The Management and Control of Chronic Physical and Mental Disorders Among Older Adults in the United States

GinaMarie Piane, MPH, DrPH, CHES

Abstract
Objectives: Explores significant differences in types of mental health facilities accessed by and services received by elderly in the United States as compared with the total population, how frequently chronic disease management needs are met, and variance by state. Methods: Secondary analysis of the National Mental Health Services Survey (N-MHSS), 2010, of 15,562 facilities in the United States comparing the type of mental health services used by the elderly to the general population. Results: The highest proportion of patients 65 and older in residential treatment was in General Hospitals (17% were elderly) and by the Veteran’s Affairs (VA; 15% were elderly). Discussion: General Hospitals and the VA system need to prepare for the increase in the number of patients with mental illnesses and diminished capacity who are simultaneously being treated for chronic conditions. Coordinated care of patients with these comorbidities is needed.

Keywords
chronic diseases, mental health, healthy aging, comorbidities

Manuscript received: July 16 2015; accepted: October 2, 2015.

Introduction
The health care system of the United States does a disservice to its patients by treating physical diseases and mental disorders separately. A pulmonologist treats a woman with Chronic Obstructive Pulmonary Disease (COPD) without considering the anxiety that may occur when she feels that she cannot breathe. An internist may treat a man with diabetes mellitus without acknowledging that his mood may be affected by his glucose control. The need to treat the whole person is especially unmet among our older adults above the age of 65 years.

Aging Population in the United States
According to the Centers for Disease Control and Prevention (CDC; 2013), the population of older adults is growing in number and proportion at a rate unprecedented in the history of the United States. The population aged 65 years or older will double in the next 25 years and reach 72 million (CDC, 2013). Twenty percent of the U.S. population will be aged 65 years or older primarily due to longer life spans and the aging of baby boomers who were born between 1946 and 1960 (CDC, 2013).

Chronic Diseases in Adults Aged 65 Years and Older
The sea change in leading causes of death for all age groups that occurred in the 20th century moved from infectious diseases and acute illnesses to chronic diseases and degenerative illnesses (CDC, 2013). More than 25% of the U.S. population and 66% of those aged above 65 years have multiple chronic conditions. Heart disease and cancers pose the greatest risk for older adults along with other chronic conditions such as stroke, diabetes, lung diseases, and Alzheimer’s disease (CDC, 2013). Chronic conditions in older adults can diminish quality of life by creating dependency and isolation among those who can no longer perform activities of daily living and have decreased mobility due to illness (CDC, 2013). In addition, treatment for older adults accounts for 66% of the U.S. health care budget (CDC, 2013).

Two of every three older adults in the United States have multiple chronic conditions (CDC, 2013). They...
often see multiple medical specialists, and are treated with various regimens and medications that may not be compatible. “People with multiple chronic conditions face an increased risk of conflicting medical advice, adverse drug effects, unnecessary and duplicative tests, and avoidable hospitalizations, all of which can further endanger their health” (CDC, 2013, p. 6). Chronic diseases are not inevitable; a vast body of research has determined that heart disease, cancers, diabetes, and other chronic conditions can be prevented. The risk of developing chronic conditions is significantly decreased in those who do not use tobacco, who get regular physical activity, and who eat a healthy diet (Fries, 2003).

**Mental Health of U.S. Adults 65 and Older**

Once adults in the United States reach the age of 55, approximately 20% of them experience some type of mental health concern (American Association of Geriatric Psychiatry [AAGP], 2008). Mood disorders such as depression and bipolar disorder, anxiety, and severe cognitive impairment are the most prevalent (AAGP, 2008). Although anxiety does not appear to increase with age, depression does. Late onset depression is highest in those who have experienced widowhood and among heavy drinkers (U.S. Department of Health and Human Services [USDHHS], 1999). Intermediate measures of mental health also affect the quality of life. Frequent mental distress (FMD) and low life satisfaction may interfere with activities of daily living, such as maintaining adequate nutrition, managing a household, working, or sustaining personal relationships. (McGuire, Strine, Okoro, Ahluwalia, & Ford, 2007).

At the extreme, mental health issues contribute to suicide, and for men suicide is associated with aging. Older men in the United States have the highest rate of suicide of any age group (Web-Based Injury Statistics and Query Reporting System [WISQARS], 2015). Men aged 85 years or older have a suicide rate 4 times that of the general population (WISQARS, 2015).

