

Development of a Clinical Assessment Protocol to Increase
Annual Wellness Visit Completion Rates

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Abstract

The "Annual Wellness Visit (AWV)" was implemented to provide Medicare eligible patients recommended preventative screenings every 365 days free of cost. The rate of completion of AWV remains low nationally. The following Quality Improvement (QI) project was initiated to increase staff knowledge of Annual Wellness Visit (AWV), develop a Clinical Assessment Protocol (CAP), and increase the rate of AWV completion at one site. A total of N=10 staff members completed a knowledge test before and after exposure to an AWV training. A two sample t-test determined that the 22% increase from 62% to 84% was highly significant ($t=3.45$, $p=.010$). After designing and applying a CAP, a total of N=430 charts were audited for patients due 30 days prior and N=454, 30 days after distributing the CAP. A chi-square test determined that the AWV completion rate of 0% at baseline to 6.4% post implementation of the CAP was highly significant ($t=2.998$, $p=.017$). Finally, a trend analysis demonstrated that the rate of completion continued to increase weekly ($F=5.29$, $p=.048$), suggesting that change might be sustainable over time. Outcomes indicated that the intervention was successful with both increasing AWV knowledge among staff and increasing the overall AWV completion rates at this health care facility. The outcomes support evidence-based studies that conclude that educational training and utilization of standardized protocols improve delivery of quality health care. Findings carry significant implications for assisting this and similar clinical settings achieve universal coverage of seniors over 65 years of age by the end of 2020.

Keywords: Annual Wellness Visit (AWV), Affordable Care Act (ACA), Medicare, standard protocol, knowledge, prevention, health screening guidelines

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Preventative care services are critically important and should be a core principle in providing quality healthcare. Although the United States (US) spends more on health care than any other country, it ranks 11th in performance among high income countries and 27th globally in indicators such as life expectancy and infant mortality (Schneider et al., 2017). In a study conducted by Maciosek, Coffield, Flottemesch, Edwards, & Solberg (2010), the authors determined that an increased use of screening and other preventive services could improve health outcomes while also saving the US approximately \$3.7 billion annually in unnecessary medical costs.

As part of the Affordable Care Act (ACA) of 2010, the "Annual Wellness Visit (AWV)" was implemented as a benefit for Medicare eligible patients. The Center for Medicare & Medicaid Services [CMS] provides the AWV visit every 365 days and is covered 100% by Medicare (CMS, 2015). The American Academy of Family Physicians [AAFP], has found that this benefit provides an opportunity for physicians to improve the quality of care, assist in patient engagement, and optimize payment opportunities (AAFP, 2017). Although the AWV benefit is provided free of cost to Medicare recipients, completion rates are estimated to reach only one in ten beneficiaries nationally (Bynum, Meara, Chang & Rhoads, 2016). This low rate of utilization diminishes the intended capacity of AWV to prevent chronic illness, identify early treatment options, and reduce the cost burden to the facility and health care system (Bynum, Meara, Chang & Rhoads, 2016).

Background

According to the Centers for Disease Control and Prevention (CDC), chronic diseases, including heart disease, stroke, cancer, diabetes, and obesity, are the leading causes of death in the US and account for most of the nation's health care costs (CDC, 2017). Nearly half (45%) of all adult Americans experience at least one chronic disease in their lifetime (Tinker, 2017). According to the CDC, in 2017, the cost associated with treating cardiovascular disease was estimated to be \$316 billion, \$157 billion for treating cancer, and \$2.7 trillion or 86% of the national healthcare expenditure for chronic health care management overall (CDC, 2017).

One strategy to reduce the incidence and prevalence of chronic disease and is to encourage the rate of preventative health screening and services. According to U. S. National Library of Medicine [NLM] (2016), a screening program can only be considered to be a “preventive” measure if it is able to detect and treat abnormal changes that could later develop into a disease (NLM, 2016). The Centers for Medicare & Medicaid Services established the AWW to promote preventive care, and assure screening, early detection, and care of chronic disease among Medicare beneficiaries (Hain, 2014).

The AWW is provided free of cost to Medicare recipients who have not received an Initial Preventive Physical Examination (IPPE) or AWW in the previous 12 months (Hain, 2014). AWW should be completed automatically by medical providers once every 365 days as recommended by Medicare as part of the Affordable Care Act of 2010. However, the rate of utilization remains low (Bynum, Meara, Chang, & Rhoads, 2016). A national study by the American Medical Group Association found that less than 20 percent of eligible Medicare patients received an AWW in 2016, suggesting a low rate of adoption since its inception (Moore & Hager, 2017). In addition, wide regional variations in AWW utilization have been found. A

randomized claims review found that the lowest rate of AWV utilization (3.0%) was reported in San Angelo, Texas while the highest rate of utilization (34.3%) was reported in Appleton, Wisconsin (Ganguli, Souza, McWilliams, & Mehrotra, 2017).

At a primary care clinic located in the state of California, a Clinical Assessment Protocol (CAP) has been developed for use by clinical staff to expedite the use of AWV, manage the care of patients, and assure delivery of quality of care. In their capacity as health care leaders, doctoral prepared nurses are charged with the clinical management of chronic disease and improving the health of the patient population. It is therefore incumbent upon DNP level primary care providers to assure that preventative tools such as the AWV be fully utilized in their place of practice.

Problem Statement

The completion rates of AWV by providers remain very low despite the health benefits to the patient, the 100% reimbursement rate, and associated financial remunerations. Use of the AWV as a strategy to prevent chronic illness and unnecessary treatments is a dilemma faced by many primary care practices. This dilemma has been observed at one specific primary care clinic located in the U.S. state of California. It has been concluded that the development of a CAP in this specific primary practice clinic may help to expand the use of the AWV, which will enhance quality care and patient outcomes while increasing clinic's revenue and reducing financial burden to the patients.

It is the duty of a doctor of nursing practice (DNP) prepared nurses to take leadership roles within health care practice environments. This project will be conducted as an effort to increase AWV completion rates as an overall effort to reduce the high associated cost of treating chronic conditions while improving the quality of patient care delivered.

Purpose Statement

The purpose of this scholarly project is to develop a CAP for use by clinical staff and providers at a primary care practice located in the state of California. It is anticipated that the intervention will lead to an increase in the rate of AWV utilization by providers thereby driving a reduction of chronic illness and related complications experienced by the patients served. This protocol is consistent with national screening guidelines for the early identification and treatment of chronic diseases. Therefore, the overarching aim of the project is to encourage the use of an existing mechanism (AWV) which will help prevent the incidents of chronic diseases, allow for early treatment, assure better health outcomes, and increase Medicare reimbursement for the health care facility.

Project Question

Will the development and implementation of a CAP increase awareness and utilization of AWV screening services within 30 days of intervention implementation?

This project question will be formulated using the PICOT format.

P: Medical Staff

I: Use of a CAP and AWV training intervention

C: Comparative AWV completion rates before versus after exposure to the intervention

O: Increased staff awareness of AWV and use of AWV services.

T: 30 days before and 30 days after exposure to the intervention.

Project Objectives

The project objectives will include:

- a. Develop a CAP to be used by clinical staff and providers at a primary care practice.
- b. Present the developed CAP to clinical staff and providers.

- c. Evaluate the clinical staff and providers understanding of the protocol pre and post implementation of the intervention through the use of a pre and posttest.
- d. Implement the CAP into the routine care of the primary care practice site.
- e. Evaluate the impact of CAP in completion of AWW pre and post implementation through chart review.

Project Significance

The significance of this project is that the use of a protocol will increase the utilization of AWW. An increase in AWW completion is expected to give the provider an opportunity to effectively identify a disease early, initiate early treatment, prevent complications from developing, and contribute to improving patient outcomes (Kallander, Burgess, & Qazi, 2016). According to Camacho, Yao and Anderson (2017) the use of the 2011-2014 Medicare fee-for-service (FFS) claims data, seven preventive care services which included vaccinations and cancer screenings, were compared among beneficiaries who received and did not receive AWWs. The authors found that non-recipients were less likely to receive any of the seven services compared with recipients of AWWs at 63% and 88% respectively. It was concluded that the results were consistent with the view that wellness visits improve screening rates and assist in reducing cancer related burden.

Studies show that screening for chronic diseases not only significantly affects the quality of life for the patient, but also has tremendous social and financial benefits. As part of a national collective effort in addressing these problems, the United States Congress enacted the health Care Reform Act in 2010 with the goal to make healthcare accessible, affordable and effective for the entire population as well as provide health preventative services for Medicare eligible adults by providing the AWW (Healthcare.gov, 2010). The research literature overwhelmingly

provides evidence about the immediate and short-term benefits of completing AWV for providing effective health care services, assuring optimal health outcomes, and increase practice reimbursement rates. The study of the longer-term impacts of AWV utilization is warranted.

Search Terms

A comprehensive review of the evidence-based literature regarding the unitization of AWV was conducted using information systems databases inclusive of Cumulative Index of Nursing and Allied Health Literature (CINAHL), and PubMed of the National Library of Medicine. The Medical Subject Headings (MeSH) search terms used included “Affordable Care (Healthcare Reform) Act, preventative services, wellness visits, chronic disease, Medicare, geriatrics, primary care, AWV and quality improvement, identifying a total of 187 publications. Inclusion criteria for use of publications in the literature review were full text, peer reviewed articles published in 2013 or later, written in the English language, and relevant to the subject. After inclusion criteria were applied, a total of 42 titles and abstracts were identified, however, any papers with repeated content or did not meet inclusion criteria were excluded from review. A total of 28 articles specific to chronic disease screening, AWV, and quality improvement were identified as appropriate for the literature review.

Review of Literature

The literature review includes general information about the AWV as part of the Affordable Care Act (ACA). The Center for Medicare & Medicaid Services (CMMS) describes the AWV is an annual visit in which a primary care provider (PCP) creates or updates a personalized prevention plan based on the patients’ current health and risk factors (CMMS, 2015). This service is part of a Medicare benefit for screening and early detection of multiple chronic diseases among older adults. The literature also addressed current rates and patterns of

AWV utilization as a resource for disease prevention, management, and the general delivery of primary care. The financial burden linked to inutility of AWV screening services for prevention and chronic disease management are also noted as emerging themes in the literature review.

According to Jiang, Hughes, and Wang (2018) a retrospective review of Medicare claims from 2009 to 2014 showed the effects of receiving an AWV on the use of eight preventive services. It was found that participants who followed the AWV were more than twice as likely (OR=2.43, P=.01) to undergo subsequent preventive services within a year. According to Tao (2017), patients who had received an AWV had a significantly higher percentage of three preventive services including influenza virus vaccine (63.8%), depression screening (4.9%), and sexually transmitted infection screening (2.3%) and therefore concluded that AWV is associated with increased use of other preventive services.

According to Han, Yabroff, Guy, Zheng and Jemal (2015) the use of recommended preventive services, such as, blood pressure check, cholesterol check, and flu vaccinations slightly increased when the AWV was utilized. The study also concluded that following ACA policies for screening resulted in lowering cost-sharing for some preventive services and chronic disease management (Han et al., 2015). According to a study by Tetuan et al. (2014) the results indicated an effectiveness of the nurse-run AWV improved adherence to cancer screening recommendations for colonoscopies and/or mammograms. Early assessments through mammogram and colonoscopy compliance have been associated with an increased number of survivors (Jin, 2014).

According to Shen, Warnock, and Kelman (2017), Medicare Part B claims from 2011 to 2016 were analyzed to assess seasonal influenza and pneumococcal conjugate vaccination utilization and it was found that AWV utilization increased from 8% in 2011 to 19% in 2015.

The study indicated that 33% of the patients who had utilized the AWV received PCV13 vaccination compared to 14% who did not (Shen et al., 2017). According to the CDC, between 70-85 % of deaths caused by the seasonal flu occur among adults over the age of 65 and up to 70% of flu-related hospitalizations are seniors (Reed et al., 2015). These figures suggest that interventions not only to improve immunization rates, increase AWV utilization among Medicare recipients at the point of care are warranted.

