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protection of patients' long term interests. Patients dislike isolation from family and friends and are vulnerable to changes in the institution's niche in the market. But these detained users of private services have little influence over their circumstances. The network is a "virtual asylum," dispersed, invisible, and inadequately regulated.

Patients often arrive in the virtual asylum after lengthy, unproductive stays in acute psychiatric wards. Others come from prisons, special hospitals, and NHS secure units. Many have been moved from institution to institution since childhood. Some have a bad reputation with local NHS services, which have lost the will to deal with them. In the absence of appropriate NHS provision, these patients are placed in the private sector. In smaller nursing homes, where low profit margins do not allow the employment of full multidisciplinary teams, patients are subjected to little purposeful activity. Often, few fully trained nursing or medical staff are available. Care tends to be basic. Larger and more expensive facilities are able to attract better qualified staff. Patients entering this part of the virtual asylum are likely to receive rehabilitation, albeit often focused on acculturation to institutional life. Even where care in these institutions exceeds NHS standards, this is offset by severe difficulties in integrating patients back into reluctant local community services.

The cost of placement in secure services is £2000-2250 per week (\$3100-3500; €3100-3500).⁶ The cost of non-secure services shows much greater variation. The annual national cost probably greatly exceeds £100m, but no mechanism is in place to monitor the value for money of this substantial expenditure.

Variability of care is endemic in the NHS, but it is at least possible to measure it. Until now it has been possible for patients to live in the virtual asylum, with little or no monitoring of quality of care. Nursing home inspection teams and the Mental Health Act Commission can monitor legal requirements but cannot adequately oversee the quality of individual care. It is hard to see how the new National Care Standards Commission will be able to function any better at the level of the individual.⁸ The incoherence of the current approach may worsen as commissioning transfers to primary care trusts each with a tiny number of such patients. Few primary care trusts have developed the commissioning capability for this specialist task.

Episodes of moral panic continue to dominate formation of mental health policy in the United Kingdom. Concern about neglect and abuse in mental hospitals in the 1970s gave way to concern over the perceived danger of mentally ill people in the community in the

1990s. This has generated some ill considered policies. The virtual asylum is ripe for a destructive moral panic, which would be likely to focus blame on service users, clinicians, and purchasers. If the private sector were discredited, the cost of re-providing services in the NHS would be prohibitive. The main victims of this scenario would be patients and their families, rather than the policy makers and politicians who inadvertently created the virtual asylum.

A partnership between the public and private sectors cannot develop on an ad hoc basis. A clear and agreed agenda for the private sector's role is essential, together with proper systems to develop, manage, and monitor the interface between both sectors. Such systems take time to develop, and this requires respite from the epidemic of NHS reorganisation and policy initiatives, together with some genuine joined up thinking.

If these basic requirements cannot be achieved for mental health, with its long history of cooperation with non-statutory services, then an overarching NHS policy of public-private partnership has little credibility for other healthcare sectors.

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The views presented in this paper are those of the authors and do not necessarily reflect the views of their employing organisations.

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Physical activity for preventing strokes

Better designed studies suggest that it is effective

Stroke remains the most common life threatening neurological disorder, accounting for about 10% of all deaths worldwide.¹ This is despite a decline in mortality rates due to stroke in most industrialised countries since the early 1900s owing to a decrease in

case fatality or incidence, or both. Stroke is a leading cause of disability, and its treatment entails prolonged hospitalisation, with a commensurate financial toll. Preventing strokes is therefore of public health and economic importance.

Although genes may play a part in predicting risk of stroke, the observation that individuals who migrate have the same rates of stroke as the people in their host country implicates environmental risk factors.² Epidemiological studies have identified modifiable risk factors for stroke such as raised blood pressure, obesity, glucose intolerance, smoking, and alcohol abuse. Ischaemic stroke (the commonest type) and ischaemic heart disease share similar pathophysiological traits. Clear evidence links physical activity to ischaemic heart disease.³ A sedentary lifestyle is therefore a possible risk factor for stroke.

The association between physical activity and stroke was first described 35 years ago in a report from the Harvard alumni study, a longitudinal study of male former college students.⁴ Alumni who had been athletes in college experienced less than half the risk of fatal stroke compared with the non-athletes. An alternative explanation—that sedentary men are more likely to smoke and drink alcohol to excess than active men, placing them at higher risk of stroke—was addressed in a recent follow up of the same cohort in which their physical activity was assessed in more detail.⁵ After statistical adjustment for these differences, physical activity continued to be inversely related to the incidence of stroke. Similar observations have been made in other populations including British men and US women.^{6,7}

U-shaped and null associations between physical activity and stroke have also been reported.^{5,8} These inconsistent findings may have several explanations. Firstly, most investigators have adjusted for characteristics that may mediate some of the beneficial effects of physical activity on stroke, such as blood pressure. This overadjustment could result in the lack of difference seen in stroke rates across groups with varying levels of activity. Secondly, some studies are hampered by a rudimentary assessment of physical activity and small numbers of strokes.

Thirdly, with one exception,⁷ studies have not accounted for changes in physical activity over time and could result in an underestimation of the association between activity and stroke. Fourthly, the discrepant pathophysiological characteristics of the major subtypes of stroke—*ischaemic* and *haemorrhagic*—make a differential relation with physical activity plausible. Studies conducted among populations varying in age, sex, ethnicity, and socioeconomic position are likely to encounter different distributions of the subtypes of stroke. This may result in inconsistent associations when all strokes are grouped into a single category and related to activity. With regard to the U-shaped relation seen in some studies,³ the upturn in risk seen at higher levels of activity may be partly because vigorous activity seems to be less effective than activity of low and moderate intensity in reducing blood pressure, particularly diastolic.⁹

Further research is needed on women, ethnic groups, the subtypes of stroke, and the optimal amount of physical activity—its volume, intensity, duration, and frequency—needed to prevent stroke. Although a meta-analysis of the predictive capacity of physical activity for risk of stroke would also be of value—for the relation between blood pressure and stroke this has been done by pooling individual level

data¹⁰—the dimensions of physical activity and units of assessment used across studies are too disparate to do this easily.

In the absence of such studies, systematic narrative reviews do exist.¹¹ The better designed studies—those with more cases and more detailed assessment of physical activity—have found an inverse relation between activity and stroke. This has led to speculation that activity may also be effective in the secondary prevention of stroke. Clinical studies of patients with strokes suggest that formal exercise programmes have favourable effects on physical fitness, function of the lower extremities, and neurological performance. To examine fully the potential for exercise to reduce recurrence of strokes, however, extended follow up of randomised controlled trials with arms in which exercise is the only treatment used—as have been conducted sparingly in the field of cardiac rehabilitation—would be costly but informative.

The prevalence of physical activity is low in industrialised societies: in England only about one quarter of men and women currently meet guidelines for health of 30 minutes or more of aerobic activity of moderate intensity (for example, brisk walking) on five or more occasions per week.¹² This behaviour could be modified in several places, including schools (walking to school initiatives, improved provision for physical education), recreational areas (more parks and other exercise facilities with improved maintenance), transportation infrastructure (more cycle lanes), the workplace, and general practices.

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