

James Madison University

JMU Scholarly Commons

Doctors of Nursing Practice (DNP) Final
Projects, 2020-current

The Graduate School

12-17-2022

Improving access for Medicare inpatient psychiatric patients: A health policy analysis

Malinda B. Whitfield

James Madison University

Follow this and additional works at: <https://commons.lib.jmu.edu/dnp202029>



Part of the [Health and Medical Administration Commons](#), [Health Policy Commons](#), [Mental Disorders Commons](#), [Psychiatric and Mental Health Nursing Commons](#), and the [Psychiatry Commons](#)

Recommended Citation

Whitfield, Malinda B., "Improving access for Medicare inpatient psychiatric patients: A health policy analysis" (2022). *Doctors of Nursing Practice (DNP) Final Projects, 2020-current*. 23.
<https://commons.lib.jmu.edu/dnp202029/23>

This Dissertation is brought to you for free and open access by the The Graduate School at JMU Scholarly Commons. It has been accepted for inclusion in Doctors of Nursing Practice (DNP) Final Projects, 2020-current by an authorized administrator of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.

Improving Access for Medicare Inpatient Psychiatric Patients:

A Health Policy Analysis

Malinda Bridges Whitfield

A Clinical Research Project submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

for the degree of

Doctor of Nursing Practice

School of Nursing

December 2022

FACULTY COMMITTEE:

Committee Chair: Erika Metzler Sawin, PhD, APRN, FNP-BC

Committee Members: Maria deValpine, MSN, PhD, APRN, PMHNP-BC,

Susan Winslow, DNP, RN, NEA-BC

Dedication Page

This project is dedicated to my husband Charlie, whose unwavering support and encouragement helped to keep me going when I felt exhausted and discouraged. I also dedicate this to my sons and their families who are an incredible source of inspiration.

Acknowledgments

I would like to express sincere gratitude for the support and direction of my professors throughout my DNP journey. I would also like to thank my DNP project committee, Dr. Erika Metzler Sawin, project chair, Dr. Maria deValpine, and Dr. Susan Winslow. Dr. Sawin provided ongoing guidance and support, which helped me see this project through to completion. Dr. deValpine helped guide this DNP project, sharing her immense knowledge and experience of the policy analysis process. Dr. Winslow served as preceptor for my DNP journey, and generously shared her time, immense knowledge, and encouragement.

Table of Contents

Dedication	ii
Acknowledgments	iii
Table of Contents	iv
List of Tables	v
List of Figures	vi
Abstract	vii
I. Introduction	1
II. Background and Significance	2
III. Analysis Methodology	16
IV. Bardach/Collins Method	17
1. Define the Context	19
2. State the Problem	21
3. Search for the Evidence	22
4. Construct the Alternatives	29
5. Project the Outcomes	32
6. Apply Evaluative Criteria	34
7. Weigh the Outcomes	36
8. Make the Decision	38
V. Summary and Conclusion	39
VI. References	41

List of Tables

Bardach/Collins Eightfold Path for Health Policy Analysis	4
Group Statistics	21
Independent Samples Test	22
Independent Samples Effect Sizes	22
Policy Options According to the Evaluation Criteria: Quadruple Aim	26

List of Figures

A/B MAC	10
Quadruple Aim	15

Abstract

The Medicare Inpatient Psychiatric Services (IPS) policy, originally developed in the 1960s and without any significant or meaningful updates since the 1980's, is physician specific, does not reflect the current model of care for psychiatric inpatients, and is restrictive for psychiatric mental health nurse practitioner (PMHNP) practice. The policy is complex, consists of outdated regulations, and results in millions of dollars in compliance costs for Inpatient Psychiatric Facilities (IPFs) annually (NABH, 2019). Although clearly an important part of the inpatient psychiatric services team, PMHNPs are not identified or defined in the policy (Center for Medicare and Medicaid Services [CMS], 2019). Despite advances in scope of practice for nurse practitioners (NPs), PMHNPs in psychiatric inpatient settings experience practice limitations based on the current policy and its interpretation.

The Medicare IPS policy was analyzed using Bardach's Eightfold Path to Policy Analysis as implemented by Collins (2005) and the Institute for Healthcare Improvement (IHI) Quadruple Aim framework (IHI, 2020). The policy was interpreted and compared with the de facto policy instituted by a private, non-profit healthcare system in the southeastern United States (U.S). Beginning in early 2019, a policy interpretation change at this facility resulted in the only PMHNP on the adult behavioral health unit being unable to participate in the care of Medicare psychiatric inpatients or bill for their care.

All Medicare IPS admissions on the adult behavioral health unit (BHU) at the subject facility were evaluated during the years 2018-2021. The total number of Medicare admissions for this time frame were compared for PMHNP involved vs non-PMHNP involved care with specific indicators including average length of stay (ALOS),

average hospital admission cost, average reimbursement, and average loss for admission.

Findings indicated a statistically significant reduction in hospital cost and a medium effect size for hospital loss with PMHNP involved care for Medicare admissions.

PMHNPs are billable providers of Medicare services in outpatient and inpatient care settings (CMS, 2022). Revision of the current Medicare IPS policy to explicitly name PMHNPs as providers could lead to improved quality of care, reduce health care costs, and enhance provider access for this vulnerable and high-risk population.

Keywords: *Medicare policy, Medicare policy analysis, Medicare beneficiaries, Medicare administrative contractors, Medicare inpatient psychiatry, advanced practice provider, nurse practitioner, non-physician practitioner, psychiatric mental health nurse practitioner, PMHNP, serious mental illness.*

Improving Access for Medicare Inpatient Psychiatric Patients: A Health Policy Analysis

The Medicare Inpatient Psychiatric Services (IPS) Policy is outdated and does not reflect the current care delivery model for inpatient psychiatric settings (National Association of Behavioral Health [NABH], 2019, Mota et al., 2019). The policy does not recognize Psychiatric Mental Health Nurse Practitioners (PMHNPs) as eligible providers; however, CMS recognizes NPs as providers in the National Coverage Determination (NCD), having the ability to care and bill for services provided to Medicare patients in both inpatient and outpatient psychiatric settings (CMS, 2022; CMS 2019). The Medicare IPS policy was originally established in the late 1960s and has not been significantly updated since the 1980s (CMS, 2019; NABH, 2019). The prohibitive and outdated regulations reflected in this policy are a deterrent for the delivery of high-quality care for Medicare beneficiaries in inpatient psychiatric settings (American Hospital Association [AHA], 2017; Mota et al., 2019; NABH, 2019).

Despite the advances in scope of practice for Nurse Practitioners (NPs), PMHNPs working in inpatient psychiatric settings face significant practice limitations based on the current policy and its interpretation, including the inability to provide and bill for services in some IPS settings. To address this concern, Medicare IPS policy options were evaluated using Bardach's Eightfold Path to Policy Analysis as implemented by Collins (2005) and the Institute for Healthcare Improvement Quadruple Aim framework (IHI, 2020). Revision of this policy to reflect the current care delivery model for Medicare insured beneficiaries in this setting, which allows for the care of and billing for Medicare

IPS patients by PMHNPs, is expected to improve quality of care, reduce health care costs, and improve provider access for this vulnerable and high-risk population.

Background and Significance

At an adult inpatient behavioral health unit within an acute care hospital in the southeastern U.S., one PMHNP has been part of the inpatient provider team since mid-2018. An organizational compliance change at the subject facility in early 2019 resulted in the PMHNP being restricted from participating in the treatment of Medicare psychiatric inpatients. This change was directly related to the lack of clarification and varied interpretation of the Medicare IPS policy, where NPs are not specifically included or addressed.

To thoroughly describe, analyze, and evaluate the IPS policy, the researcher reviewed chronic mental illness, serious mental illness, chronic health conditions specific to Medicare beneficiaries, serious mental illness and health disparities among this population, as well as quality of care and cost for Medicare beneficiaries in IPS settings. Medicare policies for inpatient settings and the Medicare IPS policy are compared. Medicare Administrative Contractors (MACs), Local Coverage Determinations (LCDs), and Medicare Inpatient Psychiatric Facilities (IPFs) Conditions of Participation (CoPs) are described including B-tag requirements. The PMHNP role will be defined and discussed including the ability for these providers to care for Medicare beneficiaries in IPS settings.

The following concepts were used in this policy analysis: Advanced Practice Clinicians (APCs), Advanced Practice Providers (APPs), the Center for Medicare & Medicaid Services (CMS), Local Coverage Determinations (LCDs), Inpatient Psychiatric

Facilities (IPFs), Inpatient Psychiatric Facility Prospective Payment System [IPF PPS], Length of Stay (LOS), Medicare Inpatient Psychiatric Services (IPS) policy, Medicare Administrative Contractors (MACs), Nurse Practitioners (NPs), Psychiatric Mental Health Nurse Practitioners (PMHNPs), and serious mental illness (SMI). In this project, the terms serious mental illness (SMI), mental health disorder, mental illness, psychiatric mental health disorder, and chronic mental illness will be used interchangeably.

Chronic Mental Illness

Chronic mental health diagnoses currently rank among the leading causes of premature death and disability in the United States (World Health Organization [WHO], 2020). Mental illness is estimated to affect at least 20 percent of Americans every year, which includes about one in five Medicare recipients (Institute of Medicine [IOM], 2012; National Alliance on Mental Illness [NAMI], 2021; National Association for Behavioral Healthcare [NABH], 2019; Rice et al., 2022). Chronic mental health diagnoses are associated with premature-death, disability, lost productivity, and increased health care costs (Bao et al., 2013; Figueroa et al., 2020; Thorp et al., 2017). More than 30% of all Medicare beneficiaries have been diagnosed with a mental health disorder (Figueroa et al., 2020; McGinty, 2020) which is the second most common co-occurring illness in the Medicare population (Rice et al., 2019). The highest mental illness rates in the U.S. are among Medicare beneficiaries who are less than 65 years of age, those who are dually eligible for Medicare and Medicaid services, and account for a sizeable portion of Medicare costs which are expected to rise in coming years (Figueroa et al., 2020; McGinty, 2020; Thorpe et al., 2017).

The Institute of Medicine Mental Health and Substance Use Workforce for Older Adults Report (Institute of Medicine [IOM], 2012), estimated that at least 5.6 to 8 million older adults in the United States met diagnostic criteria for one or more mental health or substance use disorders. The elderly population in the current generation have higher rates of mental health disorders necessitating use of mental health treatment than ever before, and this trend is expected to continue as the general population ages (Figueroa et al., 2020; IOM, 2012; McGinty, 2020). In a report by CMS in 2014, mental health disorders were the second most common chronic health condition affecting dual Medicare-Medicaid enrollees, or 41% of these beneficiaries (CMS, 2014). More recently, the COVID-19 pandemic has resulted in a substantial increase in mental health crises and an unprecedented need for mental health services among adults in the United States, including those covered by Medicare (Kaiser Family Foundation [KFF], 2021; McGinty, 2020). Further complicating these statistics, nearly 90 million U.S. residents live in mental health professional shortage areas where there is an unmet need for mental health prescribers (Health Resources and Services Administration [HRSA], 2021; Rice et al., 2019). The shortage of psychiatrists is predicted to continue rising through at least the year 2025 (NAMI, 2021; National Council for Behavioral Health [NCBH], 2017; McGinty, 2020).

