in most systems.

#### Institutions

For centuries, institutions have housed the most ill and disabled of those with mental disorder. Institutionalization began as a means to provide security to the public by removing the potentially harmful members of society from the general populace. For some countries, it was also an attempt to provide “asylum” to unfortunate members of society. However, the system of institutional care that developed essentially provided custodial care, as few effective treatments were available. In some cases it was closely related to the penal system, considering the mentally ill as criminals, for whom little treatment was expected.

Over time, as knowledge developed about mental disorder, and both pharmaceutical and psychological treatment became available, the ability to improve outcomes for these individuals improved. Asylums in higher-income countries ceased to exist as a “warehouse” for the mentally ill; many became more like hospitals for the extremely ill than prisons. Currently, these hospitals remain for those needing intensive therapy; many remain residents for shorter periods of time. Acute care is increasingly provided in psychiatric wards of mainstream general hospitals (Whiteford et al 1993). The increasing recognition of patient rights, the introduction of more effective treatments and an era of cost cutting in health care has seen a major shift from in-patient to out-patient and community care. Only those patients with the most severe and disabling conditions remain in the custody of the hospitals, though hospitals remain a necessary component of comprehensive mental health services.

In developing countries, in-patient psychiatric hospitals are often plagued by poor facilities. In a Dominican Republic hospital, for example, many patients have had to sleep on floors covered by human waste; there are no resources to treat life-threatening emergencies or infections, and food must be cooked outdoors over wood fires because construction of kitchens has not been completed. (Desjarlais et al, 1995). In Argentina, similarly insufficient resources have resulted in patient deaths from malnutrition, and suspected corruption has resulted in a reported 1,321 patients dead and 1,395 disappeared from a facility near Buenos Aires. For hardworking personnel in these institutions, decision-making must include whether the patient might be better off on the streets; all too often the decision is yes.

Unfortunately, little information is available to suggest the overall quality of institutional care; it is by no means certain that the two examples above represent the general quality of inpatient care in developing

countries. The extreme cases are highlighted not to over-dramatize the care of inpatient mental health care in developing countries, but to explain the extreme, but very real situation that a decision maker may encounter in the field.

We can highlight several trends that seem to be improving care, despite little solid evidence. First, there is a trend to move patients from inpatient care to community services. This saves a lot of money over inpatient care (Leslie & Rosenheck, 1999), and has been associated with some improvement in outcomes, specifically in developing countries. (Levkoff et al, 1995) Second, remaining inpatient care has shifted from psychiatric hospitals to general hospitals. This arguably can reduce expenditures in cases where patients have both psychological and physical health needs. (Davis, 1996)

### **Community Care**

The shift to de-institutionalize the mentally ill has necessitated the development of strategies within the local communities of low-income countries to develop services to meet the mental health needs of their residents. Community mental health services benefit from their integration with cultural, political, and social life, all of which have been correlated to positive mental health. These local services generally require a multi-disciplinary group of participants, including families, physicians, nurses, social workers, and other mental health care workers. Mental health units are being developed in general hospitals (Yousaf, 1997) for those requiring acute inpatient care.

The prevalence of mental disorders in primary care settings is high, a major WHO study of 15 primary care sites across both developed and developing countries found primary care providers identified nearly one quarter of patients had a mental disorder (Ustun and Sartorius, 1995). Likewise nearly one quarter of patients attending three primary health care units in Nigeria over a period of one month were prescribed psychotropic drugs (Abiodun, 1998).

