

HIV infection, chemotherapy, increased use of immunosuppressive agents, and BCG vaccination.¹⁵ Kaufmann and colleagues⁵ review several approaches to the development of new tuberculosis vaccines. The dynamic interaction of age and immunity, as well as its influence on pathogen evolution, needs to be considered in the development of future vaccination strategies.

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A UK strategy for mental health and wellbeing

Mental ill-health is more widespread than many realise, with 16% of adults in the UK having a common mental disorder, such as depression, at any one time.¹ Nearly 10% of children aged 5–16 years have a clinically diagnosable mental health problem which can often persist into adult life.² In addition to the distress to individuals and their families, mental health problems are also an enormous financial burden to society and the economy.³

To ensure an economically competitive and flourishing society in the 21st century, we have to reduce the burden of mental ill-health. A research strategy is now required. For this reason, the UK’s Medical Research Council (MRC), on behalf of the Office for Strategic Coordination of Health Research, has taken on the major challenge of reviewing the field. Our report, *Medical Research Council: review of mental health research. Report of the strategic review group*, was published on May 28.⁴ On the basis of evidence from workshops, analyses of public-sector funding, and input from over 90 experts across the full spectrum of mental health research, the report presents an innovative vision for a national mental health strategy.

While acknowledging that the prevention of mental illness is a long-term aim, the report sets out recommendations for short-term actions towards this goal. We can start by understanding what determines early vulnerability and resilience to illness. The report recommends doing this through novel developments in linkage, data analyses, and modelling techniques of the large number of carefully assessed cohorts of healthy people and patients that exist in the UK. This approach should inform preventive strategies and treatment which, when applied early in illness, will prevent mental illness becoming chronic and relapsing.

The report calls for the acceleration of research and development for more effective pharmacological and psychological treatments for mental illness and their earlier and more effective implementation. The report identifies how this can be achieved by building on UK strengths in genetics and developmental biology, as well as continuing strengths in epidemiology and in cognitive, behavioural, clinical neuroscience, and service-related research. The report concludes that the development

Panel: Key findings and recommendations from the MRC-led review of mental health research

- The UK is well placed to lead and accelerate the development and implementation of preventive approaches and new treatments for mental health problems
- Major opportunities would be provided through better integrating the excellent UK base in neuroscience, social science, and mental health research with the potential of the NHS to conduct large-scale studies and of industry to develop new therapies
- Short and medium term actions we recommend include:
 - Strengthen population-based research
 - Promote experimental medicine and research into new treatments
 - Increase research capacity and innovation

of experimental drugs for mental health is of crucial importance, even more so in view of widely held concerns about the recent withdrawal of some drug companies, including UK-based ones, from the development of new drugs for the treatment of psychiatric disorders.^{5,6}

Innovative research approaches to treatment are needed. For instance, it will be valuable to focus on symptoms across traditional diagnostic categories, or on specific cognitive functions such as impaired episodic memory irrespective of disease diagnosis. A treatment which reduces impulsive behaviour, for example, might do so whether an individual has a diagnosis of mania, attention deficit hyperactivity disorder, or substance abuse, and a treatment for episodic memory problems might prove useful for improving cognition and functional outcome in both mild Alzheimer's disease and first-episode schizophrenia.

Also highlighted in the report are the goals of enhancing cognitive reserve and neurocognitive activation, and mitigating the effects of adverse environmental factors on the brain and cognition. We need to promote good mental health for the population as much as we currently do for physical health.

The review confirmed the disparity between disease burden and scale of research funding,⁷ recognising that this funding disparity reflected the poor understanding of disease mechanisms underlying mental ill-health, as well as a low research capacity in the UK. Nevertheless, the report is optimistic about the future, in view of the fact that past investment in mental health has provided substantial economic benefit⁸ and that the current scientific potential for making substantial advances is high. Therefore

building an enhanced research capacity to fully exploit the emerging scientific opportunities highlighted within the review must be a primary goal of any investment strategy. This strategy should seek to incentivise careers in mental health research, increase training opportunities and the linkage to other disciplines, and promote new methodologies to help deliver innovation.

Although the report focuses on a UK strategy, many of the findings would apply internationally.⁹ The report identifies the immediate drivers for future effects on the fields of mental health and wellbeing to ensure that, for all—individuals and society—we will be able to enjoy good mental wellbeing throughout life.

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