According to Espiridion, Mulinti, Kemper, and Goebel (2016) the findings from a study indicated that 88% of patients who completed the AWV agreed that it either met or exceeded patient expectations. Approximately 86% of patients recommended AWV to friends and family, and 88% of patients intended to complete AWV next year (Mell, Hlatky, Schreibati, Dalman, & Baker, 2013). According to Hain (2014) completing the required AWV forms prior to the scheduled office visit substantially reduces screening time, assists with the more efficient delivery of quality care, and reduces the overall cost of providing the service.

Impact of the problem

The ACA was enacted in 2010 as part of the national need to address the financial, economic, and overall health burden of chronic disease (Healthcare.gov, 2010). The underutilization of AWV services as a measure to prevent chronic diseases associated with premature mortality is an emerging theme. Recent figures estimate that eight in ten older adults fail to receive AWV or screening services (Camacho et al., 2017). The low AWV utilization has been linked to the high prevalence of chronic diseases and related premature mortality (Ganguli, Souza, McWilliams, & Mehrotra, 2017). Heron (2013) reported that the ten leading causes of death include: heart disease, malignant neoplasm, respiratory disease, cerebrovascular disease,

accidents, Alzheimer's disease, diabetes mellitus, nephritis, influenza, and pneumonia.

Collectively, these conditions account for over 75% of premature deaths (Heron, 2013).

Underutilization of available preventative services for chronic disease management carries considerable consequences for health care delivery and health outcomes (Liu et al., 2016). According to Kelley, McGarry, Georges, and Skinner (2015) in a retrospective cohort study, the social and financial costs faced by 3,209 beneficiaries between 2002 and 2008 were estimated to cost average of \$300,000 per patient to the system to treat an advanced chronic disease. In an earlier retrospective chart review, Alhossan, Kennedy, and Leal (2009) found that early screening lead to a total savings in spending in excess of \$22,000 per patient. However, more recent estimates suggest the average out-of-pocket expenditures are estimated at \$38,688 per individual (Kelley et al, 2015).

According to Zafar et al. (2013), the impact of health care costs on well-being and treatment among 254 cancer patients were significantly more likely to make major lifestyle changes in order to meet the costs of care including a reduction in leisure activities (68%), reduced spending on food and clothing (46%), taking less than the prescribed amount of medication (20%), and avoiding purchasing prescriptions altogether (24%). In a semi-structured multi-specialty study of 133 family members of chronically ill patients, nearly all (92%) of the respondents reported experiencing an increased burden on family relationships and a general lower quality of life (Golics et al., 2013).

Addressing the Problem with Current Evidence

According to Siu (2015), hypertension between a screened and non-screened group of adults aged 65 years or older were compared in a randomized clinical trial and found that there were three fewer annual cardiovascular-related hospitalizations per 1,000 persons in the

screening group compared with the non-screening group. In another study, Screevalsan, Saddington, Shiles, and Rosenberg (2015) examined the use of tools to measure the cognitive function, depression, anxiety substance abuse and other mental health issues in the aging population. Screevalsan et al. concluded that tools such as the Mini Metal State Examination (MMSE) and the Patient Health Questionnaire (PHQ-9), among numerous other psychometric tools, were essential for use in primary care (2015).

According to Breatthauer and Kalager (2013), a number of reliable screening procedures are available to detect early stage invasive breast, lung, prostate, cervical and colorectal cancers. These forms of cancers can be detected at early and treatable stages using common screening tools such as mammography, computed tomography, among others (Breatthauer & Kalager, 2013). Fortin et al. (2016) argued that the integration of available screening procedures to assess patients for chronic disease results in measurable positive benefits for chronic disease prevention and management.

In a population-based prospective study, Garcia-Albeniz, Hsu, Bretthauer, and Hernan (2017) evaluated the effectiveness and safety of screening colonoscopies to prevent colorectal cancer in persons over 70 years of age. The eight-year risk for colorectal cancers was estimated to be 2.19% among the colonoscopy group compared to 2.67% among the non-screened group; a reduction in the relative risk of developing colorectal cancer after age 70 was significantly lower in the group that had been screened. Findings supported Prevention Service Task Force recommendations for use of routine colonoscopies for screening colon cancer (Garcia-Albeniz et al., 2017). A national analysis of a Taiwanese epidemiological database found that the pneumococcal polysaccharide vaccine (PPV) was associated with significant reductions in

pneumonia hospitalizations (60%), invasive pneumococcal disease (76%), and pneumonia related deaths (90%) in adults 75 years of age and older (Tsai et al., 2015).

A review of the literature supports the validity and reliability of using screening tools for the benefit of identifying chronic disease early in the disease process. They overwhelmingly confirm the value of promoting AWV in the facility under study.

Current management. There are no formal policies or protocols on AWV utilization at the California-based project practice site. The providers randomly select patients and medical assistants typically assist with completing required forms, which includes; the “Checklist for your Medicare Wellness Annual Visit” (Appendix A), the Mini-Mental State Examination (MMSE) form (Appendix B), Patient Health Questionnaire-9 (PHQ-9) form (Appendix C), and the Alcohol Use Disorders Identification Test [AUDIT] (Appendix D). For patients with severe cognitive impairment, the assistance of family members or care staff are often sought to collect relevant data during AWV. The provider uses the information gathered from all the forms to complete the “Medicare AWV Preventative Well Plan” form which is a summarized guideline for recommended preventative services in older adults (Appendices E and F). For patients with severe cognitive impairment, the assistance of family members or care staff are often sought to collect relevant data during AWV.

A quality management report of electronic medical records found that between October 2017 and October 2018, a total of 833 elder patients were cared for, but only eight patients received an AWV. The low AWV completion rates could be due to a lack of time, competing responsibilities, and not maximizing ways in which to delegate responsibilities in order to make the process time efficient. These figures suggest an AWV completion rate of less than 1% at this

facility. This completion rate is a fraction of the low national rate of 20 % and fails to comply with the 100 % federal target rate for Medicare recipients (CDC, 2017).

In addition, Medicare average reimbursement for each completed AWW is \$174, which is a higher rate than other wellness visits (CCM, 2017). A 2015 study conducted by Bluestein et al. (2017) found that AWW recruitment by two primary care clinics resulted in doubling of revenue generated from Medicare reimbursement. Based on per patient reimbursement figures, the facility being used for this practice improvement project is currently losing a significant amount of reimbursement revenue (Bluestein et al., 2017; CCM, 2017).

Current Recommendations and Benefits. Adults aged 65 or older are recommended to have AWW completed based on national guidelines from USPSTF, the Advisory Committee on Immunization Practices, and other preventive services every 365 days (Hughes, 2011). The Healthy People 2020 goal is to increase the proportion of older adults who receive clinical preventive services such as colorectal screening from 58.2% in 2012 to 61.2% in 2020, and blood pressure screening from 48.9% in 2012 to 61.2% in 2020, and to advance knowledge about effective strategies for healthy aging (Healthypeople.gov, 2014).

The practice of AWW offers important opportunities to provide preventative health services for older patients on an ongoing basis (Hain2014). It is performed every year to provide health screening services, update any newly identified problems, and make appropriate service recommendations as needed (Noridian Healthcare Solutions, 2018). The AWW can be completed by a physician, mid-level provider, and other health professional working under the direct supervision of a physician (Hughes, 2011). The key elements of AWW include medical and surgical history, medication review, vital signs, use of standardized screening tools, and a written five to ten year screening schedule (Hughes, 2011).

Issues still Under Investigation. The current AWV utilization rate is based solely on nationally representative samples using claims data (Camacho et al., 2017). Geriatric workgroups are currently being conducted to determine whether screening continues to be beneficial in older adults (USPSTF, 2014). The impact of AWV in providing preventative health services to lower income, immigrants, and others with limited access to healthcare services is currently being examined (Camacho et al., 2017). The effectiveness of practiced-based or community-based interventions on AWV completion rate nationally is also under investigation (Camacho et al., 2017).

Issues not yet addressed. While the literature has clearly demonstrated that the use of AWV has measurable immediate and short-term benefits on health outcomes and finances, the longer-term benefits of AWV are less clearly understood. The available evidence-based data also fails to address definitive conclusions about the longer-term effects of the AWV screening as a by-product of the ACA. Perhaps this gap is due to the newness of the ACA legislation. Conclusions about the positive or negative long-term impacts of early identification of chronic disease among Medicare beneficiaries receiving AWV screening warrant closer study and a more conclusive comprehension.

Theoretical Framework

The Donabedian conceptual framework will support this DNP project (Appendix G). According to Ayanian and Markel (2016) the contemporary health care quality movement had its “founding moment” in 1965 with the enactment of the Medicare and Medicaid programs by the Health Services Research Section of the U.S. Public Health Service. The three elements structure, process, and outcome of the Donabedian Model were first described in 1966 “Evaluating the Quality of Medical Care” as a preface to the analysis of methodologies used in

health services research. The Donabedian Model quickly became one of the most widely accepted and influential theoretical models in the field of health services research (Donabedian, 2005). The Donabedian structure-process-outcome model not only provides a model for assessing quality in health services research but is also relevant to both quality and safety in nursing education (Fitzpatrick, 2014).

Theoretical Identification and Historical Development

Avedis Donabedian was born in Beirut, Lebanon on January 7, 1919. Donabedian was a physician, quality improvement researcher, and an educator at The University of Michigan (Best & Neuhauser, 2004). In 1966, Donabedian proposed a conceptual framework using the triad of structure, process, and outcome to evaluate the quality of healthcare (Ayanian, J.Z, & Markel, H. 2016). Donabedian theorized that a good structure creates proper processes, which increase the probability of positive outcomes and patient satisfaction (Donabedian, 1980).

Gardner, Gardner, and O'Connell (2014) conducted a mixed-methods study to evaluate the safety and quality of a Nurse Practitioner (NP) service innovation and found that the Donabedian Framework was a valuable and validated approach to examine both safety and quality of an NP service innovation. Kobayashi, Taemura, & Kanda (2011) confirmed patient perceptions of nursing service quality in the general wards of Japanese hospitals between 2005 and 2006 using Donabedian's approach and recommends its inclusion to improve quality of nursing practice. The American Nurses Credentialing Center (ANCC) adopted the Donabedian frameworks as its accreditation model for obtaining continuing nursing education for ongoing professional development (ANCC, 2012).

Applicability of Theory to Current Practice

The Donabedian Framework can be used in quality improvement research in different aspects of healthcare delivery and clinical settings. It is commonly used to allow practitioners, researchers, administrators, and policymakers to identify underlying mechanisms that may result in poor quality care for patients (Liu, Singer, Sun, & Camargo, 2011). One example of the adoption of the Donabedian framework is its use as a tool to guide accreditation requirements, monitor institutional progress, and adhere to new processes (Linda, Naranjo, & Kaimal, 2011).

The Donabedian model may be used in this project to guide providers in the implementation of a clinical assessment tool to enhance compliance in medical screening and AWV completion. Providers will be able to identify problems within the structure or process and implement corrective measures using the clinical assessment tool. The purpose of this assessment tool is to increase the rate of AWV completion, identify disease early, control current medical problems, and deliver quality health maintenance for the patient. Application of this framework can create a change in staff attitudes toward preventative services and health promotion through the process of scheduling and completing AWV using the clinical assessment tool. Sardasht, Jafarnejad, and Jahani (2014) determined that the framework will enhance human and organizational infrastructures in health centers and could be of great help in providing effective health care.

Primary care practitioners will adopt the clinical assessment tool which is a simplified guide, to schedule patients for AWVs. In addition the clinical assessment tool also offers the ability to identify which questions to ask before and during AWV completion. This framework affords medical providers the opportunity for process improvement through changes in preventive care, monitoring, and effective self-care.

Major Tenets of Theory

The Donabedian Framework is a conceptual framework for assessing the quality of care and is flexible enough to apply to many situations, and the evaluation of care can be organized in three dimensions: Structure, Process, and Outcome (Donabedian, 2005) (Appendix G).

Structure. The structure of healthcare delivery is at the individual practice, organizational, and healthcare systems levels (Kleinman & Doughert, 2013). It gives a sense of the healthcare provider's capacity, systems, and process to provide high-quality care (Agency for Healthcare Research and Quality, 2015). Structure variables are often concrete and accessible, making them relatively easy to assess such as facilities and equipment, qualification of care providers, administration structure and operations of programs, and staff-patient ratios (Kleinman & Doughert, 2013). Examples of a structural defect could be lack of access to healthcare by patients or inadequate training of staff (Kleinman & Doughert, 2013).

