FEAM
Federation of the European Academies of Medicine

FEAM Statement on Mental Health Policy Issues

Statement

November 2010

The Federation of the European Academies of Medicine (FEAM)

FEAM was founded in 1993 in Brussels with the objective of promoting cooperation between the national Academies of Medicine and of extending to the political and administrative authorities of the European Union the advisory role that the Academies exercise in their own countries on matters concerning medicine and public health. As an umbrella organisation, it brings together national Academies of thirteen European member states (Austria, Belgium, Czech Republic, France, Germany, Greece, Hungary, Italy, Portugal, the Netherlands, Romania, Spain and the United Kingdom) and aims to reflect the European diversity by seeking the involvement of additional Academies and experts in its scientific activities and by collaborating with other European-wide networks on scientific matters of common interest.

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Content

Summary

The high burden of mental illness has been relatively neglected in EU policy. The current practice of psychiatry is undermined by insufficient biological understanding of mental health disorders, under-recognition, stigmatisation, a lack of effective therapeutic interventions and of access to care delivery.

The present report draws on discussion from a Prague meeting organised in 2009 by FEAM (Federation of European Academies of Medicine) to review some of the critical issues in contemporary psychiatry and is intended to provide advice to decision-makers at the EU and national levels in developing a more coherent policy for mental health. We cover policy priorities relating to research and public health for major contributors to the disease burden, including depression, bipolar disorder, schizophrenia, and their co-morbidities. We also address cross-cutting issues for mental health policy, including stigma, suicide, addiction, workplace stress and the challenges of adolescence and ageing.

Our recommendations focus on the needs (i) to achieve better understanding of the psychosocial and biological factors in mental disorders, together with their interactions; (ii) to capitalise on scientific advances so as to develop more effective recognition, classification, diagnosis and therapy; and (iii) to share best practice to optimise the delivery of health services. Achieving a more productive linkage of research with clinical care requires improved epidemiology, increased investment in basic, clinical, translational and multidisciplinary research and its supporting infrastructure, and new approaches to networking of centres of excellence and public-private partnership to translate scientific advances into innovation.

Developing this coherent strategy for mental health requires increased commitment from the European Commission and Parliament. The biomedical community also has a major responsibility to engage with policy-makers and the general public to communicate about mental health disorders, their determinants, triggers, risk factors and management.

1 Introduction

Mental ill-health is a major public health problem for Europe, bringing challenges for patients and their families. It also creates an economic burden on society. Mental illness also brings an ethical challenge when it leads to stigmatisation and social exclusion. While the promotion of mental health has received increasing attention in the European Parliament (Brepoels, 2010) and European Commission, there is much more to be done. Both Member States and the EU must invest more in mental health services and research. FEAM convened a scientific meeting in Prague in 2009 to identify some key issues for policy makers at the EU level.

2 Health and socio-economic impact of mental ill-health in the EU: what is the size of the problem?

A report by DG Sanco (2004) noted the historical difficulty in collecting standardised epidemiological statistics across all the Member States in mental health, partly because of variability in survey techniques and definition. Without standardised data, it is difficult to assess impact but, in aggregate, the cost of mental health problems in the EU was estimated conservatively to be 3-4% of GNP (pre-2004 data, with health care costs accounting for 2% of GDP). Depression is one of the most costly mental disorders because of the large number affected and the impact on work. European estimates suggest a cost of perhaps 1% of GDP. Depression has also now overtaken heart disease in the EU as the major health problem in terms of disability-adjusted life years (DALY), accounting for more than 9% of all DALY in the EU (Murray and Lopez, 1996; Spinney 2009).

Further information on socio-economic impact is available from a study by the European Brain Council, which estimated the total costs of brain disease in the EU plus EFTA countries in 2005 to be approximately 390 billion euros (covering health care costs, costs outside of medical care and indirect costs, including loss of work) but this comprises costs of mental health disorders including costs of neurodegenerative disorders. One-third of the total burden of disease in Europe is caused by brain diseases (Olesen and Leonardi, 2003; Olesen et al. 2008). Approximately 27% of the EU population (18-65 years) was affected by at least one mental disorder in the preceding 12 months. Although mental disorders are widespread, the main burden occurs among a smaller proportion of the population suffering from severe depression, bipolar disorder, schizophrenia or drug dependence.