**Co-Occurrence of Mental Disorders and Chronic Diseases**

Chronic diseases frequently co-occur with mental health problems, such as mental illness, substance use or addiction disorders, dementia or other cognitive impairments, and developmental disabilities (USDHHS, 2010). Depression and Alzheimer’s disease are among the 15 most prevalent chronic conditions among Medicare beneficiaries (CDC, 2013). More than 50% of beneficiaries with heart failure, stroke, or atrial fibrillation reported five or more chronic conditions including mental disorders (CDC, 2013). Older adults can benefit from timely, coordinated medical care and mental health care that address their multiple chronic conditions.

Mental disorders also co-occur with risk factors for chronic conditions. Low levels of life satisfaction, the self-evaluation of one’s life as a whole, are associated with obesity, smoking, physical inactivity, and heavy drinking (Strine, Chapman, Balluz, Moriarty, & Mokdad, 2008). In addition to smoking and inactivity at higher rates, older adults with FMD were also more likely to eat a diet lacking fruits and vegetables (McGuire et al., 2007). Health promotion interventions may need to simultaneously address the risk factors for multiple chronic conditions including mental distress and disorders.

**Background**

Piane and Smith (2014) found that the co-occurrence of chronic disease and mental disorders is common and that people with a greater number of chronic conditions demonstrate greater need for mental health services. They found a dose-response relationship between reported chronic diseases and psychiatric distress and impairment that ranged from 1.50 for one reported chronic disease to 4.68 for four reported chronic diseases (Piane & Smith, 2014).

A group of researchers in the United Kingdom (Weich et al., 2013) concluded that interventions to reduce the prevalence of chronic mental disorders among people with long-term physical conditions should be part of routine primary medical care. Based on their analysis, they assert that targeting and treating people with chronic diseases and improving treatment for their mental disorders will achieve almost the same improvement in population health status in terms of reducing severe disability as those aimed at the entire population (Weich et al., 2013).

**Chronic Disease Management**

In an analysis of patients with type 2 diabetes and chronic kidney disease, Sakraida and Robinson (2012) found that patients live with high levels of emotional distress particularly because they know the potential complications, such as shortened life span, amputations, blindness, and heart disease that are related with their disease. In addition, they found that many patients wish to return to prior risky behaviors that they have given up due to their disease state, such as drinking, smoking, and eating salty and fatty foods (Sakraida & Robinson, 2012).

A group of researchers in Australia concluded their analysis of treatment of anxiety and depression among COPD patients with the recommendation that appropriate diagnosis and treatment of mental health be integrated into guidelines for treating COPD (Cafarella, Effing, Usmani, & Frith, 2012). They also suggest that clinicians who are treating COPD patients through smoking cessation should monitor for mental health problems. They found that depression and anxiety have important detrimental effects on COPD survival (Cafarella et al., 2012).

An evaluation of a national chronic disease self-management program for older adults with chronic
conditions found that social isolation and depression improved from baseline to 6-month follow-up among participants (Ory et al., 2013). Older adults were taught lifestyle behaviors related to their conditions. The evaluators (Ory et al., 2013) reported significant improvements in physical activity and fewer emergency room visits and hospitalization as a result of the program.

**Smoking, Chronic Disease, and Mental Disorders**

The causative relationship of cigarette smoking to cancers and heart disease is well established. Recent research has added evidence that smoking is also a risk factor for chronic kidney disease with smokers risk increasing approximately twofold (Yacoub et al., 2010). In addition, adults with mental disorders are twice as likely to smoke as those without mental disorders. Smoking rates are the highest among adults with severe mental illnesses. Although smoking rates have decreased in the general population, the decline among adults with mental illnesses has been less dramatic. Life expectancy among adults with mental disorders are estimated as 25 years less than the general population and the majority of that disparity is due to smoking (Cook et al., 2014).

The professional literature includes recommendations for meeting the unmet needs of older adults with mental disorder by improving mental health screening and delivery (Han, Gfroerer, Colpe, Barker, & Colliver, 2011). In addition, high-profile medical journals include recommendations for the improvement of chronic disease control (Tinetti et al., 2011), and preventive health care for older adults (Rubin, 2015). The literature is lacking studies that consider the integration of physical and mental health services for older adults. The current research investigates health care delivery in the United States that is available for older adults who have chronic conditions as well as mental disorders.

