Perspectives on the Pre-Admission Screening and Annual Resident Review Process: Why Can’t This Program Just Grow Up?

Jane Hudson • Lauren Erickson • Scott Lyon
Jayna Grauerholz • Jean Herrity

Background
Pursuant to the Community Mental Health Act of 1963, state psychiatric hospital residents were discharged en masse and moved back home into their communities. In many cases, residents who were over 65 had no home or family to return to, and the newly organized system of community mental health centers was poorly prepared to treat geriatric patients. As such, many of these older adults were transferred into nursing facilities, often without being provided necessary specialized services (Committee of Nursing Home Regulation, 1986; Kahn, 1975). The Institute of Medicine (IOM) defined the unexpected increase in nursing facility residents with psychiatric conditions and the corresponding lack of specialized care as a public-health-policy problem (Institute of Medicine [IOM], 1986). In response, the United States Congress enacted the Nursing Home Reform Act (NHRA) as part of the Omnibus Budget Reconciliation Act of 1987. The goal of the NHRA was to reduce the use of physical restraints and medications as the primary form of care for residents with psychiatric conditions and to increase the use of nonpharmacological therapeutic services (Molinari et al., 2011). To reach this goal, the NHRA required all states to implement the Pre-Admission Screening and Annual Resident Review (PASRR), a process of care designed to prevent individuals with serious psychiatric conditions from being placed in a nursing facility that could not provide specialized services (Timmel, 2005).

Operationally, PASRR consists of two steps, and any licensed nursing facility that receives Medicaid reimbursements

...
The Geriatric Mental Health Challenge
Robert B. Hudson, Editor

More than 20 percent of older Americans experience a psychiatric condition that may warrant behavioral health care intervention. Moreover, these individuals often face more than one such debilitating condition, and at advanced ages, physical health problems may exacerbate mental health issues in a reinforcing and destructive manner. To researchers and practitioners in the mental health field—to say nothing of individuals with mental illness and their caregivers—these realities are well known. But despite considerable attention to these concerns—extending back to the Community Mental Health Centers Act of 1963 and the Nursing Home Reform Act associated with OBRA ’87—the health policy scorecard associated with mental illness is a spotty one at best. As the articles in this issue of Public Policy & Aging Report point out, issues of diagnosis and treatment, extensive use of pharmacological services, interventions with often inconclusive results, difficulties in translating clinical research to community settings, and cultural attitudes toward mental illness among professionals and laypeople alike each present critical barriers to better addressing the needs of some 8 million older Americans experiencing a range of psychiatric conditions.

Brian Kaskie introduces the issue, briefly reviewing the breadth and depth of the geriatric mental health challenge. He then turns to needed interventions, focusing specifically on models of behavioral health care. After discussing a number of promising models, he cites critical barriers to improved care: meeting a range of conditions simultaneously, recruiting and retaining qualified coordinators and psychiatrists, and addressing patient activation from initial screening through a course of care. Particularly telling is his observation that “the dissemination of evidence-based, integrated models of care from academic, grant-financed medical clinics into select community-based settings will result in a considerable amount of so-called voltage drop” in model effectiveness. As do others, Kaskie concludes by arguing that integrated models should be seen as the preferred solution to addressing this wide range of problems. (The editors would like to thank Professor Kaskie for his assistance with the organization of this issue of PP&AR.)

Jane Hudson and colleagues discuss the uneven history of the Pre-Admission Screening and Annual Resident Review, enacted as part of the Nursing Home Reform Act in 1987. The goal was to reduce the use of physical and medical restraints in nursing facilities, but subsequent experience has been disappointing at best. Psychiatric medication therapy has remained the primary

Contents

1 Perspectives on the Pre-Admission Screening and Annual Resident Review Process: Why Can’t This Program Just Grow Up? / Jane Hudson • Lauren Erickson • Scott Lyon • Jayna Grauerholz • Jean Herrity
1 The Widespread Deployment of Integrated Models of Care / Brian Kaskie
10 Better Coordination of Care for Medicare Beneficiaries With Severe Mental Illness Could Improve Quality of Life and Lower Costs / Sally Rodriguez
16 Expanding the Capacity to Treat Older Adults With Mental Health and Substance Use Conditions: A Workforce Policy Strategy / Christine E. Bishop
20 Antipsychotic Use in Individuals With Dementia: An Overview for Policymakers / Ryan M. Carnahan • Michael W. Kelly • Marianne Smith
24 Suicide in Later Life: The Role of Risk Factors, Firearm Policy, and Primary Care Physicians / Mark S. Kaplan • William Coryell

Continued on page 35
Stallard, 1993). Moreover, even though the prevalence rates for many psychiatric conditions actually decrease with advancing age, the probability of acquiring dementia and other late-onset psychiatric disorders increases, especially as the incidence of cancer, heart disease, and other fatal conditions decreases (Karel et al., 2012).

Psychiatric Conditions: Both Complex and Common

Perhaps the most intriguing aspect among recent efforts to account for the prevalence of psychiatric conditions among older adults concerns an increased emphasis on the clinical complexity, as well as the commonness, of co-occurring and comorbid psychiatric conditions. On one hand, among older adults with a single diagnosable psychiatric disorder, the proportion of those who also experience a second (or third) diagnosable psychiatric disorder or symptomatic condition may be as high as 40 percent (Gum, King-Kallimanis, & Kohn, 2009). For example, older adults who are depressed may also experience dementia; those who are anxious may also misuse prescription and illegal substances (IOM, 2012). In reviewing symptoms identified by a comprehensive psychiatric screen completed by more than 700 older adults who presented in three primary health care clinics over a 6-month period, Kaskie, Kelly, and Lynch (2012) found positive screens among slightly more than 30 percent of all older patients. An item analysis of 225 positive screens revealed that 97 individuals (43%) experienced symptomatology related to a single diagnostic condition; the remaining 128 individuals (57%) presented mixed symptomatology, as indicated by a combination of at least one or more symptoms of cognitive problems, depression, anxiety, or substance misuse. Such co-occurring conditions appear to be most common among those with neurocognitive disorders (Karel et al., 2012); more than half of older individuals with dementia or mild cognitive impairment also experience depression, anxiety, and other behavioral disturbances (e.g., agitation). Such co-occurring conditions lead to a number of negative outcomes, such as increased health problems and higher use of hospital and long-term care services, as well as decreased functioning and quality of life (Hybels, Pieper, & Blazer, 2009).

On the other hand, many older adults who experience a psychiatric condition also have a diagnosable health condition (Koenig & George, 1998; Proctor et al., 2003). For example, depressive conditions are more prevalent among older adults with cancer, individuals with dementia often also have diabetes, and so forth. Such comorbid conditions have been shown to complicate the provision of health care and have been associated with a number of negative outcomes, such as higher rates of suicide and mortality in these individuals compared with older adults who experience either only a psychiatric condition or only a health condition (Lin, Zhang, Leung, & Clark, 2011). More relevant here, older adults who experience comorbid conditions are less likely to obtain specialty behavioral health care than younger populations. Instead, they tend to obtain care from physicians and other health care providers who are not formally trained to identify and treat psychiatric conditions and thus not likely to refer older patients to

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Prevalence of dementia</th>
<th>Prevalence of mental disorder other than dementia for older adults in the community</th>
<th>Prevalence of mental disorder other than dementia for older adults in residential care</th>
<th>Total prevalence of mental disorder, including dementia, for older adults in the community and in residential care</th>
</tr>
</thead>
<tbody>
<tr>
<td>65–69</td>
<td>1.4%</td>
<td>65–74</td>
<td>96%</td>
<td>8.5%</td>
</tr>
<tr>
<td>70–74</td>
<td>2.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75–79</td>
<td>7.6%</td>
<td>75–84</td>
<td>6.8%</td>
<td>31.5%</td>
</tr>
<tr>
<td>80–84</td>
<td>18.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85–89</td>
<td>32.7%</td>
<td>85+</td>
<td>8.1%</td>
<td>20.4%</td>
</tr>
<tr>
<td>90+</td>
<td>37.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total 65+</td>
<td>10.0%</td>
<td>total 65+</td>
<td>8.5%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Source: Adapted from Karel, Gatz, &amp; Smyer (2012).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As many as 8.6 million people over 65 are thought to be experiencing a psychiatric condition.
behavioral health specialists (Noel et al., 2004).

In fact, despite the availability of effective treatment options, less than one out of every four older people with a psychiatric disorder obtains any type of specialty behavioral health care (Milazzo-Sayre et al., 2001). The pervasive failure to provide evidence-based treatment to older adults with psychiatric conditions, including those with co-occurring and comorbid disorders, has been defined as a substantive public health policy problem (Administration on Aging, 2001). Although several recent initiatives, such as the Medicare Mental Health Inpatient Equity Act of 2011, have been designed to identify and remove barriers to specialty mental health care (also see Ostrow & Manderscheid, 2009; Sundararaman, 2009), the most effective response, arguably, has been to establish integrated models of behavioral health care (Butler et al., 2008).

### Integrated Models of Care

Integrated models bring together specialty behavioral health care providers (and care managers) with health and supportive service providers, who assume complementary roles in serving people with psychiatric conditions. These models—which capitalize on the tendency of older patients with psychiatric conditions to initially present in health, long-term care, and other supportive service settings—are designed to identify, assess, and treat individuals within the initial care setting, linking patients to Table 2. Twelve-Month Prevalence Rate and Estimated Number of Community-Living Adults Ages 65 and Older for 10 Mental Health and Substance Use Conditions

<table>
<thead>
<tr>
<th>Mental health or substance use condition (MH/SU)</th>
<th>Prevalence rate (%)</th>
<th>Estimated number of older adults in 2010 (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mental health conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depressive disorders</td>
<td>3.0–4.5</td>
<td>1.2–1.8</td>
</tr>
<tr>
<td>Major depressive episode(s)</td>
<td>3.0–4.3</td>
<td>1.2–1.7</td>
</tr>
<tr>
<td>Dysthymic disorder</td>
<td>0.6–1.6</td>
<td>0.2–0.6</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>0.8–1.1</td>
<td>0.3–0.4</td>
</tr>
<tr>
<td>Agoraphobia without panic</td>
<td>a–0.3</td>
<td>a–0.1</td>
</tr>
<tr>
<td>Social phobia</td>
<td>0.9–2.6</td>
<td>0.4–1.0</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>1.1–2.1</td>
<td>0.4–0.8</td>
</tr>
<tr>
<td>Posttraumatic stress disorder (PTSD)</td>
<td>0.6–2.6</td>
<td>0.2–1.0</td>
</tr>
<tr>
<td><strong>Substance use conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol dependence or abuse</td>
<td>a–1.9</td>
<td>b–0.7</td>
</tr>
<tr>
<td>Drug dependence or abuse</td>
<td>a–0.2</td>
<td>b–0.1</td>
</tr>
<tr>
<td><strong>Summary figures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One or more of the conditions</td>
<td>6.8–10.2</td>
<td>2.6–4.0</td>
</tr>
<tr>
<td>One of the conditions</td>
<td>4.8–7.8</td>
<td>1.8–3.0</td>
</tr>
<tr>
<td>Two or more of the conditions</td>
<td>2.0–2.4</td>
<td>0.8–0.9</td>
</tr>
<tr>
<td>Three or more of the conditions</td>
<td>0.5–0.8</td>
<td>0.2–0.3</td>
</tr>
</tbody>
</table>

*The prevalence rate is less than 0.2 percent. The number of people with the condition is less than 50,000. Reprinted with permission from the National Academies Press, copyright 2012, National Academy of Sciences.*

### Integrated Models of Care

Integrated models bring together specialty behavioral health care providers (and care managers) with health and supportive service providers, who assume complementary roles in serving people with psychiatric conditions. These models—which capitalize on the tendency of older patients with psychiatric conditions to initially present in health, long-term care, and other supportive service settings—are designed to identify, assess, and treat individuals within the initial care setting, linking patients to Table 3. Twelve-Month Prevalence Rate and Estimated Number of Community-Living Adults Ages 65 and Older for Nine Additional Mental Health and Substance Use Conditions

<table>
<thead>
<tr>
<th>Mental health or substance use condition (MH/SU)</th>
<th>Prevalence rate (%)</th>
<th>Estimated number of older adults in 2010 (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mental health conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>a–0.2</td>
<td>b–0.1</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>0.2–0.8</td>
<td>0.1–0.3</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>1.1–11.1</td>
<td>0.4–4.3</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>4.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>0.5–1.7</td>
<td>0.2–0.7</td>
</tr>
<tr>
<td>Suicide plans and attempts</td>
<td>a</td>
<td>b</td>
</tr>
<tr>
<td><strong>Substance use conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At-risk drinking</td>
<td>5.2</td>
<td>2.0</td>
</tr>
<tr>
<td>At-risk drug use</td>
<td>0.9</td>
<td>0.4</td>
</tr>
</tbody>
</table>

*The prevalence rate is less than 0.2 percent. The number of people with the condition is less than 50,000. Reprinted with permission from the National Academies Press, copyright 2012, National Academy of Sciences.*
psychiatrists and other specialty behavioral health care providers as needed. Integrated models have contributed to improved health, mental health, functional status, and quality of life, as well as other desirable clinical outcomes. Integrated models also have been shown to reduce aggregate and individual health care costs (Kaskie & Buckwalter, 2010).