Serious Mental Illness and Health Disparities Among Medicare Beneficiaries

In a retrospective cohort study of Medicare recipients in the U.S. by Figueroa et al (2020), it was estimated that 22.7% of Medicare beneficiaries were diagnosed with a serious mental illness (SMI) while 7.5% had another common mental health diagnosis, and 68% of Medicare patients with a mental health diagnosis have at least one chronic

physical health diagnosis (Rice et al., 2019). Medicare beneficiaries with SMI, which includes nearly one third of dually eligible Medicare and Medicaid recipients, often have chronic and debilitating mental health diagnoses including bipolar disorder, schizophrenia, psychotic disorders, major depressive disorder, and post-traumatic stress disorder (Figueroa et al., 2020; Kelly & Soper, 2019). The prevalence of co-occurring physical health conditions is much higher among Medicare recipients with mental health disorders, contributing to a significantly higher rate of health care spending, estimated to be more than twice as high as those without a mental health disorder diagnosis (Frank, 2013; Kelly & Soper, 2019; Thorpe, et al., 2017).

Treatment for SMI among Medicare beneficiaries has been associated with increased spending on mental health services including costs associated with physical health conditions as compared to those with a common mental health diagnosis or no known history of mental illness (Figueroa et al., 2020; Thorp et al., 2017). An estimated 16% of healthcare spending among this population has been associated with the treatment of mental health conditions, where they also have disproportionately higher health care costs related to co-morbid health conditions attributed to high rates of obesity, inadequate physical activity, and tobacco use (Figueroa et al., 2020; Frazee et al., 2020/ Thorpe et al., 2017). Additionally, Medicare recipients with inadequate mental health treatment have more Emergency Department (ED) visits, inpatient psychiatric admissions, chronic comorbid illnesses including chronic kidney disease, COPD, ischemic heart disease, heart failure, and diabetes, with resulting poorer physical health outcomes (Figueroa et al., 2020; IOM, 2012; Kaiser, 2019; Thorpe et al., 2017). The highest rates of mental illness in the U.S. are among Medicare beneficiaries who are dually eligible for Medicare and

Medicaid services, and this accounts for a sizeable portion of Medicare and total healthcare expenditures, which is expected to continue rising in coming years (Figueroa et al., 2020; KFF, 2019; Thorpe et al., 2017).

Medicare Inpatient Psychiatric Services Cost and Quality of Care

Approximately 28.4% of Medicare beneficiaries treated for mental health disorders between 2010 to 2013 were primarily related to inpatient care (Thorpe et al., 2017). As of 2018, Medicare payments for inpatient hospital services totaled 41 percent of the \$731 billion in healthcare spending with estimates expected to increase significantly, to an estimated \$1.26 trillion by 2028 (Kaiser, 2019). Factors associated with increasing Medicare costs include population aging, Medicare enrollment increases, and continued increases in per capital health care costs (Kaiser, 2019). Medicare beneficiaries in IPS settings are associated with longer lengths of stay, higher number of previous IPS admissions, and increased risk of 30-day readmission rates, all of which contribute to increased health care costs (Benjenk et al., 2020; Cheng et al., 2016; Tulloch et al., 2010)

Medicare

Medicare was created in 1965 as a federal health insurance program covering individuals aged 65 and over. In 1972 the program was expanded to cover individuals younger than age 65 with long-term disability, including those with serious mental illness (SMI). As of 2019, Medicare provided insurance for 60 million persons in the U.S. and Medicare spending accounted for 20% of total health care spending (Kaiser, 2019).

Medicare Part A is responsible for payment of inpatient hospital services including IPS

services, skilled nursing facility care, some home health services and hospice care (CMS, 2021).

Advanced Practice Clinicians (APCs) are identified as eligible providers in the CMS general hospital services policy and the CMS National Coverage Determination (NCD) policy for psychiatry and psychology services, which includes the ability to bill for their services (CMS, 2022; CMS 2021). There is no mention of APCs as eligible providers in the IPS policy, whereas other providers including social workers, psychologists, nurses, and therapists are specifically mentioned (CMS, 2019).

Medicare Inpatient Psychiatric Services Benefit Policy Manual

The Medicare Benefit Policy Manual, Chapter 2, Inpatient Psychiatric Hospital Services, describes detailed requirements and instructions necessary to meet the Inpatient Psychiatric Facility Prospective Payment System [IPF PPS], (CMS, 2018). This policy covers Medicare beneficiaries in inpatient psychiatric facilities (IPFs) which may include free standing psychiatric hospitals, psychiatric units within an acute care hospital setting, as well as critical access hospitals (CAHs). The policy defines specific requirements for IPFs, as well as specific and detailed documentation requirements including admission criteria, medical records, assessment and diagnostic criteria, psychiatric evaluations, certification and recertification requirements indicating specific documentation requirements for ongoing treatment, services supervised and evaluated by a physician, the individualized treatment or diagnostic plan, services expected to improve the diagnosed condition, documentation requirements of others significantly involved in active treatment, discharge planning and discharge summary requirements (CMS, 2019).

Additional instructions are addressed specific to the director of the inpatient unit, medical staff, nursing and psychological services, social services, and therapeutic activities requirements (CMS, 2019). According to the policy, IPS must be provided “by or under the supervision of a psychiatrist for the diagnosis and treatment of mentally ill persons” (CMS, 42CFR 412.23 [a], 2019), and must be certified and recertified by a physician indicating the need for continued care that can reasonably be expected to improve the patient’s condition. Ongoing physician participation is described as a fundamental component of active treatment where all services are provided under the direction and guidance of the physician. APCs, specifically PMHNPs, are not mentioned in this policy document, although other members of the team are specifically identified including social workers, occupational therapists, group therapists, nurses, attendants, or others meaningfully involved in the active treatment plan.

The policy states that physicians must continue to periodically evaluate the patient including the treatment plan and degree to which treatment goals are being realized. Progress notes by the physician are “determined by the condition of the patient but must be recorded at least weekly for the first two months and at least once monthly for the duration of the admission” (30.4, 42 CFR 412.27 [c] [4] and 42 CFR 482.61 [d]). Although the policy outlines personnel requirements including qualified professional, technical, and consultative personnel who are involved in patient evaluation, formulate treatment plans, provide active treatment measures, and engage in discharge planning, PMHNPs are not mentioned as members of the qualified team while other disciplines such as psychologists, social workers, nurses, and therapists, are described in detail (CMS, 2019).

Limited access to mental health care services and the desperate need for growing and strengthening the mental health care provider workforce has been well documented; however, many barriers are preventing the growth of the number of mental health care providers and services, particularly for Medicare recipients in inpatient psychiatric settings. Medicare compliance for inpatient psychiatric facilities presents one of the major barriers for both providers and beneficiaries of inpatient psychiatric services, primarily related to this ambiguous and outdated policy (Bresnick, 2019; NABH, 2019).

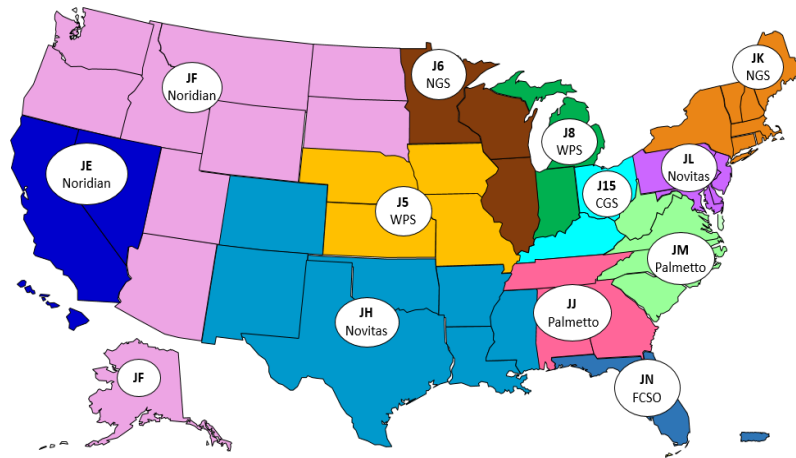
Medicare Administrative Contractors

Medicare Administrative Contractors (MACs) are private contractors, divided by geographic locations, who have been awarded Medicare contracts for processing Medicare part A and B claims (Figure 1), including inpatient psychiatric hospitalization claims (CMS, 2022). Additionally, MACs process claims for Durable Medical Equipment (DME) and Fee for Service (FFS) claims. Palmetto GBA is the MAC responsible for processing Medicare part A and B claims for Jurisdiction M, which includes North Carolina, South Carolina, Virginia, and West Virginia.

Figure 1

A/B MAC Jurisdictions

A/B MAC Jurisdictions as of June 2021



Center for Medicare and Medicaid Services [CMS]. (2021). A/B MAC jurisdiction map. <https://www.cms.gov/files/document/ab-jurisdiction-map-jun-2021.pdf>)

Local Coverage Determinations

Local Coverage Determinations (LCDs) are decisions made by MACs on whether to cover a particular item or service in a MAC's jurisdiction, which is in accordance with section 1862(a)(1)(A) of the Social Security Act (CMS, 2019). The Palmetto GBA LCD for Jurisdiction M outlines criteria for Medicare Inpatient Psychiatric Services along with other Medicare Part A and B services (CMS, 2019). The LCD for psychiatric inpatient hospitalization L34570 in this jurisdiction contains criteria comparable to the Chapter 2 Medicare IPS policy described previously, which outlines admission criteria, need for certification/recertification, appropriate treatment planning, daily progress notes, and the requirement for daily physician supervision. Inpatient admission and documentation criteria are essentially identical in the LCD including specific language related to physician progress notes (CMS, 2019).

According to the LCD for jurisdiction M, progress notes should be written, dated, and signed by the team member who provided the service including the credentials of that team member (CMS, 2019). Physician progress notes are required to be documented at each encounter with the patient, include appropriate history, any changes in signs/symptoms, include a mental status exam, assessment of progress, as well as plans for continued treatment or discharge (CMS, 2019). The frequency of physician progress notes is not provided and the statement regarding the need for daily physician supervision is not otherwise specifically defined in the LCD.

