Over the past five years, the Nation has more than doubled its investment in the study of the human brain and behavior, leading to a vastly expanded understanding of disorders that afflict and are mediated by the brain. This effort, undertaken by both the public and private research sectors, as well as by diverse professional organizations that are dedicated to moving new information about mental disorders into clinical applications, has greatly improved our ability to treat severe, frequently disabling mental and behavioral disorders effectively. Improved treatments dramatically improve the quality of health care and, in turn, the quality of life for millions of Americans who themselves have a mental disorder as well as for countless families in which a family member has a severe mental or behavioral disorder.

It is unfortunate that in the face of this remarkable scientific and clinical progress, a small number of individuals and groups persist in questioning the reality and clinical legitimacy of disorders that affect the mind, brain, and behavior. One recent challenge contended that the lack of a diagnostic laboratory test capable of confirming the presence of a mental disorder constituted evidence that these disorders are not medically valid conditions.

While the membership of the American Psychiatric Association (APA) respects the right of individuals to express their impatience with the pace of science, we note that the human brain is the most complex and challenging object of study in the history of human science. Conditions termed “mental disorders” that affect or are mediated by the brain represent dysfunctions of the highest integrative functions of the human brain including cognition, or thought; emotional regulation; and executive function, or the ability of the brain to plan and organize behavior.

Research has shown that serious neurobiological disorders such as schizophrenia reveal reproducible abnormalities of brain structure (such as ventricular enlargement) and function. Compelling evidence exists that disorders including schizophrenia, bipolar disorder, and autism to name a few have a strong genetic component. Still, brain science has not advanced to the point where scientists or clinicians can point to readily discernible pathologic lesions or genetic abnormalities that in and of themselves serve as reliable or predictive biomarkers of a given mental disorder or mental disorders as a group. Ultimately, no gross anatomical lesion such as a tumor may ever be found; rather, mental disorders will likely be proven to represent disorders of intercellular
communication; or of disrupted neural circuitry. Research already has elucidated some of the mechanisms of action of medications that are effective for depression, schizophrenia, anxiety, attention deficit, and cognitive disorders such as Alzheimer’s disease. These medications clearly exert influence on specific neurotransmitters, naturally occurring brain chemicals that effect, or regulate, communication between neurons in regions of the brain that control mood, complex reasoning, anxiety, and cognition. In 1970, The Nobel Prize was awarded to Julius Axelrod, Ph.D., of the National Institute of Mental Health, for his discovery of how anti-depressant medications regulate the availability of neurotransmitters such as norepinephrine in the synapses, or gaps, between nerve cells.

In the absence of one or more biological markers for mental disorders, these conditions are defined by a variety of concepts. These include the distress experienced and reported by a person who has a mental disorder; the level of disability associated with a particular condition; patterns of behavior; and statistical deviation from population-based norms for cognitive processes, mood regulation, or other indices of thought, emotion, and behavior.

As noted in the Diagnostic and Statistical Manual of Mental Disorders, which is published by the APA, the lack of a laboratory-based diagnostic test is not unique to mental and behavioral disorders. The identification of migraine headache is based on symptom presentation, and the presence of hypertension is detected through a measure of deviance from a physiological norm, or standard. The definition of “high” cholesterol has moved downward in recent years as more has been learned about the role of low-density lipoprotein (LDL) cholesterol as a risk factor for cardiovascular disease and as medications highly effective in reducing LDL cholesterol have been refined and increasingly available.

The mapping of the human genome already is spurring the search for genes and gene variants that singly or in combination may confer risk for the onset of a mental disorder. It is highly likely that the maladaptive expression of a risk gene will be shown to require “triggering” by certain adverse environmental influences. Here, “environment” may refer to traumatic events, prenatal/obstetric complications, or other phenomena that act on and interact with the brain. Thus, mental disorders may well be shown to be emergent properties of multiple systems that have gone subtly awry.

The lack of a laboratory-based diagnostic test for mental disorders does not diminish the irrefutable evidence that mental and behavioral disorders exact devastating emotional and financial tolls on individuals, families, communities, and our Nation. The National Institute of Mental Health estimates the direct (clinical treatment and services) and indirect (lost/diminished productivity and premature mortality) cost of mental disorders to be some $160 billion annually in the United States. And the landmark Global Burden of Disease study, conducted by Harvard University scientists under the sponsorship of the World Health Organization and the World Bank, found mental disorders, including suicide, to rank second in societal burden, behind only cardiovascular conditions, in established market economies such as the U.S.

Growing public awareness of the burden and costs of mental illness and of the gains being made through research are contributing to increasingly enlightened policies for the organization and financing of mental health care. Last year, President Bush identified three obstacles that prevent Americans from getting the mental health care that they need
stigma, unfair treatment limitations and financial requirements under health insurance plans, and a fragmented mental health service delivery program. In April, the President’s New Freedom Commission on Mental Health recommended strategies for redressing these and other barriers to high quality, appropriate mental health care for all Americans who need it. The APA was privileged to participate in the development of the report and strongly endorses the call of the President’s New Freedom Commission “...to protect and enhance the rights of people with mental illness.”

In the months and years ahead, the APA, along with the National Alliance for the Mentally Ill, the Nation’s mental health research and clinical communities, and the public at large will strive to achieve the President’s New Freedom Mental Health vision, and will not be distracted by those who would deny that serious mental disorders are real medical conditions that can be diagnosed accurately and treated effectively.

The American Psychiatric Association is a national medical specialty society, founded in 1844, whose 35,000 physician members specialize in the diagnosis, treatment and prevention of mental illnesses including substance use disorders. For more information, visit the APA Web site at www.psych.org.

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