It is important to do better in understanding and quantifying the broader impact of mental illness on European society. There are additional public health burdens when mental illness presents with co-morbidities (in particular, cardiovascular disease, diabetes and cancer). A comprehensive review of the various attributes of physical health of patients with schizophrenia (Höschl 2010) has provided practical recommendations for changes in clinical practice to manage such patients.

There are considerable, indirect, socio-economic costs of mental disorders, for example relating to lost productivity, additional social care and the impact of increased crime. There is an important research objective to be pursued in collecting cross-sectional and longitudinal data, to assess these impacts, evaluate causes and monitor trends in prevalence. The currently available data are relatively limited and mostly obtained from outside the EU. It will also be necessary to give more thought as to whether mortality is a good indicator for the burden of mental illness.

Good longitudinal data are also particularly valuable in forecasting disease trends. Without the long-term collection and analysis of data, it is difficult to know whether apparent increases in prevalence are real or can be attributed to better awareness and detection of disease. However, whether or not the prevalence of depression, for example, is increasing, it can be predicted that demand on health services across the EU will grow because many depressed people do not currently visit their doctor (Alonso et al. 2004) and because of the increasing prevalence of ageing populations particularly concerned by mental health problems.

Investment in mental health research by the public and charitable sectors brings economic benefits. A study, supported by the UK Academy of Medical Sciences (Health Economic Research Group et al. 2008) formally compared the economic benefits (both health gains and productivity gains, direct and indirect) accruing to the UK, with the cost of research. While there are many methodological uncertainties and assumptions inherent in such a comparison, the best estimate from this initial study, allowing for time lags, of the annual rate of return on the medical research investment in mental health is 37% per year (compared with 39% for cardiovascular diseases).

3 EU mental health policy at the crossroads

European mental health policy is perceived to be at a crossroads (Höschl, 2009) in terms of the need to develop a strategy to tackle the increasing disease burden at a time when there is a multiplicity of different health management practices in Member States, an underinvestment and fragmentation of research, and the need to think about the promotion of mental health and well-being in the general population as well as provision for those with mental illness. Our report focuses on the latter and while much of health care delivery remains a responsibility for the individual Member States, issues of public health and of support of research and innovation become core responsibilities for the EU policy-makers.

At this crossroads, it is vital to identify what is desirable conceptually and what is possible practically in attaining a coherent mental health policy throughout the EU. Such a policy should be expected to cover issues for research, professional education and innovation as well as health service delivery, disease prevention and health promotion. Developing an overarching policy will need also to take account of deteriorating economic circumstances and other influences on the social environment and must be alert to the potential impact of other legislation – whether intended or inadvertent – on mental health.

FEAM and its member academies have an important role to play in identifying what changes are needed in attitudes, plans and structures at the EU level and in advising on how the biomedical community can help to bring about these changes. In addressing these objectives in the present paper FEAM, by bringing together key points from material presented at a meeting in 2009, aims to highlight for policy-makers some of the critical issues in contemporary psychiatry with regard to: (a) What is already known - the evidence base to be used to better inform policy development; and (b) What is not yet known, but should be – the gaps in the evidence base.

As a starting point, it is relevant to note the public health priorities in mental health identified by the European Commission. (Box 1).

Box 1: European Commission designated priorities for mental health

- Mental health in youth and education
- Prevention of depression and suicide
- Mental health in older people
- Mental health in workplace settings
- Combating stigma and social exclusion

Taken from the 2005 Green Paper "Promoting the mental health of the population: towards a mental health strategy for the EU"

From the perspective of FEAM, this "consumer protection" focus on promoting mental health – while necessary – is only part of the agenda for the EU. In our view, it is also necessary to emphasise mental health as a medically-oriented discipline that relies on achieving better understanding of the biology of mental disorders and requires significant progress in psychiatry to provide improvements in diagnosis and treatment.

4 What should be covered in a broader mental health strategy?

4.1 Improving analysis and use of the evidence base on disease burden

During the FEAM meeting in Prague in 2009, Jordi Alonso noted that mental disorders have only relatively recently attracted attention as a major contributor to disease burden. Data from the WHO World Mental Health Survey are now available for several EU countries, providing comparable data on prevalence, socio-economic impact and co-morbidities (Alonso et al. 2007). This survey should serve as the basis for more systematic data collection in the future. As DG Sanco (2004) have described, in the European context there is still much more to be done:

- To collect comparable data in longitudinal surveys, to focus on population groups (especially children and older people) and on high risk groups (e.g. migrants);
- To analyse the available epidemiological data in order to evaluate the determinants of mental health, to improve the identification of other high risk groups and to assess the impact of public health policies and specific interventions;
- To develop a mechanism to share the conclusions in order to stimulate joint public health effort across the Member States.