The number of integrated models targeting older adults has increased substantially over the last 10 years (Callahan et al., 2011). One of the first integrated models targeting older patients was the PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial) program. PROSPECT demonstrated that clinical outcomes for older adults with depression improved when behavioral health care was integrated into primary health care settings (Bruce et al., 2004). The Improving Mood—Promoting Access to Collaborative Treatment (IMPACT) program also has generated a considerable amount of evidence, suggesting that integrated models improve clinical outcomes for older adults with depression (Unützer et al., 2002). The IOM (2012) report reviewed a total of nine different integrated models and showed how the models have diversified over time to address different conditions (e.g., depression, dementia, serious mental illness), as well as various organization and staffing patterns.

Based on the successful outcomes, the President’s New Freedom Commission on Mental Health (Hogan, 2003) called for an expansion of such evidence-based integrated models targeting aging populations, and the Agency for Healthcare Research and Quality (AHRQ) validated the utility of PROSPECT, IMPACT, and other integrated models in providing care to older adults with psychiatric conditions (Butler et al., 2008). Subsequently, in 2011, AHRQ convened a group of national experts who were involved in the administration and evaluation of integrated models of care targeting older adults (Kaskie, 2011). Altogether, the group accounted for eight distinct approaches to implementing such models within health and supportive service systems and affirmed that integrated models constitute a standard of care for older adults with psychiatric conditions. The IOM (2012) recently called for the widespread deployment of these models within larger health care delivery systems.

**Dissemination and Implementation Efforts**

The Patient Protection and Affordable Care Act formally supported such widespread dissemination and implementation of integrated models of care. In particular, the Act recognized the critical role of specialty behavioral health care in overall health, authorized an initial allocation of $50 million with 5 years of continued funding, and assigned responsibility for model dissemination to the national network of community mental health centers. In addition, the Centers for Medicare & Medicaid Services recently approved discrete payment mechanisms critical to the financing of integrated models of care. These mechanisms include providing reimbursement for basic screening of cognition, depression, and substance misuse, as well as establishing co-payment parity for outpatient behavioral health care (Kautz, Mauch, & Smith, 2008; U.S. Department of Health and Human Services, 2012).

Medicare Advantage Plans also are being tapped as a means to deploy integrated models of care to older adults with psychiatric conditions. In particular, Medicare Special Needs Plans have emerged as a type of Medicare Advantage Plan that would support the integrated models of care for beneficiaries with dementia and other psychiatric conditions (Medicare Payment Advisory Commission, 2012). Notably, Medicare Special Needs Plans go one step further than the traditional integrated model by aligning Medicare and Medicaid financing and benefits structures, so that acute and long-term services for individuals with dementia and behavioral health needs also can be coordinated.

The formation of Medicare Accountable Care Organizations presents another opportunity to deploy integrated models of
The Widespread Deployment of Integrated Models of Care

Table 4. Integrated Models of Care

<table>
<thead>
<tr>
<th>Model</th>
<th>Target population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depression</strong></td>
<td></td>
</tr>
<tr>
<td>Improving Mood—Promoting Access to Collaborative Treatment (IMPACT)</td>
<td>Older adult population with major depression, dysthymic disorder, or both</td>
</tr>
<tr>
<td>Kaiser Nurse Telehealth Care Model</td>
<td>Adult population (all ages) starting antidepressant drug therapy</td>
</tr>
<tr>
<td>Program to Encourage Active, Rewarding Lives for Seniors (PEARLS)</td>
<td>Older, community-residing adults with minor depression and dysthymia who are receiving social services</td>
</tr>
<tr>
<td><strong>Substance use</strong></td>
<td></td>
</tr>
<tr>
<td>Screening, Brief Intervention, and Referral to Treatment (SBIRT)</td>
<td>Older adult population at risk for alcohol and substance misuse</td>
</tr>
<tr>
<td>Primary Care Research in Substance Abuse and Mental Health for the Elderly (PRISM-E)</td>
<td>Older primary care patients with symptoms of depression, anxiety, and at-risk drinking</td>
</tr>
<tr>
<td><strong>Serious mental illness</strong></td>
<td></td>
</tr>
<tr>
<td>Helping Older People Experience Success (HOPES)</td>
<td>Older adults with serious mental illness residing in the community</td>
</tr>
<tr>
<td>Psychogeriatric Assessment and Treatment in City Housing (PATCH)</td>
<td>Older adults with serious mental illness living in urban public housing</td>
</tr>
<tr>
<td>Wellness Recovery Action Plan (WRAP)</td>
<td>Adults (all ages) with severe and persistent mental illness</td>
</tr>
<tr>
<td><strong>Psychiatric and behavioral symptoms related to dementia</strong></td>
<td></td>
</tr>
<tr>
<td>Providing Resources Early to Vulnerable Elders Needing Treatment (PREVENT)</td>
<td>Older adults with Alzheimer’s and their caregivers</td>
</tr>
</tbody>
</table>

care, under the assumption that psychiatric conditions constitute chronic, complex, high-cost conditions that require coordinated clinical care (Druss & Mauer, 2010). In fact, the Veterans Affairs Health Care System already has begun such dissemination and implementation efforts, incorporating integrated approaches into primary care clinics, home-based settings, and long-term care residential settings, as well as aligning processes of care within the chronic-disease framework (Zeiss & Karlin, 2008).

**The Road Ahead**

Arguably, the dissemination of evidence-based, integrated models of care from academic, grant-financed medical clinics into select community-based settings will result in a considerable amount of so-called voltage drop, and such shortages will become even more pronounced as implementation efforts spread across larger service systems (Kilbourne et al., 2007). In particular, individual outcomes observed in the initial model evaluations are less likely to occur or to be as pronounced when translated into a greater number and variety of settings. These shortcomings most often relate to patient, provider, organizational, and contextual factors that were not as relevant in the more controlled settings in which the models were originally developed and evaluated, and only become salient as efforts move toward widespread translation (Kimberly & Cook, 2008). Indeed, as part of the 2011 AHRQ conference focusing on integrated models of care for older adults, several challenges concerning the widespread dissemination and implementation of such models were identified.

**Scope of practice.** Efforts to translate the integrated model of behavioral health care must move beyond focusing on one psychiatric condition or another (e.g., depression or cognitive impairment), if only because the complexity and commonality of co-occurring and comorbid disorders among older patients necessitates that the range of conditions be considered simultaneously. For example, rather than solely focusing on depression, researchers at the University of Iowa (Kaskie & Buckwalter, 2010) developed the 15-item Comprehensive Psychiatric Screening Tool for Older Adults, which essentially is a composite of short-item screens for symptoms related to anxiety, depression, alcohol and prescription drug misuse, thinking and memory, and psychological distress. Moreover, as integrated models move into larger service systems, greater emphasis should be placed on a comprehensive and coordinated diagnostic assessment following a positive screen. The assessment not only should identify and separate co-occurring and comorbid disorders but also should record a patient’s preferences, motives, and capacities for participation in treatment (Knight, Kaskie, Shurgot, & Dave, 2006).

**Provider engagement.** Although many of the well-established integrated models rely on qualified care coordinators and psychiatrists, creating a dedicated staffing position represents a challenge for many clinics that neither have the resources nor experience sufficient patient volume to warrant the hiring of a new staff member. Instead, most individual clinics and health systems are likely to rely on existing staff to conduct patient screening, referral, and treatment. Given that the majority of primary care physicians and nurses are not trained to identify and treat psychiatric conditions among older adults, the successful deployment of the integrated model will need to include a
concerted effort to educate and engage existing staff (IOM, 2012). Recognizing that most primary care staff have neither the time to participate nor an interest in participating in such time-intensive (and often off-site) training efforts, researchers at the University of Iowa created an easy-to-use iPad training application that presents information about integrated models of care in multiple mediums most conducive to adult learners. The 1-hour training has been approved for continuing medical education credits and has been reviewed favorably by primary care providers who indicated that, upon completion, they felt more informed about the goals of integrated care models, better understood their roles in providing integrated care, and had increased their appreciation of behavioral health care.

Patient activation. Perhaps the biggest challenge facing the widespread success of integrated models concerns the number of patients who initially screen positive for psychiatric symptoms but then fail to progress through the remaining course of care (Aarons & Sawitzky, 2006). For example, our experience in Iowa (Kaskie & Buckwalter, 2010; Kaskie et al., 2012) revealed that fewer than 20 percent of the older adults who screened positive went on to complete a diagnostic assessment, and only half of those initiated treatment—an outcome not unlike what has been reported elsewhere. We determined the most common reason for the lack of activation was that older patients reportedly were not interested in progressing further, citing any number of issues—such as difficulty coming back to the clinic for an assessment appointment—or discounting their symptoms as situational and not likely to persist.

The second most common source of inactivation was lack of direction from the attending physician, who most often preferred to adopt a wait-and-see approach rather than order and schedule a diagnostic assessment for someone with positive symptomatology. In response to this situation, individual clinics should increase patient-education efforts by developing a set of educational materials that familiarize older patients with the range of disorders and how they can affect quality of life. Clinics also should offer handouts to those who screen positive but decline assessment. These handouts could review the goals and objectives of integrated care, offer options about when, where, and how to complete assessment and treatment, and provide contact information patients can use when they are ready to activate. Analysis of data from three clinics in Iowa showed that activation increased when patients were informed that they could request to complete the assessment at home (Kaskie et al., 2012). Also, we observed the deployment of an electronic medical record system that scheduled patient screenings and assessments, serving to increase participation perhaps by nudging older patients and primary care providers, as well as effectively creating a decision that had to be negated rather than affirmed.

System adaptation. Evidence has suggested that the only area in which Medicare Advantage Plans are not doing well is with regard to the quality of care provided to individuals with psychiatric conditions (Loftis, 2006). This gap may correspond with variations in how managed care organizations have applied administrative policies and service management practices when designing provision of care to older adults with psychiatric conditions (Kaskie, Gregory, & Cavanaugh, 2008; Kaskie, Wallace, Kang, & Bloom, 2006). For example, some systems may focus only on serving select types of psychiatric conditions (e.g., depression), whereas others actively refer the more complex cases to other systems (e.g., leaving people with dementia to long-term care and aging service programs). Moreover, relying on the public mental health system to deploy integrated models of care is particularly troublesome because the national network of community mental health centers, which the Patient Protection and Affordable Care Act has called upon to disseminate the collaborative models, has never displayed much interest in serving the aging population. In fact, the role of public mental health systems in serving older adults was curtailed substantially during the 1990s and, since then, little effort has been made to reclaim people over 65 as a patient population (Kaskie, Gregory, & Van Gilder, 2009). As such, expectations about deploying integrated models of care that target older adults with psychiatric conditions within two of the largest types of care delivery systems should be tempered until a greater investment is made in research designed to identify and address the most critical contextual and organizational factors associated with successful model translation.

Financing. Another impediment to the widespread dissemination and implementation of evidence-based models of care corresponds with lack of adequate financing and competitive incentives (Druss & Mauer, 2010). For example, as long as inpatient scatter beds used to care for individuals with psychiatric conditions continue to receive up to 20 percent more in patient reimbursement per day than dedicated inpatient psychiatric beds (Kelly, 2011), health system actuarial analyses will continue to resolve that the financial gains of deploying specialty behavioral health care—including integrated models that enlist care managers and other
Conclusions

The growing population of older adults brings with it a rising number of older adults with psychiatric conditions. Historically, despite the development of evidence-based treatment approaches, these individuals have been the least likely of any population group to receive effective treatment. Although several alternative solutions have been proposed to address this public-health-policy problem, one of the most viable has been to establish integrated models of care in which behavioral health specialists are embedded in the health and supportive service settings most often used by older adults. As efforts continue to expand the deployment of these models into larger systems of care, policymakers and program administrators should be most concerned with the potential drop-off in model effectiveness. Researchers could assist in this effort by working to identify the variables most critical in advancing patients through the process of integrated care (i.e., activation); understanding how model translation varies across health care and other large systems in terms of contextual, organizational, provider, and individual patient factors; and delineating the costs and benefits related to model implementation under fee-for-service, capitated, and bundled financing mechanisms.

Brian Kaskie, PhD, is an associate professor of health management and policy, College of Public Health, University of Iowa, and serves as associate director of public policy, Center on Aging, University of Iowa.

References


Definitions and, thus, estimates of SMI differ based on the parameters of the research, but there is broad agreement that these illnesses are prevalent among older Americans and dual-eligible Medicare and Medicaid beneficiaries. The Institute of Medicine estimates that approximately 5.6 million to 8 million Americans 65 years of age or older have mental health or substance use disorders (SUDs); that number is expected to reach 10.1 million to 14.4 million by 2030 (Bartels & Naslund, 2013). Other analyses estimate that about one in four older Americans has a major psychiatric disorder (Bartels, Blow, Brockmann, & Van Citters, 2005), such as depression or anxiety disorders, and more than 1.7 million older Americans have a SUD (Gfroerer, Penne, Pemberton, & Folsom, 2003).