**Research Question 1:** Are there significant differences in the types of mental health facilities accessed by and services received by those aged 65 and older in the United States as compared with the total population?

**Research Question 2:** Do the mental health facilities in the United States address the chronic disease management needs of older adults?

**Research Question 3:** Does the percentage of mental health facilities that offer chronic disease management vary significantly by state?

**Method**

A secondary analysis of the National Mental Health Services Survey (N-MHSS) 2010 comparing the type of mental health services used by respondents 65 and older with the population of all ages was conducted. N-MHSS is a public use data set that describes the character and composition of the United States mental health treatment delivery system (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010, 2014). The survey’s 15,562 facilities included all known specialty mental health facilities in the United States and its territories. The 10-page survey consisted of 36 questions and was conducted between June 11, 2010 and January 27, 2011. Facilities chose among a secure web-based questionnaire, a paper questionnaire sent by mail or a computer-assisted telephone interview.

Mental health facilities are categorized as psychiatric hospitals (public and private), general hospitals with psychiatric wards, Veterans Administration (VA) medical centers, residential treatment centers, outpatient facilities, and multi-setting facilities. In addition, they are delineated into residential, 24-hr inpatient, 24-hr residential, and less than 24-hr outpatient services.

The mental health facilities identified the number and proportion of patients by age category. For this analysis, comparisons were made among the facilities by proportion of patients who were aged 65 and older. The variables that identify the percentage of patients who are 65 and older were collapsed into quartiles.

Whether or not a facility offered chronic disease management was determined by one survey question with the following definition:

Chronic disease/illness management (CDM) is a systematic approach to improving health care for people with chronic disease. Central to most CDM approaches are patient self-management, physician education, and organizational support. Among the variety of strategies employed are case management, continuous quality improvement, disease management (DM) and the chronic care model (CCM).

In addition, the facilities were asked whether they offer smoking cessation using the following definition: “Tobacco cessation counseling includes interventions for persons who use tobacco and want help with stopping, including behavioral support or counseling in groups or individually.”

In all, 4,444 facilities of the Department of Defense, Indian Health Service, other tribally operated facilities, jails or prisons, and private practices that are not licensed as mental health clinics were excluded. In addition, 693 facilities were excluded because they are administrative only and 51 facilities had their data rolled into other facility counts. A total of 1,068 facilities did not respond.

**Results**

Of the 10,374 mental health facilities in the survey pool, 77% (n = 7,977) are private and 23% (n = 2,397) are public facilities. The majority (61%) offer services for outpatients only, whereas 13.4% offer residential only and 9.5% offer only inpatient treatment. The remaining facilities offer mental health services in a combination
Table 1. Clients of All Ages Compared With Clients 65 and Older in Mental Health Facility by Facility Type: Number, Percentages, and Differences, 2010.

| Setting                  | Psychiatric hospitals | General hospitals | VA medical centers | RTCs for children | RTCs for adults | Outpatient clinics | Multi-Setting facilities |
|--------------------------|-----------------------|-------------------|-------------------|-------------------|----------------|--------------------|-------------------------|
| 24-hr hospital inpatient | All                    | All               | Public            | Private           |                |                    |                         |
| All ages                 | 99,493                | 62,502            | 41,685            | 20,817            | 31,181         | 2,201              | 586                     | 236                     | 2,645                    | 142                     |
| <65                      | 88,189                | 57,182            | 38,003            | 19,179            | 25,823         | 1,864              | 581                     | 226                     | 2,373                    | 140                     |
| 65+                      | 11,304                | 5,320             | 3,682             | 1,638             | 5,358          | 337                | 5                      | 10                      | 272                      | 21                      |

χ² = 1,354, χ² = 455, χ² = 318, χ² = 1,527, χ² = 345, χ² = 68.6, χ² = 11.2, χ² = 3.027, χ² = 13.0

24-hr residential care

| Setting                  | All                    | All               | Public            | Private           |                |                    |                         |
|--------------------------|-----------------------|-------------------|-------------------|-------------------|----------------|--------------------|-------------------------|
| All ages                 | 60,764                | 5,377             | 2,169             | 3,208             | 1,214          | 3,401              | 27,223                  | 13,491                  | 3,569                    | 6,489                   |
| <65                      | 57,377                | 5,061             | 2,012             | 3,049             | 996            | 2,930              | 27,016                  | 11,937                  | 3,284                    | 6,153                   |
| 65+                      | 3,387                 | 316               | 157               | 159               | 218            | 471                | 207                     | 1,554                   | 285                      | 336                     |