Good examples of what can be achieved in detailed epidemiological studies within a Member State were reviewed by Peter B. Jones. For example, a cross-sectional analysis of first episode schizophrenia and other psychoses (the Aesop study), helped to clarify social determinants, identify high-risk groups (such as migrants) and, by employing the techniques of biological psychiatry, allowed a clearer understanding of the mechanisms by which stress affects mental health. Longitudinal data from the British 1946 Birth Cohort Study (Colman et al. 2007) demonstrated that adolescent mental disorder is important (see also section 4.2.5) with the inference that early intervention is highly relevant.

Epidemiology continues to be important in several respects: for setting the research agenda and for policy and service development. Efforts to improve EU information about disease burden need to be accompanied by comprehensive assessment of the quality of psychiatric services, identifying the regional and cultural differences in Europe (Höschl, 2009). That is, mapping of the disease burden must be augmented by mapping of mental health care services (and their quality) in order to provide the information resource to agree evidence-based standards of care – to inform policy for consistent service provision and for the training of future medical professionals. But who should help to organise (and audit) this sharing of information and its implications for best practice on "what works"? FEAM recommends that the academies consider, together with the professional societies and with advice from patient groups, what more they might do.

4.2 Addressing key societal challenges: cross-cutting issues for mental health policy

There are challenges for policy-makers that pervade consideration of most if not all of the mental disorders. The policy decisions will, themselves, be influenced by the broader societal environment: concern has been expressed that the economic downturn will exacerbate problems in mental health if health budgets are cut. The decision-maker in health departments has a broad agenda to cover in improving care of the individual, strengthening population-level promotion and support, and tackling co-morbidity. But public policy must also address many other societal issues usually assumed to be outside the

responsibility of health departments – issues associated with the economy, social inequity, school education, employment, urban and rural development, management of migrant and other minority groups. The particular policy challenges listed below are drawn from the presentations in Prague.

4.2.1 Stigma

Norman Sartorius introduced the crucial topic of stigmatisation, with its pervasive effects and multiple consequences (Thornicroft et al. 2009). Stigmatisation is a major obstacle to the provision of mental health care and often leads to inadequate care of those suffering from co-morbid physical and mental health disorders. It has a significant negative effect on quality of life of those who have mental disorders and those who care for them. It contributes to the lack of support for mental health research. Research, and experience from a variety of programmes, showed that stigma related to mental illness can be reduced and that knowledge about the biological and psychosocial causes of mental illness – when provided as part of comprehensive anti-stigma programmes – can play an important role in the prevention or reduction of stigmatisation (Baker and Menken, 2001; Sartorius and Schulze, 2005). The scientific community has the responsibility to produce relevant information and to advocate measures and structures to use this information (Arboleda Florez and Sartorius, 2008).

4.2.2 Suicide

Suicide is commonly used as a measure of serious mental health problems. The role of biological factors in suicide had been considered relatively rarely but a recent issue of "European Psychiatry", focusing on the genetic basis of mental disorders in relation to suicide (Wasserman and Terenius 2010), describes a growing momentum in biological characterisation.