SMIs are extremely disabling and present several challenges to the preservation of physical health, functioning, and quality of life. A large body of evidence shows that people with SMI have higher mortality rates, are less likely to receive needed care, and are more likely to experience other chronic conditions (Husaini et al., 2002). Individuals with SMI and SUD have particular difficulty managing their SMI and other conditions, and are at high risk for hospitalization and homelessness (Mechanic, 2012). One contributing factor to breakdowns in care is that SMI can hinder communication between health practitioners and patients when they do seek care (Husaini et al.). These effects of SMI often combine to result in patients failing to manage their SMI, SUD, and chronic conditions, and only presenting in health care settings when their conditions have greatly worsened—often in high-cost settings, such as the emergency room and hospital inpatient wards (Husaini et al.). In fact, one study found that people with SMI and chronic conditions had 30 percent to 80 percent higher medical spending than those with chronic conditions and no SMI (Gruber, Locke, & Marcus, 2012).

Data, Methods, and Findings of New Analysis

Data sources and definitions. We used the 2010 Medicare Standard Analytic Files, or fee-for-service claims data, to analyze inpatient service use and Medicare Part A spending associated with three groups of fee-for-service Medicare beneficiaries: those without an SMI diagnosis, those with any SMI diagnosis, and a subgroup of the SMI beneficiaries with both an SMI and a SUD diagnosis. To define SMI, we conducted a literature review to determine which kinds of mental illnesses to include in the definition. The definition of serious or severe mental illness varied throughout the literature; we did not find a generally accepted list of conditions designated as SMI. In consultation with experts, we included the types of mental illnesses that are considered most disabling: major depression, bipolar disorder and other mood disorders, and schizophrenia and other psychoses. For the purpose of this analysis, a Medicare beneficiary had SMI or SUD or both if he or she had any claim indicating at least one of the selected diagnosis codes during 2010. To identify the number of co-occurring chronic conditions for each beneficiary, we used the Clinical Classifications Software tool; any conditions included in the tool that fell under our SMI definition were excluded from the total co-occurring chronic conditions number.

Methods. We calculated per capita Medicare spending and inpatient use data for beneficiaries with no SMI, any SMI, and SMI plus SUD. To compare spending and use for these groups, we calculated the inpatient and total
Better Coordination of Care for Medicare Beneficiaries With Severe Mental Illness Could Improve Quality of Life and Lower Costs

Medicare Part A spending and service use, both overall and per capita, we flagged any episode of care beginning with a short-term acute care hospital stay that included an additional short-term acute care hospital stay within 30 days of the initial stay. Initial or index short-term acute care hospital stays were only considered as such if no additional hospital stay had occurred within the prior 30 days.

**Limitations.** Some definitions of mental illness suggest a look-back period of multiple years when searching diagnoses codes in claims data; therefore, our analysis may undercount the true number of Medicare beneficiaries with SMI. However, in accordance with our emphasis on mental illnesses that are the most disabling, we concluded that the presence of any claim with an SMI diagnosis within 1 year of data was sufficient to establish the presence of a significantly disabling mental illness.

**Findings.** Our analysis found that nearly 3 million Medicare beneficiaries were treated for an SMI diagnosis in 2010. Among beneficiaries with an SMI diagnosis, the most common types of conditions were major depression (45%) and schizophrenia and other psychoses (44%). Unsurprisingly, younger and dual-eligible Medicare beneficiaries were disproportionately treated for SMI; although they represented only 20 percent of beneficiaries in our sample, dual eligibles accounted for 48 percent of all Medicare beneficiaries with an SMI diagnosis; similarly, although only representative of 21 percent of beneficiaries in our sample, the under-65 group made up 51 percent of total beneficiaries with an SMI diagnosis. Younger and dual-eligible beneficiaries also had a higher prevalence of co-occurring SUD diagnoses. In contrast, older beneficiaries with SMI had a higher prevalence of other non-SUD chronic conditions (see Table 1). Our findings are in accordance with existing research related to older Americans and dual eligibles with SMI. Our total prevalence figures may appear low in comparison with some estimates, most likely because we looked at a narrower set of mental illnesses that are considered significantly disabling and we did not capture data on individuals with SMI who did not receive treatment for SMI in 2010.

The presence of SMI had a strong effect on total per capita Medicare spending (see Table 2). Medicare-only and dual-eligible beneficiaries with SMI had higher average Medicare spending than their counterparts without SMI, a finding that is particularly pronounced in the population ages 65 and older. Perhaps more compelling is the uptick in spending for beneficiaries with both SMI and SUD; in all age and dual-eligibility status groups, per capita spending on beneficiaries with SMI and SUD was at least twice as much as per capita spending for beneficiaries with SMI only. The combination of SMI and multiple chronic conditions was also associated with significantly higher per capita spending, and the presence of SUD magnified this effect (see Table 3).

Beneficiaries with cardiovascular disease or diabetes or both typically incur higher-than-average Medicare spending related to their ongoing care, and SMI further increases this spending. We found that having any SMI diagnosis was associated with about a twofold increase in per capita Medicare spending. This finding is consistent with research suggesting that diabetes and cardiovascular disease can exacerbate SMI, and vice versa; some antidepressants have been linked with diabetes.

---

**Table 1. Severe Mental Illness (SMI) Diagnoses, Substance Use Disorders (SUD), and Medicare Spending for All Medicare Beneficiaries, by Number of Co-Occurring Chronic Conditions, 2010**

<table>
<thead>
<tr>
<th></th>
<th>Number of fee-for-service beneficiaries 2010</th>
<th>Percent with three or more co-occurring chronic conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-duals &lt;65</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/o SMI</td>
<td>2,970,740</td>
<td>14.1%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>497,480</td>
<td>15.9%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>22,000</td>
<td>17.9%</td>
</tr>
<tr>
<td><strong>Duals &lt;65</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/o SMI</td>
<td>2,030,760</td>
<td>18.4%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>941,900</td>
<td>16.2%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>73,100</td>
<td>17.8%</td>
</tr>
<tr>
<td><strong>Non-duals 65+</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/o SMI</td>
<td>19,413,440</td>
<td>26.6%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>943,100</td>
<td>50.0%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>6,820</td>
<td>60.7%</td>
</tr>
<tr>
<td><strong>Duals 65+</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/o SMI</td>
<td>2,753,420</td>
<td>38.2%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>413,880</td>
<td>59.0%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>5,280</td>
<td>62.9%</td>
</tr>
<tr>
<td><strong>All beneficiaries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/o SMI</td>
<td>27,168,360</td>
<td>25.8%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>2,796,360</td>
<td>33.9%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>107,200</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

Nearly 3 million Medicare beneficiaries were treated for a severe mental illness in 2010.
prevalence, and psychotropic medications prescribed for SMI can cause weight gain, which can interfere with care for diabetes and cardiovascular diseases (Husaini et al., 2002; McCloughen & Foster, 2011). Beneficiaries with these combinations of conditions may be particularly at risk for high Medicare spending and may warrant special attention in efforts to improve care delivery and coordination (Frayne et al., 2005).

**SMI and inpatient use.** Among all Medicare beneficiaries, SMI diagnoses were associated with higher inpatient use and spending; just under 40 percent of beneficiaries with SMI and over 80 percent of beneficiaries with SMI and SUD used inpatient services in 2010. In comparison, about 17 percent of beneficiaries without SMI had an inpatient stay. Accordingly, Medicare beneficiaries with SMI incurred three times as much inpatient spending as those without SMI ($7,604 and $2,523, respectively). The presence of SUD again magnifies the effect on spending; Medicare spent $18,696 per capita for inpatient stays for those beneficiaries. We also found that beneficiaries with SMI had significantly increased rates of 30-day all-cause hospital readmissions, and rates were particularly high for those with SMI and SUD (see Table 4). Again, these results are in accordance with published research that demonstrates higher use of emergency department and hospital services among Medicare beneficiaries with SMI (Merrick, Perloff, & Tompkins, 2010).

**Discussion and Policy Implications**

These findings make a compelling case that the presence of SMI complicates treatment plans among Medicare beneficiaries, causing them to use more health care, more often in hospitals, than their counterparts without SMI. The often fragmented systems of primary, acute, and behavioral health care, particularly among entities serving dual eligibles, may contribute to the difficulty in managing SMI. These breakdowns in care ultimately result in high costs that are borne by public programs; in 2005, Medicaid, Medicare, and other public programs accounted for more than 50 percent of all mental health expenditures (Substance Abuse and Mental Health Services Administration, 2012).

The link between SMI, SUD, and co-occurring chronic conditions and their effect on Medicare spending and inpatient use is clear. Currently, Medicare coverage of mental health services is somewhat limited, does not emphasize home-based services, and includes a relatively high 50 percent co-payment for psychologically based services. Dual eligibles must navigate an even more complex patchwork of Medicare- and Medicaid-covered services to obtain needed care. The key question facing policymakers and health care providers is, how can physical, behavioral, and long-term care be improved and coordinated for these beneficiaries? Moreover, as health reform progresses, can new health care delivery and financing models be used to create a system that is better prepared to care for these patients?

Health reform efforts bolstered by the Affordable Care Act (ACA) present an opportunity to meaningfully affect

---

**Table 2. Per Capita Medicare Part A Spending for All Beneficiaries by SMI, SUD, Age, and Dual Eligibility Status, 2010**

<table>
<thead>
<tr>
<th>SMI</th>
<th>SUD</th>
<th>Age &lt;65</th>
<th>Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without SMI</td>
<td></td>
<td>$26,479</td>
<td>$22,629</td>
</tr>
<tr>
<td>With SMI</td>
<td></td>
<td>$30,562</td>
<td>$39,256</td>
</tr>
<tr>
<td>With SMI and SUD</td>
<td></td>
<td>$30,562</td>
<td>$39,256</td>
</tr>
</tbody>
</table>

**Table 3. Per Capita Medicare Part A Spending for All Beneficiaries, By SMI, SUD, and Dual Eligibility Status, and Number of Chronic Conditions, 2010**

<table>
<thead>
<tr>
<th>SMI</th>
<th>SUD</th>
<th>CCs</th>
<th>Without SMI</th>
<th>With SMI</th>
<th>With SMI and SUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Duals, 0–2 CCs</td>
<td></td>
<td></td>
<td>$3,805</td>
<td>$20,778</td>
<td>$35,888</td>
</tr>
<tr>
<td>Non-Duals, 3+ CCs</td>
<td></td>
<td></td>
<td>$4,942</td>
<td>$51,896</td>
<td>$60,547</td>
</tr>
<tr>
<td>Duals, 0–2 CCs</td>
<td></td>
<td></td>
<td>$7,191</td>
<td>$24,278</td>
<td>$25,106</td>
</tr>
<tr>
<td>Duals, 3+ CCs</td>
<td></td>
<td></td>
<td>$12,014</td>
<td>$49,625</td>
<td>$53,679</td>
</tr>
</tbody>
</table>
Better Coordination of Care for Medicare Beneficiaries With Severe Mental Illness Could Improve Quality of Life and Lower Costs

quality of life for Medicare and Medicaid beneficiaries with SMI, as well as to dramatically reduce the spending associated with these beneficiaries. An estimated 3.7 million more people with SMI will gain access to care through the expansion of Medicaid and private insurance options (Sorrell, 2012). The Medicare program is seeing a shift from the traditional fee-for-service model to approaches that encourage or borrow elements of managed care. One such model is the accountable care organization, which was authorized by the ACA for implementation within the Medicare program. Accountable care organizations consist of networks of providers that coordinate all Medicare-covered services for enrolled beneficiaries. Providers who successfully manage care and reduce overall Medicare costs can share in the savings they generate.

Although the accountable care model does not provide an explicit incentive to integrate behavioral health care, given the high spending associated with beneficiaries with SMI, the potential for providers to achieve shared savings could be enhanced by the inclusion of these services. As accountable care organizations get up and running, policymakers should consider ways to encourage providers to focus on the treatment of beneficiaries with SMI. For example, accountable care organizations must meet certain quality metrics to achieve savings; more behavioral health-specific measures could be included in the measure set. As benefits and payments evolve under new managed care approaches within Medicare, it is critical that they acknowledge the challenges of providing effective care for beneficiaries with SMI.