χ² = 0.966, χ² = 11.51, χ² = 2.333, χ² = 358.5, χ² = 467.0, χ² = 1,270, χ² = 1,163, χ² = 139.2, χ² = 0.269

Less than 24-hr outpatient

| Setting                  | All                    | All               | Public            | Private           |                |                    |                         |
|--------------------------|-----------------------|-------------------|-------------------|-------------------|----------------|--------------------|-------------------------|
| All ages                 | 3,026,379             | 103,964           | 30,590            | 73,374            | 161,099        | 223,883            | 10,867                  | 11,170                  | 2,378,171                | 137,225                 |
| <65                      | 3,002,585             | 95,582            | 28,651            | 66,931            | 143,251        | 177,473            | 10,588                  | 10,551                  | 2,220,640                | 130,329                 |
| 65+                      | 237,945               | 8,382             | 1,939             | 6,443             | 17,848         | 14,410             | 279                     | 619                     | 157,511                  | 6,896                   |

χ² = 0.966, χ² = 0.407, χ² = 1.925, χ² = 33.85, χ² = 631.6, χ² = 2.679, χ² = 0.361, χ² = 67.47, χ² = 10.91

Note. χ² compares clients below 65 with those 65 or older, α = .05, two-tailed with Yates correction. df = 1, VA = veterans administration; RTC = Residential Treatment Center.

Bold: frequencies and significant p-values.

of the three. Seventy-five percent of all facilities accept adults 65 or older for treatment. Table 1 indicates that the largest percentage of patients 65 years or older are receiving mental health care in general hospitals and VA medical centers. When disaggregating the data into care settings, we find that general hospitals and VA medical centers are providing the most patients 65 and older in 24-hr inpatient care, 24-hr residential care, and less in 24-hr outpatient care. The VA medical system treats the largest percentage of patients 65 and older (20.7%) in their outpatient clinics.

### 24-Hr Hospital Inpatient Care

Outpatient care for less than 24 hr is provided to clients 65 and older at significantly higher rates in general hospitals (χ² = 1527, df = 1, p < .001) and VA medical centers (χ² = 345, df = 1, p < .001). Significantly fewer clients above 65 receive 24-hr hospital inpatient care from psychiatric hospitals both public and private (χ² = 1354, df = 1, p < .001) and residential treatment centers (χ² = 11.2, df = 1, p = .001).

### 24-Hr Residential Care

Clients 65 or older are also more likely to receive 24-hr residential care from public psychiatric hospitals (χ² = 11.51, df = 1, p = .001), general hospitals (χ² = 358.5, df = 1, p < .001), VA medical centers (χ² = 467.0, df = 1, p < .001), residential treatment centers for adults (χ² = 1163, df = 1, p < .001), and outpatient clinics (χ² = 139.2, df = 1, p < .001) than their under-65 counterparts.

### Less Than 24-Hr Outpatient Care

Significantly more mental health facilities provide less than 24-hr outpatient care to clients 65 and older in psychiatric hospitals (χ² = 505.6, df = 1, p < .001), general hospitals (χ² = 33.85, df = 1, p < .001), and VA medical centers (χ² = 631.6, df = 1, p < .001). Fewer clients 65 and older receive outpatient care from outpatient clinics (χ² = 67.47, df = 1, p < .001) and multi-setting facilities (χ² = 10.91, df = 1, p < .001) than clients below 65 years.

### Mental Health Facilities Proportion of Clients 65 or Older

Table 2 demonstrates that mental health facilities with more than 50% of their patients who are 65 or older are more likely to be psychiatric hospitals or a separate inpatient psychiatric unit of a general hospital. No residential treatment centers, even those specifically for adults, have a majority of patients who are 65 or older.
Chronic Disease Management and Smoking Cessation

Table 3 is compiled from the 2010 N-MHSS and demonstrates that only 20.2% \((n = 1,849)\) mental health facilities offer chronic disease management and only 24.0% \((n = 2,190)\) offer smoking cessation services. The percentage of facilities that offer chronic disease management varies by state with a range from 7.8% in Alaska to 41.8% in Rhode Island. In addition, the percentage that offers smoking cessation ranges from 14.8% in Illinois to 53.2% in Oklahoma.