Suicide and attempted suicide can be seen as a marker of effectiveness of the care of psychiatric patients. According to Eurostat data, there are now approximately 63,000 suicides annually in the 27 EU countries. National suicide rates tend to be lower in Southern European countries although some other countries, particularly with high baseline suicide mortality (e.g. Denmark, Hungary, Austria and Germany) have seen significant declines in recent decades (OECD, 2008). Zoltán Rihmer summarised data to show that although suicide is a very complex, multi-causal, behaviour, studies from several EU countries find that inadequately-treated depression is a leading cause, particularly in the presence of substance abuse disorders and other psycho-social risk factors. As more than two-thirds of suicide victims die by their first attempt, it is essential to detect suicide risk among all depressives as early as possible (i.e. during the first depressive episode) and to intervene prior to the patient's first suicidal act (Rihmer, 2007). In European studies, changes in suicide rate did not correlate with changes in GDP, unemployment rate or divorce rate and there has been no consistent pattern in suicide rates as a result of political and economic changes in Eastern and Central Europe. The only consistent correlation in the reported studies has been a declining suicide rate with increasing anti-depressant prescribing (Ludwig et al. 2009). Although it is difficult to measure the quality of treatment of depressed patients at the national level, it can be generalised that increasing utilisation of antidepressants is a proxy marker of their improved and more extensive care. Indeed, better recognition of depression in the population (Rihmer et al. 1990) and better access to health care (for example, Kapusta et al. 2009) correlates with lower suicide rates. Clinical studies show that successful acute and long-term pharmacotherapy of patients with depressive

disorders markedly decreases suicide mortality and morbidity even in a high-risk population (Baldessarini et al. 2006, Zisok et al. 2009). The importance of health care workers in suicide prevention is underlined by the fact that two-thirds of suicide victims contact their GP or psychiatrist some weeks or months before suicide (Luoma et al. 2002).

For the policy maker, this growing evidence base has implications for prescribing policy as well as for health and social care systems and employment practices (4.2.3) and control of addiction (4.2.4). There are also implications for public policy development for the built infrastructure to deter suicide (for example, safety barriers on bridges and railways) and for restricting access to other commonly used, highly lethal, methods, readily accessible in households (Gunnell and Miller, 2010).

4.2.3 Employment

Work and the workplace is an important determinant of mental health and the OECD policy brief (2008) expresses the growing concern that employment patterns and working conditions are evolving in ways that may aggravate mental illness. Karl Kuhn described how the majority of employers underestimate the prevalence of mental health problems among their employees yet, for example, in 2007, 11% of all days lost through sickness in Germany could be attributed to mental and behavioural disorders. Improving this situation requires changes in employment and health policy, some of which are underway, for example the replacement of the "sick note" by the "fit note" focusing on what the employee can do. But other practical action supported by policy development is required by both employer and health systems: to provide better connectivity between the systems, to take account of particular challenges for smaller companies, to develop new models for early recognition and intervention, to introduce better tools to measure stress, to agree standards for good practice and, in aggregate, to accrue and use appropriate expertise in mental illness prevention services.

It is important to implement the research findings that supported employment programmes are more likely to succeed (greater job placement and longer retention) where vocational and clinical staff are co-located or at least have very good systems for coordinating their activities. Many people suffering from severe mental ill-health express a wish to return to work. The approaches to fulfil this wish have progressively shifted away from sheltered employment and lengthy pre-vocational training towards rapid job-finding and open employment in the competitive marketplace. In Europe, this movement has mainly focused on the creation of social firms in which at least a third of employees are people with a disability, all are paid the fair market wage for their work and the enterprise competes with any other business (sometimes with government subsidy). Research in European countries show employment rates for people with severe mental illness as high as 60% compared to that in typical vocational rehabilitation services of 20% (Burns et al. 2008).

4.2.4 Addiction

Addiction is not viewed consistently across the EU as part of the mental health agenda, but it is vital to understand the dual pathology of addiction and mental disorders in order to determine more coherent treatment strategies.

Using drugs and alcohol is a significant cause of mortality in the EU. Isidore Pelc criticised a common assumption that "soft" drugs

(including alcohol) are safe (see also Pelc 2006). Research on the brain reward system demonstrates that there is cross-sensitisation between drugs and that all drugs can induce loss of control of consumption – crucial in addictive behaviour and alteration of social function. More evidence is needed in several critical areas; for example, to develop better quantitative indices of harm attributable to drugs and to clarify the factors influencing risk-taking and protective behaviour in young people. By identifying the determinants – whether environmental or genetic – of substance abuse, it becomes possible to formulate strategies for mitigating their effect. Particular attention should also be given to supporting the development of basic psychological capacities in young people, for example relating to self esteem and assertiveness.

By clarifying the causes and quantifying the impact, it is possible to attract greater political attention to the problem. The UK Academy of Medical Sciences (2008) has proposed creation of a European Institute for Addiction Research to provide the critical mass to fill gaps in the current evidence base and, thereby, to inform policy making.