### **Family Care**

According to Susser et al (1996), family care is an important part of the treatment of mental disorder in developing countries. “Family care reduces the number of nurses and non-medical personnel required; yet the medical benefits of family involvement also have been articulated.” (p.926) In India, Desjarlais et al (1995) report, “family involvement is rooted in...cultural understandings which dictate that someone other than the sick person make decisions about care.” (p.66) In Tanzania, family involvement significantly improves treatment after discharge from hospital. “The proximity of family, whether in the same household or casting a watchful eye in the same village, may ensure that the patient maintains activities of daily living.” (Susser et al, 1996, p. 927)

Family and community-based mental care in developing countries has already led some researchers to find improvement in patient outcomes, even over high-income countries. For schizophrenia in developing countries, studies have found the disorder to be associated with “less impairment and less disability in developing than in industrialized countries...despite the dearth of mental hospital beds and other known treatments.” (Ibid, p.928) Community-based mental health care appears to be a viable, affordable method used to de-institutionalize patients and effectively treat them in a naturalistic way.

### **Existing Methods of Finance**

Financing mental health care in developing countries has recently been reviewed in the World Health Report 2001 and is under revision in many countries (especially Eastern Europe - Langiewicz and Slupczynska-Kossobudzka, 2000; and Latin America - Alarcon, and Aguilar-Gaxiola 2000). As has been discussed within the criteria for determining public policy priorities, the issue of catastrophic costs remains very real for a number of mental disorders. The low mortality and likelihood of long-term treatment make individual financial troubles a reality for many patients, if they are required to fund treatment. Therefore, countries, especially those with fewer financial resources, must find a method of purchasing mental health services that they can afford.

For developing countries, much of the mental health care spending is reported to be out-of-pocket. Individuals purchase modern and traditional treatments if they can afford it. In extreme cases, public money may be added to put someone in hospital. With mental disorder often being chronic and treatment costs becoming substantial over time, insurance is a logical way to spread the risk and cost of services over a large population. The difficulty with mental health is that health care consumers do not assume all individuals to be likely to have a mental disorder. Therefore, many will assume that they do not need coverage, and thus, should not pay for others to receive care. This issue has been addressed in some high-income countries, as insurance providers have decided to include mental health services as part of a comprehensive health care insurance package, while others have, in an attempt to drive down subscriber costs, have "carved out" mental health services.

### **Quality of Service**

Mental health services are delivered within developing countries from a wide range of providers. Primary care physicians are often the only practitioners that connect the patient to modern science-based treatments. Traditional healers offer spiritual and natural pharmacological treatments, with large apparent variations in effectiveness. Community mental health teams offer another stream of service, embedded within local areas. Modern pharmaceuticals are present, but not prevalent; psychotherapy availability is related to the number of trained practitioners. China has only three mental health workers per million citizens, Zambia has one psychiatrist for 10.5 million, Singapore has 15 psychiatrists per million, and Nigeria has several hundred mental health workers for a population of 100 million. This is compared to the United States, which has some 42,000 psychiatrists, 60,000 psychologists, 85,000 social workers, and 75,000 psychiatric nurses for a population of 260 million. (Desjarlais et al, 1995)

Little data currently is available on effectiveness of treatments in developing countries, as measured by utilization rates, patient outcomes, or cost-effectiveness measures. The knowledge of service quality will likely be a problem for years to come.

### **HEALTH SECTOR REFORM IN A NUTSHELL**

From the discussion of priority setting and features of current mental health services, there are several major issues that should be addressed in any proposed intervention to improve the financing and delivery of mental health care. These are as follows:

1. Have information gaps/failures been minimized?
2. Is there an appropriate system to ensure quality of care?
3. Are there sufficient measures in place to minimize the reliance on out-of-pocket payments? Is mental health care included in the insurance package? Have potential insurance market failures been addressed/minimized?

4. Has the use of existing systems to deliver services been maximized? (traditional healing, family, community-based care)

As part of a discussion of public policy intervention for mental health services, one must consider the possibility of integrating necessary reforms in the field of mental health with current efforts to improve general health services. Therefore, we examine the key elements of health sector reform and determine their appropriateness for mental health sector reform.