Discussion

Strength and Limitations

The 2010 N-MHSS is a voluntary survey and therefore includes non-response. The point prevalence survey does not include annual totals, instead gives a “snapshot” of an average day or month in each facility. The strengths of the survey include the large, comprehensive sample size. In addition, SAMHSA conducts extensive follow-up to reduce the non-response rate. The objective nature of the survey questions eliminates bias.

Significance

The findings support a need for increased mental health services specifically targeted for older adults in different settings. As patients aged 65 and older are in the minority among mental health patients, facilities may not devote resources to issues specific to older adults. The vast majority of mental health facilities have less than one quarter of their patients aged 65 years and older. There are fewer public mental health facilities, and older adults are more likely to seek care in public facilities. This limits their choices for care. Low income and rural residence may contribute to the limitations on private mental health care available to older adults.

Although psychiatric hospitals, a subset of mental health facilities, are the most likely to have a majority of patients above 65 years, they are the least likely among mental health facilities to offer chronic disease management. Although not all elderly residents have chronic illnesses, it is recommended that each psychiatric hospital have a protocol to screen for and treat chronic illness in their residents. The data reflect that such protocols are not readily available. In addition, it is recommended that programs promote long-term health, such as providing smoking cessation opportunities. The data reflect that few mental health facilities offer such opportunities.

In some states, less than 8% of the mental health facilities offer chronic disease management. Very few facilities treat a majority of patients who are aged 65 and older and therefore may not be prepared to offer comprehensive treatment for the elderly. Smoking is the most lethal behavioral health risk factor. Smoking is higher among those seeking treatment for mental disorders, yet fewer than 15% of mental health facilities in some states offer smoking cessation.