4.2.5 Mental health in children and adolescents

Research funded by the US National Institute of Mental Health (NIMH) found that up to 50% of all adult mental disorders have their onset in adolescence and that, despite effective treatments there are long delays, sometimes decades, between the onset of symptoms and the time when the subject seeks and receives treatment. Much is now known about socio-economic influences: mental illness in childhood and adolescence is associated with parental unemployment, low family income, lower parental educational level and single parent or step-parent families. These risk factors and other environmental influences are mediated by effects on brain development. In his presentation to the Prague conference, Jean-Luc Martinot reviewed the rationale for biological research and intervention targeted to specific child and adolescent sub-populations, for example using neuroimaging (see section 4.3.2). Such research is less advanced in the EU than in the USA. The identification of priority research needs is complicated by co-morbidities, that are frequent in children, and by continuing controversy on diagnostic classification (for example, the recent debate on Autism Spectrum Disorder within DSM). Taking account of the views expressed by adolescents themselves (where collated by NIMH), Martinot used a cross-symptom approach to derive a classification that comprises: (i) Emotional dysregulation, (ii) Cognitive function deviations, (iii) Addictions, and (iv) Aggression and impulsivity, underpinning maladaptive behaviour throughout the range of clinical diagnoses. This analysis informs the research priorities to understand transition phases in infancy and adolescence (and their deviation in psychopathology) and the use of EU-integrated databases (section 4.3.2) to compare, for example, emotional and cognitive disorders. A meta-analysis of more than 250 brain-imaging publications on children and adolescents over the period 2005-2008 (Mana et al. 2010) suggests that the proposed classification corresponds to localised changes in both brain function and structure. But, the relationships between brain maturation and behavioural deviations are little understood and require longitudinal imaging studies.

The European Commission's priority on mental health of children and young people (Box 1) places its emphasis on the role of the health

services in promotion and prevention, noting that treatment alone can achieve only a limited reduction of the burden of mental disorders. While FEAM agrees that, of course, prevention is critically important, it must also be appreciated by policy-makers that much of the current weakness in mental health services can be attributed to poor diagnosis and treatment. Improved interventions in childhood and adolescence depend on better understanding of the developmental biology of mental disease.

4.3 Clarifying research policy: Disease characterisation and aetiology

4.3.1 Priorities for basic and translational research

The EU funding for research on the brain and its diseases is disproportionately low relative to the importance of this area in human health (Arango, 2010). Several speakers in Prague presented case studies where recent research is helping to clarify the causes of mental disorders. Sophia Frangou described the cognitive, brain structural and functional correlates of genetic risk and phenotypic expression in bipolar disorder. Such research may also help to provide the basis for new therapies, and this is a challenge across the spectrum of mental disorders. Jan Libiger described how gaps in understanding of the causes of schizophrenia limit the success of clinical intervention (Box 2)

Box 2: Schizophrenia – a case study in changing concepts

Schizophrenia has been an important clinical concept in psychiatry for almost a hundred years. Despite progressive narrowing of the concept to enhance its reliability and validity, schizophrenia still presents a significant challenge for clinical practice and research. Schizophrenia is a disorder with a complex and comparatively high heritability that is most likely based on small effects of common allelic variants, their interaction and epistatic effects (International Schizophrenia Consortium, 2009). Recent research using neuroimaging, electrophysiology and the study of neurochemical changes in neurotransmission is helping to clarify the core dysfunctions but the aetiology can still best be described as complex and multifactorial. This aetiological, pathogenic and clinical complexity reflects a need to redefine the diagnosis, explain its variability and the relationship to diagnoses with uncertain status. The stigma carried by the term schizophrenia, together with the reliability and variability problems in psychiatric practice have inspired suggestions to abandon the term and, maybe, the concept as well: for example, the diagnostic concept of a "salience syndrome" was proposed as a replacement (van Os, 2009). Schizophrenia needs more research focused on the biological mechanisms of schizophrenia models, on dimensions that are beyond clinical psychopathology of the disorder. Research in social psychiatry may benefit from epidemiological studies of the factors that increase resilience and prevent perpetuation of the schizophrenic process and its dysfunctional outcome.

Celso Arango, drawing on the work of the European Brain Council, called for a coordinated approach in schizophrenia to promote and integrate research on the biological, epidemiological and social aspects (see also Arango, 2010). The translational research agenda must also encompass feedback to basic research from the lessons learned with medicines in the clinic – as Jan Libiger observed, the variable efficacy response to antipsychotic drugs helps to elucidate pathogenesis in terms of neurochemistry and neurophysiology.