While health sector reform translates differently in distinct contexts around the world, there are several common principles that underlie these reform efforts. In their most basic form, they represent intent to confront resource scarcity, to improve equity of services, to support efficient allocation of resources, and to most effectively deliver health care services to populations. (WHO, 1997).

### **Confronting Resource Scarcity**

Over the past few decades, research and development in medicine has led to enormous gains in medical knowledge, provision of new services to reach previously untreatable patients, and development of pharmaceuticals, devices, and procedures to improve disease outcomes across the board. This explosion in the provision of new services is constrained by resource limitations. It is not possible to do everything possible for every patient; there aren't enough resources.

Much of the reform has consisted of attempts to contain health care expenditures. Health care reform proponents offer a number of different methods to contain costs, both supply and demand oriented. Systems of public sector reform offer opt-out clauses, where individuals can select to finance their own care through private means; no-claim bonuses, which decrease premiums for insurance subscribers who utilize less care; and reduction in services and rationing schemes to delay excessive demand. (WHO, 1997) On the supply side, reformers have established expenditure ceilings to cap spending for individuals, restrictions on numbers of health care professionals and beds to reduce capacity for treatment, and monitoring the use of resources authorized for physicians.

Reform has also advocated cost sharing in certain environments, including co-payments for individuals requiring professional visits, pharmaceuticals, and medical treatments; deductibles which require the patient to pay the first portion of all health care consumed in a year; or co-insurance, which requires the patient to pay a certain percentage of total medical costs. (WHO, 1997) Each of these is intended to restrict spending by placing more financial responsibility on the individual patient. Whether cost containment comes from supply or demand side, it remains a necessary part of health sector reform; resources are scarce, and maximization of those resources can only begin when control over cost exists.

### **Improving equity**

Traditionally, health care has often been viewed as a privilege, rather than a right, where the wealthy can afford the best services worldwide, while people of lower economic status are restricted to basic health services, or no service at all. The push within health care reform to improve equity of care has focused on the issue of solidarity so that access to care depends on needs and not on ability to pay. Those who can do so, contribute more to the overall financing of health care.

The most popularly advocated program is that of national insurance, in which government money (from tax proceeds) is placed into a central fund, out of which payments for individual health care are drawn.

This has a major equity advantage, in that it avoids the private insurance methods of exclusion of certain groups, whether by economic status, previous medical conditions, or other factors. While national insurance has improved equity over fee-for-service schemes, recent trends toward allowing certain citizens to “opt out” of services, and the growth of the private sector in many countries has diminished the solidarity that the national systems depend on. It is currently unclear as to what effect this will prove to have on the insurance-based systems.

### **Efficiency provider payment mechanisms**

The efficient allocation of resources remains a huge priority for all systems. Recent health reform researchers have encouraged the introduction of contractual relationships into national systems in an attempt to accomplish the following goals:

- Encouraging the decentralization of management
- Improving the performance of providers
- Improving the planning of health care development
- Improving management of care (WHO, 1997)

Researchers have believed that introducing contracts as a means of splitting purchasing from providing would enable better choices to be made to provide best possible care, as providers would need to “prove” that they could deliver in order to maintain a steady client base.

After the NHS introduced its purchaser-provider split after the Griffiths Report of the late 1980’s, countries around the world followed their example. Unfortunately, the NHS reported enormous “red tape” expenditures, in excess of 1 billion pounds per year, and little change in quality indicators. (NHS, 1997, White Paper) What happened to the NHS, and is possible to happen with the purchasing and providing split is the risk that certain hospitals and providers will go out of business. The NHS of the early 1990’s had a built-in safety net for the “poor performers,” which eliminated the incentive to improve or face insolvency.

Other issues regarding the most effective methods of allocating resources hinge on proposed performance-related payment systems for health care workers, analysis and adjustment of current payment policies, restructuring payments to hospitals and other health service contexts, cost effective provision of pharmaceuticals, and appropriate investment in future health concerns. Again, the outcomes of many of these reforms have not been definitively studied.