Table 4. Inpatient Hospital Use and Readmissions for All Medicare Beneficiaries by Severe Mental Illness (SMI) and Substance Use Disorder (SUD) Diagnoses, 2010

<table>
<thead>
<tr>
<th></th>
<th>Non-duals &lt;65</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of fee-</td>
<td>Percent with</td>
<td>Inpatient</td>
<td>Inpatient</td>
<td>Inpatient as</td>
<td>Percent of</td>
</tr>
<tr>
<td></td>
<td>for-service</td>
<td>inpatient claim</td>
<td>spending</td>
<td>claims per user</td>
<td>as percent of total</td>
<td>inpatient users</td>
</tr>
<tr>
<td></td>
<td>beneficiaries</td>
<td></td>
<td>per user</td>
<td>per user</td>
<td>spending</td>
<td>with readmission</td>
</tr>
<tr>
<td>w/o SMI</td>
<td>2,970,740</td>
<td>14.8%</td>
<td>$15,265</td>
<td>1.60</td>
<td>35.1%</td>
<td>14.1%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>497,480</td>
<td>31.1%</td>
<td>$18,067</td>
<td>2.09</td>
<td>46.7%</td>
<td>16.2%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>22,000</td>
<td>82.1%</td>
<td>$20,644</td>
<td>2.99</td>
<td>64.0%</td>
<td>17.6%</td>
</tr>
<tr>
<td>w/o SMI</td>
<td>2,030,760</td>
<td>18.7%</td>
<td>$19,368</td>
<td>1.86</td>
<td>34.8%</td>
<td>18.0%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>941,900</td>
<td>33.2%</td>
<td>$19,720</td>
<td>2.36</td>
<td>45.7%</td>
<td>17.2%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>73,100</td>
<td>83.6%</td>
<td>$22,293</td>
<td>3.38</td>
<td>61.0%</td>
<td>21.2%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>19,413,440</td>
<td>16.5%</td>
<td>$13,958</td>
<td>1.48</td>
<td>32.1%</td>
<td>12.2%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>6,820</td>
<td>90.0%</td>
<td>$23,353</td>
<td>2.55</td>
<td>53.6%</td>
<td>24.1%</td>
</tr>
<tr>
<td>w/o SMI</td>
<td>2,753,420</td>
<td>21.6%</td>
<td>$16,159</td>
<td>1.70</td>
<td>30.9%</td>
<td>15.6%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>413,880</td>
<td>45.2%</td>
<td>$21,081</td>
<td>2.19</td>
<td>34.8%</td>
<td>20.9%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>5,280</td>
<td>84.5%</td>
<td>$28,235</td>
<td>3.20</td>
<td>48.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>w/o SMI</td>
<td>27,168,360</td>
<td>17.0%</td>
<td>$14,810</td>
<td>1.55</td>
<td>32.5%</td>
<td>13.3%</td>
</tr>
<tr>
<td>w/ SMI</td>
<td>2,796,360</td>
<td>39.0%</td>
<td>$19,518</td>
<td>2.15</td>
<td>40.8%</td>
<td>18.7%</td>
</tr>
<tr>
<td>w/ SMI + SUD</td>
<td>107,200</td>
<td>83.7%</td>
<td>$22,329</td>
<td>3.24</td>
<td>59.9%</td>
<td>21.1%</td>
</tr>
</tbody>
</table>

Severe mental illness diagnoses were associated with higher inpatient use and Medicare spending.
Provide excellent opportunities to coordinate care and services for beneficiaries with SMI. The duals demonstration provides opportunities for states to integrate the financing and care delivery for dual eligibles. States can choose to finance these programs through a capitated—or per-member per-month—approach, or through a managed fee-for-service model. To better coordinate all covered services, states can employ a number of care delivery models to integrate all aspects of patient care. At the time of this writing, 22 states are pursuing inclusion in the demonstration, and some are specifically targeting dual eligibles with SMI. For example:

- Massachusetts has proposed to enroll dual eligibles ages 21 to 64 with full MassHealth and Medicare benefits. Notably, covered services include additional behavioral health services, such as community crisis stabilization, community support programs, treatment and support services for substance abuse, and psychiatric day treatment. Using individualized care plans directed by enrollees, Massachusetts aims to integrate medical, behavioral health, and long-term care services.

- New York seeks to enroll dual eligibles with SMI or two or more chronic conditions (including substance abuse) and fewer than 120 days of long-term care use into a managed fee-for-service model. Beneficiaries’ care will be managed through health homes, which must establish a network that includes hospital systems, ambulatory care sites, community-based organizations, and managed care plans.

States also have more flexibility to implement the health home model, in which designated providers and teams of health professionals coordinate all aspects of patient care within their Medicaid programs. This model allows community health centers and other behavioral health entities to manage the entire continuum of care for enrollees, across a variety of provider types and settings.

As of this writing, 11 states have applied for enhanced federal matching funds for their health home programs. In their approved plans, Alabama, Idaho, Iowa, Maine, Missouri, New York, Ohio, Oregon, and Rhode Island specifically include beneficiaries with SMI and, in many cases those with co-occurring substance abuse and chronic condition diagnoses.

Although the ACA provides new authority and financial momentum to implement such models as accountable care organizations and health homes, current provider networks may not be equipped to work together to handle the needs of this complex population. Fortunately, examples of innovative models and programs that policymakers and providers can draw from to design their own programs are available. Comprehensive care models, such as the chronic care model, can improve outcomes for beneficiaries with SMI and other chronic conditions and may work within the accountable care organization and health home models. Existing chronic care model programs can provide strong clinical and policy frameworks for integration of multiple services (Woltmann et al., 2012). In addition, the Integrated Care Resource Center provides technical assistance and support for states developing programs to integrate medical, behavioral health, and long-term care for dual eligibles (Hamblin, Verdier, & Au, 2011).

In Pennsylvania, a unique Medicaid-led pilot program was devised to improve care integration for adults with SMI. Medical care was provided through risk-bearing managed care organizations and behavioral health care was offered through county-administered behavioral health managed care organizations. An independent evaluation of the pilot from 2009 through 2011 found a 12 percent decrease in SMI-related hospitalizations, a 10 percent decrease in all-cause readmissions, and a 9 percent decrease in emergency department use (Kim, Esposito, & Higgins, 2012). The successful Pennsylvania pilot led to the creation of UPMC Community Care, a Medicare Special Needs Plan jointly established by the University of Pittsburgh Medical Center and Community Care.
Behavioral Health. The plan targets Medicare-only and dual-eligible beneficiaries in specific geographic locations and is financed through a capitated model that includes a provision allowing participating providers and plans to retain savings derived from improved health outcomes among plan enrollees.

As the ACA is implemented, the momentum generated by the formation of accountable care organizations, the duals demonstration, and expansion of the health home model will generate many opportunities to improve care coordination for beneficiaries with SMI within the Medicare and Medicaid programs. However, to achieve success, other federal agencies serving older adults must also focus on these beneficiaries and their unique needs. Traditionally, the mental health system has operated independently, and a key challenge lies in its reintegration with Medicare, Medicaid, and other federal programs that support older Americans and individuals with disabilities. This effort would benefit from a cohesive federal effort but, as the true laboratories of policy, states can look to promising care models that have the potential to reduce health care costs, both to themselves and the federal government. At the provider level, the movement toward assuming risk for the quality and costs of care means that it is imperative to identify and coordinate care for key populations of heavy service users for whom new care coordination initiatives could have a high probability of success. Clearly, Americans with SMI, co-occurring chronic conditions, and SUD come with unique care management challenges, but they also represent a key opportunity to bend the overall health care cost curve.

*Sally Rodriguez, MPH, formerly an analyst for the U.S. Government Accountability Office, is a senior manager at Avalere Health, Washington, D.C.*

**Acknowledgment**

This study was funded in part by The SCAN Foundation.

**References**


The hazards of workforce projections and policy are magnified for the needs and specialty care of any subpopulation—hazards that seemed especially daunting as the Institute of Medicine (IOM) Committee on Mental Health Workforce for Geriatric Populations began its work in 2011. However, committee members and staff avoided many of these pitfalls in the report they generated (Institute of Medicine [IOM], 2012), taking a broad view of the workforce capacity required to serve future older adults with mental health and substance use (MH/SU) needs. The committee’s approach was a necessary compromise: Over the next decades, the distance between the projected MH/SU needs of older adults and the numbers of specialized professionals who might address them is so great that there is almost no way new policies could bridge the gap. But this approach also promises a more effective and less costly means to address an under-recognized source of health care costs and hardship.

The need for the services MH/SU personnel could provide is indeed very large. Chapter 2 of the committee’s report (IOM, 2012) reviews available statistics on the prevalence of MH/SU disorders in the older adult population. Of special note, several portions of the older adult population have never had adequate MH/SU specialty services, and their health situation promises to become more complex in coming years:

- Older adults receiving medical treatment for chronic disease often need but do not receive specialty treatment for MH/SU disorders as a comorbid condition.
- Older adults at risk for problem drinking are under-identified and undertreated in primary care, their main point of contact with the health system, and abuse of other drugs appears to be on the rise as the baby boomers age.
- Like other members of their generations, individuals with serious and persistent mental illness are living longer, and so will have MH/SU specialty needs along with the chronic conditions that accompany older ages.
- Older adults using long-term services and supports for functional disability—home-care recipients and nursing home residents—often experience MH/SU needs, especially undiagnosed depression.
- Rural and other isolated older adults have especially poor access to MH/SU specialty services.

For all of these groups, unmet MH/SU needs have been shown to complicate the treatment of other conditions; for example, older adults with untreated depression are less likely to follow prescribed medication regimens for other health conditions, a factor associated with greater risk of hospitalization (Gehi, Haas, Pipkin, & Whooley, 2005; Jiang et al., 2001). As payers press for better management of chronic disease to contain health care costs, effective MH/SU treatment for older adults could help bend the cost curve.

Not surprisingly given the current level of unmet need, projections of the geriatric MH/SU specialty workforce reveal that there will not be enough professionals with geriatric MH/SU specialization to meet future needs. Psychiatrists are already in short supply, and psychiatry residents seldom choose to spend an extra year for a geriatric specialization when provision of psychiatric services for older adults can be less well compensated than treatment for children or younger adults. The same applies to nurses, who must spend additional time and tuition to gain psychiatric and geriatric certification, only to fill jobs in settings where pay is generally lower than what they could make without these credentials. Other professionals are
similarly hesitant to seek internship tracks and supervised work experience preparing them to treat older adults with MH/SU needs.

**Policies to Increase Supply of Geriatric MH/SU Personnel**

These and other barriers to recruitment into geriatric MH/SU specialty training can and should be changed. The IOM committee recommended continuing and expanding public funding for training slots and fellowships for students undertaking geriatric MH/SU specialization. Equally important is improving job prospects for graduates of these specialty programs: This field will neither recruit nor retain specialized professionals unless additional training pays off in better jobs. The shift toward parity of mental health insurance coverage with coverage for physical illness should improve relative payments and income for MH/SU specialists treating patients of all ages. More challenging are the negative stereotypes about aging and mental health held by some students who otherwise might consider specializing in either aging or MH/SU services; for some prospective trainees, geriatric MH/SU specialization carries a double stigma. Increased prestige could accompany increased compensation, but programs highlighting the personal rewards and satisfactions of these careers may also be advisable.

**Focus on Capacity for Geriatric MH/SU Services**

Nevertheless, it is unlikely that all these policies together could support sufficient inflow into the geriatric MH/SU specialty occupations. Instead, public policy should bolster the capacity to meet burgeoning need. A focus on capacity fits right in to current health services trends: Throughout the health care sector, providers are attempting to meet needs and demands more effectively at lower cost by using resources in innovative ways, and payment policies are emerging that support coordination and integration of services. The IOM committee recommendations entail

- increasing the capacity of all health personnel working with older adults to identify, refer, and in some cases treat MH/SU conditions;
- increasing the capacity of all specialty MH/SU personnel to work effectively with older adults; and
- increasing the capacity of the health care sector by developing innovative systems of care, combining resources in new ways to meet geriatric MH/SU needs.

Building the MH/SU capabilities of general health personnel working with older adults is one arm of this strategy. Both the education and the scope of practice of most health occupations are specified by state occupational licensing statutes and regulation. Once training is completed, personnel are able to provide services within their occupation's regulated scope of practice. A competency approach is more functional, stressing the knowledge, skills, and abilities (KSAs) a particular job requires and evaluating workers' possession of these KSAs, acquired both through training and on the job (Rothwell & Lindholm, 1999). Training for health occupations generally touches on the needs of special populations and covers areas across each occupation's scope of practice. However, the IOM committee's analysis of training requirements found few requirements for MH/SU training focused on care for older adults (IOM, 2012). Competencies to address MH/SU needs should be given more prominence in both initial training and continuing education for general health personnel working with older adults. Such personnel should be trained to recognize and respond appropriately, given occupational practice limits, to depression, anxiety, substance abuse, and other MH/SU conditions.

Direct care workers are a special target for such initiatives. Many older adults with depression and other treatable MH/SU conditions receive services for functional disabilities in nursing homes, other residential settings, and at home. Direct care workers, who provide the bulk of the hands-on care in these settings, usually receive minimal training and are not well compensated. But they are on the front line of care for these older adults, whose MH/SU needs may be deprioritized or ignored while more salient medical and functional needs are addressed. With care systems stretched to the limit, increasing MH/SU competencies of direct care workers could be an effective way to extend capacity to address some basic MH/SU needs.

Another potential way to expand workforce capacity for geriatric MH/SU treatment is to equip professionals already providing MH/SU care to the general population to serve older adults more effectively. Job-related training and certification could better prepare MH/SU personnel to understand the special issues of treating older adults. Personnel with MH/SU specializations should be expected to exhibit competencies for treating older adults, an important and underserved portion of the population with these conditions.

Why are geriatric MH/SU competencies underdeveloped and underused by the current elder-care workforce and general MH/SU providers? The need is certainly great enough, but health personnel are compensated based on demand for the services that their regulated scopes of practice enable them to provide. Many older adults who could benefit from MH/SU services do not seek them out, either in primary or specialty care, and services are poorly compensated when they are delivered. Thus, a policy agenda to invest in the geriatric MH/SU competencies of health personnel must attend to demand shortfalls while building capacity to supply these services.
Unmet MH/SU needs have been shown to complicate the treatment of other conditions.

Better preparation of nursing home and home health workers, for example, will not pay off unless providers receive a return for employing well-prepared personnel and for adopting innovative team or consultation approaches to use their skills for MH/SU needs. In addition, workers need a return on their own investment of time, energy, and other costs, so MH/SU preparation and certification should command higher pay. Support for effective training and certification in geriatric MH/SU expertise will yield little return unless personnel with these competencies are deployed, valued, and used in the provision of health services—in other words, expanded knowledge, skills, and abilities must be used and paid for in practice.