The need for twenty-four-hour nursing and treatment team evaluation, observation, diagnostic services, psychotherapeutic and medical interventions are listed as requirements for inpatient psychiatric care, however the specific team members are not listed or defined in the LCD (CMS, 2019). A separate document from Palmetto GBA (2020) was located on their website providing guidance for psychiatry and psychotherapy professional services including specific mention of licensed clinical social workers, however there is no mention of services provided by other nonphysician providers including PMHNPs. LCDs for other jurisdictions in the U.S. specifically identify Clinical Nurse Specialists (CNS) and PMHNPs as covered providers of IPS services (Optum, 2022).

To achieve clarity in the LCD for Jurisdiction M, provider education was requested in writing from Palmetto GBA specific to the ability for PMHNPs to participate in the care of Medicare beneficiaries in the IPS setting. In a personal communication with a Senior Provider Education Consultant with Palmetto GBA, the educator acknowledged the LCD does not provide specific guidelines for the researcher's

question and subsequently consulted with the medical review department who reported that the reviewers are looking for weekly physician oversight along with other requirements per the LCD and CMS requirements. Daily progress notes can be processed by the NP and there is no requirement for these to be performed by the psychiatrist according to the medical review department, as communicated by the senior education consultant (Palmetto GBA, 2020).

Medicare Inpatient Psychiatric Facilities Conditions of Participation

Conditions of participation (CoPs) for IPFs, otherwise known as B-tag requirements, include a set of regulations and standards by CMS to include patient evaluations, medical records requirements, and staffing criteria (CMS, 2021; NABH, 2019). These regulations were established in 1966 with guidance for interpretation provided in the 1980's, however, there have been no significant updates since that time (NABH, 2019). Although Medicare established these guidelines with the intention to improve the provision of high-quality care and promotion of patient safety in psychiatric inpatient settings, it is estimated that these burdensome regulations are preventing that goal (NABH, 2019). Specifically, psychiatric evaluations fall within the scope of practice for a psychiatric mental health nurse practitioner (PMHNP), however Medicare guidelines require this evaluation be conducted by a psychiatrist (NABH, 2019). In the United States, B-tag regulations are estimated to result in \$622 million in compliance costs to IPFs every year (NABH, 2019).

Nurse Practitioners

Nurse practitioners (NPs) are uniquely trained and qualified Advanced Practice Registered Nurses (APRNs) who provide high quality, cost-effective care to a diverse

population of individuals (ANA, 2021; Frazee et al., 2020; Smith et al., 2020; Stanick-Hutt et al., 2013; Stucky et al., 2020; Woo et al., 2017). There are now more than 290,000 NPs in the United States with at least six population specific concentrations including family, adult-gerontology, neonatal, pediatrics, women's health, and psychiatric mental health lifespan specialties (Stucky et al., 2020). Care provided by APRNs in inpatient settings may include rounding on acute care patients independently, following inpatients with varying level of acuity, assisting in admission and discharge services through a combined effort along with supervision by a physician (Frazee et al., 2020; Pohlig, 2013). Patients under the care of an NP may be seen without the presence of a physician, and co-signatures of progress notes are not required unless dictated by state law or the facility policy, however many facilities require physician attestation and signatures of admission history and physical exams and discharge summaries, consistent with Medicare policy (Pohlig, 2013).

NP provided patient care among the Medicare and Medicare-Medicaid population is associated with care equal to or better than that of physicians, decreased number of patient ED visits, decreased or avoidable hospitalization rates, decreased readmission rates, and reduced hospitalizations of nursing home residents, based on significant research-based evidence (Buerhaus et al., 2018; Frazee et al., 2020; Perloff et al., 2016; Pennington et al., 2014; Stanik-Hutt et al., 2013; Rice et al., 2019; Stucky et al., 2020). Although NPs have full practice authority in 28 states including the Veterans Administration (VA), which allows NPs to practice to the full scope of their education, licensure and certification, other states continue to pose restrictions and limitations for NP practice, requiring a collaborative practice agreement with a physician(s), physician

supervision requirements, and oversight by the state medical board (Kleinpell et al., 2022; Rice et al., 2019; Smith et al., 2020; Stucky et al., 2020).

Psychiatric Mental Health Nurse Practitioners

The first masters level program in psychiatric nursing, the psychiatric mental health clinical nurse specialist (PMH-CNS) role, was established in 1955 at Rutgers University by Hildegard Peplau, the first published nursing theorist since Florence Nightingale (Hein & Scharer, 2015). Deinstitutionalization of patients suffering from mental illness began to occur during this period of time, requiring the need for more providers to care for this vulnerable population (Erickson, 2021; Hein & Scharer, 2015). Challenges in treatment for the mentally ill have persisted since the 1960s, despite advocacy and legislative actions. Although the role of the NP began to develop in the 1970's, PMHNP specialty certification was not introduced until the early 1990s (Hein & Scharer, 2015). Prior to this, the PMH-CNS performed similar roles and responsibilities, however their focus was primarily on counseling as they initially lacked the ability to prescribe medications (Hein & Scharer, 2015).

The PMHNP is an APRN specializing in psychiatric-mental health care for individuals across the lifespan (ANA, 2022). The following competencies for the Psychiatric Mental Health Nursing Scope and Practice Standards, developed by the American Nurses Association (ANA) in conjunction with the American Psychiatric Nurses Association (APNA), and the International Society of Psychiatric-Mental Health Nurses (ISPMHN) includes the following: Perform a comprehensive psychiatric evaluation; formulate a differential diagnosis; order and interpret diagnostic tests;

prescribe pharmacologic and psychopharmacologic agents; conduct individual, couples, group, or family psychotherapy using evidence-based approaches (ANA, 2022).

PMHNPs practice in a variety of settings including office based and community settings, acute inpatient hospitals, psychiatric units, EDs, and psychiatric inpatient consultation teams, providing acute and chronic mental health care services for adults and children (ANA, 2022; American Psychiatric Nurses Association [APNA] 2022). According to the American Psychiatric Nurses Association (APNA) 2022 Workforce Survey Data, approximately 16% of PMHNPs practice in inpatient settings, with a larger percentage practicing in outpatient settings including prisons, outpatient clinics, community-based programs, federally qualified health centers (FQHCs), and community health centers (APNA, 2022). Since 2010, an increasing number of PMHNP graduates are practicing in inpatient psychiatric hospitals, making up about 50% of PMHNPs employed in this setting (APNA, 2022). Concerningly, a significant percentage of practicing PMHNPs are reaching retirement age, with 27% of PMH-APRNs reporting plans to retire in the next six years (APNA, 2022).

Psychiatric evaluations, progress notes, discharge planning supervision and discharge summaries fall within the scope of practice for a PMHNP (ANA, 2022; APNA, 2022). Currently, Medicare guidelines require that initial psychiatric evaluations, treatment plan management, and discharge summaries be conducted by a psychiatrist (NABH, 2019). Additionally, although clearly an important part of the inpatient psychiatric team, neither NPs or PMHNPs are specifically identified or defined in the Medicare IPS policy. The severe shortage of psychiatrists and unmet needs for individuals in need of mental health services throughout the U.S. has been well

documented (Casher et al., 2012, IOM, 2012; Delaney, 2017; de Nesnera & Allen, 2016; McGinty, 2020; Rice et al., 2019; Tice et al., 2021). The PMHNP role is expected to grow in coming years because of the aging population, where a nearly 70% increased need for mental health services is expected, and the ongoing shortage of psychiatrists in the U.S is projected to continue (Delaney, 2017; Casher et al., 2012; Rice et al., 2019; Tice et al., 2022).

While removal of scope of practice barriers and achieving full practice authority (FPA) for APRNs has made considerable progress in the U.S. in recent years, twenty-eight states have approved autonomous practice while the remaining states continue to limit NP practice with either reduced or restrictive regulatory practice barriers, which present some of the most obvious limitations to PMHNP practice (Rice et al., 2019; Tice et al., 2022). Another factor impeding autonomous practice for NPs is that of Medicare reimbursement, which continues to be 85% of physician reimbursement. Many outpatient practices use “incident to” billing for NPs, where the visit is billed under the physician’s name with Medicare reimbursement of 100% in those instances, however incident to billing is not able to be tracked in regard to NP related care, and is not recognized in inpatient settings (Bischof & Greenberg, 2021; Condi, 2015; Pohler, 2013).

Analysis Methodology

Analysis Methodology Defined

The Bardach/Collins Method and the IHI Quadruple Aim Framework were used to frame the analysis of the Medicare IPS policy and to inform improvement of patient outcomes (Bodenheimer & Sinsky, 2014; Collins, 2005). These frameworks served as the basis for the existing policy analysis, exploring desirable outcomes, and policy

consequences (Bodenheimer & Sinsky, 2014; Collins, 2005). The Bardach/Collins method has been successfully used in many health policy analyses, including many Doctor of Nursing Practice (DNP) scholarly projects (Crowder, 2019; Daversa, 2020; Skiff, 2020). This policy analysis framework has also been used in other healthcare-based policy and management strategy analyses (Mahmood et al., 2014; Tuah et al., 2010).

Bardach/Collins Method

The Bardach/Collins method for health policy analysis (Collins, 2005) was used in guiding this policy analysis project. Collins proposes a more simplified approach to health policy analysis, incorporating Bardach's Eightfold Path to Policy Analysis (Collins, 2005). The Bardach/Collins eight steps are summarized as follows: (1) Define the context – A comprehensive background of the situation is provided including the impact on those affected ; (2) State the problem – The situation is identified including current or potential adverse effects on population health and includes inconsistencies between the current situation and what the ideal or planned circumstance would be; (3) Search for evidence – Includes an extensive literature review and data collection such as research based studies, policy documents, and other reliable sources that help to identify problems specific to the policy, including ways to solve or improve them; (4) Consider different policy options – Proposes additional strategies or alternative actions to improve the policy; (5) Project the outcomes – outlines the proposed alternative options and their potential to positively affect policy change; (6) Apply evaluative criteria – Involves the assessment of potential outcomes of the alternative options proposed; (7) Weigh the outcomes – Concentrates on choosing between the projected outcomes based on

evaluative criteria; and (8) Make the decision – Encompasses selecting which policy option to choose based on the results of carefully weighed outcomes (Collins, 2005).

Outcomes for this policy analysis were projected based on how the different policy options would impact the dimensions of the Quadruple Aim at the subject facility (see Table 1).

Table 1

Bardach/Collins Eightfold Path for Health Policy Analysis

Bardach/Collins Eightfold Path for Health Policy Analysis	
Step 1	Define the context
Step 2	State the problem
Step 3	Search for evidence
Step 4	Consider different policy options
Step 5	Project the outcomes
Step 6	Apply evaluative criteria
Step 7	Weigh the outcomes
Step 8	Make the decision

Institute for Healthcare Improvement Quadruple Aim Framework

The Institute for Healthcare Improvement (IHI) Quadruple Aim framework was used as a guide to evaluate the different Medicare IPS policy options (Figure 1).