Conclusion

If we are to care for the whole person, mental health facilities need to help their patients to manage, control, and cope with their chronic diseases. General hospitals and the VA system need to prepare for the increase in numbers of patients with mental illnesses and diminished capacity who are simultaneously controlling their hypertension, diabetes, COPD, and arthritis. Coordinated care of these patients in the intersection of these comorbidities can make the difference between having a productive, vibrant elderly population or a nation overburdened with caring for its frail, disabled elderly.
| State/territory          | Total number of facilities responding | Chronic disease management | Percent with chronic disease management | Smoking cessation services | Percent with smoking cessation services |
|-------------------------|--------------------------------------|---------------------------|----------------------------------------|---------------------------|----------------------------------------|
| All                     | 9,139                                | 1,849                     | 20.2                                   | 2,190                     | 24                                     |
| Alabama                 | 182                                  | 44                        | 24.2                                   | 29                        | 15.9                                   |
| Alaska                  | 51                                   | 4                         | 7.8                                    | 9                         | 17.6                                   |
| Arizona                 | 118                                  | 26                        | 22.0                                   | 41                        | 34.7                                   |
| Arkansas                | 154                                  | 43                        | 27.9                                   | 30                        | 19.5                                   |
| California              | 831                                  | 131                       | 15.8                                   | 138                       | 16.6                                   |
| Colorado                | 158                                  | 39                        | 24.7                                   | 36                        | 22.8                                   |
| Connecticut             | 182                                  | 26                        | 14.3                                   | 40                        | 22.0                                   |
| Delaware                | 40                                   | 15                        | 37.5                                   | 19                        | 47.5                                   |
| District of Columbia    | 24                                   | 7                         | 29.2                                   | 7                         | 29.2                                   |
| Florida                 | 375                                  | 72                        | 19.2                                   | 74                        | 19.7                                   |
| Georgia                 | 192                                  | 27                        | 14.1                                   | 36                        | 18.8                                   |
| Guam                    | 1                                    | 0                         | —                                      | 1                         | 100                                    |
| Hawaii                  | 32                                   | 11                        | 34.4                                   | 11                        | 34.4                                   |
| Idaho                   | 41                                   | 7                         | 17.1                                   | 9                         | 22.0                                   |
| Illinois                | 446                                  | 85                        | 19.1                                   | 66                        | 14.8                                   |
| Indiana                 | 235                                  | 83                        | 35.3                                   | 109                       | 46.4                                   |
| Iowa                    | 129                                  | 29                        | 22.5                                   | 32                        | 24.8                                   |
| Kansas                  | 95                                   | 9                         | 9.5                                    | 15                        | 15.8                                   |
| Kentucky                | 211                                  | 37                        | 17.5                                   | 41                        | 19.4                                   |
| Louisiana               | 132                                  | 39                        | 29.5                                   | 32                        | 24.2                                   |
| Maine                   | 110                                  | 21                        | 19.1                                   | 23                        | 20.9                                   |
| Maryland                | 165                                  | 42                        | 25.5                                   | 45                        | 27.3                                   |
| Massachusetts           | 267                                  | 40                        | 15.0                                   | 69                        | 25.8                                   |
| Michigan                | 302                                  | 59                        | 19.5                                   | 72                        | 23.8                                   |
| Minnesota               | 210                                  | 31                        | 14.8                                   | 41                        | 19.5                                   |
| Mississippi             | 159                                  | 35                        | 22.0                                   | 28                        | 17.6                                   |
| Missouri                | 193                                  | 79                        | 40.9                                   | 50                        | 25.9                                   |
| Montana                 | 59                                   | 9                         | 15.3                                   | 14                        | 23.7                                   |
| Nebraska                | 84                                   | 15                        | 17.9                                   | 15                        | 17.9                                   |
| Nevada                  | 39                                   | 7                         | 17.9                                   | 7                         | 17.9                                   |
| New Hampshire           | 62                                   | 7                         | 11.3                                   | 13                        | 21.0                                   |
| New Jersey              | 230                                  | 47                        | 20.4                                   | 62                        | 27.0                                   |
| New Mexico              | 94                                   | 15                        | 16.0                                   | 18                        | 19.1                                   |
| New York                | 630                                  | 104                       | 16.5                                   | 252                       | 40.0                                   |
| North Carolina          | 135                                  | 29                        | 21.5                                   | 37                        | 27.4                                   |
| North Dakota            | 26                                   | 4                         | 15.4                                   | 9                         | 34.6                                   |
| Ohio                    | 420                                  | 72                        | 17.1                                   | 78                        | 18.6                                   |
| Oklahoma                | 111                                  | 20                        | 18.0                                   | 59                        | 53.2                                   |
| Oregon                  | 142                                  | 40                        | 28.2                                   | 50                        | 35.2                                   |
| Pennsylvania            | 451                                  | 88                        | 19.5                                   | 102                       | 22.6                                   |
| Puerto Rico             | 23                                   | 5                         | 21.7                                   | 5                         | 21.7                                   |
| Rhode Island            | 67                                   | 28                        | 41.8                                   | 10                        | 14.9                                   |
| South Carolina          | 91                                   | 31                        | 34.1                                   | 15                        | 16.5                                   |
| South Dakota            | 69                                   | 16                        | 23.2                                   | 17                        | 24.6                                   |
| Tennessee               | 185                                  | 28                        | 15.1                                   | 45                        | 24.3                                   |
| Texas                   | 272                                  | 87                        | 32.0                                   | 56                        | 20.6                                   |
| Utah                    | 94                                   | 23                        | 24.5                                   | 31                        | 33.0                                   |
| Vermont                 | 65                                   | 14                        | 21.5                                   | 13                        | 20.0                                   |
| Virgin Islands          | 7                                    | 2                         | 28.6                                   | 0                         | —                                      |
| Virginia                | 216                                  | 28                        | 13.0                                   | 35                        | 16.2                                   |
| Washington              | 173                                  | 35                        | 20.2                                   | 59                        | 34.1                                   |
| West Virginia           | 73                                   | 6                         | 8.2                                    | 19                        | 26.0                                   |
| Wisconsin               | 235                                  | 38                        | 16.2                                   | 43                        | 18.3                                   |
| Wyoming                 | 51                                   | 10                        | 19.6                                   | 23                        | 45.1                                   |

Source. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration (2010), and National Mental Health Services Survey (N-MHSS).

Bold: total and extremes.
Acknowledgment
The author would like to acknowledge the faculty and students of the National University Master of Public Health program who enabled him to kindle his passion for public health.

Declaration of Conflicting Interests
The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author received no financial support for the research, authorship, and/or publication of this article.