### **Efficient delivery of services**

Improvement in the quality and outcomes of treatments continues to motivate a great deal of health sector reform. This move to improve service delivery quality intimates scrutiny of health service delivery at a number of points on the “care chain.” (Knapp and McDaid, 2000). For treatment efficacy, results from health technology assessment trials are continuously emerging, impacting notions of best practice. However, the conclusions often refer to “in vitro” trials, done within the regulated environment of a carefully designed treatment clinic. Monitoring of “in vivo” implementation is important to assess whether research can effectively be translated into practice.

Second, implementation of best practice is dependent on treatment information disseminated to local practitioners. As a wealth of studies has shown, dissemination of medical knowledge is not automatic,

but requires a great deal of time and local support. Other attempts to improve dissemination of medical information include clinical guidelines, continuing medical education, and use of opinion leaders.

Third, outcome data should be gathered to understand how patients are responding to different treatments. While clinical audit has often been questioned as to its impact on change of practice, it continues to provide valuable information about instances of both good and bad practice. This is particularly important in the developing world, where practitioners have many different methodological, spiritual, and clinical backgrounds. Integration of traditional healers and modern care can only be done with knowledge of the effectiveness of each.

Fourth, decentralization of control over provision of service has been advocated by health sector reformers, who are attempting to both improve local management and decision making of hospitals, and shift medical treatment toward primary care, community clinics and outpatient settings as much as possible. In addition, allied health professions, such as clinical officers and physician assistants, are being advocated as a less expensive means of providing more health care staff to treat patients. Again, evidence on the effectiveness of these reform strategies is still emerging from a large number of pilot projects worldwide, which makes overall assessment of global health sector reform very difficult.

### **Is MENTAL HEALTH SERVICE REFORM CONSISTENT WITH HEALTH SECTOR REFORM?**

Having briefly discussed the major tenets of health sector reform, one can attempt to determine whether they are concordant with the reforms that are needed in the mental health arena. The major goals of reform—improve efficiency of delivery, equity, and allocation of resources — are quite consistent with the improvements required in mental health provision and financing. Even the specific measures within each broad objective—advocating of community care, insurance-based purchasing, use of clinically effective treatments—match the mental health priorities. So, as a summary issue—does health sector reform adequately address the issues in mental health that we have discussed?

Health sector reform is largely about redefining the role of the public sector in health. The argument is that the current distribution of roles of the public sector is inappropriately biased towards provision and financing, and away from information provision, mandates and regulation (Musgrove, 1996). Reform essentially consists in reducing the government's roles in health care provision and financing (through contracting provision out and increasing insurance coverage) and strengthening its capacity to perform its core stewardship duties (information, regulation, and mandates). The latter aspect of reform is particularly relevant for the mental health sector where the main reform needs are increasing the government's role: (a) in information gathering and provision (on the availability and effectiveness of treatment); (b) overseeing (accredit/audit) the quality of care by public and private providers (especially since many patients are unable to represent themselves adequately); (c) in protecting households against catastrophic treatment costs by spreading risks and subsidizing care as necessary. To the extent that health reforms indeed strengthen the public sector's ability to generate and provide information, effectively regulate the quality of care, and ensure financial protection, they serve the needs of mental health reform well. Conversely, reforms that focus on ridding the government of its non-essential functions and neglect to strengthen the government's stewardship functions do not do justice to the reform needs in mental health.