According to the IHI, the Quadruple Aim articulates an approach to optimize the performance of health systems (IHI, 2020). Initially formulated as the Triple Aim by faculty members of the IHI, the original dimensions included: (1) Improving the patient experience of health care including quality and satisfaction; (2) Improving population health; and (3) Reducing individual health care costs. The Triple Aim expanded to become the Quadruple Aim in 2014 to include a fourth approach of staff well-being (Grant et al., 2020). The Quadruple Aim proposes that the goal of improving the work

life of health care providers, including clinicians and staff, should be considered in the provision of high quality, equitable care (Bodenheimer & Sinsky, 2014). The Quadruple Aim framework is used by many health care organizations to optimize high quality, cost-effective care to patients and communities and to improve performance of the health care systems (Bodenheimer & Sinsky, 2014; Grant et al., 2020).

Figure 2

Quadruple Aim



Bodenheimer T, Sinsky C. (2014). From triple to quadruple aim: Care of the patient requires care of the provider. *Annals of Family Medicine*, 12, 573-76. (Copyright permission pending).

Define the Context

The subject facility, located in the southeastern United States, is a 238-bed non-profit community hospital offering inpatient behavioral health services. A Community Health Needs Assessment (CHNA) in 2021 defines the region as a mental health professional healthcare shortage area (HPSA) by the Health Resources and Services Administration (HRSA, 2021). The elderly population is aging faster than the rest of the state, with 19.1% of the population being age 65 or above. Access to behavioral health and substance abuse treatment services was the second highest priority concern identified in the CHNA report. Behavioral health needs were identified as being of the greatest concern to community members, with a significant increase in awareness of mental

health needs being voiced by community members (CHNA, 2021). Increased access to emergency inpatient psychiatric services was specifically identified as a behavioral health need (CHNA, 2021).

In order to address the needs identified in the CHNA, the hospital system initiated a three-year implementation strategy to improve behavioral health and substance abuse problems, including improving health outcomes and continuity of care for patients and family members experiencing mental health problems (CHNA, 2021). Despite the needs voiced by the community related to behavioral healthcare services, the significantly aging population, and the hospital system strategies to address these needs, in 2019 there was a change on the inpatient behavioral health unit where the sole psychiatric mental health nurse practitioner was no longer able to directly participate in the care of Medicare patients.

This change was related to pre-emptive anticipatory regulatory compliance by the hospital system, which was directly related to the physician only wording in the Medicare IPS policy and the LCD, which was confirmed during direct communication with a compliance manager for hospital system. The compliance manager stated that although the LCD did not directly state specifics related to daily physician documentation for Medicare patients in this setting, they know what Medicare is looking for regarding physician involvement and this understanding precludes the ability for the PMHNP to directly participate in the care of these patients.

The Medicare policy for IPS is unclear and does not specifically identify PMHNPs as providers. This lack of clarity due to the omission of NPs from the policy has led to varied interpretations by both MACs and health care institutions (NABH,

2019). The lack of comprehensiveness of this policy is interfering with patient access to mental health services and limits the scope of practice for PMHNPs in a setting where limited access to these critical services is well documented. The policy is outdated, having initially been established in the 1960's when the treatment for inpatient psychiatric patients was quite different and the role of the PMHNP had not yet been developed; it does not reflect the current model of care (NABH, 2019). Despite the advances in inpatient psychiatric care over the past forty-plus years, there have been few meaningful policy updates or revisions to reflect these changes (NABH, 2019).

State the Problem

At a community hospital in the southeastern United States, a PMHNP has been part of the inpatient behavioral health unit (BHU) provider team since mid-2018. An organizational change in early 2019 resulted in the restriction of PMHNPs from participating in the treatment of Medicare psychiatric inpatients, in the interest of complying to meet the restrictive, physician-only wording of the policy. This change was made when a chart auditor employed by the facility began managing Medicare psychiatric inpatient chart reviews and strictly interpreted the Region M LCD policy as stating only physicians could document H&Ps, daily progress notes, and discharge summaries for Medicare insured psychiatric inpatients. This interpretation was directly related to the lack of definition in the Medicare IPS policy, in which PMHNPs are not identified as providers. An extensive literature review resulted in three potential policy options to improve the management of Medicare IPS patients according to the Quadruple Aim.

Search for Evidence

An extensive literature review was performed according to step 3 of the Bardach/Collins method (Collins, 2005). Alternative words for PMHNPs in the literature included Nurse Practitioners (NPs), Advanced Practice Clinicians (APCs), Advanced Practice Providers (APPs), Mid-Level Providers (MLPs) and Non-Physician Extenders (NPEs), all of which are used within various CMS documents and policies. Research studies, Medicare policies, and related government reports were identified using CINAHL, ProQuest, PubMed, PsycInfo, and Google Scholar.

Search criteria included articles published within the last 15 years, adult population ages 18 and above, and English language. Keyword search strategies included “Medicare” AND “policy” AND “psychiatric” AND “inpatient” AND “nurse practitioner” AND “psychiatric mental health nurse practitioner” AND “PMHNP” “Medicare beneficiaries” AND “Medicare administrative contractors” AND “Medicare policy analysis” AND “serious mental illness” AND “advanced practice providers” AND “non-physician practitioners”. A search strategy was then performed using MeSH terms including “Medicare” AND “inpatient” AND “psychiatry”. Use of the “cited by” option, reference reviews of relevant articles, and copying/pasting relevant article titles into the search bar in PubMed and Google Scholar resulted in additional relevant articles, websites, and professional organizations. The total number of studies and government reports identified using each of these search strategies was 1,550.

Inclusion criteria for full-text review included: (1) Medicare beneficiaries in inpatient psychiatric settings, (2) Medicare beneficiaries of psychiatric services, and (3) relevant research-based studies, literature reviews, meta-analyses, and policy proposals.

Exclusion criteria included articles that did not specifically relate to the subject matter, those that focused on non-Medicare beneficiaries, and those that did not involve the United States health care system. To be included in full-text review, screening of articles was conducted by title relevance as well as abstract review. A total of 75 full-text articles and 20 national/government reports and website articles were reviewed. Twelve articles were excluded due to lack of relevance to the specific topic; five articles were excluded due to including a primary care model for Medicare beneficiaries with mental health diagnoses; and three articles were excluded as the focus was on integration of inpatient psychiatric care into the general acute medical units. Two national/government reports and two website reports were excluded due to lack of relevance or repetitive information. A total of 45 articles and 14 national/government reports were included in the literature review.

A report commissioned by the National Association for Behavioral Health (NABH) in 2019 and conducted by a national counseling firm evaluated the degree of regulatory burden imposed by Medicare regulations for IPS facilities. The survey included 62 IPFs throughout the U.S. where B-tag regulations were identified as imposing frequent citations and significant fines in yearly compliance costs (NABH, 2019). Additional stakeholders have presented findings where the Medicare IPS policy does not reflect the change in inpatient psychiatric management over the past 50 plus years, where the average length of stay has decreased significantly from months or longer when the policy was originally established to days, which is fairly consistent with medical/surgical settings, and where APCs are qualified to provide care in IPS settings

(NABH, 2017; National Council for Mental Wellbeing [NCMW], 2017; National Association of State Mental Health Program Directors [NASMHPD], 2017).

Regulatory oversight for inpatient settings were established in 1966 by the federal government to ensure patient quality and safety, however the requirements for IPFs are more extensive and unclear, have not been updated meaningfully since the 1980s, and result in a significant financial burden on these facilities (Mota et al., 2019; NABH, 2019; NASMHPD, 2017). CMS regulations specific to IPS settings, with interpretative guidance referred to as B-tag requirements, require prescriptive, overly detailed, and separate physician documentation requirements. This applies to medical records including psychiatric assessments, progress notes, interdisciplinary treatment team meetings, and discharge summaries (Mota et al., 2019). Although there is a significant shortage of psychiatrists and mental health burden throughout most of the U.S., the IPS policy does not identify APCs who are educated, trained, and qualified to perform psychiatric evaluations, write daily progress notes, lead treatment teams, and perform discharge summaries (NABH, 2019). The report by NABH calls on Medicare to update the IPS policy, including B-tag regulations, to clarify that APCs be able to perform these responsibilities according to state scope of practice guidelines (NABH, 2019).

In response to the COVID-19 pandemic, CMS lifted regulatory practice burdens for NPs in most states with limited or restrictive practice, paving the way to allow practice without a collaborative agreement, and additionally allowing hospitals to utilize NPs to their full scope of practice to meet patient needs during these times of emergency (Kleinpell et al., 2022; Stucky et al., 2020; Tice et al., 2022). These measures include expansion of telehealth delivery, improved reimbursement practices and lessening

regulatory requirements (McGinty, 2020; Stucky et al, 2020; Tice et al., 2022). Unfortunately, these COVID-19 related changes have reverted to previous practice restrictions in states where independent practice for NPs is not approved, once emergency regulations were lifted (Stucky et al., 2020); Tice et al., 2022). Scope of practice for NPs varies by state laws and regulations, some of which present barriers and roadblocks that can adversely affect patient access to necessary health care services, quality of care, and health care costs (Barnes et al., 2017; Kleinpell et al., 2022; Smith et al., 2020; Stucky et al., 2020; Tice et al., 2022). The state where this project was conducted is noted by the American Association of Nurse Practitioners (AANP) to have restrictive practice, where the ability of NPs to engage in at least one aspect of practice is constrained by state practice and licensure requirements (AANP, 2022). According to state legislation, for an NP to provide patient care in a restricted practice state, another provider, which is usually a physician, must continuously supervise, delegate, or manage the treatment team (AANP, 2022).

The Institute of Medicine (IOM) *The Future of Nursing* report in 2010, along with the follow up report in 2016 by the National Academy of Medicine (NAM), *Assessing Progress on the Institute of Medicine Report the Future of Nursing*, has advocated for the removal of practice barriers for NPs, however many states have not yet enacted these recommended changes (IOM 2010; NAM, 2016). In the most recent report by the National Academy of Medicine (formerly the IOM) *The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*, the agency continues to advocate for state, federal, and health care organizations to remove barriers preventing nurses from

practicing to the full extent of their education and training to improve health care access, improve quality of care and reduce health care costs (NAM, 2021).

PMHNPs have demonstrated the ability to provide high quality, effective and evidence-based care for individuals with serious mental illness including those in inpatient psychiatric settings, with care equal to or better than physician managed care (Casher et al., 2012; de Nesnera & Allen, 2016; Oh et al., 2022; Rice et al., 2019; Tice et al., 2022). In a study by Cai et al (2022) an analysis of Medicare claims data from January 2011 through December 2019 were evaluated. Study findings indicated a significant increase in Medicare patients being seen by PMHNPs over the study period while the number of beneficiaries being treated by psychiatrists consistently decreased (Cai et al., 2022). PMHNPs have successfully demonstrated the ability to assume increasing clinical roles and responsibilities in the treatment of patients with SMI, including the facilitation of inpatient admissions and discharges at a level surpassing that of physicians, including psychiatry residents (Casher et al., 2012; Tice et al., 2022).