References
American Association of Geriatric Psychiatry. (2008). Geriatrics and mental health—The facts. Retrieved from http://www.apa.org/about/gr/issues/aging/growing-concerns.aspx
Cafarella, P. A., Effing, T. W., Usmani, Z. A., & Frith, P. A. (2012). Treatments for anxiety and depression in patients with chronic obstructive pulmonary disease: A literature review. Respirology, 17, 627-638. doi:10.1111/j.1440-1843.2012.02148.x
Centers for Disease Control and Prevention. (2013). The state of aging and health in America 2013. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.
Cook, B., Wayne, G., Kafali, E., Liu, Z., Shu, C., & Flores, M. (2014). Trends in smoking among adults with mental illness and association between mental health treatment and smoking cessation. Journal of the American Medical Association, 311, 172-182. doi:10.1001/jama.2013.284985
Fries, J. D. (2003). Measuring and monitoring success in compressing morbidity. Annals of Internal Medicine, 139, 455-459.
Han, B., Gfroerer, J. C., Colpe, L. J., Barker, P. R., & Colliver, J. D. (2011). Serious psychological distress and mental health service use among community-dwelling older U.S. adults. Psychiatric Services, 62, 291-298. Retrieved from http://ezproxy.nu.edu/login?url=http://search.proquest.com/docview/862455805?accountid=253202003139:455-459
McGuire, L. C., Strine, T. W., Okoro, C. A., Ahluwalia, I. B., & Ford, E. S. (2007). Modifiable characteristics of a healthy lifestyle in U.S. older adults with or without frequent mental distress, 2003 behavioral risk factor surveillance system. American Journal of Geriatric Psychiatry, 15, 754-761.
Ory, M. G., Ahn, S., Jiang, L., Lorig, K., Ritter, P., Laurent, D. D., . . . Smith, M. (2013). National study of chronic disease self-management: Six-month outcome findings. Journal of Aging and Health, 25, 1258-1274. doi:10.1177/0898264313502531
Piane, G. M., & Smith, T. C. (2014). Building an evidence base for the co-occurrence of chronic disease and psychiatric distress and impairment. Preventing Chronic Disease, 11(9), Article 140211.
Rubin, R. (2015). Filling the gaps in preventive care services for older adults. Journal of the American Medical Association, 313, 1604-1606. doi:10.1001/jama.2015.2369
Sakraida, T., & Robinson, M. V. (2012). Mental health and relational self-management experiences of patients with type 2 diabetes and stage 3 chronic kidney disease. Issues in Mental Health Nursing, 33, 786-796. doi:10.3109/01612840.2012.713446
Strine, T. W., Chapman, D. P., Balluz, L., Moriarty, D. G., & Mokdad, A. H. (2008). The associations between life satisfaction and health-related quality of life, chronic illness, and health behaviors among U.S. community-dwelling adults. Journal of Community Health, 33, 40-50.
Substance Abuse and Mental Health Services Administration. (2010). National Mental Health Services Survey (N-MHSS): 2010—Data on mental health treatment facilities (BHIS Series S-69, HHS Publication No. (SMA) 14-4837). Rockville, MD: Author.
Substance Abuse and Mental Health Services Administration. (2014). Definitions for terms used in the N-MHSS Questionnaire. Retrieved from http://info.nmhhss.org/Definitions/index.asp
Tinetti, M., McAvay, G., Chang, S. S., Ning, Y., Newman, A. B., Fitzpatrick, A., . . . Peduzzi, P. (2011). Effect of chronic disease-related symptoms and impairments on universal health outcomes in older adults. Journal of the American Geriatrics Society, 59, 1618-1627.
U.S. Department of Health and Human Services. (1999). Older adults and mental health (Mental Health: A Report of the Surgeon General). Retrieved from http://www.surgeongeneral.gov/library/mentalhealth/chapter5/sec1.html
U.S. Department of Health and Human Services. (2010). Multiple chronic conditions: A strategic framework: Optimum health and quality of life for individuals with multiple chronic conditions. Washington, DC: Author. Retrieved from http://www.hhs.gov/ash/initiatives/mcc/mcc_framework.pdf
Web-Based Injury Statistics and Query Reporting System. (2015). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (Producer). Retrieved from http://www.cdc.gov/injury/wisqars/index.html
Weich, S., Bebbington, P., Rai, D., Stranges, S., McBride, O., Spiers, N., . . . Brugha, T. (2013). The population impact of common mental disorders and long-term physical conditions on disability and hospital admission. Psychological Medicine, 43, 921-931. doi:10.1017/S0033291712001705
Yacoub, R., Habib, H., Lahdo, A., Al Ali, R., Varjabedian, L., Atalla, G., . . . Albitar, S. (2010). Association between smoking and chronic kidney disease: A case control study. BMC Public Health, 10, Article 731. doi:10.1186/1471-2458-10-731