## **OPPORTUNITIES FOR MENTAL HEALTH REFORM**

There are opportunities for mental health sector reform in developing countries. First, using the Musgrove framework of public policy priorities, the appropriate areas where public sector involvement should be strengthened can be determined. These include:

- The provision of information on the availability and generation of information on the effectiveness of treatment (patient outcomes; effectiveness of traditional healing) with a view to reducing stigma and stimulating private demand;
- The regulation of public and private practitioners through accreditation, audits and other measures to ensure quality of care, especially as the legislative option usually exists for involuntary treatment and this has been abused in many countries;
- Ensuring financial protection against the catastrophic costs associated with certain mental disorders by mandating the inclusion of their treatment in social and private health insurance plans;

In countries where there are no explicit health insurance regimes, the role of the public sector extends to:

- Ensuring financial protection against catastrophic associated with certain mental disorders by ensuring adequate public funding and appropriate forms of provision (deinstitutionalization; use of community care; adequate supply of mental health care providers);
- Containing the cost impact of increased demand for mental health care.

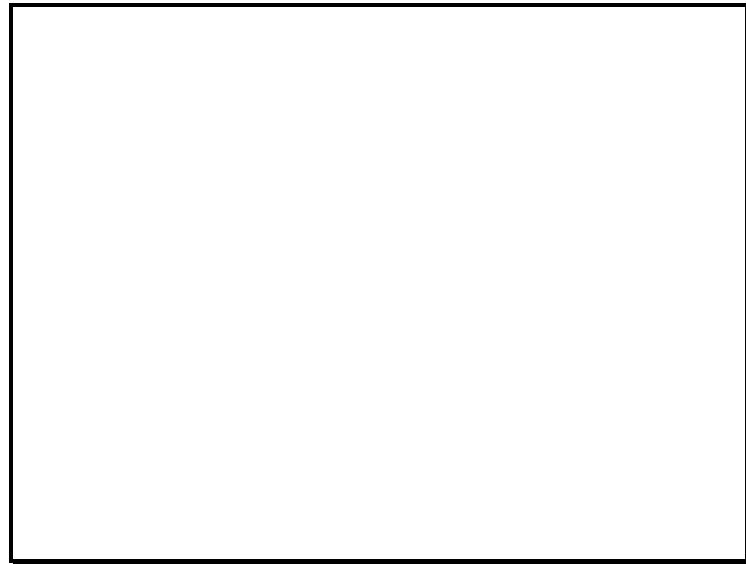
Second, inter-sectoral links between mental health and other public policy priorities can be incorporated into existing and future project plans. These include social sector projects where cognitive development components can be added to early child development projects, education sector projects where mental health education can be a component of health education as well as having teachers trained to recognize and manage or refer children who show signs of emotional distress. In health programs, there can be linkages to HIV/AIDS initiatives, for example in the management of depression and other emotional reactions to being diagnosed HIV positive, as well as managing the organic complications of HIV/AIDS. In maternal and child health/safe motherhood programs, modules can be added to address the recognition, early intervention and referral of mothers who may have postnatal depression. There is also a growing body of work in the mental health consequences of violence against women. Psychosocial interventions are now a part of legal aid clinics targeting women who may have been abused. The psychological consequences of female genital mutilation are being increasingly recognized and programs are being developed to compliment prevention efforts. In conflict and post conflict situations, psychosocial/mental health interventions in the immediate post conflict period can be the basis for the establishment of a comprehensive mental health program.

This paper can help with developing public priorities in the area of mental health, given current knowledge, but the field requires more information before we can understand the extent to which mental health affects developing countries and what policy responses are required