A considerably unmet need for mental health care services throughout the U.S. has been well documented, and lack of access to psychiatrists and other mental health care providers are expected to continue, especially in rural and designated healthcare provider shortage areas (Allabyrne et al., 2020; Cai et al., 2022; Casher et al., 2012; Condi, 2015; Jones, 2017; de Nesnera & Allen, 2016; HRSA, 2021; McGinty, 2020; Muench & Frazee, 2022; Tice et al., 2022). PMHNPs have the education, training, and certification to lead treatment teams in inpatient psychiatric settings, where access to mental health care is limited and the shortage of psychiatrists in the United States is

expected to persist in the coming years (Allabyrne et al., 2020; ANA, 2022; Casher et al., 2012; de Nesnera & Allen, 2016; Jones, 2017; Tice et al., 2022).

Data Collection

Sample

For the purposes of this study and following IRB approval, retrospective data for Medicare BHU admissions for 2018, 2019, 2020 and 2021 was requested and provided by the healthcare facility. The total number of Medicare admissions to the BHU for the specified time frame was evaluated along with specific indicators to include total number of monthly admissions, average length of stay (ALOS), total admission cost, reimbursement rates and reimbursement loss. Data from 2018 prior to the implemented compliance change was compared to subsequent years including 2019, 2020, and 2021 after the imposed change was implemented. This data comparison included the months the NP was involved in care from June 2018 to June 2019, as well as the months following the change in procedure through December 2021, when the NP was no longer involved in the care of Medicare patients. The total number of Medicare admissions for the NP involved group was 281 compared with a total of 351 admissions for the non-NP involved group.

Procedure

The months the PMHNP was involved in patient care for 2018/2019 (n=13 months) was compared with the months following the hospital policy change (n=30 months) for the study period. Total monthly admission cost, reimbursement, and profit/loss were averaged based on the number of monthly admissions; ALOS was provided in the initial dataset. IBP SPSS Statistics (Version 28) predictive analytics

software was used for data analysis. A statistician assisted with test selection and data analysis interpretation. Data was collected and stored on the H-drive of a secure password protected desktop computer, within a locked provider office on the BHU at the hospital.

An independent samples t-test was performed on the two identified groups and compared with indicators including ALOS, average admission cost, average reimbursement, and average loss. No profit was identified for any time reported. An independent samples t-test is used to compare two plus groups involving quantitative variables to determine if they have equal mean scores (SPSS, 2021). SPSS automatically runs a Levene's test when an independent samples t-test is performed to determine if sample variances are approximately equal (Brown & Forsythe, 1974). The Sig column (Table 3) which is based on the mean, would be interpreted as a sample having equal variances, or homogeneity, if the result is greater than .05, which is a non-significant finding. If the Sig is less than .05, this would indicate a significant finding that equal variances are not assumed.

Effect sizes, or the meaningfulness of the relationship between variables, were evaluated by Cohen's d. This statistical analysis is used to indicate the standard difference between two means and implies the power for a t-test, or practical significance, whereas p-values reflect statistical significance (SPSS, 2021). Effect size is independent of sample size and only the data is used to evaluate the effect size or practical significance of an outcome (SPSS, 2021). Cohen's d categorizes effect sizes into small, medium, or large, according to specific criteria. A small effect size would be 0.2, medium 0.5, and large is 0.8 or greater. Generally, the greater the Cohen's d, the larger the effect size (SPSS, 2021).

Construct the Alternatives

The Bardach/Collins Eightfold Path to Policy Analysis and the IHI Quadruple Aim were used as evaluative frameworks for this DNP project. Three alternative options to the current Medicare IPS policy were discussed and analyzed including: (1) Status Quo, (2) Collaborative Practice, and (3) Full Practice Authority.

Policy Option 1: Status Quo

According to an extensive literature review, health care spending attributed to Medicare beneficiaries with SMI continue to rise, including costs associated with frequent ED visits, management of co-occurring chronic illnesses, and inpatient psychiatric admissions (Figueroa et al., 2020; IOM, 2012; McGinty, 2020; Thorpe et al., 2017; Rice et al., 2019; Tice et al., 2022). Access to mental health providers is significantly limited throughout much of the U.S. and the shortage of psychiatrists is projected to continue in coming years ((Figueroa et al., 2020; IOM, 2012; McGinty, 2020; Thorpe et al., 2017; Rice et al., 2019; Tice et al., 2022)). The regulations reflected in the Medicare IPS policy are no longer relevant or appropriate in the current delivery of inpatient psychiatric services (NABH, 2019; NASMHPD, 2017; NCMW, 2017). The status quo option does not allow for provider choice for beneficiaries and could decrease patient satisfaction as a result (Bodenheimer & Sinsky, 2014; IHI, 2020).

The physician/psychiatrist-only regulations reflected in the policy are outdated, prohibitive, do not reflect the current care delivery model in IPS settings, and result in substantial organizational costs due to the burdensome regulatory requirements where interpretation of the regulations vary among both surveyors and hospital systems (NABH, 2019). The substantial amount of documentation required by providers to meet regulatory

requirements in the policy are distracting from patient care and as a result, could be adversely affecting safety and health care quality (NABH, 2019; NASMHPD, 2017). The lack of clarity in the policy and burdensome documentation requirements are also having a negative impact on providers and thereby adversely affecting work life balance, including practice limitations for PMHNPs, who are not mentioned as providers in the policy (NABH, 2019).

Policy Option 2: Collaborative Practice

PMHNPs have demonstrated the ability to provide high quality, cost-effective and evidence-based care for individuals with SMI in inpatient psychiatric settings, equal to or surpassing that of physicians (Casher et al., 2012; de Nesnera & Allen, 2016; Rice et al., 2019). PMHNPs have established competencies by the ANA which includes the ability to function alongside the psychiatrist in the care of all patients on an inpatient behavioral health unit and have successfully demonstrated the ability to lead treatment teams in the inpatient psychiatric setting (ANA, 2022; Casher et al., 2012; de Nesnera & Allen, 2016; Oh et al., 2022; Rice et al., 2019; Tice et al., 2022).

PMHNPs are educated, trained, and certified to practice in the acute care inpatient psychiatric setting, working at the top of their licensure, training, and certification (ANA, 2022; APNA, 2022). The PMHNP at the subject facility is not currently working in this capacity due to the current Medicare IPS policy interpretation. As a result, patient satisfaction may be adversely affected due to lack of provider choice, the policy change could be resulting in increased health care costs and quality of care for patients in this setting and is negatively affecting workplace satisfaction for both the psychiatrists and the PMHNP (Bodenheimer & Sinsky, 2014; IHI, 2020).

Policy Option 3: Full Practice Authority

Consistent evidence-based research has proven the ability for NPs to provide safe, high-quality, cost-effective care with outcomes equal to or better than that of physicians, independent practice in hospital settings has continued to involve collaborative practice requirements as set forth by hospital systems. Autonomous practice for PMHNPs in an inpatient behavioral health setting would likely be impeded by organizational and physician restrictions (Casher et al., Rice et al., 2019). Variations in regulatory barriers between states are also resulting in scope of practice limitations to PMHNP practice (Rice et al., 2019). Regulatory waivers during the COVID-19 pandemic removed regulatory burdens and practice restrictions for NPs, however these barriers have since expired in states where NPs do not have full practice authority (Tice et al., 2022).

Medicare reimbursement disparity continues to exist for NPs where they are paid at 85% of the physician rate for equal work (Bischof & Greenberg, 2021; Patel et al., 2022; Rice et al., 2019). NP provided care is often billed as “incident to” the physician where reimbursement is 100% of the physician rate, however this practice prevents the ability to distinguish the level of NP provided care in the U.S. and is likely resulting in significantly increased costs to Medicare (Bischof & Greenberg, 2021; Patel et al., 2022). NPs in Virginia continue to practice under reduced or restricted practice where they are jointly regulated by the board of nursing and board of medicine, and require a collaborative practice agreement unless they have achieved autonomous practice requirements and have appropriate licensure (Phillips, 2022). While there is no specific law restricting NPs from having hospital admitting privileges in Virginia (Phillips, 2022), this option is not recognized by the study facility or other known hospitals in the state.

Project the Outcomes

Results

Group statistics (Table 2) indicated the mean ALOS with NP involved care was lower at 7.50 as compared to 8.17 for non-NP involved care, a difference of 0.67 which was not statistically significant ($p=0.300$). The average hospital cost for NP involved care was \$26,532.92 and \$29,852.93 for non-NP involved care, which indicated a cost savings of \$3320.01 with NP involved care. Non-NP involved average reimbursement was \$6902.81 as compared to \$6787.29 for NP involved care, indicating a slight increase in average reimbursement of \$115.52 for non-NP involved care. Average loss for NP involved care was lower than non-NP involved care, or \$19,745.56 as compared to \$22,950, a savings of \$3204.61.

Table 2

Group Statistics

<i>Group Statistics</i>					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Average Length of Stay	With NP	13	7.50	1.512	.419
	Without NP	30	8.17	2.056	.375
Average Cost	With NP	13	26532.92	4285.194	1188.499
	Without NP	30	29852.93	7242.924	1322.371
Average Reimbursement	With NP	13	6787.29	1553.256	430.796
	Without NP	30	6902.81	1790.162	326.837
Average Loss	With NP	13	19745.56	4188.022	1161.548
	Without NP	30	22950.17	7057.407	1288.500

Levene's Test for Equality of Variances (Table 3) indicated that ALOS, although slightly less for the NP involved vs non-NP involved group, were not statistically significant. Equal variances were assumed for ALOS (Sig 0.255) with a two-sided p value of 0.300. Average cost savings for the NP involved group were statistically significant, where equal variances were not assumed (Sig 0.042) with a one-sided p value

of 0.035. Average reimbursement was slightly higher for the non-NP involved group as compared to the NP involved group where equal variances were assumed (Sig 0.841) but were not statically significant (two-sided $p=0.841$). Average loss for the NP involved group was lower as compared to the non-NP involved group but was not statistically significant (two-sided $p=0.136$) with equal variances assumed (Sig 0.073).