Process. The process measures the role of the provider in improving the health of either chronic healthcare conditions or fosters the healthy patient's overall care (Agency for Healthcare Research and Quality, 2015). In addition the process refers to how care has been provided regarding appropriateness, acceptability, completeness or competency, and also shows the interaction between healthcare practitioner and patient based on series of actions, changes, or functions (Donabedian, 2005). Some examples include the standard of care received, prompt patient notification of appointments needed, and clinical assessment tools used.

Outcome. Outcome contains all the effects of health care on patients or populations, including changes to health status, behavior, or knowledge as well as patient satisfaction and health-related quality of life. This reflects the impact of the healthcare service or intervention to the health status of the patient and also demonstrates quality improvement work whether it has achieved its goal (Agency for Healthcare Research and Quality, 2015).

Applicability of Theory to DNP Project

The DNP project is focused on using the leadership skills of the DNP prepared nurse to implement corrective measures for improving compliance with AWW completion in the primary care practices. The Donabedian model of structure, process, and outcome serve as a guide for this project because it requires an extensive review of the current process of completing AWW. Implementation of process improvement measures to improve the quality of care delivered is also facilitated. Information collected through a pre-implementation survey of the clinical assessment tool will provide a baseline understanding of possible barriers encountered by the clinical staff within the structure and process of completing AWW. A post-implementation survey will allow a pre and post comparison and measure of change. The Donabedian model will allow the gathering of staff knowledge of process improvement measures, which will be incorporated in the clinical assessment tool, and provide ongoing discussion with staff regarding the goal of increasing practice efficiency. New process improvements typically initiated by stakeholders are perceived as positive changes in the practice (Batras, Duff & Smith, 2014).

The initiation and implementation of the clinical assessment tool can increase confidence among the medical provider's ability to ensure health screening, health promotion, and ensuring quality patient care. The simplified clinical assessment tool will reduce time constraints and aims to increase the rate of compliance. Other factors such as availability of required forms, adequate training of staff, personal collaboration, and other impediments in completing the project will be addressed during the planning and implementation phase using the Donabedian model.

In conclusion, health screening is a crucial component of disease prevention. Through regular screenings, disease can be detected early while there is still an opportunity for intervention (Teo, Ng, & White, 2017a). The Donabedian model was selected as the conceptual

framework for this project because it provides insight into the operation of a primary care practice, identifies the needs to processes, improves practice culture, and assure quality health care delivery to patients.

Description of Project Design

This DNP project will utilize a quality improvement (QI) design. The overall purpose of this project is to increase the completion rate of AWW in a primary care facility located in the State of California. The population of interest will be the practice site staff and providers. This includes physicians, nurse practitioners (NP) medical assistants (MA) and office staff. The project lead will develop a Clinical Assessment Protocol (CAP) for use by clinical staff to improve the frequency in which AWW is completed for patients treated at this clinical site. The Donabedian structure-process-outcome model will be used to guide the development and implementation of the CAP.

The data analysis for this project will include the pre and post collected data from the pre and post questionnaires and the pre and post Electronic Health Record (EHR) chart audits. The analysis will reflect baseline data (30 days before intervention implementation) and post implementation data (30 days after intervention implementation). The independent variables will include: date, age, and gender (male/female), Medicare recipient (yes/no) and the dependent variable will be the use of the AWW (yes/no). The AWW completion rates will be determined by dividing the number of AWW screenings by the number of Medicare eligible patients during a fixed period of time. The data will be analyzed using the Statistical Package for Social Sciences (SPSS) version 24 to compare data in the AWW utilization both pre and post implementation of the education intervention. In addition, the data will be analyzed using the non-parametric Chi-squared (χ^2) test to determine if any changes between pre and posttest responses were significant.

This nonparametric will be used because the sample size is small, responses are categorical, and data do not rely on conditions of validity or normal distribution.

Population of Interest

The population of interest for this DNP project will include the staff and providers currently employed at the primary care practice site. The primary care site currently employs four physicians, four nurse practitioners, eight medical assistants and an office manager. The inclusions criteria require that staff and providers are currently employed by the practice site in this project and engage either in direct patient care and/or scheduling. Any medical staff not employed at the practice site or do not directly provide patient care or scheduling are excluded from participation.

Setting

The project site setting is a primary care practice located in the state of California. The practice provides more than 800 patient visits each month at private homes, assisted living facilities, and boarding care facilities. The majority of the patient population is 65 and older and Medicare eligible. Routine wellness visits are completed on a monthly basis by physicians and nurse practitioners, with the assistance of medical assistants. Services include taking vital signs, blood draw, lab specimen collection, electrocardiograms (EKGs), patient education, medication management, and other services required of primary care practitioners. Acute and sick visits are also completed based on patient, family or facility requests.

Stakeholders

Stakeholder engagement is important in the decision-making process and sustainability of any project (Bal, Bryde, Fearon, & Ochieng, 2013). The identified stakeholders for this project

are the owner of the practice, practice providers, office manager, and medical assistants.

Permission to complete the project has been granted by the manager of the practice (Appendix H). During the design stages of the project, weekly collaboration among the stake holders have taken place to review current trends and to identify ways to improve the current process of completing AWV. Collaboration and engagement of stakeholders reveal a range of concerns, attitudes, information, and perspectives needed for a successful implementation of the project (Rizzo et al., 2015).

Recruitment Methods

The recruitment method for this project design was that of direct recruitment which consisted of emails, phone calls, and the workplace message dashboard to the staff and providers. The communication will deliver information about the DNP project and the CAP protocol that will be developed by the project lead. Since this is a quality improvement initiative, all staff and providers that see patients will be participating in the intervention. The DNP project is supported by the owner of the company and the office manager. Staff and providers will be informed about the DNP project, and time requirements. No compensation will be offered for staff and providers to participate in the educational intervention, or to complete the pre and post -questionnaires as this is a quality improvement initiative. To protect staff and providers privacy, no identifying information will be required.

Chart Recruitment

A quality management reporting function in the practice EHR will be used to recruit charts for audit for this project. The quality management reporting function reports clinical performance, dates patients were seen, types of visits, identify areas for improvement period, and

often used as part of a quality improvement initiative. A chart audit (quality management reporting) will be used by the project lead to determine trends in AWW completion at baseline before the implementation of the educational intervention and 30 days after implementation. Chart audits of all patients seen during the implementation period will be conducted on data documented in the medical record in order to measure trends in AWW over a fixed time period.

The entire population of medical records compiled (30) days before and (30) days after the implementation period will be reviewed. This method of using the entire population will be adopted because completing the AWW is low at his facility, and this sampling method will allow for capturing and determining the frequencies of a characteristic that is not likely to occur with low t frequency (Ethikan, Sulaiman, Musa, and Alkassin, 2016).

No identifying data will be used in the analysis and will be analyzed only in the aggregate. Therefore, the data will be completely blinded and anonymous. No staff will be recruited or involved with the chart audit component. The chart audits will be conducted by the project lead.

Tools /Instrumentation

The tools that will be utilized in this DNP project are: the CAP, an educational PowerPoint, pre and post implementation questionnaires, AWW tools, and chart auditing tool.

Clinical Assessment tool (CAP)

The CAP (Appendix I) will be developed by the project lead based on current practice process of completing the AWW, national guidelines from USPSTF, and the Advisory Committee on Immunization Practices, using the Donabedian structure-process-outcome model. This model is based on the assumption that a proper structure improves process, outcomes, and patient satisfaction (Donabedian, 1980). The CAP will identify the current AWW forms and

tools for screening, the process of scheduling AWV, and the role of medical staff in its implementation. The CAP will also provide a simplified guide in AWV documentation and billing processes for increase compliance. The practice site owner will validate the information and give final approval for use of this tool.

Educational Intervention

The project lead will develop a Power Point presentation (Appendix J) which will be used to train the medical staff on the content of AWV and the importance of AWV completion. Education plays a crucial role in raising awareness on an issue and encourages transfer of knowledge into clinical practice (Hewitt, Tower, & Latimer, 2015). There will be two educational training sessions, which will be communicated to all the staff via email, telephone conversation and workplace dashboard. Since this is a quality improvement initiative at the practice site all staff and providers are expected to participate. The duration of the educational session will be approximately 60 minutes. The educational session may be scheduled to be provided more than once. The times are to be decided and will conform to the scheduling needs of the staff and providers.

The content of the PowerPoint and discussion will include staff roles in the completion of AWV, national and site AVW completion, the benefits of AWV, and the relationship between health policy and the AVW benefit, introduction to the CAP as well as familiarity and comfort with the participating and/or completing the AWV process.

Pre and Post -Questionnaire

A pre and post-implementation questionnaire (Appendix K & L) will be developed by the project lead. The questionnaires are comprised of five categorical and ten five-point Likert-type scale questions to evaluate knowledge, skills, and attitudes towards AWV by the staff and providers

before and after receiving the training intervention. The questions are based on the information presented in the educational presentation. Content validity and reliability of the questionnaires was determined by the content validity index [CVI] (Appendix M). An Item CVI of 0.78 or higher is considered excellent 0.78- 0.63 is average, under 0.53 is suboptimal and lacks clarity (Larson et al., 2015). The item CVI assessment suggested a great understanding and sense of appropriateness for all items for a total assessment score of 0.98. However, question 9 received a notably lower score of 0.67. After eliminating question 9, the overall CVI score increases to 1.0. This CVI scores suggest that the content of this questionnaire is valid for this project.

Annual Wellness Visit (AWV) Tools

The tools used during AWV include; the “Checklist for your Medicare Wellness Annual Visit,” the MMSE, PHQ-9, AUDIT, and “Medicare AWV Preventative Well Plan” form. The tools are as described below.

Checklist for an annual wellness visit. The checklist is a health risk assessment form currently used by the practice during AWV. The Centers for Medicare & Medicaid Services (CMS) requires providers to complete health risk assessment (HRA) during AWV (Hughes, 2012). This checklist helps providers identify health and risk behaviors and discuss concerns with the patient, reduce risk factors, and develop a personalized prevention plan (Hughes, 2012). According to a study to evaluate the effects of HRA and counseling among elderly patients, Stuck et al. (2015) found that using HRA self-administered questionnaires reduced the total mortality rate by 4.9% and improved the overall survival rate by .79%. Authorization to use the form has been granted (Appendix N).

Mini-mental state exam. The MMSE also known as the “Folstein test,” is a 30-point questionnaire first published by F. Folstein in 1975 to differentiate organic from functional

psychiatric patients. It is primarily used in the primary care setting to screen for dementia (Monroe & Carter, 2012). According to Galea (2005) in a cross-sectional study to detect early Alzheimer's disease in N= 154 individuals, the MMSE sensitivity was 0.69, and specificity was 0.82. The inter-rater reliability was found to be high (mean kappa value 0.97) and considered valid in detecting early Alzheimer's disease. Psychological Assessment Resources, Inc. granted authorization to use the form for screening, but only approved three sample items from the MMSE (Appendix O).

Patient health questionnaire-9. The PHQ-9 is a nine-question tool developed by Dr. Spitzer at Columbia University in 1999 as self-administered tools for assessing depression (Kroenke, Spitzer, & Williams, 2001). The PHQ-9 has been found to have a sensitivity of 88% and a specificity of 88% for detecting major depression (Kroenke et al., 2001; APA, 2005). According to the author of PHQ-9, the form is currently available online for download, and no request for authorization is needed.

Alcohol use disorders identification test (AUDIT). This is a standardized 10-item form developed by World Health Organization (WHO) to assess alcohol consumption, drinking behaviors, and alcohol-related problems (Daepfen, Yersin, Landry, Pecquad, & Decrey, 2002). The test is deemed reliable and valid self-administration tool to identify alcohol dependence or risk with a Spearman correlation coefficient of 0.88, internal consistency Cronbach alpha index 0.85, and a sensitivity of 0.77 (Deappen et al., 2000). Authorization to use this form has been granted by WHO permissions team (Appendix P).

Medicare AWW preventative wellness plan. This is a summarized plan for male and female used by the practice based on national guidelines from USPSTF, the Advisory Committee on Immunization Practices, and other preventive services to allow the provider to develop a

wellness plan for the patient for the year. The form identifies screening schedules, the recommended frequency, and last time it was completed. This allows the provider to identify completed screenings and make referrals for needed screenings or perform the required diagnostic testing or blood draw. The AWV Preventative Wellness Plan (Appendix E and F) is specific to the practice, and the manager has granted the authorization to use the material.

Chart Audit Tool

A Chart Audit tool (Appendix Q) will be developed by the project lead using the five variables; four independent variables including whether the practitioner attended the training (Y/N), date, patient age, patient gender, Medicare eligibility, and one dependent variable (AWV completion). Data generated from quality management reporting function in the practice Electronic Health Record (EHR) will be entered into the audit tool, populated into a spreadsheet, and analyzed using The Statistical Package for Social Science (SPSS) version 24 to measure differences in the rate of AWV completion at baseline and after implementation of the intervention. In this context, the chart audit tool will be helpful to collect raw data calculate and compare the rates of AWV completed at baseline and over four weeks post-intervention implementation.

Data Collection Procedures

This project will rely on two data sources: pre and post questionnaire data collection and pre and post chart audits. The first will comprise of pre and post questionnaire data administered to staff and providers immediately before and after the educational workshop. The pre and post questionnaires are estimated to take five minutes to complete. The pre and post questionnaires will be numbered, and each question coded in order to match for analysis. No names or identifying questions will be asked to the providers in order to maintain privacy and

confidentiality. The pre and post questionnaire results will be used to evaluate the education tool intervention and the effectiveness of providers' use of the recommendations in practice.

Therefore, the staff and providers will complete the pre and post questionnaires, and the results will be determined by comparing the pre and post questionnaire results of the understanding on how providing the recommendations of the CAP will impact patients at the clinic.

The data analysis for this project will include the pre and post collected data from the EHR record. The analysis will reflect baseline data (30 days before intervention implementation) and post-implementation data (30 days after intervention implementation). The independent variables include: date, age, and gender (male/female), Medicare recipient (yes/no) provide a demographic context; AWV eligibility (yes/no), and the dependent variable will be the use of the AWV (yes/no). The AWV completion rates will be determined by dividing the number of AWV screenings by the number of AWV eligible patients during a fixed period of time. Provider participation in the training it will be noted as Y/N to measure differences in completion rates between participants and non-participants, although it is anticipated that all practitioners will participate.

The collected data from the EHR charts using the chart audit tool, will be analyzed by populating data into an excel database and using the Statistical Package for Social Sciences (SPSS) version 24 to compare data in the AWV utilization before and after the educational intervention. Data will be measured to determine patterns of behaviors pre and post implementation. In addition, the non-parametric Chi-squared (χ^2) test will be used to determine if any changes between pre and posttest responses were significant. This nonparametric will be

used because the sample size is small, responses are categorical, and data do not rely on conditions of validity or normal distribution.

The privacy and confidentiality of staff, providers, and patient chart information is ensured during the project implementation. Outcomes will be reported only in the aggregate and cannot be linked to any one respondent. Data will be kept in a code protected computer for three years following completion of the project.

Intervention/Project Timeline

The timeline for this project is six weeks. The timeframe includes implementation of the project intervention, data collection, and analysis/interpretation. Week one will begin by educating the providers and staff on proper criteria and protocols involved in the upcoming implementation of the clinical assessment protocol. The way in which data collection will occur will also be discussed. The pre intervention questionnaires will be completed before the training. The post intervention questionnaires and CAP will be implemented after the training. In week two, the implementation of the clinical assessment protocol at the practice site will continue. The data obtained from the chart audits will be collected in weeks three and four. In week three, the collection of pre-implementation data from the patient charts will be recorded. In week four, the collection of post-implementation data from the patient charts will be recorded. Week five will consist of analyzing the data collected from chart audits in the previous two weeks. In week six the efficacy of the clinical assessment protocol will be evaluated by comparing patient wait times before and after implementation of the protocol to determine if it is beneficial. This is outlined in the table below:

Project Implementation Timeline	
Week	Activity
Week 1	<ul style="list-style-type: none"> ▪ Education of the providers and staff on proper criteria and protocols involved in the upcoming implementation of the clinical assessment protocol. ▪ Pre questionnaires will be completed before training, post questionnaires and CAP will be implemented after the training
Week 2	<ul style="list-style-type: none"> ▪ Implementation of the clinical assessment protocol at the practice site.
Week 3	<ul style="list-style-type: none"> ▪ Collection of pre-implementation data from the patients' EMR will be obtained and recorded, specifically; the Patient demographic, Medicare eligibility, AWW eligibility and AWW completion 30 days pre implementation.
Week 4	<ul style="list-style-type: none"> ▪ Collection of post-implementation data from the patients' EMR will be obtained and recorded, specifically; the Patient demographic, Medicare eligibility, AWW eligibility and AWW completion 30 days post implementation.
Week 5	<ul style="list-style-type: none"> ▪ Analysis of the collected data will be performed.
Week 6	<ul style="list-style-type: none"> ▪ Evaluation of the efficacy of the clinical assessment protocol will be performed by comparing pre and post educational questionnaire and pre and post chart audits.

Ethics and Human Subjects Protection

This project meets the criteria for Touro University Nevada (TUN) quality improvement project for which full institutional board review (IRB) is not indicated. In addition, because this project has been determined to be a quality improvement project, the primary care site does not require IRB approval for the implementation. However, a written authorization was requested and provided by the practice manager. The project lead has completed the required Collaborative Institutional Training Initiative (CITI) web-based training in multiple areas of research/study compliance on basic human subject protections and other topics pertinent to the project implementation.

All Health Insurance Portability and Accountability Act of 1996 (HIPPA) will be strictly adhered to before, during and after project implementation. Patient information gathered from chart audits will be anonymous, and a randomly self-generated identification (ID) code will be used to allow a matched analysis of pre and post test data. The chart audit will not use or record

any identifying patient information.

In order to maintain privacy and anonymity, no identifying information will be asked or recorded, nor is signed consent required from staff and providers as this is a QI initiative and all providers at the site will participate. The staff and providers will benefit from the project through interactive educational training on AWV, current trends, impact of chronic disease, benefits of preventative services, and quality healthcare delivery. There are no risks associated with participation in this practice improvement project. Staff and providers will not be offered financial compensation, although breakfast pastries and beverages will be provided during educational intervention workshop. To ensure privacy of staff, provider and patient information, data will be collected only by the project lead using approved device and following the privacy, confidentiality and standards of care of the practice site.

Plan for Analysis/Evaluation

Evaluation is a systematic determination of the merit, worth, or significance of an intervention (Harvey & Wensing, 2003). A set of standards will be used to examine the effectiveness of the proposed practice or programmatic changes. An evaluation will be conducted to assess and determine if the educational intervention was effective with improving awareness of AWV among staff and practitioners. This analysis will be based on quantitative data to describe any changes in staff and provider knowledge, skills, and attitude towards completing AWV experienced after exposure to the intervention. Data used for the evaluation will come from two sources. One source will be from the pre and post-questionnaires completed by the staff and providers who attended the educational presentation. The second source will reflect data from the chart audits following CAP implementation.

Data from these pre and post questionnaire will be descriptively analyzed for the average

(mean) scores achieved by the attendees. Data analysis will comprise of both a Wilcoxon signed rank test and the paired sample t-test. Both the Wilcoxon and t-test are inferential statistical tests used to determine whether there is a significant difference between the means of two groups (Fay and Proschan, 2010). The Wilcoxon signed rank test is a non-parametric statistical hypothesis test able to compare differences at two different points without having to meet the conditions of a normal distribution and is more suitable to use with a small sample size (Fay and Proschan, 2010). Categories will be assigned numerical values and cumulative continuous numeric test scores from the same group at two different points of times (before and after exposure to the educational presentation). A significant increase in post-questionnaire scores will provide evidence that the educational training was beneficial in enhancing knowledge, skills, and attitudes towards completing AWV among practitioner and staff participants.

The second source of data will be the AWV completion rates, and will be analyzed using the Chi-Squared (χ^2) test. The t-test as previously described measures differences in continuous (pre and post test scores). By comparison, the Chi-Squared statistic measures the distribution of categorical data (Y/N) frequencies (McHugh, 2013). A Chi-squared can be used to evaluate whether an association exists between the observed pattern and the expected pattern of completion. The purpose of the Chi-squared test is to evaluate how likely the observations of proportional changes in AWV completion made are true, not due to chance (McHugh, 2013). Data will be collected through the pre and post implementation record audits. The Chi-squared test and analysis is used to determine whether there was a significant difference between the expected frequencies and the observed frequencies in the number of AWV completed between the pre-intervention and post-intervention chart reviews. The findings of the evaluation can help

formulate a conclusion about the influence of exposure to the educational intervention and use of the new CAP on the frequency of AWW completion.

Significance/Implications for Nursing

This quality improvement project is designed to increase staff and providers awareness of AWW, and increase the completion rates at a primary care site. Although, the practice provides chronic routine chronic disease management, these services do not capture essential screening required to provide comprehensive preventative measures. Thus, this project will create a nursing leadership opportunity to help staff and providers at the primary care site increase their awareness of the essential nature of comprehensive screenings required for proper health management. The role of a doctoral prepared nurse is to provide organizational leadership, improve patient health outcomes, and protect the nation's health (American Association of Colleges of Nursing [AACN], 2006). Advancing nursing practice as required by the *DNP Essentials II* will be fully utilized by creating the CAP as a tool to effectively detect and manage chronic disease early before the disease advances or worsens (AACN, 2006; Teo, Ng, & White, 2017b). This project creates a significant leadership opportunity for an advanced practice nursing through engaging stakeholders, advancing the utilization of health screening measures and patient-centered preventative care.

The introduction of nurse practitioners (NPs) has resulted in increased access to healthcare in rural and other vulnerable communities (Bryant-Lukosius et al., 2017). It is believed that implementing this quality improvement initiative by a NP at the primary care site will increase patient's access to required preventative measures through AWW completion, create opportunity for quality healthcare delivery to the patient population, reduce patient expense, and increase revenue for the primary care site through Medicare disbursement. This action is

consistent with DNP *Essentials VII* requirement with a focus on health promotion and disease prevention (AACN, 2006).

Patient and national cost savings measures are also a professional and ethical responsibility of the nursing profession (Salmond & Echevarria, 2017). It is estimated that 11.4 million Americans have a chronic disease, and while the prevalence of chronic conditions increases with age, low income individuals of all ages are significantly more likely to live with a chronic condition (Meng, Ahman, & Pickett, 2015). The State of California has determined that chronic disease is not only responsible for 80% of health care expenditures, but is the leading cause of disability and death (California Department of Public Health [CDPH], 2018). It has been estimated that for every \$1 invested on preventative health services, \$4.80 is saved on health care spending (CDPH, 2014). Identifying chronic illnesses before they develop into advanced stages is estimated to save the United States economy approximately \$1.1 trillion annually (Good & Health, 2018). In one study, Dehmer et al. (2017) estimated that performing recommended cholesterol and hypertension screening and treatment results in \$33,800 and \$48,000 savings per patient quality-adjusted life years (QALY) respectively (Dehmer et al., 2017). These facts present a strong argument in support of creating a quality improvement initiative to improve the well-being of the patient population. Hence, the role of advance nurses in creating a protocol for AWP completion cannot be understated in early identification of chronic disease with eventual national and patient alleviation of cost, chronic disease burden, and quality of life.

The utilization of AWP carries financial implications for patient and nation, and creates financial incentive for the practice site. With a focus on prevention, under the Affordable Care Act, Medicare now reimburses an AWP and provides personalized prevention plan services

(PPPS) at no cost to the patient. Additionally, practices that provide an AWV are reimbursed by Medicare at an average of \$172 for an initial visit and \$111 for subsequent visits, which are substantially higher than the amount reimbursed for a regular primary care visit at an average of \$74 (CMS, 2019). This quality improvement project will not only create revenue source for the practice through AWV completion, but increase career opportunities for advance practice nurse as a valued member within the organization.

Finally, implementing this quality improvement project at this project site may result in an increase in the utilization rates of AWV as a preventative measure, which not only is critical for reducing the incidence of new cases of chronic diseases and maintenance of ongoing chronic conditions, but can likewise have positive financial implications for the patient and the practice. Hence, the implementation of practice-based AWV protocol is directly aligned with the responsibilities of the doctoral prepared advanced practical nurse; it has a significant impact in nursing care received by the patient, and creates career opportunity for advance practice within healthcare organizations.

Analysis of Results

The aim of this DNP project was to increase the rate at which AWVs are completed at a primary care practice. Increased AWV completion was encouraged through providing an in-house training to improve staff awareness of the AWV and the development and dissemination of a CAP to facilitate practice standards.

Educational Session

A total of ten staff members participated in the in-house educational training session on the AWV. Participants included two physicians, one nurse practitioner, six medical assistants, and the office manager. The majority of respondents (70%) were non practitioners, but rather

provided support services as medical assistants or administration (Table 1). Differences in scores should therefore be treated with caution as tests conducted with a small sample sizes have less power to measure statistically significant differences when those differences may truly exist.

Table 1.

Description of Respondents (N=10)

Role	N	Percent
Physicians	2	20
Nurse Practitioners	1	10
Medical Assistants	6	60
Administration	1	10

One of the measures used to evaluate the effectiveness of the intervention project included a pre and post implementation questionnaire to analyze the degree of knowledge and skill changes after exposure to the training. The survey instrument consisted of 13 closed ended questions and one open ended question. Questions asked before and after exposure to the training were identical. Questions 1- 4 measured respondent awareness of public health facts and purpose of administering the AWV. Questions 5-9 measured self-assessment of perceived knowledge of AWV, and level of agreement with each statement. Questions 10-13 measured self-assessment of familiarity with the AWV tool and staff roles in completing the AVW visit. The close-ended questions were based on five point Likert scale responses ranging from strongly disagree to strongly agree. A final open-ended question was placed at the end to offer an opportunity for the participants to provide a unique and unrestricted response, and list anything they believed would make the AWV completion process easier.

The responses were collected in a paper format, each participant was assigned a generated identification (ID) to match pre and posttest to protect their privacy and for accurate analysis. Results were then entered into an excel database, and transferred into an SPSS database system for analysis. Pre and posttest scores were measured and differences compared using both parametric (*paired t-test*) and non-parametric (*Wilcoxon signed-rank*) tests.

Knowledge and Skills Self-Assessment Scores Pre and Post Training

The average knowledge score increased from 62% before the training to 84% after exposure to the training session (Table 2). This 22% increase was statistically significant ($t=4.71, p=.001$). By contrast, the average self-assessment score on skills was 84% before the training and 90% after the training. The 6% increase in self-assessed familiarity with the tool and roles was moderate and did not reach statistical significance ($t=1.33, p=.217$).

Table 2.

Knowledge and Self-Assessment Scores Pre and Post Training: Matched T-Test (N=10)

	μ (SD)	Δ	t	p -value
Knowledge (Test)				
Pre	62.0 (18.1)	22.0	4.71	.001
Post	84.0 (12.6)			
Skill (Self-Assessment)				
Pre	84.0 (14.3)	6.0	1.33	.217
Post	90.0 (10.5)			

The knowledge scores increased 26.7 percentage points for practitioners and 20 percentage points for non-practitioners suggesting the practitioners experienced more notable

gains in knowledge ($t=3.45$, $p = 0.010$). However, gains in self-assessed familiarity with the tools and roles were not significant ($t=1.78$ $p= 0.118$) between groups (Table 3).

Table 3.

Knowledge & Skill Scores Pre & Post Training: Independent Samples T-Test (N=10)

	Practitioners μ (SD)	Non-Practitioners μ (SD)	Δ	t	p -value
Knowledge (Test)					
Pre	70.0 (17.3)	58.6 (18.6)	11.4	.934	.401
Post	96.7 (5.8)	78.6 (10.7)	18.1	3.45	.010
Skill (Self-Assessment)					
Pre	96.7 (5.8)	78.6 (13.5)	18.1	2.98	.018
Post	96.7 (5.8)	87.1 (11.1)	9.5	1.78	.118

A Wilcoxon signed-rank test which measured differences based on categorical responses instead of a cumulative score, confirmed a significant difference in knowledge scores on AWV after exposure to the educational session on AWV ($z=-2.67$; $p=.008$) (Table 4).

Table. 4*Results of Wilcoxon rank-sum tests for differences between Pre and Post groups (N=10)*

Test	n	Mean	SD	Min	Max	Sum	z	p
Knowledge Pretest	10	62.0	18.13	30.0	90.0			
Knowledge Posttest	10	84.0	12.65	60.0	100.0			
Negative Ranks	1	1.50				1.50	-2.67	.008 **
Positive Ranks	9	5.94					53.5	
Ties	0							
Skills Self-Assessment (Pre)	10	84.0	14.29					
Skills Self-Assessment (Post)	10	90.0	10.54					
Negative Ranks	1	1.50				1.50	-1.29	.197
Positive Ranks	3	2.83					8.5	
Ties	6							

** Significant <.01

Annual Wellness Visit Completion

A retrospective chart audit of the patient encounters for a four week period prior to implementing the CAP was conducted. During this baseline period, a total of 479 patient visits were recorded of which 64% were female and 36% were male. The ages ranged between 36 and 103 for an average of 80 years old. Of the 479 patients seen, 430 were due and eligible for an AWV. Four weeks prior to CAP implementation, the chart review revealed out of 430 due for AWV, no AWV exams were completed. This suggested that the AWV completion rate was 0% at baseline. A randomly generated ID was assigned to each patient pre and post implementation chart audits to protect their privacy and confidentiality.

During the implementation phase, medical records were audited for a total of N=506 out of which N=454 patients were eligible and due for an AWV exam. Of those patients identified

as due for an AWV exam, the majority were female (66.7%) and one in three (33.3%) were male. Ages ranged from 34 to 103 years of age for an average of 80.6 years. One in seven (14.1%) were under 65 years of age and approximately one in six (17.6%) were between 65 and 75 years of age. The majority of patients (68.3%) were over 75 years of age. Of the 454 patients due and eligible for an AWV, 28 AWVs were completed (Table 5).

Table 5.

Description of Patient Population Due for AWV (N=454)

Variable	N	Percent
Gender		
Male	151	33.3
Female	303	66.7
Age Group		
Under 65	64	14.1
65-75	90	17.6
Over 75	310	68.3
AWV Completed		
No	426	93.8
Yes	28	6.2

Rates of AWV completion were also observed for baseline (pre) and each week after (post) CAP was implemented in order that the degree of change by week could be observed. Of those who were due, the rate of completion increased from 0% at baseline to an average of 6.4% after the implementation of the CAP. This increase was statistically significant ($t=2.998$, $p=.017$) for the pre and post implementation periods (Table 6). The completion rate steadily

increased from the first week of post implementation and peaked at week 4 post-implementation at 8.55 % (Table 7). Figure 1 provides a visual illustration.

Table 6.

T-test Comparison of AWW Completion Rates: Pre and Post Intervention (N=454).

Study Arm	Completion Rate	Δ	t	p-value
PRE	0	6.4	2.998	.017
POST	6.4			

Table 7.

AWV completion rates for eligible patients by week of study (N=28)

Time	AWV Completion Rate	F	P-Value
Baseline	0	5.29	.048
Week 1	3.00		
Week 2	6.60		
Week 3	7.45		
Week 4	8.55		

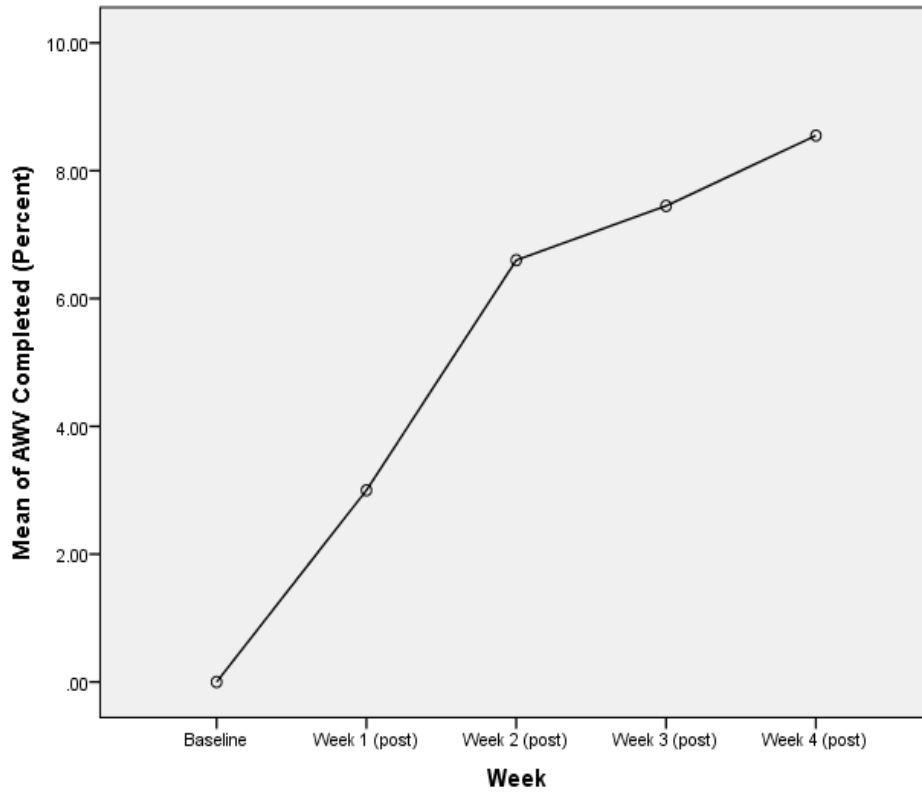


Figure 1.

AWV Completion Rates at Baseline (Pre) and 4 Weeks (Post) CAP implementation (N=454).

A chi-square analysis found no difference in AWV completion by gender in proportion to representation in the population sample ($X^2 = .017$, $p = .897$). A chi-square test however found that patients over the age of 75 were notably less likely to receive an AWV exam at a 4.5% completion rate. Differences by age group however did not reach statistical significance ($X^2 = 4.629$, $p = .099$) although the observation should be noted. These findings suggest that both genders were equally as likely to receive an AWV exam, and that those who were over 75 years of age were less likely to receive the AWV than younger patients.

Effect of Training on Provider Completion rates

Completion rates were compared between those practitioners who attended the training session, and those who did not. The post-intervention AVW completion rates were higher for those practitioners who attended at 7.75% versus 5.05% for those who did not attend the training session (Table 8). However, the 2.70 difference between the two groups did not reach statistical significance ($t=1.41$, $p=.207$).

Table 8.

T-test of AWW Post Intervention Completion Rates by Practioner Attendance (N=6)

Attended Session	N	Rate	Δ	t	p-value
NO	3	5.05	2.70	1.414	.207
YES	3	7.75			

Discussion of Findings

The quality improvement project was successful with achieving the objectives of increasing staff awareness and utilization of a CAP as part of an effort to increase AWW completion rates at the practice site. A 22 percent increase in the average knowledge score suggests that the training was highly successful with significantly increasing knowledge regarding AVW ($t=3.45$, $p=.010$). By comparison, average self-assessment scores increased by only 6 percent and did not reach statistical significance. It is possible that before the training, staff believed that they were highly self-aware of their roles in completing the AWW. It is also possible that the self-assessment questions may not have been adequate to evaluate the awareness of practice roles and instrumentation. None of the respondents answered the open-

ended question, but a very interactive question and answer sessions occurred during the training.

The overall rate of AWV completion increased from 0% to 6.4% after the implementation ($t=2.998$, $p=.017$), suggesting that the CAP was used to successfully increase the AWV completion rates in accordance with the objectives. Changes in AWV completion rates were examined weekly for four weeks after the intervention and the trend was also measured as statistically significant ($F=5.29$, $p=.048$) with completion rates steadily increasing over time. This finding suggests that changes may carry implications for longer-term sustainability and reaching universal coverage of seniors over 65 years of age by the end of 2020 (Healthypeople.gov, 2014b). Increases in AWV completion seemed to occur at an elevated rate for providers who attended the educational session, which indicates that the utilization of the CAP may be impacted by session attendance. Finally, factors such as age or gender did not show any statistically significant differences in completion rates of AWV but did suggest that patients 75 and older are less likely to receive an exam than younger patients. While outcomes are encouraging, the small sample size of participants can compromise the power to accurately detect differences and therefore, must be approached with caution.

Overall, the objectives of the quality improvement project were met through providing in-house training, as well as designing, presenting, and implementing CAP at the project practice site. These findings support and align with existing research studies that have found that primary care practice can improve when staff awareness is increased, and staff members are encouraged to follow standardized protocols (Cuenca, 2012; Bleustein, Diduk-Smith, Jordan, Persaud, and Hughes, 2017). The results suggest that healthcare organizations can improve the quality of primary, acute, and chronic care services delivered by making these types of provisions to

enhance clinical performance and carry positive implications for increasing AWV utilization as evidenced at this particular healthcare site.

Significance/Implication for Nursing

The findings of the project reveal potential significance for the nursing profession in clinical inquiry, development, and implementation of a standardized protocol to improve the quality of healthcare delivery. Studies have shown that patients who had AWV have a higher percentage of receiving preventative services than those who do not (Tao, 2018). This is particularly true for elderly and homebound patients with limited mobility, impaired cognition, and are more vulnerable to receiving substandard health services. Using the Donabedian structure-process-outcome model, nurse leaders especially DNP prepared nurses has an enormous opportunity to identify those vulnerabilities, incorporate clinical practice guidelines to create access to required health screening, and quality health delivery irrespective of the patient's disability or limitation (Rhoads, Patel, Ma, & Schmidt, 2015). Adopting and utilizing a standardized protocol for AWV completion within a clinical setting create an opportunity for early identification of chronic disease, completion of recommended screenings based on the USPTF guideline, immunization of patients, and prompt referrals for complex disease process for early intervention (Kallander, Burgess, & Qazi, 2016).

Also, this project identified the disparities of AWV among different age groups which create future opportunities for a DNP prepared nurse within a healthcare organization to advocate for process or policy changes, and create a targeted policy towards those age groups to reduce the disparities. The CAP can be adopted in all outpatient clinical settings based on the positive outcome, evidence-based practice, and opportunity for DNP prepared nurse to add value to their respective organization.

The training session created a formal engagement of all staff and stakeholders which rarely exist due to the nature of services provided. During the training, interactive questions were answered by the project lead, and the participants were receptive of the information. The findings of the project show clear evidence that educational intervention such as in-house training of medical staff improved staff awareness of AWV, the interaction between the team, and ultimately increased the acceptance of the protocol and AWV completion rates.

The potential future impact of the educational intervention within the practice site is to use it as a training module for on-boarding new providers, training new medical assistants, and for use as an annual continuing education module. This educational intervention has the potential of increasing job satisfaction and staff retention due to the availability of resources needed for a critical aspect of primary care practice and staff interaction. The findings of the project can potentially impact house call services provided by similar organizations and outpatient clinical settings

Limitations of Project

The result of the project implementation revealed the training session was influential in rates of completion among the participants. Despite the success of the intervention, there were several limitations associated with the project.

Sample Size

At only N=10, the power needed to avoid type I and type II errors was compromised. Furthermore, only half of the providers at this site attended the training session due to conflicts in scheduling, time availability, and compensation for time spent during the training. Having more providers attend may have resulted in higher AWV completion rates. It is highly suggested

that providers should be compensated for the time spent during future trainings to assure a higher participation rate.

Implementation Timeframe

A second limitation was the short time frame for project implementation. The four weeks implementation period is not sufficient enough to allow time for family members to participate in AWV, which crucial for patients who are cognitively impaired and residing in assisted living or boarding care facilities. Lack of available family members to provide relevant historical information may result in providers not being able to schedule and effectively perform the AWV. A way to address this issue is to give at least one to two months' notice to the family with a preselected date to schedule the AWV to allow time for the family to be present.

Financial Impact of Initiative

The financial impact of completing the AWV on the practice cannot be estimated. This can be attributed to the short time frame for the project implementation. Perhaps, a longer time frame will be able to provide a precise evaluation of the finances generated from Medicare reimbursement from completion of AWV as part of clinical practice.

Dissemination

Upon review and approval of the project findings by the course instructor and project mentor, the results will be disseminated to the owner of the practice and other stakeholders. Outcome, areas of improvements and future interventions will be discussed. A PowerPoint presentation of the results and its implications will be sent to the entire practice staff. The findings will also be disseminated to student colleagues, academic mentor, and faculty on October 18, 2019.

Increasing awareness of AWV and the use of a standardized protocol is crucial to deliver

quality healthcare in outpatient clinical settings. The results will be disseminated through a peer-reviewed publication, conference presentations, nursing association meetings, and DNP project repository.

This QI project meets the 2019 criteria for Digital Poster Presentation submission to the National DNP Conference. The project lead therefore intends to submit a digital poster to be presented as part of the 13th National DNP Conference in Tampa, Florida, August 5-7, 2020. The presentation format will use both PowerPoint illustrations and written narrative to communicate the problem, project aim, methodological sequence, and findings in a presentable logical order. The Doctor of Nursing Practice requires submissions to follow standard requirements (layout, font, size, spacing, pixels, poster size, etc.) for poster submission. The poster will also be used to guide a discussion, not a long presentation. Therefore, the text included in the poster will be kept to a minimum and emphasis will be placed on the graphics. The project lead will also be prepared to engage in discussions with the conference participants, and offer additional presentation if requested.

Project Sustainability

Adoption of the CAP protocol was found to be an effective and simple method for increasing completion rates of the AWV at this practice site. The result of the weekly trend analysis revealed a progressive rise in completion rate every week. In addition, personal observation reveals that the utilization of the CAP has continued beyond the project implementation time frame. It is therefore quite feasible that the CAP and rising completion rates may be able to be sustained long-term. The practice owner and office manager are currently working on incorporating standardized templates for the HRA form and other AWV

required forms in the EHR to reduce time spent completing the paper format, and other improvement measures to add to the success of the CAP implementation.

Conclusion

The AWV was implemented as part of the ACA to promote preventive care and assure screening, early detection, and care of chronic disease. The low national, regional, and local AWV completion rates since its inception remain a concern. This QI initiative was designed to address the problem through a nursing leadership practice improvement initiative at a primary care site. The results support the critical roles of increased awareness and adoption of a standardized protocol in increasing the utilization of AWV as a means of providing preventative services to Medicare beneficiaries locally, regionally and nationally.

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Appendix A

Name: _____ Date: _____ Date of Birth: _____

A Checklist for Your Medicare Wellness Annual Visit

Please complete this checklist before seeing your doctor or nurse. Your answers will help you receive the best health care possible.

1. During the past 4 weeks, how much have you been bothered by emotional problems such as feeling anxious, depressed, irritable, sad or downhearted and blue?
 Not at all
 Slightly
 Moderately
 Quite a bit
 Extremely

5 During the past 4 weeks, what was the hardest physical activity you could do for at least 2 minutes?
 Very heavy
 Heavy
 Moderate
 Light
 Very light

2. During the past 4 weeks, has your physical and emotional health limited your social activities with family friends, neighbors or groups?
 Not at all
 Slightly
 Moderately
 Quite a bit
 Extremely

	Yes	No
6. Can you get places out of walking distance without help? For example, can you travel alone by bus, taxi, or drive your own car?		<input type="radio"/>
7. Can you shop for groceries or clothes without help?		<input type="radio"/>
8. Can you prepare your own meals?	<input type="radio"/>	<input type="radio"/>
9. Can you do your own housework without help?	<input type="radio"/>	<input type="radio"/>
10. Can you handle your own money without help?		<input type="radio"/>
11. Do you need help eating, bathing, dressing, or getting around your home?		<input type="radio"/>

3. During the past 4 weeks, how much bodily pain have you generally had?
 No pain
 Very mild pain
 Mild pain
 Moderate pain
 Severe pain

12. During the past 4 weeks, how would you rate your health in general?
 Excellent
 Very good
 Good
 Fair
 Poor

4. During the past 4 weeks, was someone available to help you if you needed and wanted help? For example, if you felt very nervous, lonely or blue, got sick and had to stay in bed, needed someone to talk to, needed help with daily chores, or needed help just taking care of yourself.
 Yes, as much as I wanted
 Yes, quite a bit
 Yes, some
 Yes, a little
 No, not at all

13. How have things been going for you during the past 4 weeks?
 Very well - could hardly be better
 Pretty good
 Good and bad parts about equal
 Pretty bad
 Very bad - could hardly be worse



14. Are you having difficulties driving your car?

- Yes, often
- Sometimes
- No
- Not applicable, I do not use a car

15. Do you always fasten your seat belt when you are in a car?

- Yes, usually
- Yes, sometimes
- No

16. How often during the **past 4 weeks** have you been **bothered** by any of the following problems?

	Never	Seldom	Sometimes	Often	Always
Fall or dizzy when standing up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sexual problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trouble eating well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teeth or dentures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems using the telephone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tired or fatigued	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. Have you fallen 2 or more times in the past year?

- Yes No

18. Are you afraid of falling?

- Yes No

19. Are you a smoker?

- No
- Yes, and I might quit
- Yes, but I'm not ready to quit

20. During the **past 4 weeks**, how many drinks of wine, beer or other alcoholic beverages did you have?

- 10 or more per week
- 6-9 per week
- 2-5 per week
- 1 drink or less per week
- No alcohol at all

21. Do you exercise for about 20 minutes 3 or more days a week?

- Yes, most of the time
- Yes, some of the time
- No, I usually do not exercise this much.

22. Have you been given any information to help you with the following:

- Hazards in your house that might hurt you?
 - Yes No
- Keeping track of your medications?
 - Yes No

23. How often do you have trouble taking medicines the way you have been told to take them?

- I do not have to take medicine
- I always take them as prescribed
- Sometimes I take them as prescribed
- I seldom take them as prescribed

24. How confident are you that you can control and manage most of your health problems?

- Very confident
- Somewhat confident
- Not very confident
- I do not have any health problems.

How old are you? 65-69 70-79 80 or older

Are you male or female? Male Female

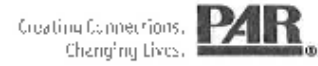
What is your race? (check one or more than one)

- White
- Black/African American
- Asian
- Native Hawaiian/Other Pacific Islander
- American Indian/Alaskan Native
- Hispanic or Latino origin or descent
- Other

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Appendix B



Appendix A

MMSE Sample Items

Orientation to Time

"What is the date?"

Naming

"What is this?" [Point to a pencil or pen.]

Reading

"Please read this and do what it says."

[Show examinee the words on the stimulus form.]

CLOSE YOUR EYES

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Appendix C

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME: _____ DATE: _____

Over the last 2 weeks, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

add columns + +

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all	_____
	Somewhat difficult	_____
	Very difficult	_____
	Extremely difficult	_____

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder

- if there are at least 5 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.

Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

Total Score	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

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Appendix D

The Alcohol Use Disorders Identification Test (AUDIT), developed in 1982 by the World Health Organization, is a simple way to screen and identify people at risk of alcohol problems.

1. How often do you have a drink containing alcohol?

- (0) Never (Skip to Questions 9-10)
- (1) Monthly or less
- (2) 2 to 4 times a month
- (3) 2 to 3 times a week
- (4) 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

- (0) 1 or 2
- (1) 3 or 4
- (2) 5 or 6
- (3) 7, 8, or 9
- (4) 10 or more

3. How often do you have six or more drinks on one occasion?

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

6. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

7. How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

8. How often during the last year have you had a feeling of guilt or remorse after drinking?

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

- (0) No
- (2) Yes, but not in the last year
- (4) Yes, during the last year

10. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?

- (0) No
- (2) Yes, but not in the last year
- (4) Yes, during the last year

Add up the points associated with answers. A total score of 8 or more indicates harmful drinking behavior.

Appendix E

MEDICARE AWW WOMEN'S PREVENTIVE WELLNESS PLAN		
Patient Name: _____		Date: _____
Preventive Service	Frequency	Last Done
Body Mass Index (BMI) _____ Height _____ Weight _____	Annually	
Blood Pressure _____ / _____	<ul style="list-style-type: none"> • Every 2 yrs, if BP <= 120/80 mm hg; • Annually, if BP >120-139/80-89 mm hg 	
Vision	<ul style="list-style-type: none"> • Every 3 yrs up to age 40; • Every 2 yrs aged 40+ 	
Breast Cancer Screening (Mammogram)	<ul style="list-style-type: none"> • Every 2 yrs, aged 50-74 yrs 	
Cervical Cancer Screening (Pap Smear)	<ul style="list-style-type: none"> • Every 3 yrs, aged 21-64 yrs; • Every 5 yrs, aged 30-65 with HPV testing 	
Osteoporosis Screening (Bone Density Measurement)	<ul style="list-style-type: none"> • Routinely, for women aged 65+ • Routinely, for women aged 60-64 with risk factors 	
Cholesterol Testing	Regularly beginning at age 20 with risk factors	
Diabetes Screening	With a sustained BP >= 135/80 mm Hg	
Colorectal Cancer Screening	<ul style="list-style-type: none"> • Annually, Fecal Occult Blood Stool (FOBS); • Every 5 yrs, Sigmoidoscopy with FOBS; • Every 10 yrs, Colonoscopy 	
Advance Directive	As necessary for those amenable	
Depression Screening	As necessary for those with risk factors	
Alcohol Misuse Screening	As necessary for those with risk factors	
Immunizations: Pneumococcal (Pneumonia) Vaccine Influenza (Flu) Vaccine	<ul style="list-style-type: none"> • Pneumonia: 1-2 doses up to age 64; • Pneumonia: 1 dose age 65+ • Influenza: Annually 	
Other		

Your major risk factors:

Family history of _____ Obesity _____ Diabetes _____
Hypertension _____ Fall Risk _____ Smoking Use _____ Other _____

Recommendations for improvement:

Diet _____ Tobacco Cessation _____ Weight Management _____ Exercise _____ Other _____

Referrals:

For Staff Use: *[list handouts, referrals, or other followup instructions here]*

Appendix F

MEDICARE AWW MEN'S PREVENTIVE WELLNESS PLAN		
Patient Name: _____		Date: _____
Preventive Service	Frequency	Last Done
Body Mass Index (BMI) _____ Height _____ Weight _____	Annually	
Blood Pressure _____ / _____	<ul style="list-style-type: none"> • Every 2 yrs, if BP <= 120/80 mm hg; • Annually, if BP >120-139/80-89 mm hg 	
Vision	<ul style="list-style-type: none"> • Every 3 yrs up to age 40; • Every 2 yrs aged 40+ 	
Abdominal Aortic Aneurysm	Once, Between the age range of 65-75 and smoked 100+cigarretes in lifetime	
Cholesterol Testing	Regularly beginning at age 20 with risk factors	
Diabetes Screening	With a sustained BP >= 135/80 mm Hg	
Colorectal Cancer Screening	<ul style="list-style-type: none"> • Annually, Fecal Occult Blood Stool (FOBS); • Every 5 yrs, Sigmoidoscopy with FOBS; • Every 10 yrs, Colonoscopy 	
Advance Directive	As necessary for those amenable	
Depression Screening	As necessary for those with risk factors	
Alcohol Misuse Screening	As necessary for those with risk factors	
Immunizations: Pneumococcal (Pneumonia) Vaccine Influenza (Flu) Vaccine	<ul style="list-style-type: none"> • Pneumonia: 1-2 doses up to age 64; • Pneumonia: 1 dose age 65+ • Influenza: Annually 	
Other		

Your major risk factors:
 Family history of _____ Obesity _____ Diabetes _____
 Hypertension _____ Fall Risk _____ Smoking Use _____ Other _____

Recommendations for improvement:
 Diet _____ Tobacco Cessation _____ Weight Management _____ Exercise _____ Other _____

Referrals:

For Staff Use: *[list handouts, referrals, or other followup instructions here]*

Appendix G

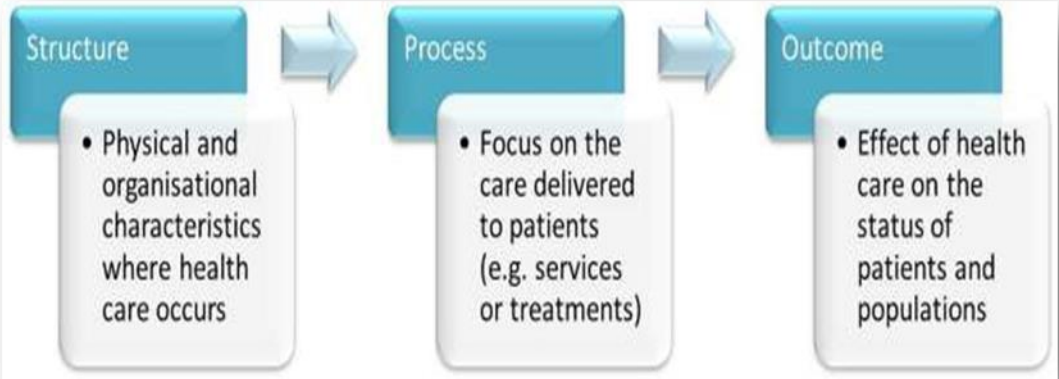
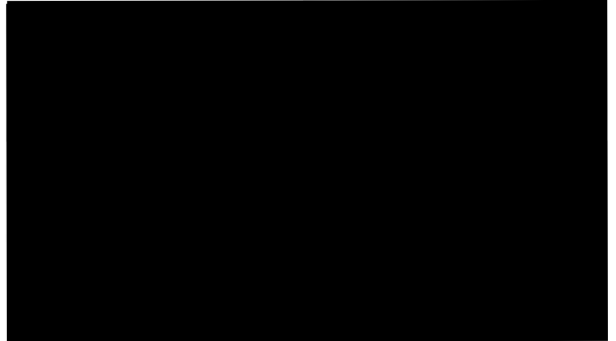
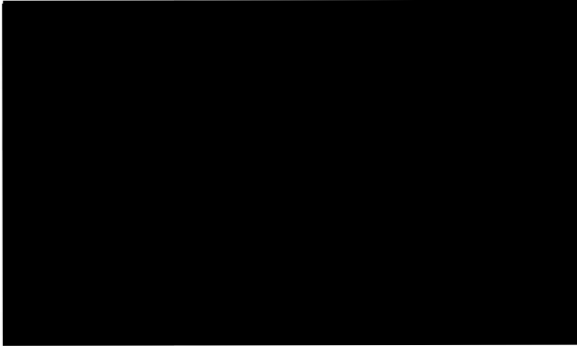


Figure 1. The Donabedian Model of Health Care Quality, University of South Australia

Appendix H



March 26, 2019

To Whom It May Concern:

Samson Ilori has been authorized to complete his DNP project at [REDACTED] [REDACTED]. There is no requirement for agreement, no board review, and he is granted permission to use practice tools and other related materials.

Please call my office at [REDACTED] if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Ilori".

[REDACTED]
Office Manager

Appendix I

Primary Care Practice, California	Effective Date: Revised Date: Review Date:
Title: Clinical Assessment Protocol (CAP) for Annual Wellness Visit (AWV)	
Reference #:	

Definition

Annual Wellness Visit (AWV) should be completed automatically by medical providers once every 365 days as recommended by Medicare as part of the Affordable Care Act of 2010. Primary care practice staff will complete Annual Wellness Visit (AWV) by identifying eligible patient, schedule patients, and perform visit, document and bill. Services provided including but not limited to chronic disease management, health screening and quality health care delivery within the practice. This Clinical Assessment Protocol (CAP) is a step-by-step guide to schedule and perform AWV within the practice.

Procedure

A. Office Staff

1. Review the Noridian Medicare Portal to determine what patients are due for AWV.
2. Call patient to explain the benefits of the no cost AWV and need to schedule.
3. Record your attempt to call patient on AWV call log and outcome of call.
4. If an AWV was conducted, document information gathered in the visit notes.
5. Ask the following questions and document in notes:
 - (a) Date of last eye examination (if over 2 years or unable to recall, ask if they will like to be referred for examination).
 - (b) Date of last colonoscopy (if over 10 years or unable to recall ask if they will like to be referred for examination).
 - (c) Date of last Pneumonia and Flu vaccination (if over 5 years for Pneumonia or unable to recall; and if no flu vaccination during last season, record in notes.)
 - (d) For Men 65 to 75 years (if smoker; ask about referral for h/o Abdominal Aortic Aneurysm screening).
 - (e) For Men over 70 and Women over 65 years of age, the date of last Osteoporosis screening (Bone density test). If more than 2 years or unable to recall, ask if they would like to be referred for a (DXA).

- (f) For Female patients, the date of last Mammogram. If over 2 years or unable to recall, ask if they would like to be referred for mammogram.

B. Medical Assistants (Annual Wellness Visit Day)

1. Complete Vital signs, Including documenting height and weight
2. Complete MMSE form
3. Complete Checklist for Medicare Wellness Visit form
4. Complete PHQ-9 form
5. Complete AUDIT form (if indicated)
6. Have completed forms reviewed and signed by provider and delivered to office for scanning into EHR.

C. Medical Providers (Annual Wellness Visit Day)

1. Review vital signs and BMI
2. Review Visit notes by Office Staff
3. Review and sign forms completed by Medical Assistants
4. Complete Medicare AWV Preventative Wellness plan
5. Document in EHR
6. Make referral and order diagnostic testing and labs as indicated.
7. Bill code G0438 for **INITIAL** AWV
8. Bill code G0439 for **SUBSEQUENT** AWV

Approved By _____
Practice Owner

Appendix J




**Medicare Annual Wellness Visit:
Increasing Rate of Completion.**

By Samson Ilori, FNP-C

01


Objectives.



- Define the Annual Wellness Visit (AWV) and its origination.
- Discuss the benefits of AWV.
- Discuss current National trends in AWV completion and Practice completion rate
- Discuss what is involved in an Annual Wellness Visit, role of staff, and tools used.
- Discuss how to increase completion of Annual Wellness Visits using Clinical Assessment Protocol (CAP)
- Discuss how AWV can help improve the quality of healthcare delivery.
- Review how to schedule and complete an Annual Wellness Visit.

02


What is Annual Wellness Visit?



- The "Annual Wellness Visit (AWV)" was implemented as part of the Affordable Care Act (ACA) of 2012.
- The Center for Medicare & Medicaid Services [CMS] provides the AWV every 365 days and is covered 100% to Medicare beneficiaries.
- AWV can be useful for monitoring physical and cognitive abilities, as well as the development of plans for decreasing the impact of frailty on everyday life of elders.
- The AWV is different from a routine physical exam which is not covered 100% Medicare.

• #3


Facts to Know



- United States (US) spends about \$3.7 billion annually on health care which is more than any other country and most is spent on chronic disease management (Maciosek, Coffield, Flottemesch, Edwards, & Solberg 2010).
- Heart disease, stroke, cancer, diabetes, and obesity, are the leading causes of death in the US and account for most of the nation's health care costs (CDC, 2017).
- Nearly half (45%) of all adult Americans experience at least one chronic disease in their lifetime (Tinker, 2017).
- One strategy to reduce the incidence and prevalence of chronic disease and is to encourage the rate of preventative health screening and services

• #4


What is Annual Wellness Visit?



- The "Annual Wellness Visit (AWV)" was implemented as part of the Affordable Care Act (ACA) of 2012.
- The Center for Medicare & Medicaid Services [CMS] provides the AWV every 365 days and is covered 100% to Medicare beneficiaries.
- AWV can be useful for monitoring physical and cognitive abilities, as well as the development of plans for decreasing the impact of frailty on everyday life of elders.
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• #3


Facts to Know



- United States (US) spends about \$3.7 billion annually on health care which is more than any other country and most is spent on chronic disease management (Maciosek, Coffield, Flottemesch, Edwards, & Solberg 2010).
- Heart disease, stroke, cancer, diabetes, and obesity, are the leading causes of death in the US and account for most of the nation's health care costs (CDC, 2017).
- Nearly half (45%) of all adult Americans experience at least one chronic disease in their lifetime (Tinker, 2017).
- One strategy to reduce the incidence and prevalence of chronic disease and is to encourage the rate of preventative health screening and services

• #4

Benefits of Annual Wellness Visit




The American Academy of Family Physicians [AAFP], states that AWV provides an opportunity for PCPs to improve quality of care, assists in patient engagement, and optimizes payment opportunities(AAFP, 2017).