Focus on Innovations to Increase Capacity

Shortfalls in MH/SU services for the older adult population could be addressed by redeploying a specialty and nonspecialty workforce endowed with geriatric MH/SU competencies in new delivery models. Substitution among types of personnel in the general MH/SU arena has become commonplace: Driven by technological advances in the psychotropic pharmacopeia and the cost-containment mandates of managed care organizations, treatment of MH/SU conditions has increasingly been carried out in primary care or by nonphysician personnel, with varying degrees of oversight by psychiatrists or other physicians (Mojtabai & Olfson, 2008; Reif, Horgan, Torres, & Merrick, 2010). Because Medicare does not pay specialists to consult with and supervise other personnel, these models are difficult to transfer for the benefit of older adults.

Such innovations as co-location of specialty MH/SU services with primary care have been shown to increase older adults’ engagement in MH/SU treatment (Collins, Hewson, Munger, & Wade, 2010). Although primary care is already overburdened, investing in the MH/SU competencies of the primary care team and increasing MH/SU screening and treatment activities could meet patients needing such services where they already receive care. Payment policy must compensate providers for these integrated services, in the context of sustaining good geriatric primary care (Bachman, Pincus, Houtsinger, & Unutzer, 2006).

The IOM committee also identified delivery system innovations that may hold special promise for each of the target populations with the most substantial gaps in service. (Chapter 4 of the report offers a more complete discussion of the evidence base for these demonstrations and innovations.) However, as noted previously, preparing personnel for employment in even the most effective innovations will not be enough if the payment system does not support new ways of delivering care.

Older adults aging with severe and persistent mental illness have special health challenges: The usual multiple chronic conditions associated with older age are magnified by poor access to primary care (in part because of these patients’ reliance on MH/SU providers as their primary source of care) and side effects of psychiatric treatment. Known to have higher rates of diabetes, cardiovascular disease, and conditions associated with smoking, this population has high medical expenses; improving the management of all their chronic conditions could result in substantial reductions in hospitalization, as well as other savings. Co-location of primary care providers in mental health settings is an innovation designed to coordinate care.

The IOM committee highlighted several effective, evidence-based treatment innovations for this population. Several of these innovations embody the current watchwords of system change in general health care delivery: coordination and team-based care. One employs a community mental health nurse along with rehabilitation specialists to coordinate medical care and help keep clients in the community. Several meet clients where they live, training building superintendents and other community personnel to alert a care system when clients are having difficulty. A community-based innovation engages peer volunteers to work with clients themselves to promote wellness and recovery. All extend the capacity of the treatment and support system by leveraging competencies of professionals and enlisting new types of personnel.

Identifying and addressing alcohol misuse in brief interventions has been trialed for older adults in a program that builds on the success of the Screening, Brief Intervention, and Referral to Treatment (SBIRT) program, a model used for working-age adults. It is notable that the services of SBIRT counselors are eligible for payment by Medicare and Medicaid, in contrast to the situation for other evidence-based innovations that provide MH/SU services to older adults in novel ways. However, this model has not yet been widely disseminated.

Rural older adults, as well as others who experience difficulty leaving home for outpatient visits, could make use of telehealth innovations. In these approaches, nurses work with patients by telephone to monitor medication response and provide supportive counseling. Although such models hold
special promise for isolated older adults with MH/SU, they have not been tested with this age group.

Older home-care recipients are an especially vulnerable population, with multiple chronic medical and functional conditions, as well as difficulties in gaining access to ambulatory care. Home-care workers with MH/SU training have been able to identify and refer clients for further evaluation and services, as well as provide some services at home (Gellis & Bruce, 2010). More complete training for frontline home-care workers, coupled with payment that recognizes these increased competencies, could support further implementation.

With more than half of nursing home residents experiencing depression, the nursing home should be an especially apt setting for developing effective approaches to MH/SU care for older adults with multiple chronic conditions. Nursing homes use a psychiatric consultation model, but the IOM committee found limited evidence for its effectiveness. Current policy to reduce the use of psychotropic drugs to control resident behavior is generating innovations that train frontline nursing staff to use other therapeutic interventions (Centers for Medicare & Medicaid Services, 2012). Nursing home personnel with greater competence in MH/SU issues and resources to improve this dimension of care could better address the mental health needs of this population.

Policy Implications

The substantive chapters of the IOM (2012) report on the MH/SU workforce for older adults comprise a valuable resource for all interested in MH/SU needs, workforce, and services for older adults. Applying a capacity building approach to these background findings generated policy strategies for meeting the MH/SU needs of the growing older adult population. The IOM committee called for much-needed initiatives to recruit and train increased numbers of health workers to specialize in this important arena of practice, policies to deploy and maintain these workers in practice, and policies to monitor and plan for future need, demand, and supply of personnel. But beyond the expected appeal for more specialty personnel, the committee recommended expanding and enlisting the capacities of all health workers who provide care to older adults, developing their competence to identify, refer, and in some cases treat MH/SU conditions, as well as adapting the skills and knowledge of the general MH/SU workforce to serve older adults. Finally, to ensure that expanded capacities are engaged to meet needs, the committee also called on the agencies that set payment, eligibility for services, and quality standards to support innovative, evidence-based ways to supply MH/SU services to older adults. The imperatives of health care cost increases and growing unmet need demand no less.

Christine E. Bishop, PhD, is the 2012–2013 Health and Aging Policy Fellow, Atlantic Philanthropies, and Atran Professor of Labor Economics, Heller School for Social Policy and Management, Brandeis University. This article is based on the 2012 report of the Institute of Medicine Committee on the Mental Health Workforce for Geriatric Populations, of which she was a member, but the views are her own. See the original report online at http://www.iom.edu/Reports/2012/The-Mental-Health-and-Substance-Use-Workforce-for-Older-Adults.aspx, for more extensive detail and evidence supporting many of the points she makes in this article.

References


Antipsychotic Use in Individuals With Dementia: An Overview for Policymakers

Ryan M. Carnahan • Michael W. Kelly • Marianne Smith

Introduction

Antipsychotic medication use in individuals with dementia is a common practice that has been the subject of much attention and controversy. The Omnibus Reconciliation Act of 1987, which legislated nursing home reform, addressed risks and issues associated with physical and chemical restraints—particularly, excessive use of antipsychotic medications—among nursing home residents. Although these legislative restrictions initially resulted in reduced reliance on antipsychotic medications in long-term care settings, antipsychotic use rates have since increased to levels within the range of those observed prior to the Omnibus Reconciliation Act (Briesacher, Tjia, Field, Peterson, & Gurwitz, 2013).

Although medication interventions to treat problematic behaviors associated with dementia are routinely sought, no good alternatives to antipsychotics are currently available. Antipsychotic medications are considered the best option for managing psychosis or severe behavioral manifestations of dementia—and, in some cases, they are effective. However, ongoing concern that antipsychotics are used unnecessarily and excessively, as well as that they impose identified risks, calls for increased efforts to find alternative treatments.

The U.S. Food and Drug Administration (FDA) requires a black-box warning in antipsychotic labeling due to an increased risk of mortality for individuals with dementia. Clinical trials suggest that for every 100 individuals who receive an antipsychotic in a 10-week to 12-week trial, approximately one excess death is associated with exposure to the antipsychotic (Maglione et al., 2011). Other adverse events associated with antipsychotic use in older adults with dementia include sedation, movement disorders, cerebrovascular events (Maglione et al.), and fractures (Rigler et al., 2013). The risks of antipsychotics create an imperative to limit their use to treating selected symptoms that do not respond to other interventions. As outlined in the Centers for Medicare & Medicaid Services (2011) regulations, appropriate uses of antipsychotic medications involve treating unmanageable aggression, psychosis, or other symptoms that cause severe distress or threaten the safety of either the person with dementia or others.

Although these important criteria should dictate antipsychotic medication use in long-term care and other settings, increasing evidence suggests that a variety of factors influence their implementation in daily practice. The purpose of this article is to provide an overview of key issues relevant to policymakers related to antipsychotic medication use in individuals with dementia. This article also discusses factors that present important challenges or barriers to achieving optimal levels of antipsychotic use among older adults with dementia.

Background of Current Issues

At the request of Senator Chuck Grassley (R-IA), the Office of Inspector General of the U.S. Department of Health and Human Services conducted an evaluation of atypical antipsychotic use in nursing home residents from January 1, 2007, through June 30, 2007. Key findings of the 2011 report include that 14 percent of nursing home residents had a Medicare claim for an atypical antipsychotic (a total cost of $309 million), 83 percent of claims were for off-label conditions, and 88 percent of off-label prescribing was for people with dementia. Of the atypical antipsychotic prescriptions, 22 percent did not meet the Centers for Medicare & Medicaid Services (CMS) standards for appropriate use in nursing homes (Office of Inspector General, 2011). Notably, the largest number of claims were for quetiapine, which four randomized controlled trials have found to be ineffective for treatment of neuropsychiatric symptoms of dementia (Maglione et al., 2011). As a result of evidence suggesting overuse of antipsychotics, CMS implemented an initiative in 2012 to reduce antipsychotic use in nursing homes by 15 percent by the end of that year (Bonner, 2012).
safety issues, but evidence also supports the efficacy of several antipsychotics for individuals with dementia (Maglione et al., 2011). Those who respond positively to antipsychotics have a higher risk of relapse when antipsychotics are discontinued, suggesting that some individuals may benefit from longer-term treatment (Devanand et al., 2012).

Proponents of practice-improvement efforts believe that better evaluation and treatment of potential causes (e.g., pain or medical conditions), as well as use of behavioral or environmental management strategies (i.e., nonpharmacologic or nondrug interventions), can reduce unnecessary antipsychotic use. Another goal is to prevent the use of antipsychotics to sedate a person simply to make caregiving easier, when the intensity and type of behavioral symptoms do not actually justify antipsychotic use. However, few involved in dementia care believe that antipsychotics should never be used, despite their risks. The manifestations of dementia may create safety issues that compromise quality of life for people and their caregivers, and antipsychotics may help. The overarching aim is to ensure that nondrug care approaches and treatment options have been fully explored before resorting to antipsychotic medications.

Nonpharmacologic Management

Antipsychotic treatment is routinely focused on noncognitive symptoms of dementia, which are interchangeably called neuropsychiatric symptoms, behavioral and psychiatric symptoms, and problematic, disruptive, or challenging behaviors. Occurring in an estimated 90 percent of all people with dementia, behavioral and psychiatric symptoms range from being mild to severe in intensity, in frequency, and in causing distress to the individuals and those around them. Dementia-care principles aimed at enhancing function, stimulation and support. Common criticisms include the fact that few nondrug treatments have been evaluated using double-blind, randomized clinical trials. The small number of studies in each category, small sample sizes, inconsistent definitions of outcomes and terms (such as agitation), and other methodological variations among studies impede interpretation using systematic reviews and meta-analyses. Livingston, Johnston, Katona, Paton, and Lyketsos (2005) have concluded, however, that “lack of evidence of efficacy does not mean lack of efficacy” (p. 2017).

Building a stronger foundation of scientific evidence for nondrug interventions in dementia care relies on several factors. Foremost, increased funding for nondrug intervention research is needed to promote both the quality of studies and the growth of scientific evidence. Innovative, high-quality research designs and analytic methods are needed to evaluate the individualized, multimodal approaches that are increasingly recognized as being most successful in reducing and preventing problematic behaviors. Furthermore, the use of grading systems that assign the highest ratings to randomized, controlled trials should be thoughtfully applied when assessing behavioral interventions that may be better evaluated using alternative research designs. In short, nondrug interventions are essential components of dementia care that demand greater emphasis in research, as well as in both clinical practice and care settings.

Consent and Shared Decision Making for Antipsychotic Use

Appropriate prescribing is the most important means to reduce the risks associated with using antipsychotics in individuals with dementia. Another way to mitigate the medicolegal risk is to provide information on risks and benefits and seek written informed consent prior to treatment. All discussions of risk in this population are complicated by the impaired decision-making capacity of individuals with dementia. As with other care and treatment decisions, individuals with compromised decision-making capacity should be involved to the appropriate degree, and their advance directives should be followed. Guardians, medical-decision surrogates, or designated family members are often involved in care decisions and may provide informed consent for antipsychotic medication use. Furthermore, family members are also often directly involved in their relative’s care and can provide important information about the individual’s wishes (Recupero & Rainey, 2007). In most instances where impaired individuals do not have identified surrogates or relatives, health care providers will need to act as de facto decision makers and proceed in the best interests of the patient (American Medical Directors Association, 2003).
The Improving Dementia Care Treatment for Older Adults Act of 2012 was introduced in the U.S. Senate as an amendment to title XVIII (Medicare) of the Social Security Act. The amendment specifically addressed use of antipsychotics in skilled nursing facilities by implementing prescriber education programs, collecting information on the use of antipsychotics in these facilities, and requiring that informed consent is obtained before antipsychotics are prescribed. The amendment was referred to committee in the 112th Congress and has not yet been reintroduced.

Failure of the amendment provides an opportunity to reassess its aims and clarify important policy issues. Questions to resolve include the following: Should policies cover individuals outside of nursing facilities? Who should be responsible for explaining risk and obtaining consent? What is the expectation in case of emergency use? Might healthcare costs increase if these agents are unavailable and the alternative is hospitalization? How should individuals with dementia who lack family or appointed medical surrogates be protected? Until legislation is enacted, providers will need to continue to prescribe these medications by following state regulations and the rules of good clinical practice.