Table 3*Independent Samples Test**Independent Samples Test*

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
Average Length of Stay	Equal variances assumed	1.330	.255	-1.050	41	.150	.300	-.667	.635	-1.950	.616
	Equal variances not assumed			-1.185	30.765	.123	.245	-.667	.563	-1.815	.481
Average Cost	Equal variances assumed	4.387	.042	-1.534	41	.066	.133	-3320.010	2164.192	-7690.685	1050.665
	Equal variances not assumed			-1.867	36.778	.035	.070	-3320.010	1777.975	-6923.263	283.242
Average Reimbursement	Equal variances assumed	.041	.841	-.202	41	.421	.841	-115.525	572.517	-1271.747	1040.697
	Equal variances not assumed			-.214	26.198	.416	.832	-115.525	540.747	-1226.637	995.587
Average Loss	Equal variances assumed	3.388	.073	-1.519	41	.068	.136	-3204.606	2109.565	-7464.958	1055.747
	Equal variances not assumed			-1.847	36.705	.036	.073	-3204.606	1734.770	-6720.538	311.326

When comparing independent samples effect sizes according to Cohen's d for NP vs non-NP involved care (Table 4), ALOS was associated with a small effect size of -.349. Average cost for NP vs non-NP involved care was associated with a medium effect size of -.509 and average loss was associated with a medium effect size of -.504.

Table 4*Independent Samples Effect Sizes*

Independent Samples Effect Sizes

				95% Confidence Interval	
		Standardizer ^a	Point Estimate	Lower	Upper
Average Length of Stay	Cohen's d	1.913	-.349	-1.002	.309
	Hedges' correction	1.949	-.342	-.983	.303
	Glass's delta	2.056	-.324	-.978	.334
Average Cost	Cohen's d	6517.693	-.509	-1.166	.154
	Hedges' correction	6640.028	-.500	-1.145	.151
	Glass's delta	7242.924	-.458	-1.116	.207
Average Reimbursement	Cohen's d	1724.196	-.067	-.718	.584
	Hedges' correction	1756.559	-.066	-.704	.574
	Glass's delta	1790.162	-.065	-.715	.587
Average Loss	Cohen's d	6353.177	-.504	-1.161	.158
	Hedges' correction	6472.424	-.495	-1.140	.155
	Glass's delta	7057.407	-.454	-1.111	.211

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

Apply Evaluative Criteria

Policy Option 1: Status Quo

The status quo option is not contributing to population health as evidenced by the extensive review of the literature comparing mental and physical health disparities among Medicare beneficiaries. The patient experience is adversely affected as patients do not have an option to provider choice in the study setting. The cost of care is lower for NP involved care as compared to non-NP involved care based on study findings, with a clinically significant decreased cost associated with NP involved vs non-NP involved care for Medicare beneficiaries. A medium effect size was noted for NP involved care in hospital costs and losses for Medicare IPS beneficiaries as compared to non-NP involved care.

While ALOS was not statistically significant for the two groups, there was a slightly shorter ALOS for NP vs non-NP involved care for these groups. Provider satisfaction is adversely affected by this policy option, which would continue to contribute to an increased burden on psychiatrists where the field is already in short

supply. PMHNP scope of practice is also limited despite the education, training, licensure, and certification to practice in this setting.

Policy Option 2: Collaborative Practice

NPs are proven to provide high-quality, cost-effective care for Medicare beneficiaries, improved access to services, and improved overall health with reduced health care expenditures, including in IPS settings. This policy option would allow Medicare beneficiaries to have a provider choice, which would likely improve patient satisfaction. NP involved care is associated with a statistically significant decrease in hospital cost, a medium effect size associated with both hospital cost and financial loss for inpatient services, and a slight reduction in ALOS. Provider satisfaction would be enhanced by this option where psychiatrists are already overburdened and PMHNPs are prepared to help fill the gap in mental health care services in this setting.

Policy Option 3 –Full Practice Authority

Full practice authority would allow NPs to practice at the highest level of their education, training, licensure, and certification. Population health, patient satisfaction, and reduced health care costs would be enhanced as a result of PMHNP involved care in IPS settings as shown with Option 2 above. Full practice authority for PMHNPs in this setting would ideally include hospital staff privileges for patient admissions and discharges, the ability to lead treatment team meetings, without the need for physician supervision or co-signatures. Health care systems would experience decreased provider reimbursement rates as NPs continue to be reimbursed by Medicare at 85% of the physician rate for the same work.

Weigh the Outcomes

Policy option 1 – Status Quo

The status quo policy option does not meet the Quadruple Aim of healthcare, as it does not contribute to population health, limits patient access to services thereby decreasing patient satisfaction, results in increased financial cost to health care systems, and negatively affects workplace satisfaction for providers. The policy is outdated, does not reflect current treatment models for IPS settings, results in increased burden for health care facilities and providers, and is distracting from quality patient care.

Policy option 2 – Collaborative Practice

Option 2 is the best alternative for the Medicare IPS policy in achieving the Quadruple Aim. Based on this policy analysis finding, the current language in the Medicare IPS policy should be revised to clearly and specifically include PMHNPs, and their ability to participate in admission assessments, daily progress notes, and discharge summaries for Medicare beneficiaries in IPS settings. This would continue to be a collaborative practice with the supervising psychiatrist who would continue to co-sign admission assessments, discharge summaries, and lead treatment team meetings.

Policy option 3 – Full Practice Authority

Although this policy option would be an ideal opportunity for PMHNPs in achieving independent practice, many additional steps would be necessary to make this option a reality, at both federal and state levels. Scope of practice should be more consistent from state to state, and practice restrictions should be removed allowing NPs to practice at the highest level of their education and training (Rice et al., 2019; Smith et al., 2020). Full practice authority for PMHNPs would help to achieve the Quadruple Aim for

Medicare beneficiaries in IPS settings by enhancing population health, health care access, patient satisfaction, and NP job satisfaction. PMHNPs would ideally have staff privileges for patient admissions and discharges, lead treatment team meetings, and would not require physician supervision or co-signatures.

Reimbursement disparity continues to exist where NPs are reimbursed by Medicare at 85% of the physician rate for the same work. NPs should continue to lobby for pay parity equal to that of physicians for the comparable level of care provided. Achieving 100% provider reimbursement for NPs would be one step closer to achieving the level of support needed to accomplish this policy option. If APRN scope of practice restrictions were removed, including pay parity restrictions, this would allow consumers to have a wider range of choice in providers and healthcare services, support healthy competition among providers, decrease healthcare costs, and improve access to mental healthcare services (Rice et al., 2019).

Table 5

Policy Options According to the Evaluation Criteria: Quadruple Aim

Policy Option	QUALITY	ACCESS	VALUE	Work/Provider Satisfaction
Option 1 - Status Quo	Patient experience limited due to limitations in access to care provided by NPs which is equal to or better than that provided by physicians	Limits access to provider choice based on the inability to see a PMHNP in some settings, ongoing shortage of psychiatrists, and limited access to mental healthcare services.	Increased hospital cost with likely clinically significant increase in financial loss and ALOS	Increased burden on psychiatrists where there is already a significant shortage, limits practice of PMHNPs
Option 2 – Collaborative Practice	Improved patient experience with quality of care equal to or better than the current model	Patients would have increased access to provider choice	More cost effective and value-based option.	Would improve work life balance of both psychiatrists and PMHNPs.

Option 3 – Full Practice Authority	Improved patient experience with quality of care equal to or better than the current model	Patients would have increased access to services, and provider choice	More cost effective and value-based option. .	Would improve PMHNP workplace satisfaction and healthy provide competition. May be met with institutional and physician resistance.
------------------------------------	--	---	---	---

PMHNP = Psychiatric Mental Health Nurse Practitioner; NP = Nurse Practitioner; ALOS = Average Length of Stay

Make the Decision

The regulations reflected in the Medicare IPS policy are no longer relevant or appropriate in the current delivery of inpatient psychiatric services (NABH, 2019; NASMHPD, 2017; NCMW, 2017). The policy is outdated, contains burdensome and prohibitive regulatory requirements, and is distracting from the ability to provide high quality care in this setting (NABH, 2019; NASMHPD, 2017). Additionally, the policy presents major barriers for both a vulnerable patient population as well as providers, where access to care is already significantly limited (HRSA, 2021; NABH, 2019).

While the Medicare inpatient hospital services policy recognizes the role of APCs including NPs in the delivery of care for inpatient services, NPs are not mentioned in the IPS policy (CMS, 2019; CMS, 2021). LCDs are inconsistent in their interpretation of the policy where some jurisdictions include PMHNPs in the IPS settings while others do not (Optum, 2022). The Medicare IPS policy should be updated to include PMHNPs in the Medicare inpatient psychiatric setting in which the NP is certified and licensed. Doing so will likely improve quality care for Medicare beneficiaries, decrease health care costs, and improve access to mental health care provider choice where there is a significant burden on access to care and a substantial provider shortage.

Summary and Conclusion

To achieve the goals of the Quadruple Aim in health care, policy objectives in the U.S. must recognize the population as the area of concern, overcome policy constraints specific to the population, and incorporate services to address each of the four aims (Bachynsky, 2019). Mental Health has been identified as a high priority need in the U.S. (WHO, 2020) and PMHNPs are well prepared to address the mental health needs in the U.S. health care system, in both outpatient and inpatient settings. Currently, Medicare presents significant barriers to NP practice including policy implications, pay disparities, and scope of practice limitations (Bachynsky, 2019; Rice et al., 2019; Tice et al., 2022). Medicare IPS policy reform is necessary to allow for full practice authority for NPs, specifically PMHNPs, to adequately address the mental health needs of the Medicare population.

In this DNP Scholarly project, statistically significant findings were noted for decreased cost associated with NP involved care, as well as a medium effect size in decreased hospital cost and associated losses. Although ALOS was lower in NP involved vs non-NP involved care, the findings were not statistically significant, but may be clinically significant. Healthcare organizations could interpret this data to support the benefit of including PMHNPs in the care of Medicare beneficiaries in IPFs. This option would additionally improve the work-life balance of both psychiatrists and PMHNPs. Changes in policy wording at the federal level is necessary in order to improve policy interpretation and alleviate overinterpretation by organizations out of fear of substantial compliance associated fines.

Limitations

Limitations of this study include the limited time of NP involved care for Medicare IPS patients at the subject facility prior to the process change, small sample size, the findings may not be reproducible in other similar settings, and the policy interpretation at the subject facility may not affect other PMHNPs in IPS settings in Jurisdiction M or other similar settings in the U.S.

Plan for Dissemination

The findings of this policy analysis will be disseminated to the Chief Nursing Officer (CNO) and administrative team at the study facility at a future date. The researcher will present the policy analysis, study findings, and communication with the educator from the MAC for Jurisdiction M. Any further action or process change would need to occur at the corporate level. Future plans will also include advocacy at the state and federal level to include state and national registered nurse and NP organizations, constituents, state, and national health care organizations including the AHA, and CMS. This researcher has currently reached out to an APRN committee member involving Medicare reimbursement decisions at the national level to discern interest regarding the results of this policy analysis study.