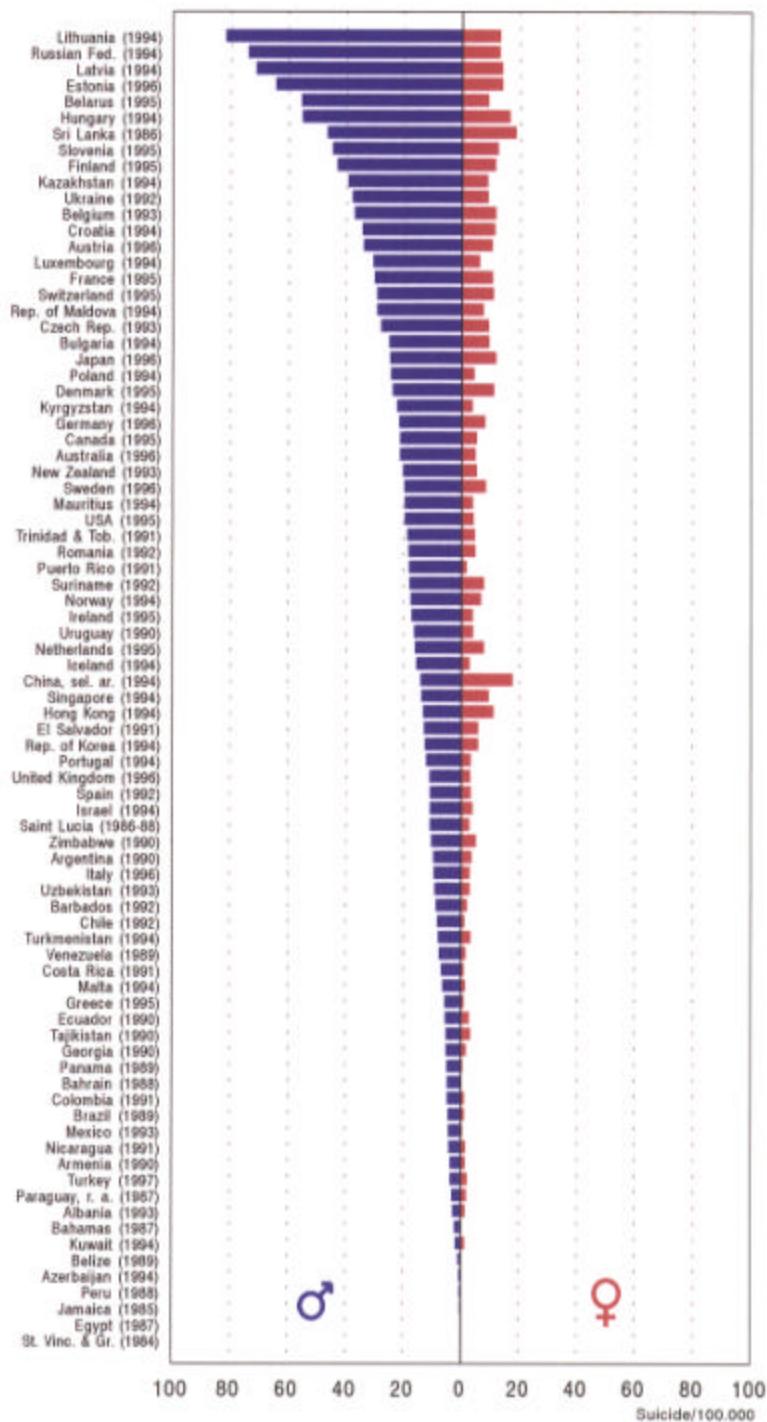
## **ANNEX**

### **Global Suicide Rates 1950-1995**



Source: [http://www.who.int/mental\\_health/Topic\\_Suicide/Graph2.htm](http://www.who.int/mental_health/Topic_Suicide/Graph2.htm)

## Male and Female Suicide Rates by Country



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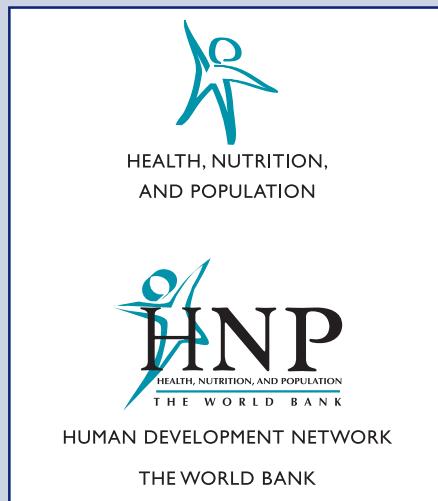
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