**CMS Antipsychotic Use Quality Measure**

CMS recently revised its nursing home quality measures, which assess rates of antipsychotic use among facility residents without specific diagnoses that justify antipsychotic use. The previous metric excluded individuals with specific disorders—including schizophrenia, Tourette’s syndrome, Huntington’s disease, bipolar disorder, hallucinations, and delusions—that are appropriately treated with antipsychotic medications (CMS, 2012). Two controversial aspects of the new quality measure relate to bipolar disorder and appropriate use of antipsychotics in people with dementia.

People with bipolar disorder are no longer excluded from the pool of residents used to calculate the quality measure, even though several antipsychotics have FDA-approved indications for treating this disorder (Maglione et al., 2011). Bipolar disorder was removed from the exclusion criteria because of evidence that a diagnosis could be recorded on Minimum Data Set (MDS) assessments (used to calculate the quality measure) in the absence of a provider diagnosis, thus introducing the opportunity to abuse the system. The cited justification for this change noted that 28 percent of residents were identified as having bipolar disorder on the MDS at some time after the admission assessment, suggesting a new diagnosis while in the nursing home. This finding raises important questions about diagnostic accuracy, because bipolar disorder rarely has a late-life onset. Although the change in the quality metric may reduce such inaccuracies, residents who have a legitimate diagnosis of bipolar disorder and are justifiably receiving an antipsychotic for that condition will be included in calculations estimating inappropriate use.

A related concern is that the quality measure gives no attention to whether the use of the antipsychotic is appropriate or inappropriate by CMS standards, based on the types and severity of symptoms that a resident with dementia has exhibited (CMS, 2013). The overarching concern about the inclusion of residents with bipolar disorder, as well as those with dementia symptoms appropriately treated with an antipsychotic, is that facilities who accept these residents will be punished with poor-quality metrics. Compassionate facilities that accept individuals with severe behavioral issues or specific mental disorders will receive lower quality ratings regarding antipsychotic use. Although potential inaccuracies in MDS documentation provide a sound rationale for revising the quality measure, unintended adverse consequences of these changes must be carefully monitored. Worst-case scenarios may include indefinite hospitalizations of people who benefit from antipsychotics because their admission to a nursing home would hurt quality metrics, or the closing of facilities that accept the most seriously ill and impaired residents due to adverse consequences of poor-quality metrics.

**Challenges With Implementation of Best Practices**

Reducing use of antipsychotic medications to treat problematic behaviors in dementia relies on improving daily care practices and adapting the physical and social environment to best accommodate individuals with dementia. In many long-term care settings, high staff turnover rates interfere with quality dementia care by contributing to staff shortages in general, shortage of staff with adequate training in dementia care, and inconsistent leadership to advance changes. Organizational culture is critically important to adopting routine use of nondrug approaches and interventions instead of seeking antipsychotic medications as the first-line intervention for problematic behaviors. Person-centered cultures that support providers of daily care in recognizing and addressing problematic behaviors are the gold standard for dementia care. Continued movement away from task-oriented and illness-oriented care environments—which often reflect a prescribing culture—is essential, but also difficult to achieve in the absence of strong and consistent leadership.

Another important consideration in reducing use of antipsychotic medications is the time needed to adequately assess individualized needs, taper medications, and evaluate outcomes. Abrupt changes in medications may pose unnecessary risks to patients with dementia and potentially burden health systems. Thoughtful assessment of the frequency, intensity, and level of distress or threat of a particular behavior is essential, followed by gradual dose reduction and systematic outcome assessments.

The CMS goal of reducing antipsychotic medication use in nursing homes by 15 percent in 8 months included an aggressive timeline for change. This type of change requires...
considerable coordination by leaders, buy-in from care providers and prescribers, education and resources to support optimal practices, and information sharing among all stakeholders. Even after the foundation is laid, implementing new practices takes time, as does careful tapering and discontinuation of antipsychotics in individual residents. Although the 15 percent goal has not been reached, reductions in antipsychotic use to date are encouraging.

**Conclusion**

Efforts to improve dementia care will not be successful overnight. Policymakers need to be cognizant of the complexity of the issue when developing policies meant to affect antipsychotic use. The idea that antipsychotics should never be used in individuals with dementia is unrealistic given current treatment options. Coordinated efforts to improve care for people with dementia should be applauded and continued, with the goal of creating enduring culture change that limits the unnecessary use of antipsychotics while recognizing that antipsychotics are sometimes appropriate for managing symptoms in individuals with dementia.

Ryan M. Carnahan, PharmD, MS, is a clinical associate professor of epidemiology at the University of Iowa College of Public Health. Michael W. Kelly, PharmD, MS, is a clinical professor of pharmacy practice and science, as well as associate dean for professional education at the University of Iowa College of Pharmacy. Marianne Smith, PhD, RN, is an associate professor of nursing at the University of Iowa College of Nursing.

**Acknowledgment**

This work was supported by the Agency for Healthcare Research and Quality (AHRQ), grant R18HS019355. The content is solely the responsibility of the authors and does not necessarily represent the views of AHRQ.

**References**


Because suicide rates are highest among men ages 65 and older, the prevention of suicide in later life is a central objective of this strategy (Conwell, Duberstein, & Caine, 2002; Conwell & Thompson, 2008; Kaplan, Huguet, McFarland, & Mandle, 2012). Older adults comprised 13.0 percent of the U.S. population but accounted for 15.6 percent of all suicides. There were 5,994 suicides among adults ages 65 and older in 2010, including 5,035 men and 959 women (Centers for Disease Control and Prevention, 2010). Moreover, as seen in Figure 1, suicide rates per 100,000 increased with age—from 22.4 percent for men ages 65 to 69 to 47.3 percent for men ages 85 and older, the highest rate for any age group (Crosby, Ortega, & Stevens, 2011). Across the age span, the male-to-female suicide death ratio is 4 to 1, but in older age it goes up to nearly 12 to 1 (Kaplan, Huguet, et al., 2012). One reason that the suicide rates are so much higher in later life is that the attempts are more lethal compared with those in younger adults. Older people, older White men in particular, more often commit suicide with self-inflicted gunshots. As such, although suicide ranks as the 12th leading cause of death among older adults, it is considered to be the leading cause of preventable death in this population (Kaplan, Adamek, & Johnson, 1994).

**Risk Factors**

Conwell and colleagues (2002) contended that later-life suicide is a complex behavior, driven by multiple determinants working both independently and in combination. The risks of committing suicide among older adults involve psychological,
Serious physical illness and associated functional impairment contributes to suicide in almost 70 percent of victims over 60 years of age.

According to the National Institute of Mental Health (2003), psychiatric disorders are present in up to 90 percent of all elder suicides, with affective disorder as the most common psychopathology. For elders, the rates of depression are higher relative to younger suicides and the type of depression found in the majority of elder suicides is usually a first episode uncomplicated by psychoses or other comorbid psychiatric disorders—the most treatable type of late-life depression (Pearson & Brown, 2000). Alcohol and other substance use disorders are present in a smaller proportion of completed elder suicides, followed by schizophrenia and anxiety disorders (Conwell et al., 1996; Hooper et al., 2012).

Elder suicides also have been associated with distinct personality traits, including higher levels of neuroticism and lower levels of openness to experience (Conwell et al., 1996). Kaplan, Adamek, and Rhoades (1998) added that elder suicide has been associated with conflicts and stress in interpersonal relationships. Another psychological risk factor that may contribute to suicide behavior in older adults is hopelessness—a set of negative and a lack of positive beliefs about the future (Pearson & Brown, 2000).

Furthermore, older suicide victims are more likely than younger suicide decedents to experience a physical illness (Conwell et al., 1996). Although elder suicides have not been clearly linked with one type of disease or another (e.g., suicide rates among older individuals with cancer are not statistically different from rates for those with heart disease), the presence of any type of serious physical illness and associated functional impairment contributes to suicide in almost 70 percent of victims over 60 years of age. Some associations have been made between elder suicide and neuronal changes, such as reduced serotonergic system binding and increased neurofibrillary pathology (Mann, 1998; Rubio et al., 2001).

Following on this line of thinking, Luscomb, Clum, and Patsiokas (1980) and Conwell and colleagues (2002) have suggested that stressful life events cluster in the weeks and months before suicide attempts in elders, and that physical functioning and other losses are the most common stressors in older adults who end their own lives. Family discord, isolation, bereavement, and widowhood have been associated with elder suicide as well (Turvey et al., 2002).

All told, older adults in general (and those at risk for suicide in particular) tend to be less healthy, and the association between physical illnesses and suicide in later life could be partly moderated by depression (physical illness can cause depression, and depression increases risk for suicide). In addition, older adults who commit suicide are less likely to verbalize their intent and are more likely to live alone and, therefore, are less likely to be found in sufficient time to be rescued. In contrast to older adults, younger suicide decedents tend to experience more financial issues and problems with intimate partners (Kaplan, McFarland, Huguet, & Valenstein, 2012).

**Firearms and Elder Suicide**

Having documented the importance of these individual-level psychological, physical, and social risk factors, we now turn our attention to the role of firearms. The method used most frequently among elder suicides involves firearms—usually handguns—and, of all methods of suicide, those involving firearms are most likely to result in death (Kaplan et al., 1994; Kaplan, Adamek, Geling, & Calderon, 1997; Miller, Azrael, & Barber, 2012). Conwell and colleagues (2002) reported that more than 70 percent of elders who committed suicide used guns.

In 2012, Kaplan, Huguet, and colleagues conducted a comprehensive examination of risk factors and precipitating circumstances associated with the choice of firearms as a suicide method among men ages 65 years and older. They found that between 2003 and 2007, nearly 80 percent of 4,338 older male suicide decedents used firearms, and these men were mostly White (95.8%), married (52.3%), and from Southern states (60.1%).

The researchers reported that physical illness was one of the more salient precipitants of late-life suicide involving firearms (Kaplan, Huguet, et al., 2012). They also found that only half of the individuals presented depressive symptomatology. Contrary to existing literature that places the depression rate as high as 90 percent, their findings suggest that depression among older adults, by itself, does not lead to suicides as much as it may have a moderating
effect, adding to the despair brought on by physical ailment, disease, and disability.

Their findings also confirmed that the decision to commit suicide resulted from a complex interaction of these individual characteristics and contextual factors. In particular, Kaplan, Huguet, and colleagues (2012) determined that one of the most salient predictors was firearm availability. Their analysis showed that the risk of suicide by firearms varies significantly by gun ownership, geographic region, and level of rurality, and the likelihood of using a firearm is highly correlated with the prevalence of guns. In short, the prevalence of gun ownership and access to guns appears to play a role in fashioning geographic differentials in firearm-related suicide mortality. For example, after adjusting for age, marital status, education, and metropolitan status, data show that living in the east south central and west south central divisions (the so-called Deep South) of the United States seems to exert a strong influence on the likelihood of using firearms to commit suicide (Kaplan & Geling, 1990).

Relative to other fixed factors (e.g., age or gender) not responsive to policy or programmatic efforts aimed at reducing suicide risk, increasing evidence shows that gun control laws reduce the overall suicide rate (Clarke & Lester, 1989; Miller et al., 2012). Clark (1992) went as far as to suggest that homicide and suicide rates in the United States might be expected to drop as much as 25 percent if gun control legislation was enacted. For example, Ludwig and Cook (2000) examined whether implementation of the Brady Handgun Violence Prevention Act in 1994 was associated with changes in firearm-specific homicide and suicide rates in the general adult and older populations in the United States. In particular, the Brady Act required that licensed firearm dealers observe a waiting period and initiate a background check before selling a handgun.

States that already had this legislation constituted the control group, whereas states newly instituting the legislation served as the experimental condition. Changes in rates of homicide and suicide in experimental and control states were not significantly different, except for firearm suicides among people age 55 years or older, which showed a significant reduction in the intervention states. Consistent with the observation that older male suicides were more likely than controls to have purchased the gun used to kill themselves in the week preceding death, the effect of the Brady legislation was much stronger in states that had instituted waiting periods and background checks than in states that had changed only background check requirements (Ludwig & Cook, 2000). In the United States, where older men are at far higher risk than other groups and more than 75 percent of suicide decedents die of self-inflicted gunshot wounds, these findings are particularly notable.

Arguably, strategies aimed at reducing suicide through firearm policy must start with firearm availability and access. Moreover, given regional differences in such policies, efforts should account for local norms, values, expectations, and coping strategies (Corin, 1994). Any efforts to change public perception of firearms and their utility through educational campaigns (Karlson & Hargarten, 1997) will require serious consideration of the cultural processes that have historically undermined public health campaigns aimed at reducing firearm-related injury and deaths. In some respects, these efforts cannot begin soon enough. Mertens and Sorenson (2012) documented recent efforts by gun manufacturers to develop firearms specifically for older adults, such as a handgun with a squeeze-ball trigger that is arguably easier to use for someone with severe arthritis or another physical malady.