Historically, research on the determinants of mental health and illness has been divided between nature and nurture with social scientists and geneticists making contradictory claims about causation. More recently, it has become clear that joint consideration of measured genetic variants and environmental influences can help to elucidate complex causal pathways to mental illness. Rudolf Uher reviewed the current evidence and methodological challenges in establishing these complex causal pathways. Replicable gene-environment interactions have been found to play an important role especially in the more common mental health problems, including depression (Caspi et al. 2010), antisocial behaviour (Taylor and Kim-Cohen, 2007) and schizophrenia, as described by Jan Libiger. To establish causal pathways, future research must extend beyond the few well known candidate genes and make better use of standardised methodologies with accurately-measured environmental exposures. Longitudinal cohorts with prospectively ascertained exposures and complete follow-up and accessible genetic material are especially valuable and represent an important investment in future research. One example of what can be achieved was the presentation by Rudolf Uher of results from two general population cohorts where variation in corticotropin-releasing hormone receptor gene 1 was associated with protection against adult depressive symptoms in those who were maltreated as children (Polanczyk et al. 2009).

4.3.2 Strengthening research infrastructure

Filling the research gaps is not just a matter of defining individual disease research priorities but also entails building linkages across the disciplines and making best use of limited research infrastructure. For example, in illustrating the value of diagnostic imaging tools (particularly MRI), Jean-Luc Martinot made the case for creating large neuroimaging databases as part of the longitudinal evaluation of pathophysiology during brain development and in response to therapeutic intervention (exemplified by investigations on cognitive malfunction, affective disorders and psychomotor disorders).

One other policy issue associated with neuroimaging infrastructure in the USA is the increasing potential for its use in forensic psychiatry, i.e. to provide evidence in legal cases (Hughes, 2010). Judging from a comprehensive review of forensic psychiatry, there is little evidence to show this is a major issue yet for the EU (Frangou et al. 2009).

There appears to be increased understanding of the importance of integrated infrastructure for research, at least at the Member State level. In recent years, several national governments in the EU have taken the strategic step of funding formal, nationwide mental health research networks with the general aim of improving research capacity and quality. Typically, these networks provide an infrastructure linking health service sites and universities, making it possible to run large-scale studies as well as emphasising translational research. Reviewing initiatives such as CIBERSAM, the Spanish Mental Health Network[1], Celso Arango emphasised

1 CIBERSAM, www.cibersam.es.

the importance of multi-disciplinary studies linking basic, clinical and population research, requiring significant infrastructure within a country, including tissue and DNA banks and imaging databases. It is possible that initiatives such as CIBERSAM could provide a useful model for building critical mass and sustained commitment between centres of excellence across the EU: one major issue in developing new options for EU funding is the imperative to provide longer-term continuity. The EU can also do more to support the development of human post mortem brain banks: progress in standardising the conditions for tissue access now provide an opportunity for improved collection and exchange of tissue at the European level.

A number of experts have recently agreed that the best response to the European Parliament's Resolution on Mental Health is to work towards the organisation of a coordinated and integrated approach on the European scale to promote research on the biological, epidemiological, social and public health aspects[2]. The further development of coordinated research initiatives across the EU is a challenge for the currently fragmented research support systems but should be a priority for the European Commission's research strategy to capitalise on the growing momentum[3]. In the recent Call in the Health Theme of the Seventh Framework Programme, project proposals were invited to determine "A roadmap for mental health research in Europe" to progress a coordinated approach to research in the biological, epidemiological, social and public health aspects. Effort to improve coordination in existing research is to be welcomed but DG Research must also realise that there is significant need for additional funding in new research to fill the knowledge gaps. Psychiatric disorders present a unique challenge even relative to other brain disorders because so much less is known about the underlying genetic, molecular and cellular causes or even the primary anatomical sites of the brain deficit. A case can be made to build critical mass by pooling research resources internationally, in particular to combine genomics and neural circuit analysis (Akil et al. 2010).