- Preventative Services
 - Annual comprehensive preventive evaluation at no cost to the patient.
- Chronic Disease Management
 - Review current medical problems, medications, and identify any potential risks.
 - Reduce risk of chronic disease.
 - Avoid hospitalization.

● #5

Benefits of Annual Wellness Visit



- **Health Risk Assessment Evaluation**
 - Patient engagement to evaluate current health status, and detect emerging health, disability, safety risks, prevent accidents.
 - Review concerns raised by family members, friends, caregivers, and others.
- **Counseling**
 - Review your patient's medication use for adherence, potential compliance issue.
 - Exposure to supplements, including OTC and vitamins.

● #6

Benefits of Annual Wellness Visit

A mind map diagram with the word "HEALTH" in the center, underlined. Four arrows point outwards from "HEALTH" to the words "coaching", "diet", "risk factors", and "prevention".

- **Quality Health Service for Improved Outcome**
- Build complete medical history for chronically ill patients.
- Strengthen partnership between providers and patients.
- Provide proactive care to patients.
- Increase patient satisfaction.
- Create sustainable revenue stream for the practice.

07


Who can complete Annual Wellness Visit?

A mind map diagram with the word "HEALTH" in the center, underlined. Four arrows point outwards from "HEALTH" to the words "coaching", "diet", "risk factors", and "prevention".

- Physicians
- Nurse Practitioners
- Physicians Assistants
- Other medical professionals working under the direct supervision of a Physician

08

National Trends of Annual Wellness Visit



- Although the AWV benefit is provided free of cost to Medicare recipients, completion rates are estimated to reach less than 20% of beneficiaries nationally (Moore & Hager, 2017).
- The AWV completed at the practice is less than the national Average .
- This low rate of utilization diminishes the intended capacity of AWV to prevent chronic illness, identify early treatment options, and reduce the cost burden to the patient, facility and health care system.
- The rate of Medicare Reimbursement is higher for AWV.

• #9

What is involved in Annual Wellness Visit




➤ Standard Services

- Vital Signs Including Height and Weight
- Updated Personal & Family Medical Histories
- Updated Social History
- Updated/Modified Medication list as needed

• #10


What is involved in Annual Wellness Visit



- **Vaccination Review**
 - Flu Vaccine, one per flu season
 - Pneumococcal, unless at risk patient
 - Shingles Vaccine (if indicated)

©11

What is involved in Annual Wellness Visit



- **Screening**
 - Cognitive Impairment Screening (MMSE)
 - Depression Screening (PHQ-9)
 - Alcohol Misuse (AUDIT)(if indicated)

112

What is involved in Annual Wellness Visit



- **Health Screening Schedule**
 - Prostate Cancer screening (annual)
 - Breast Cancer Screening (annual)
 - Colonoscopy (ten yrs)
 - Bone Mass Measurements (2 yrs)

#13

What is involved in Annual Wellness Visit



- **Health Risk Assessment**
 - Patient Self-Assessment of health status
 - Psychosocial and Behavioral Risks
 - Screen for risk of falls
 - Activities of Daily Living (ADL)
 - dressing, bathing, walking, shopping, medication management, housekeeping

#14

What is involved in Annual Wellness Visit



➤ Patient counseling and Education

- Provide a personalized health advice to the patient and make appropriate referrals to health education or preventive counseling services.
- Advise on weight loss, physical activity, smoking cessation, fall prevention nutrition and alcohol abuse.

15

Clinical Assessment Tool (CAP)



- (CAP) developed for use by clinical staff to expedite AWV utilization, manage the care of patients, and assure delivery of quality of care.
- Goal is to increase rate of AWV completion for the early treatment and effective management of chronic disease.
- Proper use of AWV can increase Medicare reimbursement and revenue for the health care facility.

16

Clinical Assessment Tool (CAP) HEALTH

coaching diet
risk factors prevention

➤ **Features of Clinical Assessment tool**

- How to Identify when patient is due for AWV
- How to schedule patients for AWV
- Role of Staff in completing AWV
- Proper AWV Screening & documentation
- Referrals, Orders and Billing for AWV

• 17

Clinical Assessment Tool (CAP) HEALTH

coaching diet
risk factors prevention

➤ **Role of Office Staff in Completing AWV**

- Review Noridian Medicare Portal and identify when patient is due for an AWV.
- Call patient, review screening, and other health questions.
- Schedule patients for AWV.
- Upload completed forms into EHR.

• 18

Clinical Assessment Tool (CAP) HEALTH

coaching diet
risk factors prevention

➤ **Role of Medical Assistants in Completing AWV**

- Complete and document Vital signs, height and weight.
- Complete MMSE form.
- Complete Checklist for Medicare Wellness Visit form.
- Complete PHQ-9 form.
- Complete AUDIT form (if indicated).
- Have completed forms reviewed and signed by provider.
- Deliver signed forms to the office for scanning into EHR.

#19

Clinical Assessment Tool (CAP) HEALTH

coaching diet
risk factors prevention

➤ **Role of Medical Providers in Completing AWV**

- Review vital signs and BMI.
- Review Visit notes by Office staff.
- Review and sign forms completed by Medical Assistants.
- Complete Medicare AWV Preventative Wellness plan.
- Document in EHR.
- Make referrals, order diagnostic testing and labs as indicated.
- Bill code G0438 for **INITIAL** Annual Wellness Visit.
- Bill code G0439 for **SUBSEQUENT** Annual Wellness Visit.

#20

Questions ?

coaching

HEALTH

diet

risk factors

prevention

© 21

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coaching

HEALTH

diet

risk factors

prevention

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© 22



CODE:

Appendix K

Date:

**ANNUAL WELLNESS VISIT COMPLETION
PRE-TEST**

Please check your current role in the clinic.

- Physician
- Nurse Practitioner
- Medical Assistant
- Other _____

1. Approximately what proportion of Medicare beneficiaries have an AWV completed annually?
 - A. Less than one-tenth (10%)
 - B. One in five (20%)
 - C. Nearly half (45%)
 - D. Most (75%)
 - E. Nearly All (95%)

2. The AWV completion rate for Medicare Beneficiaries treated at this facility is ...
 - A. Slightly Less than the National average
 - B. Substantially Less than the National average
 - C. About equal to the National average
 - D. Lightly Higher than the National average
 - E. Substantially Higher than the National average

3. Approximately what proportion of adult Americans will experience at least one chronic disease in their lifetime?
 - A. Less than one-tenth (10%)
 - B. One-fourth (25%)
 - C. Nearly half (45%)
 - D. Most (75%)
 - E. Nearly All (95%)

4. Medicare Reimbursement amounts are ...

- A. Higher for an AWV
- B. Higher for a routine clinical visit
- C. The SAME for AWV and a routine clinical visits
- D. Reimbursement for a routine clinical visit depends on the State
- E. Reimbursement for an AWV depends on the State.

5. According to the CDC, most national health care costs are spent on chronic disease treatment and management.

- 1 =Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

6. Prevention should be a core principle in providing quality healthcare.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4= Agree
- 5 = Strongly Agree

7. The Center for Medicare & Medicaid Services [CMS] provides an annual AWV visit at no cost to the patient.

- 1 = Strongly Disagree
- 2 = Disagree
- 3= Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

8. Reimbursement for AWVs can increase revenue for the health care practice.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

9. Utilization of AWV can improve the quality of health care delivery.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree

- 4 = Agree
- 5 = Strongly Agree

10. I am familiar with the forms and tools used for AWW screening.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

11. I am familiar with the process of scheduling a patient for AWW.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

12. I am clear about the different responsibilities and roles of Practitioners (Physicians, Nurse Practitioners), Medical Assistants, and Office staff in completing AWW.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

13. A simplified documentation and billing process may increase AWW compliance.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

14. Please list any subject related to AWW that you still would like to learn more about.

CODE:

Date:

Appendix L

ANNUAL WELLNESS VISIT COMPLETION POST-TEST

Please check your current role in the clinic.

- Physician
- Nurse Practitioner
- Medical Assistant
- Other _____

1. Approximately what proportion of Medicare beneficiaries have an AWPV completed annually?
 - A. Less than one-tenth (10%)
 - B. One in five (20%)
 - C. Nearly half (45%)
 - D. Most (75%)
 - E. Nearly All (95%)

2. The AWPV completion rate for Medicare Beneficiaries treated at this facility is ...
 - C. Slightly Less than the National average
 - D. Substantially Less than the National average
 - C. About equal to the National average
 - D. Lightly Higher than the National average
 - E. Substantially Higher than the National average

3. Approximately what proportion of adult Americans will experience at least one chronic disease in their lifetime?
 - A. Less than one-tenth (10%)
 - B. One-fourth (25%)
 - C. Nearly half (45%)
 - D. Most (75%)
 - E. Nearly All (95%)

4. Medicare Reimbursement amounts are ...

- A. Higher for an AWV
- B. Higher for a routine clinical visit
- C. The SAME for AWV and a routine clinical visits
- D. Reimbursement for a routine clinical visit depends on the State
- E. Reimbursement for an AWV depends on the State.

5. According to the CDC, most national health care costs are spent on chronic disease treatment and management.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

6. Prevention should be a core principle in providing quality healthcare.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

7. The Center for Medicare & Medicaid Services [CMS] provides an annual AWV visit at no cost to the patient.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

8. Reimbursement for AWVs can increase revenue for the health care practice.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

9. Utilization of AWV can improve the quality of health care delivery.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

10. I am familiar with the forms and tools used for AWW screening.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

11. I am familiar with the process of scheduling a patient for AWW.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

12. I am clear about the different responsibilities and roles of Practitioners (Physicians, Nurse Practitioners), Medical Assistants, and Office staff in completing AWW.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

13. A simplified documentation and billing process may increase AWW compliance.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

14. Please list any subject related to AWW that you still would like to learn more about.



Appendix M

Content Validity Index Table

Item	Expert 1	Expert 2	Expert 3	I-CVI	Interpretation
1	4	3	4	1	Appropriate
2	4	4	4	1	Appropriate
3	4	4	4	1	Appropriate
4	4	3	4	1	Appropriate
5	4	4	4	1	Appropriate
6	4	4	4	1	Appropriate
7	4	3	4	1	Appropriate
8	4	3	4	1	Appropriate
9	4	2	4	0.667	Eliminated
10	4	4	4	1	Appropriate
11	4	3	4	1	Appropriate
12	4	3	4	1	Appropriate
13	4	4	4	1	Appropriate
14	4	4	4	1	Appropriate
15	3	4	4	1	Appropriate
Mean I-CVI (Before Item #9 elimination) = 0.98 Mean I-CVI (After item #9 elimination) = 1.0					

Appendix N



John H. Wasson <John.H.Wasson@dartmouth.edu>
to me ▾

9:17 AM (12 hours ago) ★ ↶ ⋮

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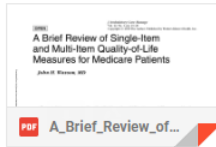
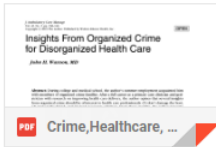
attached are papers that may be useful for your work

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Sent: Monday, April 1, 2019 11:03 AM
To: John H. Wasson
Subject: Request for Authorization

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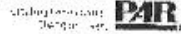
3 Attachments



Appendix O

3/3/2017 1:16:01

PAGE 01/02



Sent Via Email: slac@student.tamu.edu

March 29, 2017

Samson for

Dear Samson:

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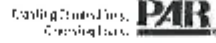
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03/23/2019 10:51

PAGE 02/02



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BY: [Signature]
SANDRA LORI
DATE: 3/29/19
PAR CUSTOMER No.: [Redacted]

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DATE: March 29, 2019

Appendix P

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Mon, Mar 25, 8:54 PM (6 days ago)



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Appendix Q

ANNUAL WELLNESS VISIT COMPLETION

Record Audit Tool						
ID CODE	Date	Age	Gender (M/F)	Medicare Eligible (Y/N)	AWV DUE (Y/N)	AWV COMPLETED (Y/N)

Provider	Training Completed (Y/N)	#of Patient Visits	# AWV Completed
A			
B			
C			
D			
E			
F			