The Role of Primary Care Physicians

Given that more than 70 percent of older suicides visited their primary care physician within a month of their suicide and a third within a week, primary care physicians play a crucial role in suicide assessment and prevention (Hooper et al., 2012; Kaplan, McFarland, et al., 2012; National Institute of Mental Health [NIMH], 2003). Moreover, in contrast to younger adults, of whom 25 percent to 30 percent were under the care of a mental health professional at the time of their death, virtually none of these elderly patients had sought mental health services.

Several reasons may explain the failure to recognize and adequately treat older adults at risk for suicide who present in a primary care setting. On one hand, older patients may not provide accurate or genuine information about their affective state and thoughts, intentions, and deliberate plans to commit suicide. Even when asked about how they feel, older depressed adults, especially men, are less likely to report feeling down or to endorse depressive symptoms and suicidal ideology (Allen-Burge, Storandt, Kinscherf, & Rubin, 1994; Gallo, Anthony, & Muthén, 1994).

On the other hand, primary care physicians tend to spend less time with older patients than they do with younger patients, and they are more likely to focus on physical problems to the exclusion of psychological comorbidity (German, Shapiro, & Skinner, 1985; Keeler, Solomon, Beck, Mendenhall, & Kane, 1982). Curiously, despite being the most sought after health care providers among all individuals with depression in the United States, primary care doctors typically neither recognize nor adequately treat depression among any age group (Sturm & Wells, 1995). In fact, some physicians avoid diagnosing a mood disorder, even when recognized, both to avoid stigmatizing the patient and to avoid reimbursement problems (Rost, Smith, Matthews, & Guise, 1994). Physicians also may have a more difficult time detecting affective syndromes in older adults because these syndromes may be milder and further complicated by comorbid medical illnesses and prescription medications. Still, even if primary
Primary care physicians are more likely to focus on physical problems to the exclusion of psychological comorbidity.

care providers recognize psychiatric symptoms and suicidal ideation, treatment most likely will be inappropriate or inadequate (Kaplan, McFarland, et al., 2012).

In an effort to illuminate physician practices concerning suicide detection and assessment, Kaplan and colleagues (1998) reported that a sizeable proportion (42%) of primary care physicians never even asked depressed patients or their family members whether they had access to a firearm—although they found that physicians were more likely to ask about medication misuse among older depressed and suicidal patients. Those physicians who actively assessed firearm availability were more likely to have completed training in suicide risk assessment, to have obtained expertise in geriatric mental health, and to display higher confidence in diagnosing depression (Kaplan et al., 1998).

Although all physicians are in a unique position to help prevent elder suicide, those who recognize the “risks, predisposition, clues, and signs of imminent suicide” (Frierson, 1991, as cited in Kaplan et al., 1998, p. 63) are the most effective.

In another study, Hooper and colleagues (2012) found that only 36 percent of the physician sample was capable of conducting a suicide risk assessment when treating a patient presenting with major depression. Vannoy, Tai-Seale, Duberstein, Eaton, and Cook (2011) added that suicide-related communications among primary care physicians were inadequate, observing how physicians consistently missed opportunities to provide therapeutic empathy or follow an established best-practice protocol even when suicidal ideation was evident.

To the extent that suicide prevention relies on timely and effective detection and treatment of mental disorders, preventive interventions must be targeted at identifying and evaluating patients’ suicidal thoughts and possession of firearms. Given that a large proportion of the population at risk is seen in these settings, primary care is the most obvious venue to develop and implement preventive interventions. As such, primary care physicians ought to be aware of and use published depression guidelines for patient care. Primary care clinics also should consider using a screening instrument for depression and suicide assessment with all patients, especially older adults and other patients with comorbid medical conditions. Along these lines, primary care clinics should consider integrating behavioral health care providers (e.g., clinical psychologists, clinical mental health counselors, social workers, psychiatric nurses) into their practices.

This sort of integrated model of care has been shown to reduce suicidal ideation among older patients and prevent acts of suicide. In particular, the Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT) compared usual care by primary care providers with algorithm-driven antidepressant treatment; interpersonal psychotherapy when indicated; physician, patient, and family education about the illness; and care management by a depression specialist (e.g., a social worker, nurse, or psychologist). In a sample of 598 subjects older than 60 years who had depression, Bruce and colleagues (2004) found that rates of suicidal ideation declined significantly faster in the intervention than in the comparison condition—from 29.4 percent to 16.5 percent (a 12.9% decline) in the intervention group compared with 20.1 percent to 17.1 percent (a 3.0% decline) in usual care ($p = .01$).

**Discussion**

Although expanding models in which primary care physicians work with other providers to help identify older adults at risk for suicide seems like a reasonable alternative, the dissemination of this sort of programmatic effort is likely to face considerable challenges. Efforts to expand such empirically based programs often fall short because organizational and contextual factors that were not as relevant in the more controlled settings in which the ideas were originally developed and tested become salient as these efforts move toward widespread translation (Kimberly & Cook, 2008). In this case, health care system administrators may not place a priority on training physicians and other staff to address a comparatively low-incident event, and local cultures in which many of these health care providers are embedded may not support any programmatic effort that could easily be construed either as gun control in particular or as a public infringement on the provider-patient relationship more generally.

In fact, evidence of the latter is compelling. The Law Center to Prevent Gun Violence (2013) reported that as many as seven state legislatures recently have considered legislation that would prohibit doctors from asking patients about gun ownership, including when such queries might be relevant to a patient’s medical care or safety. Although none of these bills have been enacted, they demonstrate the sort of chilling effect that a larger interest may exert on the discrete act of a physician seeking to help an older adult at risk for suicide. This effect
settings and specifically calling on physicians to consider support efforts to address elder suicide within primary care provider constituency highlighting the need to found no definitive proclamation from any professional associations already have endorsed this act, we risk for suicide, such as older adults. Curiously, although strategies for all ages—particularly among groups at high suicide prevention, surveillance, and intervention center, as well as provide information and training for would establish a suicide prevention technical assistance Awareness and Improvement Act of 2013. This federal act Alexander introduced the bipartisan Mental Health Care Act (2010) includes language that prohibits insurers, employers, and the U.S. Department of Health and Human Services (HHS) from asking about gun ownership in many instances, and it prohibits HHS from collecting such data. The American Bar Association (2012) recently has taken a position against such medical gag laws and passed the following resolution:

For medical practitioners to meet their preventive care and safety counseling responsibilities, they must be able to discuss a broad range of topics with their patients related to known risk factors. This unfettered access allows doctors to adequately assess and address these factors with their patients. Risk factors that may be discussed vary depending on the age of the patient, but for adults often include alcohol consumption, illicit drug use, smoking, diet, and exercise; pediatricians often discuss wearing seat belts and bicycle helmets, the potential dangers of backyard swimming pools, and the need to securely store household cleaners and toxins. Firearms in the home are another known risk factor that doctors may choose to discuss with their patients or the parents of young patients. (p. 10)

In April 2013, Senators Tom Harkin and Lamar Alexander introduced the bipartisan Mental Health Awareness and Improvement Act of 2013. This federal act would establish a suicide prevention technical assistance center, as well as provide information and training for suicide prevention, surveillance, and intervention strategies for all ages—particularly among groups at high risk for suicide, such as older adults. Curiously, although many associations already have endorsed this act, we found no definitive proclamation from any professional health provider constituency highlighting the need to support efforts to address elder suicide within primary care settings and specifically calling on physicians to consider the associations between older age, physical health, feeling down, thinking about suicide, and owning a gun. These issues will only become more urgent with the sharp increase of the 65-plus population in the United States in coming years.

Mark S. Kaplan, DrPH, is a professor of community health, College of Urban & Public Affairs, School of Community Health, Portland State University. William Coryell, MD, is a professor of psychiatry, Carver College of Medicine, University of Iowa.

Acknowledgment

We thank Dr. Nathalie Huguet for her assistance in the preparation of this article.

References


Suicide in Later Life: The Role of Risk Factors, Firearm Policy, and Primary Care Physicians


must apply the PASRR process to all new admissions and residents regardless of age or payer source. The first step, called a level I screen, involves a basic psychiatric screening to identify people who may have mental illness, mental retardation, or both. In addition, the screen is expected to identify functional limitations. The level I screen must be conducted within 30 days of a new admission or in response to a significant change in a current resident’s clinical status. However, individuals who have a primary diagnosis of Alzheimer’s disease, delirium, or a related neurocognitive disorder; people admitted directly from a hospital for post-acute care; or individuals who are likely to require less than 30 days of nursing facility care, including admissions related to emergencies or respite, are exempt from the screening services (Nursing Home Reform Act, 1987; PASRR Technical Assistance Center, 2010).

The second step of the PASRR process, referred to as a level II evaluation, is designed to confirm or reject a positive level I screen. When an evaluation confirms a serious psychiatric condition and major functional limitation, the evaluator details the need for specialized services and less intensive nursing facility services, and provides a description of the supports needed for the patient to return to a less restrictive setting. The PASRR evaluation is sent to the state authority and then used by the nursing facility to develop an individual treatment plan. The treatment plan is executed in one of three ways. If the nursing facility can provide specialized and less intensive therapeutic services, the patient remains a resident at the facility. If the person continues to require medical and psychiatric care but the facility cannot provide specialized services, then the patient must be diverted to another facility. If a person no longer warrants nursing care but still needs psychiatric care, the person should be discharged to the most appropriate, least restrictive setting available to receive specialized and other less intensive services (Nursing Home Reform Act 1987, PASRR Technical Assistance Center, 2010).

Specialized services refer to a level of care necessary to treat an acute phase of a psychiatric condition (Kentucky State Mental Health/Mental Retardation Services, 2004; North Carolina Department of Health & Human Services, 2005). Specialized services must be provided by a licensed or certified practitioner and must lead to demonstrable improvements in the resident’s psychiatric status (Molinari et al., 2010). Specialized services consist of activities and therapies typically provided in an inpatient psychiatric setting, such as psychological testing, individual or group psychotherapy, and medication management. Less intensive services typically include activity therapy and supportive counseling. Each state is charged with approving the menu of specialized services that can be included in an individual’s plan of care as developed by the nursing facility (Linkins, Lucca, Housman, & Smith, 2006a).

Administratively, designated state mental health and state mental retardation authorities are responsible for ensuring that PASRR screens and evaluations are conducted in accordance with federal regulations (Kentucky State Mental Health/Mental Retardation Services, 2004; Timmel, 2005). These state authorities can either implement the two-step PASRR process directly or contract with an independent organization and monitor its efforts. The designated state Medicaid agency is responsible for ensuring that state mental health and state mental retardation authorities fulfill the statutory responsibilities. All of the state agencies and individual nursing facilities are subject to audits and compliance reviews by another designated state authority, such as an inspector general. Failure of any these agencies to uphold their responsibilities could lead to actions as specified under section 1904 of the NHRA.

Has PASRR Been Effective?

In 2006, Linkins and colleagues found that PASRR increased the identification (and diversion) of nursing facility residents with psychiatric conditions and that level II evaluations often validated positive level I screens. Yet, they also reported that psychiatric medication therapy remained the primary form of specialized psychiatric treatment, with few efforts to provide nonpharmacological specialized services counseling (Linkins, Lucca, Housman, & Smith, 2006b). Li (2010) echoed these findings and concluded that the overall availability of nonpharmacological specialized and less intensive services had not improved since the enactment of the NHRA in 1987; the lack of specialized services was most problematic in small and rural facilities.

Upon request, the Division of Mental Health and Disability Services of the Iowa Department of Human Services provided Disability Rights Iowa with information about the screenings and evaluations that the state’s PASRR contracting agency had completed during the past 2 fiscal years. Disability Rights Iowa estimated that from July to December 2012, the contractor initiated slightly more than 11,000 Web-based level I screens and exempted slightly more than 6,400 from further review. Among the individuals who did complete a level I screen during this period, nearly 13 percent were referred for a level II evaluation (Ascend Management Innovations, 2012b).

Among those completing the level II evaluation, 52 percent were approved to receive specialized services. The most common recommendation was having a psychiatrist review the prescription medication protocol. Individual therapy was recommended in 24 percent of these cases, psychological testing was recommended in 9 percent of the cases, and group therapy was recommended in 4 percent of the cases. Less intensive specialized services were recommended more frequently. The most common specialized services recommended, for more than 9 out of 10 residents, was supportive counseling with staff (i.e.,
talking with nonqualified mental health providers). Ongoing psychiatric prescription review was recommended for slightly more than half of the residents, as was participation in social and recreational activities. Interestingly, efforts to prepare a return to the community were recommended for less than 25 percent of the residents (Ascend Management Innovations, 2012a). It was not apparent why many residents with psychiatric conditions did not receive a recommendation for specialized services and why they were not encouraged to return to the community. It also was not apparent if any state authority approved separate payment for specialized services or monitored patient outcomes.

In an effort to better understand why PASRR appears to have fallen short in linking individuals with psychiatric needs to nonpharmacological specialized services, Disability Rights Iowa conducted in-depth interviews with designated PASRR staff from a representative sample of 30 nursing facilities located across central Iowa. When asked about the provision of nonpharmacological specialized services, 23 of the coordinators indicated that residents with a specialized service need participated in group therapy and 14 respondents reported that residents received individual counseling—although the majority of PASRR staff indicated that these services were not provided by a licensed behavioral health provider, and thus, do not actually qualify as specialized services. Fifteen of the staff indicated that their facility contracted with a consulting behavioral health firm to provide specialized services, but they did not keep track of what these entailed.

