



# Putting Mental Retardation and Mental Illness on Health Care Professionals' Radar Screen

Rebecca Voelker

IN THE LAST 10 TO 20 YEARS, GENETICISTS, neuroscientists, and others have made tantalizing discoveries about some basic features of mental retardation and developmental disabilities. For example, researchers have linked fragile X syndrome with excess or abnormal neuronal connections in the brain. They've found that adults who have velocardiofacial syndrome are very likely also to have psychosis. Another major finding is the difference in behavioral phenotypes in Prader-Willi syndrome (PWS) and Angelman syndrome (AS) because of genetic imprinting. The same region on chromosome 15 is deleted in both disorders, but a deletion inherited from the father results in PWS while a deletion inherited from the mother causes AS.

These findings and others are helping to build a foundation for improved diagnoses and medical care for people with mental retardation and developmental disabilities. But perhaps the greatest challenge for researchers and clinicians will be translating these findings into accurate diagnostic methods and appropriate treatment for people with mental retardation who also have mental illnesses. Experts say people with this dual diagnosis are among the most overlooked and ignored patient populations in the United States.

"There has been a paucity of psychiatric research and a lack of framework in psychiatry to address emotional, behavioral, and psychiatric problems in these people," says James Harris, MD, director of developmental neuropsychiatry at Johns Hopkins University

School of Medicine. "The problems in access to mental health care are far more extensive and widespread than in terms of physical health."

## COMMON CONDITION

Experts currently estimate that emotional, behavioral, and psychiatric disorders are three to four times more common in people with mental retardation and developmental disabilities than they are in the general public. However, current estimates may overlook people with mild retardation and those with very rare syndromes.

Now that research has established some genetic underpinnings for mental retardation, and the people who have these genetic disorders have been actively living and working in their communities for three decades or more, the dual diagnosis of mental retardation and mental illness appears to be gaining acceptance in the medical community.

"Most people now believe [coexisting mental retardation and mental illness] can occur, that the impaired behavior is not just because of the mental retardation," says Nancy Cain, MD, director of the Mental Retardation/Developmental Disorders Psychiatric Service at the University of Rochester (NY) Medical Center. "It used to be that people would say, 'This is just Joe,' even though Joe was hallucinating like mad. They just accepted it. As long as patients weren't aggressive, it was accepted."

Even if the recognition factor has increased, the diagnosis of coexisting mental illness frequently is missed or ignored. "There appears to be a reluctance [by clinicians] to make the diagnosis because they don't want to add to the stigma that people with mental

retardation already have," notes Bryan King, MD, professor of psychiatry and pediatrics at Dartmouth Medical School. "The other concern we see expressed is that the diagnosis will sentence the individual to a life of heartache. It's a variation on the stigma theme."

King says these perspectives echo the days when cancer was a dirty word that physicians didn't want to utter in front of patients. "In terms of the diagnostic process, patients don't have cancer because I say so, they have an illness that has this name. It's the same thing with mental retardation [and mental illness]."

The biggest reason that dual diagnoses are overlooked, King says, is because it's so difficult to know if or how the symptoms of mental illness are different in an individual with cognitive impairments. Patients with a dual diagnosis can have a number of different genetic syndromes, and it's arduous work to identify specific symptoms for each one. If there's one conclusion that is coming out of recent research in genetics and neuroscience, it's that people with mental retardation aren't afflicted with just one genetic abnormality, they have several.

## COMMUNICATION IS KEY

Without laboratory tests to confirm diagnoses of mental illnesses, patients' communication skills become a key diagnostic tool. But cognitive deficits impede or skew communication; some patients don't speak. Despite the communication barriers, some diagnoses are more straightforward than others.

"If you have a nonverbal patient with an anxiety disorder, you have to come to the diagnosis by inference," says King.



## Operation HouseCall Teaches New Attitudes

At Boston University School of Medicine, when parents of mentally retarded and developmentally disabled children complained that the medical professional treated them poorly, a pair of physicians listened.

"The parents were angry and frustrated," says Benjamin Siegel, MD, director of medical student education in pediatrics. "They felt that physicians didn't really understand what developmental delay is all about, or how to give parents bad news and talk about their child's condition." Siegel and a neurologist colleague, David Coulter, MD, discussed the matter. Coulter was on the board of the Greater Boston Arc, a local chapter of a national organization that deals with mental retardation, and had heard the parents' complaints firsthand.