FEAM recommends that mental health be considered as a "Grand Challenge" for increased support in the eighth Framework Programme; in the broader international context, growing the EU commitment should take account of the US NIMH strategic research plan that focuses on neural circuitry, early diagnosis and personalised medicine[4]. There must be more emphasis on research using humans: the current focus on cell culture and animal models is insufficient.

4.4 Building innovation policy: Improving treatment

4.4.1 Tackling undertreatment

Graham Thornicroft highlighted the problem of undertreatment of patients with mental illness, arising from the stigmatisation discussed by Norman Sartorius but also associated with other factors, in particular in low income groups of the population. Understanding and tackling the determinants of undertreatment is a priority for health services research although the problems inherent in attempting to conduct randomised clinical trials to assess the elements in optimal health services delivery should not be underestimated. Among other current health

2 International Mental Health Research Network. Madrid Declaration, May 2010. Available on www.cibersam.es/MadridDeclaration.
3 Other Member States are now also beginning to make significant efforts to build their mental health research strategic framework (for example in the UK, www.mrc.ac.uk/Newspublications/News/MRC006851, announced May 2010).
4 The NIMH plan calls for research to: (i) define the pathophysiology of mental disorders, from genes to behaviour; (ii) map the trajectory of illness to determine optimal interventions; (iii) develop new interventions in personalised medicine and (iv) strengthen the public health impact of new research by improving dissemination of scientific knowledge and focusing on disparities in care (Insel 2009).

services research priorities are (a) evaluation of "task shifting" (interventions delivered by a non-health professional) and (b) evaluation of the scale-up of interventions to the population level. There is much to be done to bridge the gap between clinical trials and health service practice. But to what extent are research findings and modelling assumptions from one Member State applicable to others in the EU? Countries differ in their available resources, inequities in their distribution of resources and inefficiencies in their use. These differences have implications for the research agenda, professional training, guideline development and implementation procedures.

One other broad issue for the research agenda relating to undertreatment is the need to pay more attention to mental health conditions associated with aging. Without distracting from the imperative to tackle those disorders currently accounting for the high burden of mental illness, the progressively aging EU population will bring new challenges, potentially compounded by the age discrimination in access to specialised mental health services.

It is also important to tackle over-treatment associated with poly-pharmacy, when multiple neuroleptics, antidepressants and anxiolytics are prescribed for the same patient. This can become a particular problem in the elderly, where reduced rates of drug metabolism increase the risk of adverse effects

4.4.2 Accelerating access to new treatments

There have been no major breakthroughs in the treatment of schizophrenia in the last 50 years and no major breakthrough in the treatment of depression in the last 20 years (Akil et al. 2010). The prospect for commercial development of new therapies in the EU is not promising: in 2010 both GlaxoSmithKline and AstraZeneca reduced their European R&D investment in mental illness. There is considerable concern that the recent lack of innovation in nervous system disorders will be exacerbated by company retrenchment and it may be that some companies perceive psychiatric drugs as a bigger gamble than drugs for neurological conditions (Miller, 2010).

Many of the speakers in Prague alluded to the need for improved drug regimens to overcome current limitations of partial efficacy, frequent side effects (with the consequence of poor compliance) and inappropriate usage.
The work of the European Brain Council emphasises the need to identify and tackle the obstacles in new medicine development that slow the progress from molecule to treatment.

There are multiple policy issues that may not, of course, be confined to mental health. In other work, FEAM has discussed the problems arising from implementation of the Clinical Trial Directive increasing bureaucracy and costs associated with doing clinical research in the EU[5]. These problems can be acute for academic researchers and it will be difficult to reverse the progressive loss of clinical research from the EU. But it is also important to extract the maximum value from the clinical research that has already been completed. FEAM recommends that the EU creates an accessible European/international database of clinical trial protocols and results. This would help to build the culture of research transparency, would be a valuable resource for meta- or other analysis and would ensure that Europe capitalises efficiently on the original investment in that clinical research.