**Back to the Future?**

Prescription medication therapy has remained the de facto form of specialized service delivery for nursing facility residents with mental illness, same as it ever was. Molinari and colleagues (2010, 2011) determined that as many as 85 percent of newly admitted nursing home residents were placed on some psychoactive medication within 3 months of their admission and, alarmingly, most of these residents had neither a diagnosed psychiatric condition nor any other evidence of psychiatric history. They also discovered that as many as 15 percent of the nursing home residents included in their sample were taking four or more psychoactive medications. In Iowa, the designated PASRR staff confirmed that medications were the most common specialized services being delivered to people with psychiatric conditions, and 29 of the 30 respondents reported that psychiatric medications were being prescribed to residents who did not even complete the PASRR level I screen or level II evaluation.

In response to the growing concern about the use of antipsychotics, the Department of Health and Human Services, Office of Inspector General (2011), issued a report documenting that nearly 90 percent of all atypical antipsychotic drug prescriptions being issued to nursing facility residents violated one or more federal laws. In November 2011, the Senate Special Committee on Aging held a hearing that highlighted the long-term nature of this problem (Overprescribed, 2011).

**Staff Engagement and Oversight**

In Iowa, only 24 of the 30 interviewees reported that they and other nursing facility staff who monitor the PASRR process had completed PASRR-specific training in the past 2 years. Interestingly, correlations among those completing PASRR training and their familiarity with the PASRR process in Iowa were modest. Although 25 of the 30 PASRR staff knew that a positive level I PASRR screen triggers a level II PASRR evaluation, only 17 were familiar with the online level I screening process that the state contractor used. Some PASRR staff reported that their facility had never completed a level II evaluation nor ever met anyone representing the contracting agency. In regard to resident reviews, 14 of the PASRR staff indicated that they evaluated residents’ status on a quarterly basis; another 9 said they conducted a review only if a resident had what they called a significant change in condition. The MDS 3.0 and the Brief Interview for Mental Status portion of the MDS 3.0 were the most common methods used to assess residents’ status.

Perhaps more problematic, the interviewees revealed that they were not using or sharing the information gathered during the screening and assessment process. Twelve of the PASRR staff reported that level I information was filed only in residents’ medical charts, and only 7 mentioned distributing this information to other nursing facility staff. Ten respondents stated that the screening information was not useful at all. When asked how their facilities use the level II assessment, only 12 respondents reported using the information to develop a plan of care involving the provision of specialized services to older patients. This pervasive lack of information sharing with residents and with the nursing facility treatment team seems at odds with the NHRA requirement that PASRR assessments be coordinated to the maximum extent practicable (Omnibus Budget Reconciliation Act of 1987).

**Current Condition of Nursing Facility Residents**

The IOM (2012) reported that 57 percent of nursing facility residents over age 65 (675,622 people) had at least one psychiatric condition. Depression was most common, followed by anxiety, schizophrenia, and bipolar disorders. Although PASRR does not explicitly apply to the estimated 60 percent of nursing facility residents with a primary diagnosis of dementia or neurocognitive impairment (because they were not defined as psychiatric conditions in the NHRA), the IOM (2012) nevertheless reported that 28 percent of nursing facility residents had identified behavioral problems, many of which could be tied to...
dementia and decreased cognitive functioning and many of which could be treated effectively with specialized services. Moreover, these prevalence rates have steadily increased over the last 10 years and, compared with those who are admitted without a psychiatric condition, individuals with psychiatric conditions now are more likely to become nursing facility long-stay residents (IOM, 2012). These data stand in contrast to the number of nursing facility residents who are being identified as having a psychiatric need by the PASRR process.

Knight, Kaskie, Shurgot, and Dave (2006) added that, altogether, less than 6 percent of older adult nursing facility residents with a diagnosable psychiatric condition received specialized services from a qualified Medicare provider, and the provision of specialty care has been curtailed further since 1998, when Medicare implemented the nursing home prospective payment system. In short, despite the fact that the population of nursing facility residents with psychiatric conditions has grown and will continue to increase in the next decade, a sufficient amount of evidence shows that PASRR has not met its objective of offering nonpharmacological specialized services as an alternative to medication therapy.

At this point, as we look to discuss what lies ahead for PASRR, we are disarmed by the notion that we have yet to consider one of the other most common places for providing long-term residential care to older adults with psychiatric conditions: assisted living facilities. The IOM (2012) reported a total of more than 30,000 assisted living facilities in the United States, with a resident population of nearly 650,000 over the age of 65. More pertinent here, the IOM indicated that up to 30 percent of these residents had depression, anxiety, or some other serious psychiatric disorder. In addition, nearly 60 percent of assisted living residents have dementia, and many of these exhibit treatable affective and behavioral symptoms. No federal or state laws require assisted living facilities to identify, treat, or refer residents with psychiatric conditions. In other words, PASRR stops with nursing facilities.

Discussion

To be sure, PASRR has corresponded with a number of positive impacts on the provision of care to older nursing facility residents with psychiatric conditions. PASRR has increased awareness about psychiatric conditions among older adults and has slowed the admission of people with psychiatric needs into nursing facilities that cannot care for these needs. Although not addressed in this report, the PASRR process also has improved the identification and evaluation of people under 65 with psychiatric conditions and developmental disabilities. Indeed, the PASRR process seems to have reduced the number of facilities that serve as a warehouse for older individuals with psychiatric conditions (Linkins et al., 2006b; Timmel, 2005).

Moreover, the Centers for Medicare & Medicaid Services (CMS) has diligently pursued corrective measures in response to investigative reports and research studies (PASRR Technical Assistance Center, 2010; Timmel, 2005). Since 2007, CMS has increased efforts to recoup payments from noncompliant nursing facilities; CMS (2011) has also created quality indicators focusing on behavioral health and psychiatric issues that have been incorporated into the MDS. Community placement is being taken more seriously in light of the Supreme Court’s 1999 Olmstead decision; consequently, the national PASRR Technical Assistance Center was created, along with a professional organization of PASRR professionals. Like Iowa, states that previously made little effort are now engaged in administering the PASRR process, and clinical researchers are increasingly working to create evidence-based, nonspecialized service approaches tailored to residential environments (IOM, 2012; Molinari et al., 2013).

Nevertheless, given the continued (over)reliance on medications, the failure to expand nonpsychopharmacological treatment approaches, and the increasing amount of long-term residency among older adults with psychiatric conditions, nursing facilities have started to look more and more like the residential psychiatric hospitals of the past—except they are arguably providing less in the way of psychiatric care. Furthermore, with the imminent entry of more than 75 million baby boomers into a national long-term care system that does little in the way of protecting (or discharging) individuals with psychiatric conditions who reside in nursing facilities, it seems about time for the 25-year-old PASRR program to grow up.

The list of what could be done to improve PASRR is long and well rehearsed (Bazelon Center, 2012). Exemptions from screening hospital transfers need to be examined more closely. Exceptions in providing care for affective

Prescription medication therapy has remained the de facto form of specialized service delivery for nursing facility residents with mental illness.
Health services researchers have yet to establish the value of widespread implementation of nonspecialized services relative to other approaches.

lack of dedicated financing and workforce supply for the provision of specialized services within nursing facilities (IOM, 2012).

On the other hand, efforts to improve the process will necessitate increased oversight from state authorities that are charged with upholding and enforcing the federal PASRR standards. However, we remain circumspect, because previous calls for such increased oversight have largely fallen on deaf ears in state legislatures and in governors’ offices. Boemhke (2008) reported that a state’s oversight and enforcement depends on a number of variables, among which the level of contributions that professional organizations representing nursing facilities provide to state legislators and governors is quite significant. Arguably, as long as nursing facility leadership define any efforts related to PASRR in terms of increased cost or reduced profit margins, any state that moves to set up and implement an oversight and improvement process is more likely to be held in check by campaign contributions from the nursing-facility industry itself. More consistent and fair oversight processes cannot occur until oversight for the survey process is moved from the state to the federal level where, as Boemhke suggested, it is more costly and less attractive for nursing-facility lobbyists to influence members of Congress.

**Concluding Remarks**

Taking care of nursing facility residents with psychiatric conditions continues to be a daunting task. These individuals often present complex clinical care needs, facilities remain challenged to provide care that is both profitable and evidence based, and state authorities often lack the resources and political will needed to advance improvements. Although several solutions have been proposed to address this public-health-policy problem, there remains a need for researchers to establish the comparative effectiveness of different treatment approaches and place value on individual patient outcomes relative to the corresponding payments needed to achieve them. Meanwhile, we wonder if any public authority can assume the responsibility of parenting a policy program that has not yet reached maturity.
Jane Hudson, JD, is executive director of Disability Rights Iowa; Lauren Erickson, MPH, graduated from the University of Iowa College of Public Health; Scott Lyon, JD, is a staff attorney for Disability Rights Iowa; Jayna Grauerholz, JD, is a staff attorney for Disability Rights Iowa; Jean Herrity is a paralegal for Disability Rights Iowa.

References


form of specialized treatment, and relatively few efforts have been made to provide nonpharmacological services. An estimated 85 percent of newly admitted nursing home residents, most of these with no diagnosed condition, are placed on some kind of psychoactive medication within 3 months of admission. Remarkably, an investigation by the Department of Health and Human Services Inspector General found that nearly 90 percent of all atypical antipsychotic drug prescriptions violated one or more federal laws. The authors recommend closer monitoring of drug usage and development of a more robust workforce for nonpharmacological interventions. Yet, the overall tone of this analysis is markedly pessimistic; the authors note that they have not even touched on assisted living facilities, where less regulation and an increasingly frail population raise numerous concerns. As for nursing facilities, the authors view them as coming to resemble the residential psychiatric hospitals of yore—except that they are not providing much in the way of psychiatric care.

Sally Rodriguez focuses on the presence and care of Medicare enrollees with severe mental illness. Because these individuals use more care than others, the fragmented system of addressing primary, acute, chronic, and behavioral health care needs to be better integrated in order to get a handle on cost escalation and suboptimal patient care in the Medicare program. The author holds out modest hope that the states acting as laboratories—and several have undertaken service-system delivery innovations—might provide a path forward. However, the historically separate operation of mental and physical health systems represents a longstanding barrier.

An ongoing issue in the geriatric mental health field has been a shortage of trained professionals, paraprofessionals, and direct care workers. As Christine Bishop points out in her article, numerous recommendations for remedying this situation have been forthcoming in recent years, most of which have missed the mark. Bishop focuses on the 2012 report of the Institute of Medicine Committee on Mental Health Workforce for Geriatric Populations, the latest attempt to address both the shortage in numbers and the adequacy of those individuals’ preparation for practice. Arguing that the U.S. political and health care system will never be able to produce an adequate number of health care personnel directed to geriatric mental health care, Bishop notes the committee’s recommendation that policymakers take a broad view of workforce capacity. In particular, she stresses that increasing capacity of all health personnel working with older adults to identify, refer, and, in some cases, treat those older adults presenting with mental health and substance abuse issues; increasing the capacity of providers working with the broader population to better address older adult issues; and developing innovative systems of care would all be beneficial. Specialty care is all to the good, but a more realistic approach is to enlist the capacity of all health care workers toward better addressing the needs of this especially vulnerable population.

Ryan Carnahan and colleagues explore the challenges associated with the use of antipsychotic drugs in individuals with dementia. Although these drugs are appropriate in some situations (“treating unmanageable aggression, psychosis, or other symptoms that cause severe distress or threaten the safety of either the person with dementia or others”), usage is back nearly to pre-OBRA levels and, the authors argue, no good alternatives are currently available. The authors call for better (nonpharmacological) environmental management strategies and new research employing high-quality designs to move the field forward. Understanding that good data on the efficacy of nonpharmacological interventions are not available, they nonetheless cite Livingston and colleagues to the effect that “lack of evidence of efficacy does not mean lack of efficacy.”

A final contribution addresses the underreported and much-misunderstood phenomenon of suicide among older adults, in particular suicide associated with firearms. As a question of public health, the suicide rate is higher among the older population than the younger, an estimated 90 percent of older adults who commit suicide have psychological disorders, and serious physical illness plays a role in some 70 percent of elder suicides. Having briefly reviewed those sad realities, Mark Kaplan and William Coryell turn to the alarming role of guns in suicide cases. Noting that the decision to commit suicide results from a complex interaction of individual and contextual factors, the authors cite another study by Kaplan demonstrating that one of the most salient predictors of suicidal behavior is firearm availability, a finding indirectly corroborated by self-inflicted gunshot deaths occurring disproportionately among older, married White men from the Deep South. The authors go on to cite studies indicating that gun control laws do reduce the overall suicide rate, with one analyst suggesting that such laws might reduce the rate by as much as 25 percent.

Finally, Kaplan and Coryell note that a remarkable 70 percent of older suicides had seen their primary care physician within a month of their suicide. Whether a consequence of older adults failing to report feeling down or depressed, or of physicians tending to spend less time with older than younger patients, the authors suggest that greater attention on the part of primary care physicians to mental health and potential suicidal behavior seems to be in order. However, as the authors somewhat ruefully note, the debate here dramatically shifts ground, with gun control opponents arguing that health care providers questioning patients about gun ownership and usage would infringe on patients’ Second Amendment rights—a sobering conclusion to the final article in this issue of PP&AR on mental health, where the need for sobering is very much in order.