References

- Allabyrne, C., Hardy, S., & Chaplin, E. (2020) Advanced nursing practice in mental health: towards parity of esteem. *Nursing Times*, 116(12), 21-23.
<https://www.nursingtimes.net/roles/mental-health-nurses/advanced-nursing-practice-in-mental-health-towards-parity-of-esteem-09-11-2020/>
- American Association of Nurse Practitioners [AANP]. (2022). State practice environment. <https://www.aanp.org/advocacy/state/state-practice-environment>
- American Hospital Association [AHA]. (2017). Regulatory overload report: Assessing the regulatory burden on health systems, hospitals, and post-acute care providers. Chicago, Ill: The Association, 1990/1996.
<https://www.aha.org/sites/default/files/regulatory-overload-report.pdf>
- American Nurses Association, [ANA]. (2022). *Psychiatric-mental health nursing: Scope and standards of practice, 3rd Edition*. Silver Spring, MD: Author.
- American Psychiatric Nurses Association (2022). APNA 2022 psychiatric-mental health nursing workforce report. Retrieved from
<https://www.apna.org/resources/workforce-survey-data/>
- Bachynsky N. (2020). Implications for policy: The Triple Aim, Quadruple Aim, and interprofessional collaboration. *Nursing forum*, 55(1), 54–64.
<https://doi.org/10.1111/nuf.12382>
- Balestra, M.L. (2019). Family nurse practitioner scope of practice issues when treating patients with mental health issues. *The Journal for Nurse Practitioners*, 15(7), 479-482. DOI: <https://doi.org/10.1016/j.nurpra.2018.11.007>.

Benjenk, I., Shields, M., & Chen, J. (2020). Measures of care coordination at inpatient psychiatric facilities and the Medicare 30-day all-cause readmission rate.

Psychiatric Services, 71(10), 1031-

1038. <https://doi.org/10.1176/appi.ps.201900360>

Bischof, A. & Greenberg, S.A. Post COVID-19 reimbursement parity for nurse practitioners. *Online Journal of Issues in Nursing*, 26(2), Manuscript 3.

DOI: 10.3912/OJIN.Vol26No02Man03.

<https://doi.org/10.3912/OJIN.Vol26No02Man03>

Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: care of the patient requires care of the provider. *Annals of Family Medicine*, 12(6), 573–576.

<https://doi.org/10.1370.afm.1713>

Brown, E.L. (1948). Nursing for the future: A report prepared for the National Nursing Council. Russell Sage Foundation, New York.

<https://www.russellsage.org/sites/default/files/Nursing-Future.pdf>

Brown, M. B. & Forsythe, A.B. (1974). Robust tests for the equality of variances.

Journal of the American Statistical Association, 69, 364-367.

Buck, J.A., & Lowenstein, L. (2022). Psychiatric facility readmissions of Medicare inpatients. *Psychiatric Services*, 73(3), 361.

<https://doi.org/10.1176/appi.ps.202100105>

Buerhaus, P., Perloff, J., Clarke, S., O'Reilly-Jacob, M., Zolotusky, G., & DesRoches, C.

M. (2018). Quality of primary care provided to Medicare beneficiaries by nurse practitioners and physicians. *Medical Care*, 56(6), 484–490.

<https://doi.org/10.1097/MLR.0000000000000908>

- Bureau of Health Workforce and Services Administration [HRSA]. (2021). Designated health professional shortage areas. U.S. Department of Health & Human Services. <https://data.hrsa.gov/tools/shortage-area/hpsa-find>
- Casher, M. L., Kuebler, J., Bastida, M., & Chipps, S. (2012). How to collaborate effectively with psychiatric nurse practitioners: understanding these clinicians' training and skills can improve patient care. *Current Psychiatry*, 11(11), 49+. <https://link.gale.com/apps/doc/A310519856/HRCA?>
- Carthon, J. M., Barnes, H., & Sarik, D. A. (2015). Federal policies influence access to primary care and nurse practitioner workforce. *The Journal for Nurse Practitioners: JNP*, 11(5), 526–530. <https://doi.org/10.1016/j.nurpra.2015.01.028>
- Centers for Medicare and Medicaid Services [CMS]. (2018). Clarification of inpatient psychiatric facilities requirement for certification. <https://www.hhs.gov/guidance/document/clarification-inpatient-psychiatric-facilities-ipf-requirements-certification>
- Centers for Medicare and Medicaid Services [CMS]. (2018). CMS manual system: Updates to the inpatient psychiatric facility benefit policy manual, CR 11062. Retrieved from <https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/2018Downloads/R253BP.pdf>
- Centers for Medicare and Medicaid Services [CMS]. (2019). Local coverage determination: Psychiatric inpatient hospitalization, L34570. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?LCDId=34570>
- Centers for Medicare & Medicaid Services [CMS]. (2018). Medicare Benefit Policy Manual: Chapter 2 – Inpatient psychiatric hospital services.

<https://www.cms.gov/Regulations-and->

[Guidance/Guidance/Manuals/downloads/bp102c02.pdf](https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c02.pdf)

Centers for Medicare and Medicaid Services [CMS]. (2018). Medicare and Medicaid programs: proposed regulatory provisions to promote program efficiency, transparency, and burden reduction. <https://www.govinfo.gov/content/pkg/FR-2018-09-20/pdf/2018-19599.pdf>

Center for Medicare and Medicaid Services [CMS]. Medicare Coverage Document Type Descriptions. https://www.cms.gov/medicare-database/help/Document_Type_Descriptions.pdf

Centers for Medicare & Medicaid Services [CMS]. (2019). Medicare program integrity manual Chapter 13 – Local coverage determinations. <https://www.cms.gov/regulations-and-Guidance/guidance/manuals/downloads/pim83c13.pdf>

Centers for Medicare & Medicaid Services [CMS]. (2021). Psychiatric hospitals. <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/GuidanceforLawsAndRegulations/PsychHospital>

Centers for Medicare & Medicaid Services [CMS]. (2021). Psychiatry and psychology services. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?LCDId=34616>

Centers for Medicare & Medicaid Services [CMS]. (2014). State innovation models initiative: General information. https://www.cms.gov/medicare-medicaid-coordination/medicare-and-medicaid-coordination/medicare-medicaid-coordination-office/downloads/dual_condition_prevalence_comorbidity_2014.pdf

- Cheng, J. E., Shumway, M., Leary, M., & Mangurian, C. V. (2016). Patient factors associated with extended length of stay in the psychiatric inpatient units of a large urban county hospital. *Community Mental Health Journal*, 52(6), 658–661. <https://doi.org/10.1007/s10597-015-9912-2>
- Collins, T. (2004). Health policy analysis: A simple tool for policy makers. *Public Health*, 119(3), 192-196. <https://doi.org/10.1016/j.puhe.2004.03.006>
- Committee on the Mental Health Workforce for Geriatric Populations; Board on Health Care Services; Institute of Medicine; Eden J, Maslow K, Le M, et al., editors. (2012). The mental health and substance use workforce for older adults: In whose hands? Washington (DC): National Academies Press (US). Available from: <https://www.ncbi.nlm.nih.gov/books/NBK201410/> Doi: 10.17226/13400
- Condi G. T. (2015). Policy and Payment Factors Affecting the PMH-NP in the United States. *Issues in Mental Health Nursing*, 36(11), 884–889. <https://doi.org/10.3109/01612840.2015.1062581>
- Crossley, N., & Sweeney, B. (2020). Patient and service-level factors affecting length of inpatient stay in an acute mental health service: a retrospective case cohort study. *BMC psychiatry*, 20(1), 438. <https://doi.org/10.1186/s12888-020-02846-z>
- Crowder, C. (2019). "Improving staffing at a southern Virginia hospital using Bardach's policy analysis and the IHI Triple Aim framework". *Doctor of Nursing Practice (DNP) Final Clinical Projects*. 23. <https://commons.lib.jmu.edu/dnp201019/23>
- Daversa, J. S. (2020). Policy analysis: Appropriate opioid prescribing practices for post-surgical patients". *Doctor of Nursing Practice (DNP) Final Projects, 2020-*

current. 7. <https://commons.lib.jmu.edu/dnp202029/7>

Delaney, K.R. (2017). Psychiatric mental health nursing advanced practice workforce:

Capacity to address shortages of mental health professionals. *Psychiatric*

Services, 68(9), 952- 954. <https://doi.org/10.1176/appi.ps.201600405>

de Nesnera, A., & Allen, D.E. (2016). Expanding the role of psychiatric mental health

nurse practitioners in a state psychiatric system: The New Hampshire experience.

Psychiatric Services, 67(5), 482–484. <https://doi.org/10.1176/appi.ps.201500486>

Dillon, D., & Gary, F. (2017). Full practice authority for nurse practitioners. *Nursing*

Administration Quarterly, 41(1), 86–93.

<https://doi.org/10.1097/NAQ.0000000000000210>

Erickson, B. (2021). Deinstitutionalization through optimism: The community mental

health act of 1963. *The American Journal of Psychiatry Resident's Journal*, 16,

2-5. <https://ajp.psychiatryonline.org/doi/epdf/10.1176/appi.ajp-rj.2021.160404>

Figueroa, J. F., Phelan, J., Orav, E. J., Patel, V., & Jha, A. K. (2020). Association of

mental health disorders with health care spending in the Medicare population.

JAMA Network Open, 3(3), e201210.

<https://doi.org/10.1001/jamanetworkopen.2020.1210>

Frank, R.G. (2013). Mental illness and a duals dilemma. *Generations: Journal of the*

American Society on Aging, 37(2), 47-53. <https://www.jstor.org/stable/26555991>

Fraze, T. K., Briggs, A., Whitcomb, E. K., Peck, K. A., & Meara, E. (2020). Role of

nurse practitioners in caring for patients with complex health needs. *Medical*

Care, 58(10), 853–860. <https://doi.org/10.1097/MLR.0000000000001364>

Glied, S., & Frank, R. G. (2016). Economics and the transformation of the mental health system. *Journal of Health Politics, Policy and Law*, 41(4), 541–558.

<https://doi.org/10.1215/03616878-3620809>

Grant, S., Davidson, J., Manges, K., Dermenchyan, A., Wilson, E., & Dowdell,

E. (2020). Creating healthful work environments to deliver on the quadruple aim:

A call to action. *JONA: the Journal of Nursing Administration*, 50(6), 314–321.

<https://doi.org/10.1097/NNA.0000000000000891>

Han, B., Compton, W. M., Blanco, C., & Colpe, L. J. (2017). Prevalence, treatment, and

unmet treatment needs of US adults with mental health and substance use

disorders. *Health Affairs (Project Hope)*, 36(10), 1739–1747.

<https://doi.org/10.1377/hlthaff.2017.0584>

Hein, L. C., & Scharer, K. M. (2015). A modern history of psychiatric-mental health

nursing. *Archives of Psychiatric Nursing*, 29(1), 49–55.

<https://doi.org/10.1016/j.apnu.2014.10.003>

IBM Corp. Released 2021. IBM SPSS Statistics for Macintosh, Version 28.0. Armonk,

NY: IBM Corp.