Coulter and Siegel talked with the parents, and tried to devise a way to let them tell medical students how they would like to be treated. Their talks gave rise to Operation HouseCall, now a mandatory program for third-year medical students in their pediatric rotation. The program covers a number of issues that parents have said are important—their relationships with health care professionals, locating resources for their children in their communities, and the effect their child's disability has on other members of the family.

"The parents are very open, articulate, and they are not here to bash the medical students," says Siegel.

After an orientation lecture by one of the parents participating in the program, students are "assigned" to one of about 20 families that has a child with mental retardation or a developmental disability. The students contact the families and make plans to spend an evening with them.

Does the program really change attitudes? A survey of 115 students who participated showed that 70% felt that Operation HouseCall enhanced their educational experience (*Ambulatory Child Health*. 1998;4:307-316). In the 13 years that the program has been in existence, nearly 2000 students have participated.

"Developmental disability is a very important part of pediatrics," says Siegel, "and for the most part it is not taught very well."—R.V.

"You can make a solid case for that diagnosis when the person's behavior looks like they are fearful or anxious."

Other diagnoses are far more complex. "An individual with significant cognitive impairment may not articulate a delusion the same way as another individual," he adds. "The issue of imaginary friends, which is a normal part of typical development, may become more problematic in someone with a cognitive disability. It may be interpreted as pathological when it's not." Diagnoses that are incorrect, incomplete, or overlooked can lead to inappropriate treatment. Often, says Harris, clinicians aren't trained adequately to know that some mental illnesses occur more commonly in certain cognitive disorders. "Depression is higher in Down syndrome than in other mental retardation syndromes," he says. "Sometimes young people with Down syndrome are diagnosed with Alzhei-

mer disease because the clinician didn't recognize they are depressed."

In other cases, assumptions about treatment are made prematurely. "Behavior management techniques sometimes are used with people with mental retardation before a diagnosis is made," adds Harris. "It's assumed the person has behavioral problems, but it might be attention deficit disorder or early schizophrenia."

When Mark Fleisher, MD, sees adult patients at the University of Nebraska College of Medicine's Neuro-Developmental Psychiatry Clinic, most have come from a group home setting. If they don't have a friend or family member to accompany them, the patient's medical history often is a mystery. Lack of information compounds the already difficult job of making a diagnosis. "Has the patient been referred by another doctor? No one knows. Has the patient had medications in the past? No

one knows. Has this person been hospitalized? No one knows," says Fleisher, who is director of the clinic.

Inaccurate or missing diagnoses mean subpar treatment. But experts say treatment is deficient in many cases because psychopharmacology research has not been extended to populations with mental retardation and developmental disabilities. New medications are on the market, but no one really knows if these agents act differently or should be prescribed in different dosages than in the general population. "A new medication that is used a lot [for depression] in the general population is Effexor (venlafaxine), which affects serotonin and norepinephrine. There has been no work at all with that medication in the developmentally disabled population," says Mark Lewis, PhD, professor of psychiatry, neuroscience, and psychology at the University of Florida College of Medicine. "It is surprising how few medications have undergone appropriate, methodologically rigorous evaluations in interventions with the developmentally disabled population."

### LONG-OVERDUE ATTENTION

In the meantime, advocates for improved research, diagnoses, and treatment for people with mental retardation and developmental disabilities feel that they finally are getting some long-overdue attention from federal health authorities. After the 1999 White House Conference on Mental Health and the first Surgeon General's Report on Mental Health the same year, the needs of people with mental retardation and developmental disabilities were not addressed in any comprehensive way.

Late last year, a few days prior to the Surgeon General's Conference on Health Disparities and Mental Retardation held on December 5-6, three constituents of the National Institutes of Health, along with the Joseph P. Kennedy Jr Foundation, convened a workshop that specifically addressed emotional and behavioral health in people with mental retardation and developmental disabilities. The workshop produced a series of recommen-



dations on ways to improve training and research (report available online at [http://www.ninds.nih.gov/news\\_and\\_events/Emotional\\_Behavioral\\_Health\\_2001.htm?format=printable](http://www.ninds.nih.gov/news_and_events/Emotional_Behavioral_Health_2001.htm?format=printable)). In his report from the health disparities and mental retardation conference, former Surgeon General David Satcher, MD, PhD, endorsed the implementation of recommendations from the workshop.

“It took a lot of effort to get the surgeon general and three of the NIHs to do this,” says Harris, who was chair of the workshop’s organizing committee. “But unless you bring this to the public’s attention, nothing will happen. In terms of health care, those who lose out will be those who take the most time” in developing strategies and carrying them out. □

## Mind-Body Medicine Explored at APA Meeting

Lynne Lamberg

PHILADELPHIA—“Every day, primary care clinicians face patients whose primary disease is psychiatric or is complicated by psychiatric issues,” said Nada Stotland, MD, MPH, chair of a symposium on psychiatry in medicine at the annual meeting of the American Psychiatric Association (APA) here in May. “Recent findings, including brain imaging studies, deepen appreciation that mind and body are one,” said Stotland, professor of psychiatry and obstetrics and gynecology at Rush Medical College, Chicago.

With a growing number of psychiatrists working at the interface between medicine and psychiatry, the American Board of Psychiatry and Neurology recently submitted an application to the American Board of Medical Specialties (ABMS) for approval of a subspecialty in psychosomatic medicine. The ABMS will begin its review process in September.

The APA’s symposium explored depression, anxiety, effects of medications, and other psychiatric concerns in heart disease, gastrointestinal tract disorders, the menstrual cycle, and solid organ transplantation. A separate invited lecture at APA’s meeting addressed psychiatric issues in young women with breast cancer.

### HEART DISEASE

An estimated 16% to 23% of the 12.5 million Americans with coronary

artery disease (CAD) also suffer from depression, said Theodore Stern, MD, chief of the psychiatric consultation service at Massachusetts General Hospital, Boston. Not only is CAD an independent risk factor for depression, he said, but depression exacerbates and complicates CAD. Morbidity and mortality are higher in people with both CAD and depression than in those with only one of the disorders. A similar relationship appears to exist with anxiety disorders.

Depression upsets the endocrine system, throwing the hypothalamic-pituitary-adrenocortical axis into overdrive, Stern said. When cortisol secretion is disrupted, patients lose diurnal variation, sleep poorly, and show an exaggerated response to stress. An excess of circulating catecholamines may decrease heart rate variability, increase arrhythmias, boost platelet aggregation ability, and alter lipid metabolism.

Major cardiac interventions have numerous psychological ramifications, Stern said. Nearly one fifth of patients given permanent pacemakers develop adjustment, depressive, and anxiety disorders. Patients with automatic internal cardioverter defibrillators (AICDs) must cope with the ever-present possibility of receiving a 3- to 8-second electrical shock to stop potentially fatal ventricular tachyarrhythmias. Some patients develop superstitions, or even phobic reactions, about activities that may have triggered the device, Stern

said, although most come to view their AICD as a source of physical and psychological security.

Left ventricular assist devices (LVADs) now are wearable, enabling patients with heart failure to return home, and resume driving and working. Many LVAD recipients, even those free of psychiatric disorders preoperatively, however, require psychiatric intervention for organic mental syndromes, depression, or other problems.

Some prospective heart transplant recipients say they look forward to long weekends because traffic fatalities increase then. They call motorcycles “donor cycles,” Stern said, using mordant humor to help curb worries about their illness and upcoming surgery. After surgery, heart transplant patients commonly experience transient confusion, possibly as a result of steroids used to prevent rejection or metabolic encephalopathy. Many feel guilty about benefiting from another person’s death. Some fear the new heart will bring about a personality transplant. Some suffer adjustment disorders, depression, and anxiety that slows recovery or undermines compliance with prescribed treatment.

### GI TRACT DISORDERS

The mind and gut similarly are intimately intertwined, said Steven Epstein, MD, interim chair of psychiatry at Georgetown University Hospital, Washington, DC.

About 40% to 60% of the population have *Helicobacter pylori*—the most common cause of peptic ulcer disease—in their gastrointestinal tract lining, but only about 7% develop ulcers. Depression and life stressors, which increase gastric acid secretion, may increase an individual’s risk. A diathesis-stress model in which the diathesis is *H pylori* and the stressors are not fully known, Epstein said, likely applies. Still, he cautioned, for some patients with peptic ulcer disease, emotional factors are irrelevant. Everyone needs a careful evaluation.

People who have frequent abdominal pain for which organic or anatomical etiologies have been ruled out often describe their discomfort in highly



## Further Reading

For more on psychiatric aspects of cardiac disease, gastrointestinal tract disorders, solid organ transplantation, and the menstrual cycle, including suggested medications, see *Cutting-Edge Medicine: What Psychiatrists Need to Know* (Washington, DC: American Psychiatric Press Inc; 2002; \$31.95; available at: <http://www.appi.org/>). Edited by Nada Stotland, MD, MPH, who chaired APA's symposium on medical illness, the book contains chapters authored or coauthored by speakers cited in this article.

Aiming to improve diagnosis of depression in the primary care office, the US Preventive Services Task Force recommended in May that physicians ask adult patients two simple questions: During the past 2 weeks, have you ever felt down, depressed, or hopeless? Have you felt little interest or pleasure in doing things? The Task Force said 5% to 9% of adult patients in primary care settings suffer from depression, and estimated that up to 50% of them go undetected and thus untreated (<http://www.ahrq.gov/clinic/3rduspstf/depression/depresswh.htm>).—L.L.

emotional terms or a manner that is anatomically unusual. Negative life events may be a trigger, Epstein said. Treatment should focus on gaining control over symptoms rather than on a cure.

Patients with regional enteritis, or Crohn disease, may experience months of vague abdominal pain, diarrhea, and weight loss. There may be a significant discrepancy between subjective symptoms and objective signs of disease activity, Epstein said, but it's better to treat for a suspected flare-up than to assume somatization. In another form of inflammatory bowel disease, ulcerative colitis, the primary symptom is diarrhea, often bloody. Stress may exacerbate symptoms and cause rectal inflammation.

More than 25% of ambulatory patients seen by gastroenterologists, Epstein said, have irritable bowel syndrome (IBS), a disorder involving abdominal discomfort or pain that is relieved by defecation and is associated with a change in the frequency or form of stool. Functional magnetic resonance imaging studies show that people with IBS process pain differently from controls: painful rectal distention prompts greater activation of their anterior cingulate cortex, a critical pain center (*Gastroenterology*. 2000;118:842-848). People who seek medical care for IBS also have higher rates of psychiatric illness than nonpatients who report similar bowel habits.

## MENSTRUAL CYCLE DISORDERS

What physicians and patients both call premenstrual syndrome (PMS) still lacks consensus on type and severity of symptoms, said Laura Miller, MD, chief of women's services in psychiatry at the University of Illinois at Chicago College of Medicine. About 3% to 5% of women have premenstrual symptoms severe enough to cause functional impairment, meeting criteria for premenstrual dysphoric disorder. Their predominant mood is irritability, not depression. Many also experience cravings for foods, particularly carbohydrates. Prospective daily ratings, along with clinical evaluations at both luteal and follicular phases, Miller said, may aid in making diagnoses.

Women with depression, panic disorder, obsessive-compulsive disorder, and other psychiatric illnesses may experience premenstrual exacerbations. This pattern sometimes becomes apparent only after pharmacotherapy eases symptoms in the rest of the cycle. Hormonal influences may alter serum levels of constant oral doses across the cycle, reducing levels in the luteal phase.

Psychotropic agents that affect serotonin, such as selective serotonin reuptake inhibitors (SSRIs) and clomipramine, have the most robust evidence of efficacy of menstrual cycle mood disorders. Anxiolytic agents have more equivocal findings.

Luteal phase dosing of SSRIs is the newest approach to treatment. Al-

though such medications reportedly take a few weeks to work, studies show efficacy of intermittent use. SSRIs cause a rapid increase in brain sensitivity to  $\gamma$ -aminobutyric acid, Miller said, and therefore may work through this mechanism.

Dietary interventions seldom help premenstrual dysphoric disorder, she said, although cutting back on caffeine may help women with caffeine-related anxiety. Consumption of complex carbohydrates can increase availability of tryptophan, a serotonin precursor, and may improve mood. Calcium supplementation—1200 mg daily—may have a slight alleviating effect. Relaxation training and aerobic exercise help reduce depression.

## ORGAN TRANSPLANTATION

More than 75 000 people in the United States await organ transplantation, but fewer than one third likely will receive organs, according to Catherine Crone, MD, a staff psychiatrist at Inova Hospital Transplant Center, Fairfax, Va.

Given shortages of donor organs, transplant teams try to select candidates who can handle the uncertainties, demands, and setbacks inherent in transplantation. Physicians find it hard to predict which patients will comply with treatment, Crone said, but look for past compliance with daily medications, laboratory tests, clinic appointments, and lifestyle modifications. "The young, particularly adolescents who still feel immortal," she said, "have the highest rates of noncompliance."

Offering transplants to substance abusers remains problematic, Crone said. Alcohol is among the most common causes of end-stage liver disease. Some patients stop using alcohol or drugs as illness worsens, but have high relapse rates after transplantation.

Staff try to help patients and families understand that the patient will never return to pre-illness normality. Depression, anxiety, or adjustment disorders often occur in prospective and posttransplant patients, both in re-



sponse to the stress and pain of their illness and as adverse effects of medications used to manage organ disease. While quality of life generally improves after transplantation, Crone said, psychological functioning tends to lag behind physical functioning.

The recent increase in living donor transplants highlights the need to ensure that the donor has full understanding of informed consent, Crone said. Studies suggest that kidney donors do well, but long-term outcomes for liver donors are not yet clear.

#### BREAST CANCER

A woman diagnosed with breast cancer in her teens or 20s faces enormous psychological hurdles on top of the usual developmental challenges of making transitions from school to job and marriage, said Mary Jane Massie, MD,

who directs Memorial Sloan-Kettering Cancer Center's counseling center in New York City. Massie spoke in the APA's distinguished psychiatrist lecture series.

Breast cancers in young women often are more virulent than those in women aged 40 years or older. Yet physicians sometimes think young women concerned about breast lumps are somaticizing, Massie said, delaying diagnoses. The American Cancer Society estimates that about 1000 women younger than 30 years will be diagnosed with breast cancer in the United States this year, and about 100 in this age group will die of their disease. One of Massie's patients is only 15 years old, she said.

Patients' key concerns include self and body image, social and love relationships, and sexuality. Women who focused on education and career, de-

#### Useful Websites

Academy of Psychosomatic Medicine  
<http://www.apm.org>

American Psychosomatic Society  
<http://www.psychosomatic.org>

Association of Medicine and Psychiatry  
<http://www.amedpsych.com>

laying marriage and family, often question their choices. Young mothers fear not being able to rear their children, and worry that they've passed on their illness to their children.

Stress on young husbands is overwhelming, Massie said. If a patient and her husband communicate well, she said, anything a physician can do to build on that relationship can help save their marriage. □

## Colon and Rectal Surgeons Are Trying Botox Treatment, Too

Mike Mitka

CHICAGO—Patients with anal fissures and hemorrhoids may benefit from the same therapeutic agent others are using to regain a youthful facial appearance.

Researchers continue to discover the benefits of Botox (botulinum toxin A) for a variety of conditions. The US Food and Drug Administration (FDA) has approved its use to treat blepharospasm, strabismus, hemifacial spasm, cervical dystonia, and glabellar (frown) lines.

Botulinum toxin is a complex protein produced by *Clostridium botulinum*, the anaerobic bacterium that often causes fatal paralysis in people who eat contaminated food. The toxin causes paralysis by locking the presynaptic release of acetylcholine at the neuromuscular junction. Researchers, since the 1950s, have tried to use the neuromuscular blocking effect to eliminate muscle spasm related to excessive neural ac-

tivity or to weaken muscle for therapeutic purposes.

At the annual meeting of the American Society of Colon and Rectal Surgeons, a poster presentation from researchers at Brigham and Women's Hospital, Boston, furthered debate about the efficacy of Botox for the treatment of chronic anal fissures.

Current accepted treatment for chronic anal fissures caused by elevated resting anal pressure is a lateral internal sphincterotomy to relax the muscle, giving the fissure time to heal, said Bruce Orkin, MD, director of the Division of Colon and Rectal Surgery at George Washington University Hospital, Washington. But there are risks associated with the procedure.

"The danger of cutting is a 5% risk of incontinence, and that, of course, is a big concern to our patients," Orkin said. "The goal of Botox is to paralyze the muscle without having to cut it." But study results are mixed.

The Boston investigators tried to replicate the achievement of Italian researchers who, in 1998, published findings showing a very high success rate in the treatment of chronic anal fissures with Botox (*N Engl J Med.* 1998; 338:217-220). In the Italian study, 11 of 15 treated patients had healed fissures compared with two of 15 in the placebo group. After the four treated patients whose fissures did not heal were administered a second injection, all reported healed fissures. The Italian researchers also found a 96% healing rate for the use of Botox in another study in which they compared the agent with topical nitroglycerin ointment (*N Engl J Med.* 1999;341:65-69).

In contrast, the researchers at Brigham and Women's Hospital concluded that at current dosages, Botox failed to heal the majority of anal fissures. In their study, a retrospective series of 30 patients, 20 to 30 U of Botox were injected into the intersphincteric groove



on either side of the fissures. Patients were assessed for symptomatic relief, healing of fissures, and complications. Follow-up was from 2 to 44 weeks, with a median of 6.5 weeks.

Of the 27 patients available for follow-up, only five experienced healing. Of the five, three had a recurrence of the fissure.

Ronald Bleday, MD, section chief, Division of Colorectal Surgery, at Brigham and Women's and coauthor of the study, said these findings do not mean physicians should abandon hope for this use of Botox.

"In speaking with surgeons at the Chicago meeting, it became clear that there is a variety of techniques in placing the Botox, and surgeons with the best results place it away from the fissure," Bleday said in a follow-up interview. "There may also be a dose-related effect. We will probably try another study placing injections away from the fissure and maybe using 40 units of Botox."

In the meantime, another study that has just ended apparently finds middle ground between the Italian and Boston conclusions.

David M. Feldman, MD, an associate professor of clinical medicine at New York Medical College, has just completed a study of 30 patients randomized to treatment for chronic anal fis-

sure of Botox alone or Botox and topical nitroglycerin. Feldman said his success with Botox was better than the Boston group's, but was not close to either Italian achievement. He downplayed the role of injection site and speculated that selection bias may play a role in eventual outcomes.

"Patients who have lived a long time with fissures, more than 2 years, have a lower healing rate with Botox," Feldman said.

#### ANOTHER USE PROMISING

While the debate over the use of Botox to treat anal fissures continues (the manufacturer, Allergan, Irvine, Calif, has no plans to seek FDA approval for using Botox in this capacity), the agent is showing preliminary success in reducing postoperative hemorrhoidectomy pain.

At the Chicago meeting, Justin Davies, MD, of York District Hospital in York, England, said injecting Botox into the internal sphincter of patients who have just undergone hemorrhoidectomies resulted in their having significantly less pain at 1-week follow-up than patients in a control group injected with a saline solution.

Davies said internal sphincter spasm is believed to be partially responsible for posthemorrhoidectomy pain. To

spare patients this pain, surgeons usually perform an internal sphincterotomy at the same time as the hemorrhoidectomy, but doing this can lead to fecal incontinence.

"We wanted to assess the value of instead performing a chemical sphincterotomy with Botox to reduce pain following a standard hemorrhoidectomy," Davies said.

The prospective, double-blind, randomized trial involved 50 patients undergoing a standard hemorrhoidectomy. Patients received 0.4 mL of Botox or 0.4 mL of normal saline injected into the internal sphincter. Pain was measured for 7 days through a visual analogue scoring system (perceived levels of pain experienced, from "no pain at all" to "worst pain imaginable"). Morphine use, through a patient-controlled analgesia system, was also measured for the first 24 hours following surgery and was lower in the Botox group but not statistically significant.

The daily analogue scores for pain were lower for the patients treated with Botox than for the control group throughout the study period; they achieved statistical significance on days 6 and 7.

"We found that we were able to reduce pain without complications," Davies concluded. □

## MISCELLANEA MEDICA

- **Michael R. Harrison**, MD, chief, Division of Pediatric Surgery; director, Fetal Treatment Center; and professor of surgery, of pediatrics, and of obstetrics, gynecology, and reproductive sciences at the University of California, San Francisco, School of Medicine, has received the Jacobson Innovation Award of the American College of Surgeons. Harrison received the award for his work in creating the specialty of fetal surgery.
- **David Satcher**, MD, PhD, former US Surgeon General, will join the Mental Health Task Force of the Carter Center, Atlanta, Ga, in September. The task force works to identify mental health issues of major concern, convene di-

verse constituencies, and develop initiatives to reduce stigma and discrimination against people with mental illnesses. Satcher is currently a fellow at the Kaiser Family Foundation, Washington, DC. This fall, he will become director of the National Center for Primary Care at the Morehouse School of Medicine, Atlanta.

- **Antonia Novello**, MD, the first woman and first Hispanic to be appointed Surgeon General of the United States (1990-1993), and her successor, **M. Joycelyn Elders**, MD, (1993-1994), the first African American to be appointed Surgeon General, have been inducted into the International Women

in Medicine Hall of Fame of the American Medical Women's Association. Novello is now Commissioner of Health for New York, and Elders, who had returned to the University of Arkansas Medical Center as professor of pediatrics, is now retired.

- **Bert Spilker**, PhD, MD, has opened a consulting firm, Bert Spilker & Associates, LLC, dealing with issues concerning pharmaceutical development and marketing, in Bethesda, Md.

**Editor's Note:** Miscellanea Medica appears in the Medical News & Perspectives section occasionally. Items submitted for consideration should be directed to the attention of Marsha F. Goldsmith, Editor, *JAMA Medical News & Perspectives*.