5 FEAM Statement on reform of the EU Directive on clinical trials, published August 2010.

Other problems for developing new drugs can be traced, in part, to the lack of new biological mechanisms to serve as drug targets. This information can only come from a strong academic research sector supported by a national/EU infrastructure capable of large-scale collection of clinical, genetic, imaging and tissue samples. These challenges for mental health drug research are discussed in detail in the report from the UK Academy of Medical Sciences (2008). Establishing an academic speciality of experimental medicine in psychiatry might be one important step. In addition, however, better connections between academia and industry are vital, for example through jointly-funded clinical training posts, publicly-funded research collaboration between the sectors and a more flexible attitude within industry to providing compounds for academic experimentation in pre-competitive consortia. There is significant progress being made in developing collaborations. The current partnership between the EU pharmaceutical sector and European Commission in the Innovative Medicines Initiative includes neuroscience research. But much more is needed. There is also a particular, urgent, need for more research into the metabolism and action of psychiatric medicines in children as well as, more broadly, in developmental biology. In this context, it would be useful for the European Commission to assess the impact of the EU Paediatric Regulation on mental health research.

4.4.3 Evaluating and implementing new forms of care provision

Filip Španiel reviewed an innovative programme aiming to prevent relapse in psychotic patients, "Information Technology Aided Relapse Prevention in Schizophrenia" (ITAREPS). This is aimed at the rapid and targeted recognition of the most common warning signs of relapse by using modern communication and information technology: participants interact with the health care professional by mobile phone, reporting prodromal symptoms of relapse. If a weekly report detects worsening of early warning signs then pharmacological intervention is triggered in accordance with an early intervention algorithm. The regular monitoring of patients (and their families) for the early warning signs of relapse has resulted in less hospitalisation, as measured in follow-up evaluation of clinical effectiveness (Spaniel et al. 2008a,b) and improved the relationship between patient and psychiatrist. Furthermore, as the OECD (2008) observed, reducing hospital re-admission rates can have a substantial effect on mental health spending – underlining the importance for society as well as for patients and their families in providing better treatment programmes. Thus ITAREPS represents an innovative, user-friendly easily implementable and highly cost-effective approach towards relapse prevention in schizophrenia, that might also provide a model for optimising service provision in other areas (for example depression, Spinney 2009) and, thereby, tackling the challenge of under-treatment (section 4.4.1).

5 Conclusions

Contributors to this FEAM initiative have previously emphasised the need to increase the political profile and European coherence of mental health strategy: *"..brain diseases, of which mental illnesses are the most costly to European society, are not a high enough priority for politicians, the media, or the general public*" (Arango, 2010) and "*It is a challenge for the respective bodies, both at the European and the national level, to establish an active network for collaboration in mental health research and policy*…" (Höschl, 2009).

In the present paper, we have described some of the newer developments in the social and biological understanding of mental illness. The scientific opportunities now coming within range merit increased support from research funding bodies and other policy-makers. Building on new initiatives at the Member State level as well as capitalising on the growing interest in the European Parliament, FEAM recommends that the European Commission increase commitment to:

(i) Prevent mental illness and promote mental health by better understanding of the risks and causes, and of the opportunities for prevention;

(ii) Facilitate R&D to generate novel and effective diagnostics and treatments for mental illness and its co-morbidities, and to optimise their use in the health services across the EU.

This requires:

- Generating improved statistics on the disease burden in EU and on the mapping of public health services.
- Enhancing basic, translational, public health and multi-disciplinary research. There should be more investment in research priorities together with improved research infrastructure (brain banks, patient information and DNA databases) and more coordination across the biological, social and population sciences.
- Facilitating collaboration with pharmaceutical and biotech industry to identify and progress novel therapeutic approaches.

We recommend better linkages between the objectives of DG Sanco and DG Research in the search for new knowledge. It is also now time for the European Commission to explore how it can take more responsibility to promote the sharing of data and to drive the attainment of consistently high standards throughout Europe in diagnosis and treatment. The creation of the ECDC is making a real difference in infectious disease surveillance and public health preparedness – to what extent might a similar model be developed in mental health?

In addition, FEAM acknowledges its responsibilities to encourage the biomedical community to become better engaged with the policy community and society-at-large. This requires academies to:

- Provide better communication to the public and Parliaments about mental health and the risk factors for mental disorders.
- Call on policy-makers to provide "joined-up" policy for mental health across the European Commission and the Member States.

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Appendix: FEAM procedures and contributing individuals

This FEAM Statement draws on presentations and discussion from a scientific session on Mental Health organised as part of the FEAM Annual Conference, 17-18 September 2009 in Prague, Czech Republic. The scope and content of the Statement were developed by a FEAM Working Group chaired by Professor Cyril Höschl and the draft Statement was reviewed by independent expert referees and the Academies.

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