Institute of Medicine (US) Committee on the Robert Wood Johnson Foundation Initiative

on the Future of Nursing, at the Institute of Medicine. (2011). *The Future of*

Nursing: Leading Change, Advancing Health. National Academies Press (US).

Jones E. B. (2018). Practice characteristics of nurse practitioners in mental health and

psychiatric settings. *Archives of Psychiatric Nursing*, 32(4), 599–603.

DOI: [10.1016/j.apnu.2018.03.012](https://doi.org/10.1016/j.apnu.2018.03.012)

Kaiser Family Foundation. (2019). An overview of Medicare.

<https://www.kff.org/medicare/issue-brief/an-overview-of-medicare/>

Kaiser Family Foundation. (2020). Total number of Medicare beneficiaries.

<https://www.kff.org/medicare/state-ndicator/total-medicare-beneficiaries/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

Kaskie, B., Imhof, S., & Wyatt, M. (2008). Local Medicare policies: A pathway for providing mental health services to older adults. *Psychological Services*, 5(1), 60–72. <https://doi.org/10.1037/1541-1559.5.1.60>

Kelly, L. & Soper, M.H. (2019). Coordinating physical and behavioral health services for dually eligible members with serious mental illness. Center for Health Care Strategies (CHCS). <https://chcs.org/resource/coordinating-physical-and-behavioral-health-services-for-dually-eligible-membeers-with-serious-mental-illness/>

Kirwin, P., Blazer, D., Bartels, S., Blow, F.C., Gottlieb, G. (2013). The Institute of Medicine (IOM) report, the mental health and substance use workforce for older adults: In whose hands? A road map for the future of our field. *The Medical Journal of Geriatric Psychiatry*, 21(3), Supplement, S35-S36. DOI: <https://doi.org/10.1016/j.jagp.2012.12.073>.

Kleinpell, R., Myers, C. R., Likes, W., & Schorn, M. N. (2022). Breaking down institutional barriers to advanced practice registered nurse practice. *Nursing Administration Quarterly*, 46(2), 137–143. <https://doi.org/10.1097/NAQ.0000000000000518>

Malak, L. (2016). Collaborative opportunities: Working with nurse practitioners to meet

the needs of underserved populations. *Psychiatric Times*, 33(6).

<https://www.psychiatrictimes.com/view/collaborative-opportunities-working-nurse-practitioners-meet-needs-underserved-populations>

Merwin E. I. (2020). Psychiatric-mental health nursing workforce in 2018: Implications for the future. *Archives of Psychiatric Nursing*, 34(5), 317–324.

<https://doi.org/10.1016/j.apnu.2020.08.007>

McGinty, Beth. (2020). Medicare's mental health coverage: How COVID-19 highlights gaps and opportunities for improvement. Commonwealth Fund. DOI:

<https://doi.org/10.26099/sp60-3p16>. Retrieved from

<https://www.commonwealthfund.org/publications/issue-briefs/2020/jul/medicare-mental-health-coverage-covid-19-gaps-opportunities>

Mota, A., Polaris, J., Seigel, R., Zanzi, F. (2019). Assessing the regulatory burden on inpatient psychiatric facilities – April 2019. Manatt, Phelps & Phillips, LLP.

<https://www.jdsupra.com/legalnews/assessing-the-regulatory-burden-on-97618/>

National Academies of Sciences, Engineering, and Medicine. (2016). *Assessing Progress on the Institute of Medicine Report: The Future of Nursing*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21838>.

National Academies of Sciences, Engineering, and Medicine (2021). The future of nursing 2020-2030: Charting a path to achieve health equity. Washington, DC:

The National Academies Press. <https://doi.org/10.17226/25982>.

National Alliance on Mental Illness [NAMI]. (2021). Mental health by the numbers.

<https://nami.org/mhstats>

National Association for Behavioral Healthcare [NABH]. (2019). The high cost of compliance: Assessing the regulatory burden on inpatient psychiatric facilities.

<https://www.nabh.org/the-high-cost-of-compliance/>

National Council for Mental Wellbeing [NCMW]. (2017). The psychiatric shortage:

Causes and solutions. <https://www.thenationalcouncil.org/wp-content/uploads/2022/02/Revised-Final-Access-Paper.pdf>

Nateque Mahmood, M., Prasad Dhakal, S., Brown, K., Keast, R. & Wiewiora, A. (2014).

Asset management policies and guidelines of different states in Australia: A comparative analysis. *Journal of Facilities Management*, 12(3), 286-302. <https://doi.org/10.1108/JFM-03-2013-0017>

Olayiwola, J., Rastetter, M. (2021). Aiming for health equity: The bullseye of the quadruple aim. *Journal of Hospital Management and Health Policy*, 5, 1-6.

<http://dx.doi.org/10.21037/jhmhp-20-101>

Oliver, G. M., Pennington, L., Revelle, S., & Rantz, M. (2014). Impact of nurse practitioners on health outcomes of Medicare and Medicaid patients. *Nursing Outlook*, 62(6), 440–447. <https://doi.org/10.1016/j.outlook.2014.07.004>

Optum. (2022). Medicare coverage summary: Psychiatric inpatient hospitalization.

<https://www.providerexpress.com/content/dam/optum-provexpr/us/pdfs/clinResourcesMain/guidelines/mcs/02.28.20ipMCS.pdf>

Palmetto GBA. (2020). Provider outreach and education advisory group (POE-AG).

<https://www.palmettogba.com/palmetto/jmb.nsf/DID/8BZR9Z5304>

- Perloff, J., DesRoches, C. M., & Buerhaus, P. (2016). Comparing the cost of care provided to Medicare beneficiaries assigned to primary care nurse practitioners and physicians. *Health services research, 51*(4), 1407–1423.
<https://doi.org/10.1111/1475-6773.12425>
- Phillips, S.J. (2022). 34th annual APRN legislative update: Trends in APRN practice authority during the COVID-19 global pandemic. *The Nurse Practitioner, 47*(1), 21-47. doi: 10.1097/01.NPR.0000802996.14636.1c
- Pohlig, C. (2013). Medicare billing recommendations for nonphysician providers vary by state, facility. *The Hospitalist*.
<https://www.thehospitalist.org/hospitalist/article/125958/health-policy/medicare-billing-regulations-nonphysician-providers-vary>
- Rhodes, J. H. (2018). Changes in the utilization of mental health care services and mental health at the onset of Medicare. *The Journal of Mental Health Policy and Economics, 21*(1), 29– 41.
- Rice, M. J., Stalling, J., & Monasterio, A. (2019). Psychiatric-mental health nursing: data-driven policy platform for a psychiatric mental health care workforce. *Journal of the American Psychiatric Nurses Association, 25*(1), 27– 37. <https://doi.org/10.1177/1078390318808368>
- Schroeder R. (2013). The seriously mentally ill older adult: perceptions of the patient-provider relationship. *Perspectives in psychiatric care, 49*(1), 30–40.
<https://doi.org/10.1111/j.1744-6163.2012.00338.x>
- Sentara RMH Community Health Needs Assessment. (2021). Retrieved from:
<https://www.sentara.com/Assets/Pdf/About-Us/Community-Health-Needs->

Assessments/2021-SRMH-Community-Health-Needs-Assessment.pdf

Skiff, K. (2018). "Improving breastfeeding in rural Tanzania using Bardach's Policy

Analysis Methodology". *Doctor of Nursing Practice (DNP) Final Clinical*

Projects, 2016-2019. 16.<https://commons.lib.jmu.edu/dnp201019/16>

Smith, S., Buchanan, H., & Cloutier, R. (2020). Virginia NP scope of practice: A

legislative case study. *The Nurse Practitioner*, 45(2), 33-37. Doi:

10.1097/01.NPR.0000651120.61281.12

Stanik-Hutt, J., Newhouse, R.P., White, K.M., Johantgen, M., Bass, E.B., Zangaro, G.,

Wilson, R., Fountain, L., Steinwachs, D.M., Heindel, L., & Weiner, J.P. (2013).

The quality and effectiveness of care provided by nurse practitioners. *The*

Journal for Nurse Practitioners, 9(8), 492-500.

<https://doi.org/10.1016/j.nurpra.2013.07.004>

Stucky, C.H., Brown, W.J., & Stucky, M.G. (2021). COVID 19: An unprecedented

opportunity for nurse practitioners to reform healthcare and advocate for

permanent full practice authority. *Nursing Forum*, 56(1), 222-227.

Doi: [10.1111/nuf.12515](https://doi.org/10.1111/nuf.12515).

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7675696/>

The Medicare Payment Advisory Commission [MedPAC]. (2010). June 2010 report to

Congress: Aligning incentives in Medicare. Chapter 6: Inpatient psychiatric care

in Medicare: Trends and issues. Washington, DC: MedPAC.

[https://www.medpac.gov/wp-](https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/Jun10_Ch06.pdf)

[content/uploads/import_data/scrape_files/docs/default-](https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/Jun10_Ch06.pdf)

[source/reports/Jun10_Ch06.pdf](https://www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/Jun10_Ch06.pdf)

- Thorpe, K., Jain, S., & Joski, P. (2017). Prevalence and spending associated with patients who have a behavioral health disorder and other conditions. *Health Affairs*, 36(1), 124-132. <https://doi.org/10.1377/hlthaff.2016.0875>
- Tice, J.R., Brown, W.C., Boyle, M., Martin, R.A., Castillo, R., & Mumba, M.N. (2022). Implementing full practice authority for advanced practice registered nurses: A case for mitigating critical mental health services. *Journal of the American Psychiatric Nurses Association*, 1-6. <https://doi.org/10.1177/10783903221096341>
- Tuah, N., Qureshi, S., Dhillo, W., & Majeed, A. (2011). Development and application of the Imperial College Obesity Strategy Assessment Framework for analysing local obesity strategies. *Primary Health Care Research & Development*, 12(2), 83-94. doi:10.1017/S1463423610000289
- Tulloch, A.D., Fearon, P. & David, A.S. (2011). Length of Stay of General Psychiatric Inpatients in the United States: Systematic Review. *Administrative Policy and Mental Health* 38, 155–168. <https://doi.org/10.1007/s10488-010-0310-3>
- Weiss, A.J., Barrett, M.L., Heslin, K.C., Stocks, C. (2016). Trends in emergency department visits involving mental and substance use disorders, 2006–2013. HCUP Statistical Brief #216. Agency for Healthcare Research and Quality, (AHRQ), Rockville, MD. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb216-Mental-Substance-Use-Disorder-ED-VisitTrends.pdf>.
- Woo, B., Lee, J., & Tam, W. (2017). The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency

and critical care settings: a systematic review. *Human resources for health*, 15(1), 63. <https://doi.org/10.1186/s12960-017-0237-9>

World Health Organization [WHO]. (2020). Global health estimates: Life expectancy and leading causes of death and disability.

<https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates>