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# Development of a Protocol for Implementing a Registered Nurse-Led Annual Wellness Visit in a Primary Care Setting

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Development of a Protocol for Implementing a Registered Nurse-Led Annual Wellness Visit in a

Primary Care Setting

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### **Dedication**

I dedicate this work to my family and many friends, may your life be filled with good health and endless adventure as you age. A special feeling of gratitude to my lovely parents Larry and Renee who inspired me to dream bigger than my fears while instilling the importance of hard work and gratitude. To my sister Kassie and brother-in-law Michael, thank you for the never-ending love and support. You have been integral to my success as a student. I also owe a special thank you to two of my friends who made this process much easier. To my classmate and friend Megan, thank you for your unending support and hours of proofreading. I am so delighted we crossed paths. To my best friend Christina, thank you for supporting me throughout this entire process and offering a place to stay. You will always be a part of my family.

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### **Abstract**

This project was a quality improvement initiative utilizing a new format to deliver the Medicare Annual Wellness Visit (AWV) to Medicare recipients. The purpose of the project was the development of a protocol for implementing a registered nurse (RN)-led AWV in a primary care setting. The pilot project focused on changing the clinic's current AWV structure from a provider-led format to a RN-led format. The pilot was geared towards improving care coordination, while enhancing preventive services and early intervention for chronic disease management. The 6-week pilot was used to help identify areas of weaknesses in the registered nurse-led AWV. During the pilot, the RNs performed 16 AWVs. The objectives of the project were to determine the acceptability of the new format and assess the organization's capability for efficient performance of an RN-led AWV. Outcome measures determined staff satisfaction for the visit was high and efficiency was apparent through enhanced care coordination and reimbursement opportunities. A final protocol and sustainability tools were developed as a guide for RNs to use. The guide was developed based on the weaknesses identified during the pilot period. This document discusses the background information, problem statement, intervention, evaluation methods, outcomes, sustainability resources, and dissemination methods related to the pilot project.

**Keywords:** Medicare Annual Wellness Visit, registered nurse, primary care, prevention

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Development of a Protocol for Implementing a Registered Nurse-Led Annual Wellness Visit in a  
Primary Care Setting

**Executive Summary**

In the United States (U.S.) the life expectancy of adults has improved by approximately 8.78 years in the last 50 years (World Bank, 2016). However, the prevalence of chronic disease is overtaking the general population with approximately 92% of older adults having at least one chronic disease (National Council on Aging [NCOA], 2016). The leading causes of death in the U.S. are all preventable diseases: heart disease, cancer, stroke, and diabetes (NCOA, 2016). Despite the preventable illnesses that are taking a toll on the health of U.S. citizens, the nation only spends 1% of healthcare dollars on health prevention efforts; meanwhile, 75% of healthcare dollars are spent on managing chronic disease (NCOA, 2016). Unfortunately, healthcare waste is commonly seen in the United States. Over 30% of healthcare dollars are related to overutilization of care and duplication of services (Snyder, 2013). Given the prevalence of chronic disease in the U.S., health promotion efforts and chronic disease management must be prioritized to help manage healthcare costs. Focusing on eliminating duplication of services in the primary care setting will help reduce healthcare spending while promoting optimal care coordination for aging patients.

Primary care providers (PCPs) play an important role in evaluation and management of chronic disease. The aging population is expected to cause a 29% increase in workload for PCPs in the next 10 years (Pearson, Bhat-Schelbert, & Probst, 2012). The increased workload is partly due to increased time required for patient-focused interventions that emphasize individualizing health interventions and encouraging patients to take ownership for their health. PCPs often do



not have the time to provide extensive care coordination services and individualization of care goals without the support of their healthcare team due to competing demands.

The project reported in this document occurred in a primary care, federally qualified health center (FQHC). The Medicare AWV is a primary care visit intended to address preventive health needs and chronic health concerns for Medicare recipients on a yearly basis (Hain, 2014). Prior to this project, PCPs in the pilot clinic were performing and billing for the AWV. However, the PCPs did not follow a standard protocol or always cover the required elements of the visit. Unfortunately, there is currently no suggested guideline or standard format for the AWV; however, a PCP is not required to perform the visit. The purpose of this pilot project was the development of a protocol for implementing a registered nurse (RN) led annual wellness visit (AWV) in a primary care, FQHC. In an effort to optimize care coordination and standardize the AWV in the clinic, the pilot model allowed RN case managers to begin initiating the AWV appointments with the oversight of PCPs. The RNs spent a great deal of time individualizing health interventions and making unique care plans for each of the patients during their AWV appointments.

There were two objectives for the project. The first objective measured the acceptability of the new RN-led format to providers and RN case managers. This was accomplished by educating the providers and RNs regarding the proposed RN-led format prior to the pilot, during which the primary care providers' and the RN case managers' comfort with the process and procedures were assessed using a short pre-pilot and post-pilot survey. Within the survey, there was also an assessment of the change in workload. The second objective assessed the organization's capability for performing an RN-led AWV efficiently, while focusing on the financial feasibility of having a RN case manager conduct the AWV, by determining the return

on investment. The results of the project showed an improvement in the comfort with, and acceptability of the new format. Additionally, increased efficiency was determined by monitoring of enhanced care coordination and reimbursement opportunities.

The project facilitator acted as a consultant and resource for the design and implementation of the RN-led AWV. During the 6-week pilot period, the project facilitator joined each of the visits to ensure the screening tools were used with accuracy and the RNs' questions regarding the visits could be answered quickly. The chronic care model (CCM) was used as a guide to improve chronic illness management among patients in the clinic. Patients whose screening scores were abnormal or questionable were directed to appropriate resources within the clinic and community. In addition, the visits focused on providing self-management support for the patients.

Although the outcomes of the pilot were positive, many barriers were encountered in the project including: (a) small sample size, (b) inconsistency in providing patients with the health screening questionnaire in the waiting room, (c) variability in patients' needs due to underlying conditions, (d) inability to do medication reconciliations due to patients not bringing in their pill bottles, and (e) a lack of standardization in the scheduling process for recruiting eligible Medicare beneficiaries for AWVs in the pilot group.

## **Introduction and Background**

In the United States approximately 92% of older adults have at least one chronic disease, and 77% have at least two (National Council on Aging [NCOA], 2016). Within the Medicare population, more than 66% of beneficiaries have at least two chronic conditions, and 14% of beneficiaries have more than six chronic conditions (Agency for Healthcare Research and Quality [AHRQ], 2016). Of these chronic conditions, two-thirds of all deaths are accounted for by four chronic diseases: heart disease, cancer, stroke, and diabetes (NCOA, 2016). Currently, Medicare beneficiaries with more than six chronic conditions visit a doctor more than 13 times a year, and account for over 70% of Medicare hospital readmissions (NCOA, 2016). In an effort to achieve healthy people and healthy communities, the leading causes of morbidity and mortality must be addressed (AHRQ, 2016). Healthcare spending is out of control in the United States and those living with chronic disease account for a majority of Medicare dollars spent annually.

In the United States, healthcare spending has reached an all-time high at 3.2 trillion dollars a year in 2015 (CDC, 2016b). Chronic disease accounts for 75% of the money spent on healthcare nationwide, while only 1% of the healthcare dollars are spent on health promotion efforts (NCOA, 2016). Research suggests that over 30% of healthcare spending is related to overutilization of care and duplication of services (Snyder, 2013).

In an effort to improve the healthcare delivery system in the United States, several strategies have been implemented (AHRQ, 2016). Many of the strategies to improve health care align closely with the Institute of Healthcare Improvement's Triple Aim® to promote better care, reduce the cost of care, and improve the health of people and communities (AHRQ, 2016). One of the major goals of the Affordable Care Act (ACA) of 2010 was to reduce healthcare spending

by identifying high-risk over-utilizers of healthcare, focus care management on preventive services, and improve care coordination (Snyder, 2013). The Annual Wellness Visit (AWV) was a direct result of the ACA and was intended to help address these goals and improve care for Medicare recipients.

In January 2011, Medicare began offering a visit focused on addressing preventive health measures while identifying high-risk patients in an effort to decrease healthcare costs (Centers for Medicare and Medicaid Services [CMS], 2014). Healthcare providers working within the primary care setting could begin providing care and billing for the Medicare AWV (Cuenca, 2012). This visit is intended to address preventive health needs and chronic health concerns for Medicare recipients on a yearly basis (Hain, 2014). However, it is estimated that only 3% of Medicare beneficiaries took advantage of the AWV benefit in 2012, which suggests a lack of knowledge regarding the benefits for both providers and patients (Jensen et al., 2015).

When Medicare recipients are first enrolled in the program they are eligible for an Initial Preventive Physical Examination (IPPE) commonly referred to as the ‘Welcome to Medicare Visit’ (Hain, 2014). Once this exam has been completed, or once the first year has passed, a patient is no longer eligible for an IPPE; at this time the provider could provide services and bill for an initial or subsequent Medicare AWV (Hain, 2014). The AWV was intended to help promote wellness and independence in the aging population. It also addressed high utilizers of healthcare by promoting early intervention to enhance patient outcomes and care coordination (Hain, 2014). Although the AWV was an excellent opportunity for providers to update the patient’s medical record, there was a great deal of confusion surrounding the requirements of the visit (Cuenca, 2012; Hain, 2014; Jensen, Salloum, Hu, Ferdows, & Tarraf, 2015). According to CMS guidelines the AWV could be completed by various healthcare professionals including a

physician or non-physician provider, or a healthcare professional working under the direct supervision of a physician (CMS, 2014; CMS, 2016; DiSantostefano, 2011). However, one of the biggest barriers surrounding the AWV was the lack of a standardized format or guidelines for performing the AWV to ensure completeness and optimal benefit for Medicare beneficiaries.

Oftentimes, health care changes must occur at a micro-level. One southwest Michigan primary care clinic agreed to serve as a pilot for an AWV redesign. This clinic knew the importance of delivering high quality healthcare to individuals at an affordable price. Many of the individuals that received care at the clinic lived in underserved communities. A large number of these patients also suffered from multiple chronic conditions and lacked the resources to properly treat their conditions due to issues with finances, transportation, and limited access to healthy food or exercise. As a result, a large portion of the elderly clients that sought care at the clinic could benefit from increased preventive screening and health care services, such as those provided during the Medicare AWV. Increasing health promotion efforts and streamlining services for seniors helps detect physical or psychosocial barriers early, allowing for early intervention and treatment.

The clinic was an ideal setting for project implementation due to the multidisciplinary resources available, as well as the clinic's leadership support for the pilot project. Prior to the pilot, the primary care providers (PCPs) in the clinic completed the AWVs; however, there was no standard format or protocol for ensuring all of the required documentation and screenings were completed for the visit. The purpose of the project reported here was the development of a protocol for implementing a registered nurse (RN) led annual wellness visit in this primary care, federally qualified health center (FQHC) in a lakeshore community in southwest Michigan.

### **Problem Statement**

Within the first two years of implementation, millions of Americans had taken advantage of the Medicare (Cuenca, 2012). The AWV was intended to improve the health and preventive services offered to Medicare beneficiaries. The intent was to delay the onset of chronic conditions through early screening efforts as well as the creation of a personalized prevention plan (Hain, 2014). The personalized prevention plan was to be based on the patients' underlying risk factors and goals for sustaining their own health and wellness. Personalizing the patient's plan of care can circumvent a number of issues commonly seen in aging, including falls.

Falls lead to a number of health concerns including fractures, traumatic brain injury, trauma, and death (NCOA, 2016). At the time of this project it was estimated that every day over 5,760 older adults were treated in the emergency room for injuries related to falls (NCOA, 2016). The nation's expenditure was 30 billion dollars a year treating older adults for injuries related to falls (NCOA, 2016). Every 29 minutes, a fall-related death was estimated to occur in the elderly population (NCOA, 2016). Without a change in the culture towards a focus on fall prevention and interventions, it was projected that direct treatment costs related to falls would reach \$59.6 billion by 2020 (NCOA, 2016).

Another area of elder care that is often overlooked is mental health and substance abuse care. In 2016, up to 25% of older adults were estimated to have a mental disorder including depression, anxiety, or dementia (NCOA, 2016). Experts suspect this number will double by 2030 resulting in over 15 million living with a mental health disorder (NCOA, 2016). Untreated mental health problems and substance abuse are associated with poor health outcomes including reduced quality of life, higher health care utilization and increased complexity of care, as well as greater rates of disability, impairment, mortality, suicide and caregiver stress (NCOA, 2016).

Preventive services for this population have been extremely limited, and up to two-thirds of older adults with mental health problems do not receive the treatment they need (NCOA, 2016). The National Quality Strategy identified that achieving better care requires improving care coordination, improving interprofessional relations among healthcare providers, enhancing quality and access to care, and reducing disparities (AHRQ, 2016).

There were numerous aspects to the AWV that were confusing for providers. Many providers found the AWV frustrating due to the list of required elements that were often squeezed into a thirty to forty minute visit, due to schedule limitations. Additionally, some providers lacked the required documentation standards for the AWV, causing delayed reimbursement and decreased provider productivity (Cuenca, 2012). The AWV was intended to give patients and providers additional time to discuss new or chronic medical conditions while focusing on preventive measures (Pfoh et al., 2015).

In addition to provider confusion, other barriers to implementation had included patient comorbidities, poor functional status, focus on acute care issues, limited time, transportation problems, and language barriers (Jensen et al., 2015). In the pilot clinic, the problems that were noted above were also found. In addition to those barriers, a lack of consistency in the AWV format among providers within the clinic was cited as a leading barrier to optimizing care coordination and preventive services for patients.

### **Evidence-Based Initiative**

The AWV offered an ideal avenue to improve chronic disease management and preventive care measures. The structure of the visit provided the necessary time for a comprehensive assessment of the beneficiary's health status. As a requirement of this assessment, evidence-based screening tools were to be utilized. The following section will

address the required assessment items to bill for the AWV, evidence supporting appropriate screening tools, and the provider reimbursement following completion of the visit.

Maintaining the patient's health records and updating the patient story in the medical record were fundamental components of the AWV, to avoid duplication of care and to decrease overall healthcare costs (Snyder, 2013). In addition, the AWV presented an opportune time for providers to offer guidance and support for appropriate preventive screening (Snyder, 2013). Frequently updating a patient's history is essential to enhance reimbursement. The hierarchical condition categories (HCCs) that were assigned to the patient for Medicare reimbursement accounted for the complexity of care for patients based on the number of chronic conditions (Bryan & Kontor, 2015; Snyder, 2013).

Reimbursement was adjusted based on HCCs documented over a 12-month history. The HCC codes helped to predict future financial risk and utilization (Bryan & Kontor, 2015). The more complex a patient was, based on HCC coding, the higher the risk adjustment factor (RAF) score which directly impacts reimbursement (Bryan & Kontor, 2015). The RAF score was multiplied by a per-member-per month capitated reimbursement for the year; thus, providers were reimbursed at a higher rate for more complex patients (Bryan & Kontor, 2015). Furthermore, Medicare reimbursed the AWV at a higher rate than a traditional sick visit. This financial incentive was intended to help increase preventive screening throughout the country (Snyder, 2013).

### **Requirements for AWV and Efficacy of Tools Used for Screening**

There were several required activities to be completed during an AWV. According to the CMS (2014) the AWV included updating the health risk assessment (HRA); medical and family history; current medical providers; personalized prevention plan, and a list of chronic conditions



(CMS, 2014; Hain, 2014). Other measures to be included were the patient's weight, blood pressure screening, a functional mobility assessment to evaluate a patient's risk for falls, and activities of daily living (ADL), and instrumental activities of daily living (IADL) screen (CMS, 2016a; Hain, 2014).

The AWV guidance recommended screening tools that should be used to help customize a preventive care plan. Recommended tools include: the Lawton IADL scale; Timed Up and Go (TUG) Test; Mini-Cog; alcohol screening questionnaire; Mini-Nutritional Assessment; Epworth Sleepiness Scale; and the Geriatric Depression Scale (GDS) (Hain, 2014). Assessment of cognitive impairment for the wellness visit required evaluation of cognitive function by direct observation and patient report. Although use of a specific instrument was not required to assess cognitive function, at minimum a mention of the patient's appearance, affect, speech, memory and motor skills were to be noted (Hughes, 2011a).

**Cognitive screening.** It had been estimated that over 5.3 million cases of dementia are present in the United States and the number affected was expected to increase annually due to the aging population (Galvin & Sadowsky, 2012). Multiple studies suggest that patients with diabetes, stroke, trauma, hypertension and other diseases affecting blood flow are at a higher risk for cognitive decline (Alencar, Cobas, & Gomes, 2010, Brooke & Ojo, 2014; Carlsson, 2010; Calza et al., 2015). Dementia leads to a high level of financial burden. In the U.S. dementia-related costs have been well over \$172 billion dollars a year (Galvin & Sadowsky, 2012). MCI and dementia are grossly under-diagnosed in the primary care setting (Borson et al., 2013). It is estimated that 50-80% of dementia cases are missed by primary care providers (Boustani et al., 2006), and 27-81% of patients with mild cognitive impairment go unrecognized and often progress to dementia (Cordell et al., 2013). As noted previously, screening for cognitive

impairment using a standardized tool was not a required portion of the AWV. However, the use of a standardized screening tool allowed for baseline scoring that could be tracked from year to year. Screening for cognitive impairment annually is important to help with early identification of deficits and to help align healthcare resources for the patient and family (Cordell et al., 2013; Rose & Lopez, 2012).

The use of brief cognitive screening tools has been shown to increase identification of MCI; however, screening practices in the primary care setting have not been standardized (Borson et al., 2013). Routine application of cognitive screening tools in the primary care setting can identify cognitive changes earlier in the disease process. The Alzheimer's Association workgroup has suggested using the Mini-Cog™, Memory Impairment Screen, or the General Practitioner Assessment of Cognition as one of the tools to briefly assess cognitive status during the AWV (Cordell et al., 2013). Furthermore, the Mini-Cog™ was also recommended by the Hartford Institute to assess cognitive function in older adults (Wiese, & Williams, 2015). The Mini-Cog™ screening tool takes less than 5 minutes to administer, and has a high sensitivity (> 80%) and specificity (> 80%) for identifying MCI or dementia (Brodaty, 2016). In previous research, it was concluded that all vulnerable elders greater than 65 years old who were at risk for death or functional decline should be evaluated annually for cognitive and functional status. As a result, updated Medicare guidelines recommended using a cognitive screening tool for all Medicare patients during their AWV (Cordell et al., 2013). Although the patient's cognitive status needed to be addressed during the AWV, the use of a standardized screening tool was left up to the discretion of the clinic or provider (CMS, 2014).

**Depression screening.** Depression screening was a required part of the AWV (Pfoh et al., 2015). In past research, providers were found to focus more on a patient's general medical

health, than mental health; therefore, screening early and often is indicated (Pfoh et al., 2015). Screening for depression is essential because depression affects one in six older adults in the United States, and is a leading cause of suicide in older adults (Pfoh et al., 2015).

Many chronic conditions coexist with depression, so the importance of screening and treating depression cannot be minimized (Lach et al., 2010; Pfoh et al., 2015). The guidelines for AWVs did not specify a particular tool that should be used for depression screening. Since the AWV was geared primarily towards identifying concerns in individuals over 65 years old, the Geriatric Depression Screening (GDS) tool may be more appropriate than other tools. Individuals who score higher than 5 on the 15-item GDS are identified as having characteristics suggestive of mild depression (Friedman, Heisel, & Delevan, 2005). Fortunately, the yes and no question format of the GDS allows for a relatively quick screening tool that provides highly reliable results.

**Fall risk assessment.** Using a multifactorial approach to assess an individual's risk of falling is necessary to accurately depict an elder's safety in the community setting (McMichael, Vender Bilt, Lavery, Rodriguez, & Ganguli, 2008; Renfro & Fehrer, 2011). Falls in elders are a primary cause for the loss of independent living, and the development of fear that often perpetuates a cycle of limited physical activity, loss of social integration, and death (Renfro & Fehrer, 2011). Unfortunately, only 34% of elderly patients receive any type of fall assessment (McMichael et al., 2008). Evaluating patients for falls in the primary care setting is a key to reducing fall related injuries and deaths (McMichael et al., 2008).

Performing a fall risk assessment that measures balance and strength was a recommended component of the AWV. McMichael and colleagues (2008) identified a correlation between cognitive decline and increased risk for falling. As a result the authors concluded that

individuals with cognitive impairment should be assessed using a balance test, as they may be inaccurate historians if asked about previous falls or fall risk factors (McMichael et al., 2008).

Functional mobility and balance can be assessed using the timed up and go (TUG) test (CDC, n.d.). A licensed or unlicensed medical professional can administer this test by using a stopwatch and standard height chair with arms. During the TUG test, the administrator should look for any signs of postural instability, sway, and unstable gait, including slow tentative pace, loss of balance, short strides, little or no arm swinging, steadying self on walls, shuffling, en bloc turning, and improper use of their device (CDC, n.d.). In a study by Morris et al. (2006), for every additional second it took for a participant to complete the TUG test, the risk for falling increased by 4% ( $p = 0.045$ ). Likewise, individuals with previous recurrent falls had the greatest risk for falls ( $p = 0.007$ ).

In a literature review by Barry and colleagues (2014), it was found that when used alone the TUG has limited ability to predict falls in the community dwelling adult, so it should be used in combination with fall risk screening questions. Given this information, Morris, Harwood, Baker, Sahota, Armstrong, and Masud (2006) measured the efficacy of predicting falls in older women with vertebral fractures using a fall history in combination with the TUG score. The results of this study provide support that using fall history and the TUG test are important, because both variables were independently and significantly related to falls (Morris et al., 2006). When the TUG score and recurrent fall history were combined, the prediction of falls increased (specificity, 100%, sensitivity 13%) (Morris et al., 2006).

**Health risk assessment.** A health risk assessment is intended to help the provider easily screen behaviors and risk factors that the patient can modify in order to reduce risk of developing disease (Hughes, 2012). The patient or caregiver can fill out the health risk assessment prior to

the appointment. This helps to decrease the length of appointment time (Hughes, 2012; Goetzel et al., 2012). When developing the health risk assessment form, the clinic must develop a tool that is written at a sixth grade reading level (Hughes, 2012). A number of multifactorial health maintenance items should be included on a health risk assessment including, but not limited to: a self-assessment of health, pain, physical activity, ADLs, IADLs, falls, nutrition, dentition, fatigue, sexual health, smoking, and medication knowledge (Hughes, 2012).

**Advanced care planning.** Advanced care planning (ACP) was an important portion of the AWV to assure the patient had medical wishes in writing (Edelberg, 2016). At minimum, the provider was to assess the patient's knowledge surrounding ACP and assess if he or she had taken advantage of the service. ACP has taken the form of many different titles, which is a source of confusion for patients (Edelburg, 2016). In Michigan when the project was completed, titles include a declaration of anatomical gift, durable power of attorney for healthcare, and a living will (Geller, 2014). Patients could fill out all of the forms noted, or none of the forms, depending on their preferences.

The ACP service could be billed using the current procedural terminology (CPT) code on a separate visit, using 99497 and 99498. CPT 99497 was to be used for the first 30 minutes of a visit that discusses an advanced directive standard form and included completion of the form if the patient wished. CPT 99498 could be billed for each additional 30 minutes spent filling out the ACP paperwork with the patient. When ACP services were provided during an AWV, coinsurance and a deductible were not applied if the AWV and ACP were billed together with the preventive service modifier 33 (Edelberg, 2016).

### **Characteristics of Successful AWVs Used in Primary Care**

**Provider characteristics.** The AWV could be completed by a number of team members including a physician or non-physician provider, or another health professional (e.g., registered nurse, health educator, registered dietician, nutrition professional, or other licensed practitioner) working under the direct supervision of a physician (CMS, 2014; CMS, 2016; DiSantostefano, 2011). CMS defined direct supervision in a primary care setting as a physician who was within the clinic and able to provide immediate assistance and direction as necessary (CMS, 2016a). The next sections of this review covers AWV formats that had been successfully implemented in primary care clinics. Unfortunately, there was a lack of literature surrounding the use or suggested format for the AWV. The following section will cover some of the limited findings that had been published regarding various AWV formats used in other primary care settings.

**Multidisciplinary team.** Cuenca (2012) stated that there were no consistent methods or guidelines for providers to use when implementing the AWV. As a result, a number of clinics handled the AWV differently. One clinic used a multidisciplinary team, which included a physician, clinical and clerical staff, office manager, and coding staff. This interdisciplinary team learned how to streamline their workflow for the AWV and increase efficiency. The nurse started the visit and addressed multiple aspects of the AWV including starting a note using the electronic medical record (EMR) AWV template; completing the health risk assessment; updating the history including medication reconciliation; conducting a brief depression and cognitive impairment screening; performing a functional ability assessment, visual acuity testing and a brief hearing assessment; recording vital signs and obtaining an ECG on IPPE patients; providing advanced directive forms if needed; printing the pre-visit note and highlighting area of concern for the provider; and escorting the patient to the provider to finish the visit. In the pilot

the provider was responsible for reviewing the note and completed tests, following up on concerns outlined by the nurse, performing a focused physical assessment, and completing a brief plan that addressed preventive screening (Cuenca, 2012).

A number of factors were key to this clinic's successful AWV structure, including an understanding of the billing and coding requirement as well as a two-part visit that began with an initial nurse visit. In this model, the initial nurse visit was approximately 30 minutes and billed at no-charge. However, any services that were not covered by the Medicare AWV (e.g., electrocardiogram) that were performed by the nurse could be billed under the provider's name (Cuenca, 2012).

The multidisciplinary approach was highly effective at improving workflow and maximizing reimbursements. If the patient requested additional services that were not covered by the AWV, the provider could charge for the appropriate problem-oriented office visit. Examples of common services that were billed include breast and pelvic screening, prostate cancer screening, and electrocardiogram screenings performed after the initial IPPE. Prior to implementing the two-part visit the clinic noted that providers spent over an hour to satisfy all of the requirements of the AWV. The redesign decreased the physician's time to 15-20 minutes, streamlined care, and increased reimbursement. As a result, this pilot project was widely adopted at all of the clinics within the same network (Cuenca, 2012).

**Nurse-led AWV.** Registered nurse (RN)-led AWVs had also been successfully implemented in some clinics (Tetuan et al., 2014). RN's are ideal candidates for performing the AWV, due to the training and educational background RNs receive. Their training focuses on building skills in critical thinking, leadership, case management, and health promotion (Rosseter, 2015). Beran and Craft (2015) found that physicians have mixed feelings about RNs performing

AWVs. Some physicians encouraged the use of RN-led visits, as the AWV did not require a skilled clinician and the appointment was reimbursed at the same rate when an RN performs the visit. However, others feared patients would not be satisfied if a physician did not complete the visit (Beran & Craft, 2015). Benefits of the RN-led visit included individualized education, and additional time to reinforce health-screening recommendations and personalized prevention plans (Tetuan et al., 2014). Having RNs complete the AWV helped decrease the pressure primary care providers felt to complete (a) an extensive history and physical, (b) interventions to address chronic and acute conditions, and (c) AWV requirements.

Tetuan and colleagues (2014) found that patients who attended RN-led AWVs showed a slight improvement in the two preventive screening tests measured when compared to a control group. The control group was a group of patients who had their visits completed by their primary care providers rather than an RN. Moderate increases were noted in colonoscopy screening, and a significant increase measured in mammogram completion in the intervention group when compared to the control group. The increased preventive screening completion following AWVs were linked to increased patient education, client reminders, and physician support. Providers found the AWV helpful when scheduled four to six weeks before a physician visit, so all recommended screening tests could be completed and reviewed with the patient during the visit. During the visit the RN focused on updating the medical history; obtaining measurement of height, weight, body mass index, and blood pressure; assessing depression, fall risk, cognition, hearing, physical activity, nutrition, oral health; and a visual foot inspection. In addition, recommended laboratory and preventive screening tests were ordered, and immunizations were updated. At the end of the visit patients were handed a summary of the



AWV with a copy of their personalized prevention plan that had details regarding follow-up testing and appointments (Tetuan et al., 2014).

Some practices also found value in adding health education specialists (HES) to their clinics (Chambliss, Linberry, Evans, & Bibeau, 2014). HES serve a unique role in the primary care setting as a health educator, health coach, and practice quality coordinator. Some practices used HES to perform the AWV. The HES performed the AWV requirements during a 45-minute appointment and forwarded the completed chart to the primary care provider for review.

Chambliss and colleagues (2014) found that AWVs completed by HES had more thorough documentation than those conducted by primary care providers. The clinic's AWV rate also quadrupled after HES took over the AWV appointments. Certified HES have the education and training to identify high-risk patients and create patient specific action plans to improve quality of care (Chambliss et al., 2014). It is recommended that individuals working in the HES role should be educated with a bachelor's degree in public health or health science. However, RNs are likely a more appropriate candidate, given their backgrounds and training in building patient specific care plans (Rosseter, 2015). In contrast, individuals with a background in public health are trained to collect population data and solve problems that affect the population, rather than creating patient specific plans of care (PublicHealth, 2017).

**System level characteristics.** After the completion of the Initial Preventive Physical Examination (IPPE), Medicare paid the total costs of the AWV on a yearly basis, thus, leaving the Medicare recipient with no co-pay or deductible from the AWV screening (Hain, 2014). In an effort to increase preventive screening in the Medicare population, an AWV was reimbursed at a higher revenue-value unit rate, a major incentive for health clinics. Two CMS billing codes could be used for the AWV. G0438 could be used for the first visit with a personalized

prevention plan, and G0439 was to be used for all subsequent visits with a personalized prevention plan (CMS, 2016a; DiSantostefano, 2011). An IPPE could only be billed once within the first 12 months after the effective part B coverage was available (CMS, 2016a). However, it is important to note that the AWV codes would be denied if patients were still eligible for the IPPE or they already had an AWV covered in the previous 12 months (CMS, 2016a). When a healthcare provider performed a separately identifiable, medically necessary evaluation during an AWV, the CPT codes 99201-99215 could be reported and billed (DiSantostefano, 2011).

**Patient characteristics.** Given the redesign of the AWV, it was important to make sure patients were prepared for their visit. Since the AWV did not include a complete head-to-toe physical, an office could benefit from sending a letter to patients explaining additional charges that could be incurred from tests or procedures that were not covered by the umbrella of the AWV. Sample letters were available (Hughes, 2011b). The patient's plan of care was to be largely guided by positive screening scores and needs identified during the health risk assessment (Hughes, 2012). Creating a personalized prevention plan was the key to a successful visit. For example, if the patient had experienced multiple falls in the previous sixth months, physical therapy should have been considered. Other patients might only require assistance with more future-oriented tasks such as discussing advanced directives (Hughes, 2011b).

### **Appraisal and Synthesis of Evidence**

The available literature surrounding AWV implementation, format, and sustainability at the time of this project was of poor quality. There were no research-based studies found, only case studies without clear methods or measurements. However, it was evident that the Medicare AWV could be successfully implemented in the primary care setting using different providers and formats. Fortunately, there was evidence supporting the reliability and validity of the

screening tools to be used during the AWV to help identify high-risk patients (Brodaty, 2016; Friedman et al., 2015). There was also limited literature regarding the importance of discussing common aging issues (falls, substance abuse, depression, suicide, and cognitive impairment) with older adults on a yearly basis.

The AWV was intended to give healthcare providers adequate time to discuss the importance of health promotion throughout the aging process. Although the AWV was created in 2011, it was slow to catch on in the primary care setting (Jensen et al., 2015). Reasons for delayed implementation and frustration included the lack of a standardized format; misunderstanding regarding the intended purpose of the exam; time constraints; inadequate documentation causing delayed reimbursement and decreased provider productivity; lack of knowledge regarding the benefit of the exam; and acute or chronic conditions taking precedence over preventive screening (Cuenca 2012; Jensen et al., 2015).

Summary of the literature reviewed helped outline the strength of various screening tools that could be used to complete the AWV. Screening older adults for chronic illnesses was a fundamental part of the AWV and expected to be done routinely to ensure the safety and security of patients living within the community. Based on the literature review the recommended test for cognitive screening was the Mini-Cog screening tool because of its efficacy and efficiency for identifying cognitive decline (Borson et al., 2013). Since the AWV was primarily intended for patients over 65 years of age the most appropriate depression screen identified was the 15-item Geriatric Depression Screen (GDS) (Lach et al., 2010). The GDS is more sensitive in identifying depression in the elderly population than other screening tools (Lach et al., 2010). Assessment of fall risk in the elderly should be done using a multifactorial approach that identifies fall risk factors and gait disturbances (Morris et al., 2006). The recommendations for

fall risk screening included using the TUG test in combination with a fall risk questionnaire to increase validity (Morris et al., 2006). In addition to the screening tests identified, the importance of the provider addressing problem areas present on the health risk assessment, as well as engaging in a brief discussion about advanced directives to further emphasize personalized care and mutual goal setting were emphasized for activities for the AWV (Hughes, 2012).

To ensure successful outcomes, healthcare providers must be certain to personalize care and prevention plans for each Medicare recipient. Personalizing patients' healthcare needs may be beneficial in improving the level of independence and quality of life in many individuals. The health risk assessment and screening tools act as a guide to help the healthcare professional personalize the patients plan of care by easily highlighting high-risk areas (Hughes, 2012; Goetzel et al., 2011). Based on the needs identified, the patient's plan of care can be created and follow up appointments scheduled as necessary for (a) advanced care planning, (b) care coordination, or (c) chronic care follow-up with their primary care provider. The AWV presented an excellent opportunity to promote wellness and individualize goals further, helping clinics reach the Institute for Healthcare Improvement (IHI) goals of the Triple Aim® (Snyder, 2013).

The literature offered valid information supporting the importance of the AWV in the primary care setting (CMS, 2014; CMS, 2016, Hain, 2014; Snyder, 2013). Based on the literature in this review standardization of the AWV screening tools and format used in the primary care setting was advisable. The literature in this review also outlined the importance of customizing the patient's plan of care and health promotion education. Several formats had been successfully used to implement the AWV including a multidisciplinary team, shared medical

appointments, and RN- or and pharmacist-led appointments. However, considering that the clinic in which the project was completed employed five RN case managers, it was decided to implement the RN-led format. Furthermore, an RN's educational background including health promotion and personalizing care plans was ideal for meeting the AWV requirements. Care coordination services could also be optimized in the clinic, as the RN case managers would have increased knowledge regarding high-risk patients in need of additional resources or community services. Given the preventive nature and format of the AWV it was appropriate to utilize RNs to implement the AWV.

### **Conceptual Models**

#### **Iowa Model of Evidence-Based Practice**

Quality care and outcomes cannot be achieved without a combination of provider expertise and evidence-based practice (EBP). The Iowa Model is an EBP model developed by Titler and colleagues (2001). The model helps promote quality care and serves as a guide for health care providers to use research to improve patient care through a systematic process (Titler et al., 2001). The Iowa model was selected as a guide for this project to help improve the current practice and format for the AWV process within the collaborating primary care setting. The Iowa model focuses on generating evidence through a collaborative approach. It is based on seven steps (Appendix A) that are used to analyze change processes and promote project sustainability (Doody & Doody, 2011; Titler et al., 2001). The seven steps include (a) selecting a topic, (b) forming a team, (c) evidence retrieval, (d) grading the evidence, (e) developing an EBP standard, (f) implementing the EBP, and (g) evaluating the outcomes (Doody & Doody, 2011).

The literature-based pilot project was chosen based on the organization's needs. The needs assessment provided the project facilitator with adequate information to suggest process improvement projects within the organization. A team of individuals from the organization's leadership and the project facilitator collectively agreed that the AWV was poorly understood throughout the clinic and lacked a standardized process. As a result, the project facilitator completed an extensive literature review and critique in order to find the best evidence for screening tools, documentation, and format of the AWV, and then presented the findings to the implementation team. As a team, the student and key stakeholders within the clinic created a list of screening tools and formats that were preferred and began editing the templates in the electronic health record. The student facilitator obtained approval from the scholarly project committee and institutional review board prior to moving forward with implementation of the new pilot practice. The pilot was a six-week quality improvement project that focused on redistributing the clinic's resources to help optimize care. The Iowa model served as an excellent guide for assessing the effectiveness, appropriateness, and feasibility of the proposed project outcomes by assuring evidence-based practice was used throughout the entire pilot process (Doody & Doody, 2011).

### **Chronic Care Model**

The Chronic Care Model (CCM) (see Appendix B) was created by Bodenheimer, Wagner and Grumbach (2002a). The model serves as a guide to improve chronic illness management. The CCM is applicable to this project because chronic disease is a common finding or area of focus during an AWV. Primary care is an ideal setting to apply the CCM because providers spend a majority of their time on chronic illness management (Bodenheimer, Wagner & Grumbach, 2002b). Improving chronic disease management is important for financial

reimbursement. Medicare incentivizes providers to provide high quality care by providing financial incentives for superior care. The model focuses on addressing chronic illness from a multidisciplinary approach, and includes six overlapping elements: (a) community resources and policies, (b) health care organization, (c) self-management support, (d) delivery system design, (e) decision support, and (f) clinical information systems (Bodenheimer et al, 2002a). All of these components played a role in improving chronic disease management within the project implementation clinic site, and are further discussed in the project plan.

### **Organizational Assessment Model**

The Model of Organizational Performance and Change is a causal model that can be used to help guide leaders through the change process (Burke & Litwin, 1992). Burke and Litwin's (1992) model is based on two foundational constructs: culture and climate. Culture is viewed from the group level and considers the traditions or norms of the organization (Burke & Litwin, 1992). Climate is represented by individuals' perceptions of their management. Climate and culture both affect the efficiency and receptiveness of the organization to change (Burke & Litwin, 1992).

The model is composed of twelve interacting variables that do not have an equal impact on the organizational structure (see Appendix C) (Burke & Litwin, 1992; Stone, 2015). The model is represented by transformational and transactional factors (Burke & Litwin, 1992; Stone, 2015). The upper half of the model is represented by the transformational variables: external environment, individual and organizational performance, mission and strategy, leadership, and organizational culture (Burke & Litwin, 1992). The lower half of the model is represented by the transactional variables: structure, management practice, systems, work unit climate, task and individual skills, motivation, individual needs and values, and individual and organizational

performance (Burke & Litwin, 1992). The most influential variable within the model is the external environment (Burke & Litwin, 1992).

The project facilitator used the model by addressing all of the variables to guide the organizational assessment. The organization that was assessed was an independently owned and operated FQHC primary care clinic that served as a major healthcare resource for underserved individuals in a west Michigan community. The purpose of using the Burke-Litwin model of Organizational Performance and Change (Burke & Litwin, 1992) was to analyze the current state of the primary care clinic, and decide the clinic's readiness for a quality improvement project based on redesigning the Medicare Annual Wellness Visit (AWV).

Addressing chronic disease early and encouraging preventive screening often occurs in the primary care setting. The clinic's location was a small city in southwest Michigan. This lakeshore community was identified as a medically underserved community. A number of community sector issues affecting the health of the residents included lack of transportation, depression, social isolation, limited physical activity, and a lack of access to healthy food. Additional issues that were cited as a problem in the community included limited dementia and Alzheimer's care, under-use of advance care directives, low awareness of hospice care, and lack of access and affordability to long-term care. The most concerning health care issues in the community included access to primary care, a shortage of mental health or substance abuse services, and a lack of care coordination or patient advocates. In addition, a number of chronic conditions including diabetes, cardiovascular disease, hypertension and high cholesterol were identified as problem areas (Sartorius, Baas, & Riel, 2015). It was evident that the community included a number of patients that could benefit from annual screening, additional healthcare resources, and preventive services.



**Transformational factors.** The assessment revealed a number of transformational factors that played a part in determining the significance and role of optimizing the AWV services. In the community needs assessment completed in the year prior to this project, 14.9% of the county's residents were 65 years of age or older (Sartorius, Baas, & Riel, 2015). Given the aging baby boomer generation and medical advancements, it was projected that the population of adults over 65 would likely increase substantially over the next ten years.

The clinic's mission also aligned closely with the project goals. The organization's mission was, "to promote the physical, emotional and spiritual health of families through our healthcare and other supportive services" (Dancz, 2016, p.1). The clinic's strategy was backed by the clinic's structural design as a federally qualified health center (FQHC) (██████, 2016). As a FQHC, the clinic played a major role in serving the health and wellness needs of the underserved and vulnerable populations in the community (Dancz, 2014). The clinic was also a designated Patient-Centered Medical Home (PCMH) (██████, 2016). PCMHs are designed after an organizational model that aims to improve primary care by addressing five factors: comprehensive care, patient-centered care, coordinated care, accessible services, and quality and safety (United States Department of Health and Human Services [USDHHS], 2016). As a FQHC, the clinic received federal grant money (42 U.S.C. 254b), allowing vulnerable populations, like the uninsured, to receive affordable healthcare (██████, 2016).

The Board of Directors was the governing body responsible for overseeing the legal operations at the clinic (██████, 2016). Within the clinic setting, there was a hierarchal structure designated by role and rank. The clinic's medical director and chief operating officer, provided approval of major decisions within the clinic. Other key leaders within the organization included the two clinic supervisors. All of these leaders were engaged in a cumulative approach to

overseeing the daily operations within the clinic and handling patient or staff concerns or complaints. Providers and medical assistants who had greater seniority and role expertise also served in leadership roles on various committees and in preceptor roles. The non-clinical roles within the clinic also had leaders representing each department and serving as resources for knowledge and complex decision-making.

In Burke and Litwin's model (1992) culture is defined as "a collection of overt and covert rules, values, and principles that are enduring and guide organizational behavior" (p. 532). The foundational core values guiding the culture and behaviors within the pilot clinic included caring, access, respect, education and success (█████, 2007). The ideal culture expected at the clinic was well defined in the organizational integrity plan. This document outlined the standards of conduct expected of all members within the organization, including the clinic's employees, volunteers, medical staff, and board members (█████, 2007). Standards of conduct upheld in the organization were framed around three major concepts: supporting right relationships, responding justly to adverse outcomes, and maintaining a respectful work environment (█████, 2007).

In the year prior to this project the organization had undergone a major leadership change, as the previous medical director resigned six months before the pilot. The new leadership structure within the clinic led to obvious structural changes, including the addition of a new clinic position: Community Health Worker-Intern. Following the addition of this position, the clinic engaged in several pilot projects. At the time of the AWV project, the providers and staff were responding well to the additional quality improvement projects. However, some of the providers and medical assistants overtly expressed frustrations over the number of pilots introduced. Fortunately, the organization had a wonderful working relationship with several of

the local training programs and universities in the area. As a result, the clinic was open to the AWV pilot project as the medical director was enthusiastic about education and changing to the most efficient and sound evidence-based practice.

**Transactional factors.** The transactional factors helped the project facilitator explore the internal system and processes within the clinic. Within the organization, there were several key stakeholders who helped make the AWV pilot possible. The Medicare AWV redesign project had the largest direct impact on the patients, as well as the workflow of the RN case managers, medical assistants, and primary care providers. As a result, obtaining support from the RN case managers, medical assistants, and providers was the most essential step in ensuring successful implementation and data collection. Given the nature of the project, support from several non-clinic personnel was also necessary. Members of the billing team, information technology, business administration and advertising sector were helpful for data collection, patient scheduling, and for pamphlet printing and distribution. Nearly all of the patients or caregivers identified needs during the AWV that required additional support or follow-up. The clinic's behavioral health counselors, case managers, or clinic social worker provided additional support for patients and caregivers depending on the patients' unique needs.

The managers that supervised the medical assistants, providers, and the clinic's daily functions were readily available for staff and patients to discuss concerns. The individuals within the organization that served in leadership roles had open door policies, and also physically rounded to discuss patient and staff concerns. For more confidential matters or large process improvement changes, the leadership staff hosted meetings or used secure emailing services. A high level of integrity and independence was expected from the experienced providers. Changes

did not always originate from a hierarchical form. The managers encouraged providers and support staff to express their concerns and suggest intervention for quality improvement.

In Burke and Litwin's (1992) model, systems are represented by the policies or processes that are used to evaluate several parts of an organization, including the reward systems, management information systems, performance appraisal, goal and budget development, and human resource allocation. At the clinic all employees were evaluated in relation to their compliance with the standards of conduct, in addition to their clinical performance. The system in place for provider appraisal included peer review and managerial input. Chart review was also used as an evaluation measure for providers to ensure thoroughness, and use of appropriate guidelines to ensure excellent patient care. Performance appraisal for support staff included an initial ninety-day evaluation, followed by a yearly evaluation. The managers placed employee performance in a category each year, such as "needs improvement", "meets expectations", or "exceeds expectations". After the employee and manager reviewed the document, the evaluation was placed in the employee's record. If the clinic's budget allowed, annual pay raises were given based on performance indicators. Providers also had the added bonus of receiving additional cash incentives for improving patient outcomes by demonstrating meaningful use in the electronic health record, as well as incentives for productivity.

Organizational performance was measured through a variety of tools and public reporting. The clinic used Press Ganey® outpatient satisfaction survey to evaluate patient-focused quality indicators (Press Ganey, 2016). The purpose of using the Press Ganey® tool is to help healthcare organizations improve patient satisfaction and retention (Press Ganey, 2016). The outpatient survey helped clinic managers identify problem areas within the organization, thereby guiding process improvement interventions (Press Ganey, 2106). Common problems

that were found based on the results of the Press Ganey® surveys were issues with the patient care experience or patient flow (Press Ganey, 2016).

In addition to patient satisfaction surveys, providers were also evaluated based on their productivity. The clinic's billing department created monthly productivity reports for each of the providers in the clinic. Providers who met the productivity objectives had the opportunity to earn financial incentives. Providers were also evaluated through chart review and patient outcomes.

Assessment of the work climate revealed that employees' opinions of the clinic varied, based on numerous factors including overall job satisfaction, acceptance of enacted changes, and coworker or managerial cohesiveness. Unfortunately, the clinic had poor employee retention, which was likely the result of multiple factors. Common reasons primary care providers cited for leaving included: moving after fulfilling their two year minimum requirement to work in a FQHC for federal loan repayment; difficult patient loads due to high volume patients with multiple comorbidities and psychosocial issues; and a desire to live in an area more suited to their personal needs or hobbies.

The motivation of providers and support staff to participate in the AWV project varied widely. Some of the providers in the clinic were resistant to change, and felt that their ongoing requirements were already difficult enough to meet. One of the major barriers to provider satisfaction was the amount of time required to manage the patient's story within the medical record. Many providers felt a sense of monotony in the process of submitting refills, signing off on encounters in a timely manner, and responding to clinic messages. Fortunately, the AWV pilot project reduced the workload for providers and medical assistants, which resulted in increased buy-in from these parties.

Fortunately, the five RN case managers within the clinic were relatively new. As a result, the clinic was looking to optimize their roles to further improve care coordination and patient outcomes. The RN case managers were motivated and open to change, and had good working relationships with their assigned providers. Although the AWV redesign was initially met with some resistance, the RNs were open to changing their current practice responsibilities. Fortunately, the student project director had the ability to discuss the progress and dilemmas of the AWV restructure with the RN case managers and clinic coordinator several times throughout the pilot. As issues were uncovered, immediate solutions were discussed, utilizing informal meetings or email communication.

### **Need and Feasibility Assessment of the Organization/Population**

This organizational assessment revealed areas of opportunity for change and improved growth, as well as areas of strength. Burke and Litwin's (1992) model was a helpful guide to explore the twelve variables that affect organizational change. Prior to implementing a change, such as the AWV pilot project, it is necessary to assess the clinic's strengths, weaknesses, and receptiveness to change. A visual representation was created through a strengths-weakness-opportunities-threats (SWOT) analysis (see Appendix D).

The clinic served as an excellent healthcare resource for underserved individuals in the county. External factors, including the community structure, and financial structure of the community, further exemplified the need for preventive health measures. Much of the payment structure in the clinic was from the government, such as grants, and Medicare or Medicaid reimbursement. Medicare recommendations for standardized functional and cognitive screenings were not being routinely implemented within the clinic. As a result, a large portion of

clients at the primary care clinic could benefit from comprehensive routine screenings in order to detect physical or psychosocial deficits early.

Several barriers to the project were considered prior to implementation. Potential barriers to implementation included: low attendance by providers at educational sessions; a lack of desire for the RNs to initiate screening based on the stated criteria; documentation issues within the electronic medical record; attitudes of clinic personnel as their responsibility increased; and a lack of referral options for further workup when positive screenings were documented.

Barriers were decreased by trialing the AWV redesign as a pilot, thus helping obtaining buy-in from a small group of providers. Fortunately, the pilot project was well supported by many of the key stakeholders. An informal assessment of the clinical staff and providers' attitudes towards the pilot project revealed a need and excitement for changing the clinic's current AWV format.

Prior to the 6-week pilot project there was no standard format or protocol for the AWV appointment. The primary care provider completed the AWV appointment; however, the format and content included in the visit varied based on the patient's immediate needs. Many of the primary care providers treated the AWV as a yearly physical appointment. However, the AWV was not intended to be a physical exam. As a result, many providers were not including important pieces of the AWV, including: (a) the personalized prevention plan with patient specific goals; (b) an informal or formal assessment of cognition; (c) a mobility or fall assessment; (d) an alcohol screening; (e) an updated list of medical providers and preventive health screening; or (f) a comprehensive medication reconciliation. The clinic had an EHR template for the AWV prior to the implementation; however, the template was preprogrammed as a yearly physical with the addition of home and environmental safety questions. The template

did not help providers with the knowledge about the intention of the AWV. Given the inconsistency of the AWV prior to the pilot, one of the most important steps was creating a standardized format and template for the RNs to use. The next section describes the project plan and provides a detailed description of the procedure developed for the AWV pilot.

### **AWV Project Plan**

#### **Purpose of Project with Objectives**

The project served as a pilot project for the clinic as it was trialed over a six-week period. The pilot project was completed with only three of the five RN case managers, in an effort to find errors with the proposed structure, and further streamline the process for the rest of the clinic's case managers. Each RN case manager worked directly with four to five of the clinic's primary care providers. Therefore, eligible patients were selected from the patient panel these case managers served at the time of the pilot.

The pilot was aimed at improving care coordination, preventive services, and early intervention for chronic disease management, utilizing a nurse-led AWV. The comprehensive AWV provided by the RN case manager was intended to identify physical, psychological, and socioeconomic factors that may affect patients' health and functional status (Hain, 2014). Prior to the project due to schedule limitations, PCPs had 30-60 minutes to complete an AWV appointment. However, the RNs were allotted 90 minutes to perform the visit. Ideally, this change promoted a more comprehensive visit while allowing the providers' schedules to be more open for acute and chronic care visits. The overall goal of the pilot was to improve provider and RN satisfaction with the AWV, identify chronic disease early, enhance coordination of care, and improve the individualized plan of care and health promotion efforts. There were two goals for this project:



- (a) To measure the acceptability of the new RN-led format to the providers and RN case managers with the process and procedures was assessed using a short pre- and post-survey. An assessment of the change in workload was also assessed within the survey.
- (b) To assess the organization's capability for performing an RN-led AWV efficiently, while focusing on the financial feasibility of having a RN case manager conduct the AWV, by evaluating the return on investment.

### **Project Plan**

After a thorough organizational needs assessment, the student project facilitator identified areas of improvement that could be addressed within the clinic. The quality improvement project was guided by evidence-based practice. In addition, the opinions of multiple stakeholders within the clinic were taken into consideration during the planning process. In the initial planning phase a small breakout team composed of the student project facilitator, a physician assistant, RN case manager, billing representative, and information technology staff member helped compose the clinic's pilot protocol: Annual Wellness Visit with a Registered Nurse (Appendix E).

The purpose of the pilot project was to enhance health prevention screening and care coordination services for Medicare recipients. The clinic and student identified the AWV as an opportunity to optimize care for Medicare beneficiaries, as the clinic had no standardized format for providing the AWV prior to the pilot project. As a result, many pieces of the AWV that were required by CMS were not covered by the providers on a consistent basis including standardized screening, personalized prevention plans, and updating the medical history. Many of the providers treated the exam like a yearly physical rather than a health promotion visit. Since

CMS did not require a primary care provider to complete the AWV, the RN case managers in the clinic agreed to pilot this new role and responsibility.

The pilot protocol was created by a small group of staff members including the project facilitator, the RN case manager supervisor, and a physician assistant. The protocol addressed the basic outline of the scheduling process and preparation required for the RN-led AWV. The protocol applied to all Medicare patients due for subsequent AWV (G0439) within the clinic. This protocol addressed how scheduling would be handled, preparation for the visit, and check-in and check-out procedures for the visit. Initial recruitment for patients eligible for the pilot began in December of 2016 to ensure adequate time for scheduling. Patients who were eligible for their AWV were scheduled to see the RN for an hour and a half appointment. The clinic determined which patients were eligible by running a report of Medicare patients over 65 years old who had not had an AWV in the past 365 days. Patients who had never had a Welcome to Medicare Visit were excluded from the pilot, as the billing code was different for the initial AWV. The scheduling department was responsible for telling the patients to bring their medications with them to the AWV that was scheduled with the case manager. This information was further reinforced as the clinic sent a notification letter in the mail summarizing the intent of the AWV.

Prior to initiating the pilot protocol the student facilitator performed several one-on-one and group teaching sessions with the RNs. During the educational sessions instruction was provided regarding the proper use and scoring of the screening tools, and the new AWV electronic health record template was reviewed. The student facilitator ensured adequate training for RNs and providers by attending every AWV during the pilot period to help answer questions regarding the process while providing immediate consultation. In addition, a visual

representation of the AWV process (Appendix F) was created as a tool to help guide RNs through the new process.

On the day of the patient's AWV the RN was responsible for filling out the personalized prevention plan with all of the dates for overdue and up-to-date preventive screening. When the patient arrived at the front desk for check-in, the patient was given the Medicare wellness check-up form and the Geriatric Depression Screening (GDS) forms to begin filling out. Although the patient was given the forms in the lobby to fill out, it was the RN's responsibility to review the forms and verify them for accuracy and completion during the visit. The RN was responsible for getting the patient from the lobby to the room; and taking the patients' weight prior to rooming the patient. The RN then began the visit by using the electronic medical record to fill out the (a) reason for visit, (b) history section, which included updating the patient's allergies, medication reconciliation, past surgical history, social history, family history and immunizations, and (c) history and physical section, which included the review of systems and vital signs section. After completing the electronic health record documentation the RN administered the standardized screening tests, including the GDS if not previously completed, the Mini-Cog, TUG test, and the alcohol screening if the patient stated he or she consumed alcohol. Once the screening tools were completed, the RN was responsible for entering the scores into the patient's chart under the assessment and plan section.

One of the key components of the AWV was completing the personalized prevention plan (Appendix G). The RN was responsible for asking the patients if they had any self-directed to help achieve areas of health and wellness. If the patients were unable to come up with goals on their own, the RN was responsible for suggesting goals based on the results of the screening tests or concerning answers found on the Medicare wellness check-up forms. The patient-

specific goals were included in the electronic medical record under the care plan section in order to ensure the patient was aware of the preventive screening that was due, as well as the unique goals created during the visit. The RN was responsible for making a copy of the personalized prevention plan for the patient to take home. The patient was also given a copy of the clinic's community resource sheet and the RN's business card in case follow-up questions arose. Before the patient left the appointment, the patient's primary care provider reviewed the patient's concerns and completed a brief physical exam. At check-out the patient was scheduled for appropriate follow-up based on the positive screenings and chronic conditions. Once the RN completed the chart and verified it for accuracy, the chart was sent to the provider to review and sign off. Lastly, the RN gave all of the paper documents to the medical records department to be scanned into the patient's chart.

### **Type of Project**

The project was a quality improvement project. Quality improvement projects focus on improving healthcare services and the health status of the targeted population (Health Resources and Services Administration [HRSA], 2011). The purpose of this quality improvement project was to redesign the clinic's AWV from a provider-led format to a RN-led format. Additionally, the pilot project focused on ensuring documentation was adequate for reimbursement to ensure financial sustainability of the project. In order for an organization to achieve quality improvement, its processes must change. Four key principles were modified during the project to ensure quality improvement including: "focus on patient"; "work as systems and processes"; "focus on being part of the team"; and "focus on use of the data" (HRSA, 2011, para.2).

### **Setting and Resources**

The setting for the quality improvement project was a FQHC, primary care clinic in a west Michigan community. There were relatively few resources needed to complete the project, as the clinic's providers were completing AWVs prior to the pilot period. However, the AWV redesign entailed training three RN case managers about the AWV process. The project facilitator trained the RN case managers and acted as a consultant to the practice at no cost during the pilot. Prior to the pilot, the RN case managers performed care coordination visits using the clinic's electronic medical record. As a result, there was only a minor loss in productivity related to training costs for any of the current RN-case managers to learn how to use the electronic health record. In an effort to create a sustainable project and standardize future training, a customized AWV template was assembled into the electronic health record by the project facilitator, a provider, and a RN.

In order to meet CMS guidelines for billing and reimbursement, the clinic's electronic medical record template for the AWV was modified to include all of the required preventive screening questionnaires. Fortunately, Allscripts™ allowed for template customization without accruing additional fees. The project facilitator worked closely with the clinic's information technology department, billing, and clinical staff to ensure all of the necessary components were built into the new AWV template for the pilot project.

In order to report the project's outcome measures, the student facilitator required assistance from the site chair. The site chair was currently a nurse practitioner at the clinic, who actively saw patients; a portion of the provider's time was also allocated to working on changes within the electronic medical record. As part of the project agreement the student-facilitator did not have access to the charting system to extract data. Therefore, all measurable data that could not be collected by direct observation had to be extracted from the electronic health record by the

site chair and de-identified of patient information before the facilitator could evaluate the results. This inherently caused a decrease in the provider's workflow and productivity. However, to minimize the loss in the provider's productivity, the student-facilitator analyzed all of the data that was collected, using basic statistical tests and graphs. For more complex statistical analysis the student facilitator obtained assistance from a biomedical statistician who did not charge for this service.

### **Design for the Evidence-Based Initiative**

The CCM and the Iowa model were the conceptual models used to guide this quality improvement pilot project. The CCM was used to guide the care and ensure patients had adequate resources to provide self-care for their conditions, by providing participants with decision support information for community resources and self-management support services within the community. The Iowa model served as a guide to ensure high quality evidence was collected and integrated into the practice setting.

The seven interconnected components of the CCM were integral to the project design and evaluation.

1. Community resources and policies were integrated into the project. Anyone who screened as high-risk was referred to the appropriate resources within the clinic or community. Examples of resources included the food bank, case management, behavioral management, senior services, and physical therapy.
2. The independently run clinic or health system was the foundational component to the evidence-based project. Without its willingness to participate, the project would not have been a reality.

3. Self-management support is a foundational component to wellness and chronic disease management (Bodenheimer et al., 2002a). The pilot focused on self-management support by addressing patient-specific needs, and customizing preventive care and creating unique personalized prevention plans.
4. The delivery system design of the AWV was the largest change within the organization for this pilot. The format of the AWV switched from a provider-led format, to a RN-led format. The RN pilot focused on supporting disease self-management goals and health promotion while enhancing coordination of care.
5. The project facilitator and clinic leadership developed an EBP protocol for the RNs to follow for the AWV. The protocol was based on the literature findings and clinic preferences for style and format. The team spent time ensuring the electronic medical record was formatted to avoid duplication and to create a streamlined process for the RNs for charting the AWV in a standardized format.
6. Decision support was readily available for the RN case managers throughout the implementation process by means of the project facilitator's knowledge and resources, as well as the clinic's protocol for the RN-led AWV.
7. The clinical information system was integral to the success of the pilot. The electronic health record was customized to have a template specifically for the RN-led AWV. This template created a uniform and standardized way for the RNs to complete the visit in a timely manner.

### **Participants/Sampling and Recruitment Strategies**

The participants included in the quality improvement project were Medicare recipients eligible for their AWV appointment during the data collection period. Participants in the sample

had to be a patient of one of the primary care providers who worked directly with one of the three RN case managers who performed the pilot. The convenience sample included all eligible patients over 65 year of age, regardless of health status or spoken language, as the clinic had interpreter services available. Patients were recruited for an AWV exam by running a report of Medicare recipients who were eligible for the AWV (G0439) appointment. The scheduling department located within the clinic helped patients schedule their appointments. A total of 16 AWVs were completed during the 6-week pilot period.

### **Measurement: Sources of Data and Tools**

Measurable data is a cornerstone to quality improvement initiatives. In order to evaluate the project's success, various measurements were used. The first measurements were a pre-survey (Appendix H) and post-survey (Appendix I) that were used to gather data from the providers and RNs in the primary care clinic. The purpose of the surveys was to collect baseline data regarding the providers' and RN case managers' views of the Medicare AWV format, and assess changes in these views on the post-pilot survey. Each survey had a total of seven questions that asked participants to circle the answer that best represented to their current practice or feelings. Participants who filled out the pre-survey were asked to provide a birthdate of a loved one that was easy for them to remember; the corresponding birthdate was used to match with the post-survey to ensure a thorough analysis and comparison.

The project facilitator also assessed the financial feasibility of having a RN case manager conduct the AWV. Since the visit was reimbursed at the same rate regardless of whether the provider or RN case manager conducted the visit, financially it made sense to use the RN case managers' skillsets. RN case managers are paid a fraction of the providers' salaries due to the differences in education, skills and job description. To gain an understanding of the opportunity



for return on investment from the RN-led AWV, the price billed for the AWV was compared to the average reimbursement providers received from seeing acute or chronic care visits during an hour and a half time frame. An hour and a half was used as a comparison because the RN-led AWV appointments were scheduled for that length of time. Assessing the return on investment was also calculated by looking at several measurable variables including the: (a) number of AWVs per day, (b) number of positive screens identified, (c) number of referral or follow-up appointments made (e.g.- advanced directives, care management, and immediate provider follow-up appointments), and (d) the amount of time required to complete the visit, from start to finish.

### **Steps for Implementation of Project and Timeline**

A project timeline (Appendix J) was created to help the project stay on track, in an effort to meet the goals of the organization as well as the academic objectives. The proposal defense discussion in front of the scholarly committee was completed on January 13<sup>th</sup>, 2017. After team discussion of the project, the student took the feedback gained from the scholarly committee to make appropriate edits for the final paper. In addition, the student submitted the project for internal review board (IRB) approval from Grand Valley State University on January 16<sup>th</sup>, 2017. The Human Research Review Committee (HRRC) determined the pilot project was not research, and did not meet the definition of covered human subjects research, on January 18<sup>th</sup>, 2017 (Appendix K). Training was held for RNs and providers to learn about the AWV redesign during informal drop-in sessions. The RNs affected by the pilot also received additional training regarding how to use the standardized screening tools, as well as training specific to the EHR template that was created for the AWV.

Data collection began on January 30<sup>th</sup>, 2017 and ended on March 10<sup>th</sup>, 2017. The project facilitator shared the pilot results with the collaborating site on March 28<sup>th</sup>, 2017 during a provider meeting. During this meeting, the facilitator provided summative feedback and suggestions for moving forward with the AWV redesign as a means of promoting project sustainability and clinic-wide implementation.

### **Ethics and Human Subjects Protection**

The quality improvement project focused on using the latest evidence-based information to guide the AWV redesign in the primary care clinic. Baseline electronic health record data were collected with assistance of staff from the clinic. Data that was collected included the: (a) number of Medicare beneficiaries in the clinic that were 65 years of age or older, (b) the number of Medicare beneficiaries over 65 years old that completed their AWV the previous year, and (c) the number of patients eligible for the Medicare AWV during the six week pilot period. The project facilitator did not have any access to protected health information or chart access during data collection. All of the data received was de-identified of any patient sensitive information. In addition an application was submitted to Grand Valley State University Human Research Review Committee (HRRC) for institutional review board determination, and the project was determined non-research. Final approval for the project was also obtained from the medical director and chief operating officer at the clinic. Neither leader felt the project needed to be presented formally to the medical ethics review board within the clinic.

### **Budget**

Cost considerations for this project involved changes to the clinic's previous practice. The most time-consuming process was related to building new templates in the electronic

medical record; however, the student facilitator helped build the new template with assistance of an RN case manager and physician assistant who specializes in EHR customization. There was minimal cost associated with the implementation of this project in the form of printing costs for training and handouts for patients, food and beverage for training sessions, and the time required of the staff to receive the education and complete the questionnaires; the approximate costs were 100 dollars. The project facilitator conducted the staff training as well as the follow up assessment and analysis. The process improvement project helped increase revenue to the clinic by approximately \$2,630.00 (which will be covered in greater detail in the project outcomes section). The pilot also allowed more time for providers to see acute or chronic care visits. In addition, the AWV pilot gave RNs autonomy to identify problem areas that could be used to help schedule additional appointments for revenue-generating appointments such as advanced directives, care coordination, and chronic disease management follow-up.

### **Project Outcomes**

The first evaluation of this project was to determine the acceptance of providers and RN case managers for the new RN-led format. A short seven-question pre- and post-pilot survey was given to the providers and RN case managers who participated in the pilot study. Questions 1 and 2 of the pre- and post-survey were scored using a zero to three point response option. Evaluation of success was determined by measuring change in the providers' and RN case managers' comfort in administering the AWV, as well as their change in comfort in creating personalized prevention plans, through responses to questions 1 and 2 of the survey. Due to the limited sample size of 5 respondents the project facilitator was not able to perform statistical analysis on the survey results to determine if there is a significant difference in the pre- and post-pilot survey data. However, a visual depiction of the scores was made using a bar graph (*Figure*

1). The bar graph illustrates an improvement in the employees' comfort administering an AWV, and a modest improvement in the employees' comfort creating a personalized prevention plan.

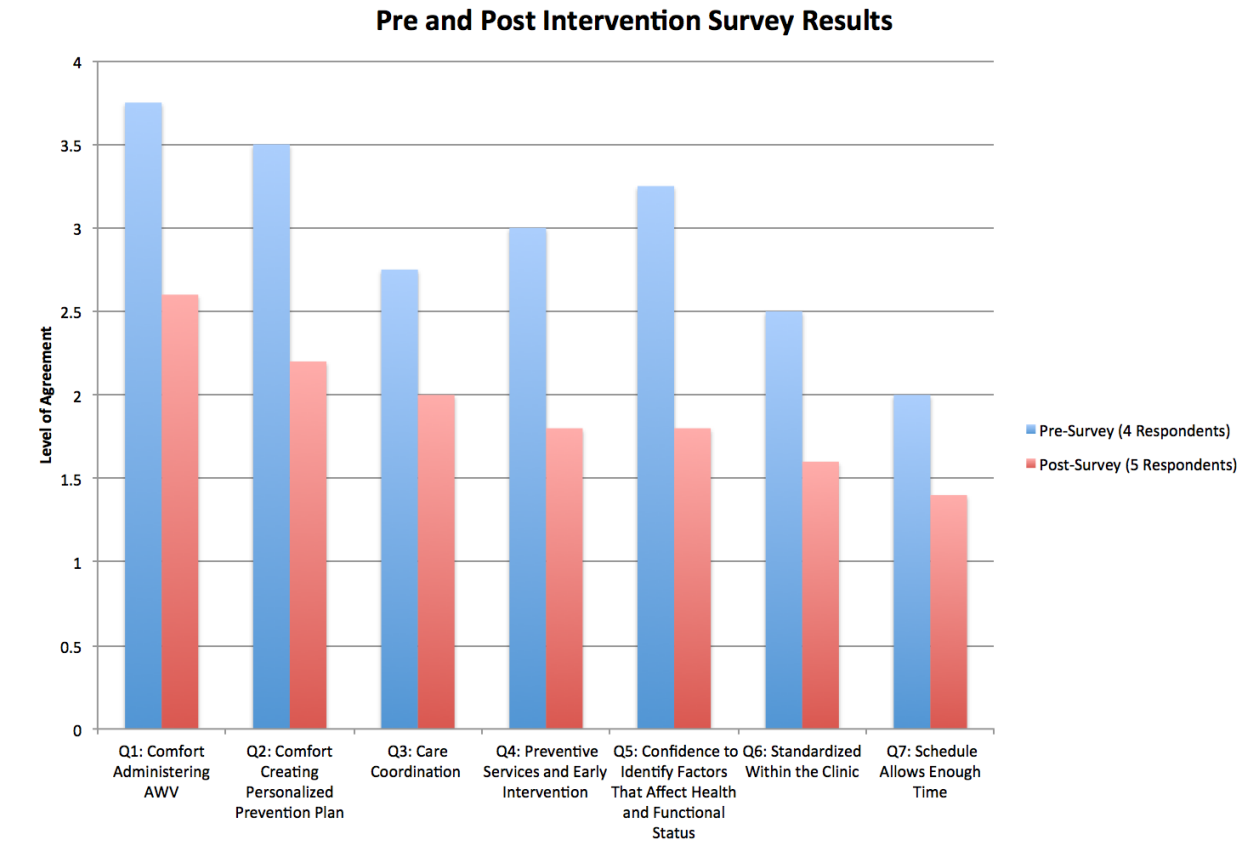


Figure 1. Comparison of Results of the RN and physician pre- and post-pilot survey

Questions 3 through 7 on the pre- and post-pilot surveys were scored using a zero to two-point response option. The providers' and RN case managers' perceptions of change in care coordination and their perceived improvement in preventive services and early disease management during the pilot period were assessed by comparing pre- and post pilot survey answers to questions 3 and 4. The most profound change was illustrated by the improvement of care coordination that resulted from the pilot project. A modest increase in the clinic's ability to provide preventive services and early intervention for chronic disease management was also

perceived. Question 5 was used to determine the RNs' and providers' change in confidence to identify physical, psychological, and socioeconomic factors that may affect health and functional status of patients during the AWV. This measure was essential to determine the effectiveness of the pilot and need for additional education. Unfortunately, there was a modest decrease in this measure; however, it is important to note that this was the only measure on the survey that was rated lower on the post-pilot survey. Strategies to help address the staffs' confidence to identify factors that affect health and functional status will be further discussed in the sustainability section.

The last two questions of the survey were used to assess the clinic processes and procedures surrounding the AWV. Question 6 was used to assess the change in standardization in the clinic's AWV process, whereas question 7 was included to determine if the pilot project created adequate time in the providers' and RNs' schedules to conduct a thorough AWV. Ratings for question 6 and 7 were moderately increased from the pre- to post-pilot survey, indicating a perceived improvement in the AWV process using the RN-led format. Overall, the results of the survey provide areas of strength and weakness that will be further addressed in this project when considering sustainability.

The results of the survey must be interpreted with caution. It is important to note that four participants completed the pre-pilot survey, while an additional participant completed the post-pilot survey, thus, resulting in 5 completed post-pilot surveys. Given the small sample size and the variance in the number of completed pre- to post-pilot survey respondents, additional analysis was completed by comparing the participants' matched surveys. The participant who completed only the post-pilot survey selected the highest response option available for each

question. Therefore, all of the selections the participant made increased the averages for the items.

Closer analysis of the paired-surveys reveals interesting results. One of the participants did not change in perceptions between the pre- to post-pilot survey. This participant selected the highest option available for each question. Two of the remaining participants selected lower responses for one question on the post-pilot surveys than for the pre-pilot survey responses. These questions varied for each of those respondents. The two questions for which a participant selected a lower response post-pilot were the employees' confidence to identify physical, psychological, and socio-economical factors that may affect health and functional status of the patient during the AWV; and the second question was concerned with employees' perceptions of improved preventive services and early intervention for chronic disease management being available. Each of the lower ratings were only lower by one point on the scale, but given the small sample size these changes reduced the items' overall mean ratings. In total, these descriptive findings reveal a slight decrease in confidence for one of the four respondents participating in the pilot. Additionally, a slight decrease in improvement of preventive services and early intervention services was perceived by one of the four respondents participating in the pilot.

To assess the organization's capability for performing an RN-led AWV efficiently, an effort was made to look at the return-on-investment opportunities and overall reimbursement of the visit. The CMS physician fee schedule calculator (CMS, 2017) was used to determine the average reimbursement rates for follow-up testing and services. In addition, the average reimbursement rate of other common visits were examined to gain a more thorough understanding of how the Medicare AWV is supplemented when compared to other

appointments for providers and case managers. The average rate of reimbursement for the Medicare AWV is \$120.50 (CMS, 2017). When a patient sees a provider for a diabetic visit (99212 or 99213), the clinic can be reimbursed an average of \$40.29 to \$70.28 based on the complexity of the visit (CMS, 2017). When a case manager bills for complex chronic disease management (99490 or 99487), the average reimbursement of the visit fluctuates between \$42.57 and 78.38 nationally (CMS, 2017). Based on the reimbursement information noted above, it would take roughly 3 minimal complexity visits or 2 moderate complexity visits to equate the same reimbursement as the AWV affords.

There are several other opportunities for reimbursement during the AWV, including immunizations and labs. During the pilot period a total of 9 vaccines were administered to patients, including 3 pneumonia vaccines that can be reimbursed up to \$181.00 per injection (CDC, 2017). Two influenza vaccines were administered; the average reimbursement for this injection is \$20.00 per injection (CDC, 2017). Lastly the clinic administered four shingles vaccines during the AWV. Although Medicare does not pay for this injection the clinic has a grant that allows high-risk patients to receive the immunization at no cost.

Laboratory tests that were ordered during the visit included two fecal immunochemical tests; the average reimbursement rate for this service is \$22.22 (CDC, 2017). Blood tests that were ordered included a vitamin D level and two thyroid stimulating hormone levels, reimbursement averages \$37.23 and \$20.14 respectively (CDC, 2017). During the pilot period the estimated reimbursement for all of the services provided by the clinic totaled over \$2,630.00. The AWV also created several opportunities for reimbursement through follow-up appointments for chronic disease management, dental care, smoking cessation classes, and medication reconciliation appointments.

During the pilot period there were a total of 16 AWV performed. Seven AWV were canceled and the clinic had no “no-shows” for the AWV appointments. Two of the AWV were canceled due to patient preference and five visits were canceled by the clinic. The clinic had to cancel the AWV appointments because some patients were not due for the AWV (G0439) yet, having completed a G0439 in the last year, or because the patient never received the initial welcome to Medicare visit. As a result, an issue with correctly identifying patients for scheduling was identified as one of the biggest barriers in the pilot process.

Several other variables were hand-collected to determine the efficacy of the pilot project. Throughout the six-week pilot, the student facilitator collected information regarding the: (a) number of AWVs per day, (b) number of positive screens identified, (c) number of referral or follow-up appointments made, and (d) the amount of time required to complete the visit from start to finish. This information was collected to determine if there was a relationship between: (a) appointment time and number of positive screens, (b) appointment time and the number of follow-up appointments, and (c) number of positive screens and follow-up appointments. The number of AWVs a day was used to determine if the RNs would have adequate time in their weekly schedules to complete the AWVs.

The average number of AWVs performed a day were 1.67 appointments, with a range of 1 to 3 visits. Approximately a third of the patients had positive screens identified during the pilot period. The average number of positive screens identified in the pilot group was 1, with a range of 0 to 3 positive screens. The number of follow-up appointments varied widely in the patients because of the differences in preventive services and chronic disease management follow-up that were needed. Out of the 16 AWVs performed during the pilot period, the range of follow-up appointments was 1 to 6, with an average of 2.12 follow-up appointments scheduled for patients.



It was not surprising to find the amount of time needed to complete the visit varied significantly based on the patient's unique needs. The longest appointment was 98 minutes and the shortest appointment was only 45 minutes. However, the average time to complete the visit was less than expected, taking only 68.25 minutes excluding charting time. Charting time was not included because many of the RN case managers did not complete their charting right immediately after the visit making it a limitation for the project facilitator to hand collect the data.

A two-sided Pearson's product-moment correlation coefficient was computed to assess the relationship between: (a) appointment time and number of positive screens, (b) appointment time and the number of follow-up appointments, and (c) number of positive screens and follow-up appointments. There was a strong positive correlation between appointment time to complete the visit and the number of positive screens ( $r = 0.822$ ,  $n = 16$ ,  $p < 0.001$  (*Figure 2*)). A strong positive correlation was also noted between the amount of time to complete the visit and the number of follow-up screens identified ( $r = 0.918$ ,  $n = 16$ ,  $p < 0.001$  (*Figure 3*)). There was a moderate positive correlation noted between the number of positive screens identified and the number of follow-up appointments scheduled ( $r = 0.528$ ,  $n = 16$ ,  $p = 0.036$  (*Figure 4*)).

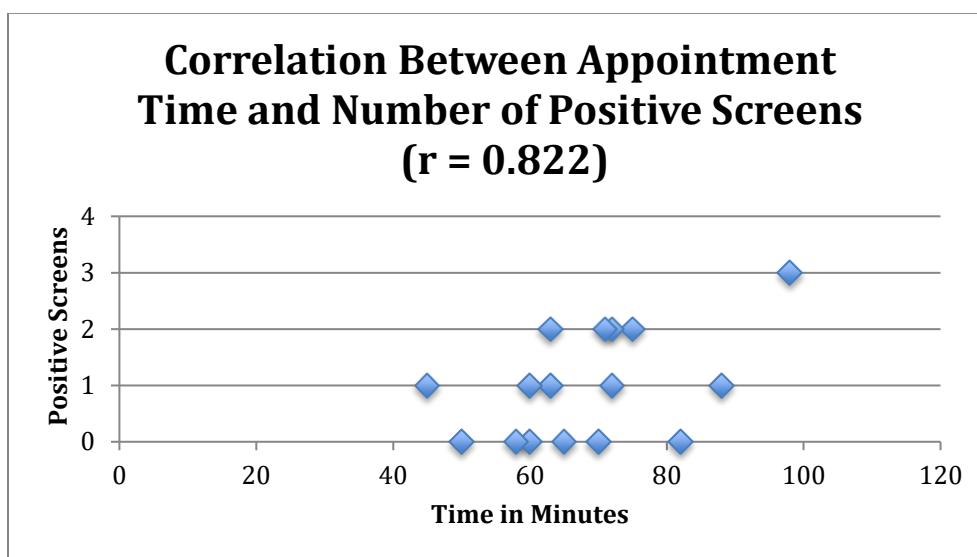


Figure 2. Correlation between length of appointment time in minutes and the number of positive screens identified (n = 16).

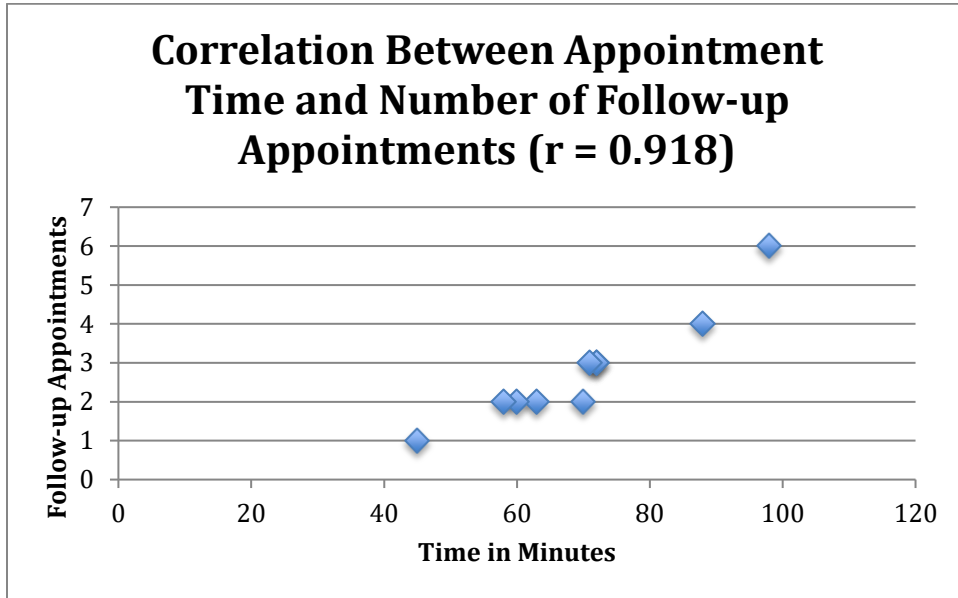
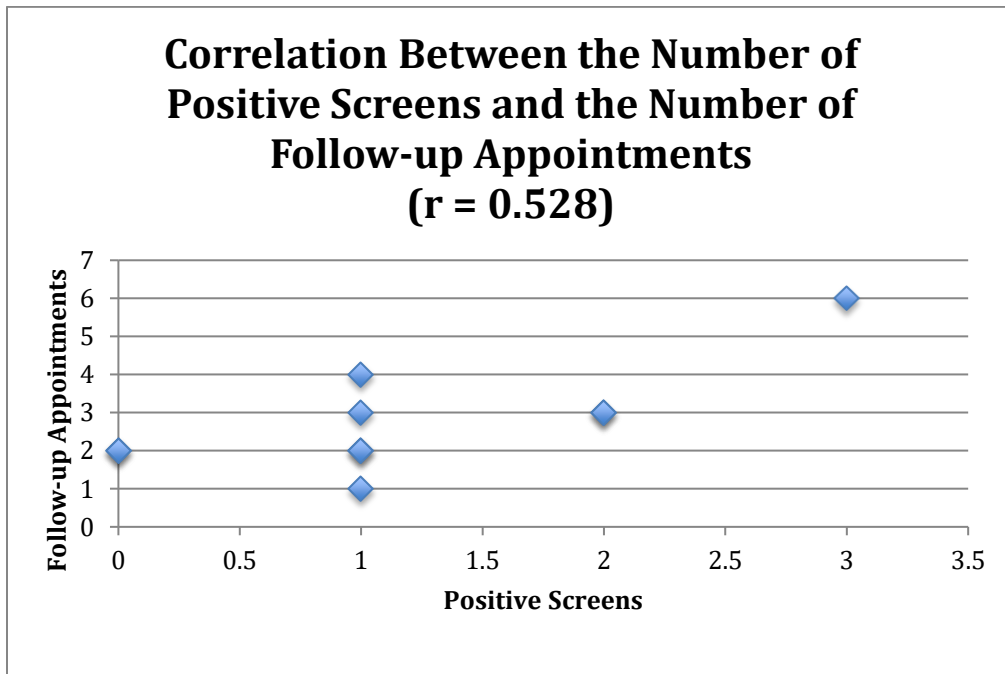


Figure 3. Correlation between appointment time and number of follow-up appointments (n = 16)



*Figure 4.* Correlation between the number of positive screens and the number of follow-up appointments (n = 16).

It is important to note some of the observations that were gathered during the AWV appointments. Several of the observations gathered by the project facilitator during the AWVs help reinforce the RN's role in care coordination and health promotion. Although some patients refused follow-up services, the RNs were able to explain how avoiding follow-up for different conditions including depression, anxiety, colonoscopy, or smoking cessation could impact a patient's health and wellness. Many of the patients stated they would consider getting help, or follow up on preventive screenings or services they initially refused. However, the patients were not always ready to act at on all health promotion decisions during the AWV, so the topic must be reintroduced to patients at a subsequent visit. Patients that screened positive on the scoring tools such as the TUG test were offered additional support. RNs took time to educate patients about their increased risk for falls, and offered referrals to community services that could provide a detailed home assessment and ensure the patient's home is safe.

Medication education was another area of value of having the RNs complete the AWV. During one of the medication reconciliations an RN was performing, she found the patient did not understand how to take his medications properly due to a knowledge gap and an issue with inadequate financial resources to pay for his medications. The patient was using his controller inhaler that he was supposed to use daily only "when I really need it". As a result, the RN was able to educate the patient and his wife about the importance of taking the medication as prescribed to help control his chronic obstructive pulmonary disease. In addition, the RN was able to provide the patient with free samples and financial resources to assist with medication costs. Another patient was also referred to free resources to help with chronic disease

management. The patient was given a blood pressure cuff to allow monitoring of hypotension and to avoid further issues such as syncope or falls.

Updating the patient's screening and history were areas that required considerable time during the AWV. Multiple patients had not seen a dentist in years, and one patient had never seen a dentist. Fortunately, the clinic has a dentist's office located within it so several patients were referred for dental appointments and met the dental staff during their AWV appointment. The patients were able to play an active role in their plans of care during the visit. This was evident throughout the visit, but exemplified by using the personalized prevention plan. During the visit patients were encouraged to set 2 to 3 reasonable and attainable goals that will help them maintain their health or achieve wellness. The patient's goals varied based on their motivation and driving factors (e.g.- attend smoking cessation class, drink more water, walk 30 minutes a day, see all of their grandchildren this year). Overall the visit allowed the RN to confirm that resources for the patient's healthcare needs were identified, by ensuring the patient had services such as visiting nurses, family support, transportation, an updated medication reconciliation, and caregiver support resources.

### **Implications for Practice**

The outcomes of the pilot AWV redesign provided the organization with necessary information to make a clear decision regarding the sustainability and feasibility of the RN-led AWV. It is clear care coordination was enhanced for patients during the pilot period and opportunities for clinic reimbursement were abundant. It is important to note that the pilot was based on Medicare recommendations and evidence-based practice. RN-led AWVs have been implemented successfully in other clinics, but there is limited research on the topic. Evidence supports the use of screening tools to help identify high-risk patients (Hain, 2014). Furthermore,

the exam provides the RN case managers adequate time to discuss the importance of health promotion in the aging population.

In order to ensure successful outcomes, healthcare providers must be certain to personalize care and individualize prevention plans for each Medicare recipient. Personalizing the patient's healthcare needs is beneficial to improving independence and quality of life for patients (Hughes, 2012). In addition, successful implementation will help providers support the goals of the Triple Aim (Snyder, 2013). Lastly, a RN's education focuses on health promotion and individualized care plans geared towards each patient's needs. Given the preventive nature and format of the AWV, it is advisable to consider using an RN to implement the visit.

### **Project Strengths/Success/Weaknesses/Difficulties**

The project has strengths, including the initial use of the organizational assessment model to determine the clinic's structure, and willingness to participate in a change initiative. Fortunately, gaining support from the RN case managers and primary care providers was not an issue during the pilot; however the project facilitator explored and discussed potential barriers for long-term acceptance of the new format with the leadership staff and key stakeholders. Another strength is the pilot design. Given there is little evidence available regarding RN-led AWVs, the project offers additional information on a successful format for performing the AWV. In addition, the pilot period allowed the clinic and project facilitator to identify areas of strength and weakness in the overall process before creating a system-wide procedure that all providers can use for their patients. Furthermore the Iowa model and the Chronic Disease Management model allowed the project facilitator to use a systematic way to ensure adequate background information and follow-up resources were available for patients and staff throughout the trajectory of the pilot project.

As one could imagine there were several difficulties identified throughout the project. One of the major issues stemmed from scheduling patients. It was common for patients to have an inaccurate understanding of the purpose of having an appointment with the RN case manager. To prevent confusion for patients and employees, scripting (Appendix L) was developed for the schedulers to use as a resource to answer patients' questions regarding the new practice. Changing the structure of the AWV affected the patient, as well as the employees working in scheduling. Several patients who were originally scheduled for the AWV had to be canceled, as they were not due for the G0439 visit. Another system issue that was identified was that patients were not consistently being given the Medicare AWV paperwork at front desk check-in. The issue was originally resolved with the check-in process. However it reoccurred, likely due to the new pilot process as well as variability in the staff members who checked patients in at the front desk. Although there were several issues identified during the pilot with proper scheduling and check-in, the project facilitator addressed the barriers in the recommendations for sustainability section.

It was also apparent that some of the screening tools could only be used with limited accuracy due to patients' preexisting conditions including hearing, visual and functional deficits. For example, a patient who was legally blind was unable to complete the clock draw on the Mini-Cog assessment. As far as timing of the visit, most visits went smoothly; however, one patient waited over 30 minutes for the provider to quickly assess the patient, which greatly extended the time of the visit. Lastly, a common barrier that was consistently seen throughout the visits was related to medication reconciliation. Several patients did not bring in their medications; therefore medication reconciliation could not always be completed during the

AWV. However, very high-risk patients were scheduled for additional follow-up with the RN case manager to review their medications.

### **Project Limitations**

This project has limitations that must be recognized. The small sample size of the pilot study is a limitation. Given the small sample number of patients and respondents for the pre- and post-surveys, the data cannot be generalized to all elderly Medicare recipients within the FQHC clinic. Due to the quality improvement nature of the project, convenience sampling was also used without any randomization. This type of sampling was used to ensure patients were eligible for the AWV exam and the clinic would be adequately reimbursed for the visit. No comparison group was used, as the clinic identified the AWV as an area of needed change. Identifying the organization's needs is a key step before moving forward with any implementation efforts (Titler et al., 2001).

Varying priorities for change were originally identified during the organizational assessment. When the student project facilitator originally performed the organizational assessment, a different medical director was in charge of the clinic. As a result, the previous medical director identified different priorities than the current leader. Although this barrier must be taken into consideration, the current project extended upon the original idea of performing annual cognitive screening for adults over fifty years old within the clinic. Fortunately, the AWV redesign took a portion of the previous idea that was identified and optimized it by looking for areas to enhance all forms of preventive screening and care coordination for aging patients, rather than just cognitive screening.

Due to time restraints of the quality improvement pilot project the student was unable to evaluate the long-term effects of the project and determine any long-term impact regarding quality improvement and enhanced care coordination. The limited time frame also did not allow evaluation of patients' attendance at follow-up appointments, or progress towards their personalized goals created during the AWV. Also, given the limited time frame, the long-term effects on the clinic could not be measured. As a result of the limited timeframe, the student was unable to determine if the pilot project will have any lasting effects on the preventive health delivery for Medicare recipients within the clinic.

### **Recommendations for Sustainability**

Healthcare is an environment that is constantly plagued with changes and new evidence-based practices. As a result, the project facilitator must consider how the quality improvement project will be sustainable in the clinic given the competing demands and priorities (Doody & Doody, 2011). Fortunately, the pilot project that was selected was a change the clinic saw as a need for improvement. Given the clinic's motivation to change the previous process, the multidisciplinary nature of the pilot, the commitment of staff to change, and the contribution of the pilot in improving care and services for patients should be enough to foster sustainability. However, potential barriers must be addressed.

The Iowa model (Titler et al., 2001) was used to guide the literature review, implementation, and efforts toward sustainability of this project. In order for sustainable change to take place, barriers that could affect the widespread implementation and acceptance of the pilot must be addressed. Common areas that are often noted to hinder system-wide acceptance for change initiatives include information and skill deficits (Doody & Doody, 2011). Evaluation of the employee pre- and post-surveys identified certain skills and information deficits as an area



of concern when considering sustainability. The pre-pilot survey results were higher for identifying factors that affect health and functional status (*see Figure 1*). There was also very little change noted between the pre- and post-pilot surveys for the employees' comfort creating a personalized prevention plan. The results of the surveys must be interpreted with caution, as the survey sample size was very small, however the results can still be used to guide sustainability efforts. Interestingly, the qualitative feedback received from the employee surveys was much more positive than the quantitative statistics that were collected. On the pre-pilot survey one respondent stated, "many of the required components which Medicare will reimburse are not covered during the AWV as they should be right now". In the post-survey the same respondent stated "the process is more standardized within the clinic with the nurses doing the visits. The nurses have done a great job assessing the full patient and letting their specific needs be known to providers, and then we can do a follow-up visit on just those issues."

Doody and Doody (2011) suggests that a lack of background information and knowledge regarding current guidelines or recommendations has the potential to cause nurses to feel they have inadequate training to implement or sustain a change. As a result, the student project facilitator created a step-by-step AWV guide (Appendix M) to help answer commonly-asked questions, and provide background information regarding the visit that would address the barriers noted in the survey results. The AWV guide was provided to the clinic in paper and electronic format. Therefore, it can be used as a resource for the current RNs to use as a periodic procedure review tool, and it can be used for training new staff about the protocol. Although the pilot did not result in favorable results for all of the measured variables, some benefits from change initiatives may not become apparent until after a considerable amount of time.

Unfortunately, this report was not able to address the long-term effects of the project, due to time limitations.

In an effort to garner a higher level of motivation to continue the change initiative, the student project facilitator provided the clinic with the final results of the project, including the statistical and non-statistical data. During this dissemination opportunity questions regarding sustainability were addressed and the facilitator acted as a resource for any immediate questions or reeducation necessary to promote sustainability. Disseminating data to the clinic staff provides insights into the outcomes of the change initiative (Titler et al., 2001). The unique outcomes of this project are important to publicize, as these are not only exclusive to the clinic, but also to an FQHC clinic. To date, no information was found regarding a FQHC implementing a RN-led AWV pilot.

The RN case manager supervisor has voiced her support for the visit changes; given her leadership and staff education role her support is an important factor in RN-led AWV sustainability. This key stakeholder also acted as a champion for the AWV content and process as she played a significant role in creating the protocol, modifying the electronic medical record template, and staff education. After the pilot period the leadership team determined the AWV pilot procedure would become a protocol within the clinic. This decision was made based on the outcomes of the pilot project. The pilot allowed the project facilitator to identify areas of need including further education of the front desk staff for patient check-in, as well as education regarding scheduling patients for the RN-led AWV appointment.

There were several key stakeholders within the organization who supported the AWV redesign. Gaining support from the key stakeholders ensured the effectiveness and sustainability of the quality improvement initiative (Kansas University, 2016). Key stakeholders to the AWV

redesign project include the: Board of Directors, Medical Director, clinic supervisors, providers, RN case managers, medical assistants, and the patients who are served by the primary care clinic. Fortunately, the AWV redesign aligned nicely with the organization's mission "to promote the physical, emotional, and spiritual health of families through our healthcare and other supportive services" (Dancz, 2016, p.1). As a result, senior leadership within the clinic voiced their excitement about the quality improvement project and adopted the pilot project as a system wide protocol.

In order to ensure the enthusiasm for the AWV redesign continues, it is important to not only look at sustainability tools and environmental characteristics; but also, consideration for future areas of research or data collection that could help promote sustainability. Several questions could be addressed including: (a) do patients have a long-term benefit from completing the AWV? (b) how often do patients follow up with providers they are referred during an AWV? (c) when compared to the previous year, how much money are RN case managers generating for the clinic per month? (d) do patients use their personalized prevention plan to help guide their healthcare plan throughout the year? and (e) if the patient had a positive screening result, who should follow-up and when? Collectively the providers and RNs must use the personalized prevention plan (Appendix G) as a guide or care plan for each patient. The personalized prevention plan gives an overview of the patient's preventive screening tests that need to be completed in addition to the patient personalized goals that were completed during the visit. In order to further promote RN autonomy for the AWV, it would be helpful to have a protocol or standing order in place that RNs can order screening tests that are overdue. This would also promote coordination of care, as providers would have the ability to review preventive screening tests that were complete between the AWV and a follow-up appointment.

### **Relation to Other Evidence and Healthcare Trends**

Enhancement of clinical preventive services in the elderly is a topic that has received a great deal of global and national attention. In 2014 the World Health Organization (WHO) created a comprehensive global strategy and action plan to address aging and health. The WHO committee developed five strategic objectives to address health needs in the aging population. The objectives include (a) commitment to action on healthy aging in every country, (b) developing age-friendly environments, (c) aligning health systems to the needs of the aging, (d) developing sustainable and equitable systems for long-term care options, and (e) enhancing the research and knowledge on healthy aging. The goals and objectives of the WHO intend to help elders live a long and healthy life (WHO, 2017).

In the United States, health expectancy and overall health have improved in recent years for many Americans. However, not all older adults are benefiting from improved health care service due to underlying socioeconomic issues including financial barriers, race, and gender. As a result, the CDC highlights the importance of increasing and improving preventive health services to adults aged 50 or older as a key public health strategy (CDC, 2017). Currently, fewer than 50% of U.S. adults over 65 years of age or older are up-to-date on preventive services. Even more staggering, fewer than 25% of adults aged 50-64 are up-to-date on services in the U.S. (CDC, 2017). Fortunately, many organizations have realized the importance of addressing health promotion services throughout the lifespan.

The Office of Disease Prevention and Health Promotion (ODPHP) services identifies a set of comprehensive national goals for improving the health of all Americans in the Healthy People reports that are published decennially (ODPHP, 2017). In the Healthy People 2020 report, one of the national objectives is to increase the proportion of older adults who are up-to-

date on clinical preventive services by 10% (ODPHP, 2017). If obtained, this relatively modest goal would only result in 51-53% of the elderly population being up-to-date on clinical preventive screenings (CDC, 2017). Clinical preventive screenings include a combination of screening tests, immunizations, and counseling to prevent the onset of progression of disease and disability (Benson & Aldrich, 2012). Fortunately, the U.S. Preventive Services Task Force (USPSTF) provides a complete list of recommendations to help guide primary care practitioners' decision making regarding recommended services for each patient, based on their unique risk factors including family history, age, comorbidities and sex (USPSTF, 2016). Although preventive screening is readily available, it is important to consider barriers patients may face in receiving optimal preventive screening services.

A major issue with providing preventive healthcare is the current culture and competing priorities in the healthcare field. For many years patients only went to see their primary care provider when they were ill or had a specific need. The culture and importance of preventive health has been overlooked for many years. However, with pay-for-performance and consumer-driven healthcare, preventive health is more imperative now than ever. In order for primary care practices to remain successful, they must garner a sense of urgency for preventive health screening and follow-up. Nevertheless, treating an established disease often takes precedence over preventing potential illness for providers in well-established practices. Addressing barriers to providing preventive health services is a multifocal problem that is affected by personal, organizational, and structural barriers (Benson & Aldrich, 2012).

The Affordable Care Act of 2010, was extremely helpful in removing barriers for preventive health care services. However, older adults may fail to keep up-to-date on clinical preventive services for several reasons: (a) elders' lack of knowledge regarding preventive

services and insurance coverage for preventive services; (b) providers may not take the time to recommend or provide routine screenings; (c) providers may not be familiar with the age-based recommendations for preventive services; (d) some elders may not have a primary care provider or visit their providers on a regular basis, and; (e) older adults may have physical or social barriers preventing them from receiving services (Benson & Aldrich, 2012). Many healthcare organizations in the U.S. are working to remove the noted barriers including the CDC, American Medical Association, Administration on Aging, and the Alzheimer's Association, to name a few (CDC, 2017). Healthcare literature and efforts throughout the world have emphasized the importance of health promotion efforts in the aging population, in an effort to improve quality of life while symbiotically reducing healthcare costs (CDC, 2017; WHO, 2017).

### **Reflection of Enactment of DNP Essential Competencies**

The American Association of Colleges of Nursing (AACN) requires that all students who graduate with their doctor of nursing practice (DNP) degree develop knowledge and skills regarding the eight DNP competencies (AACN, 2006). The eight essential competencies serve as the core component to all advanced nursing practice roles, regardless of specialty. Fortunately, the majority of the *Essentials* were obtained during the assessment, implementation, and evaluation of the AWV pilot project.

**Scientific Underpinnings for Practice.** Nursing is a complex and ever changing field impacted by policies, politics and population-specific needs. The scientific underpinnings of practice cannot be minimized, as nursing care is accomplished through use of conceptual frameworks based in the nursing field, as well as other disciplines. This comprehensive framework allows advanced practice registered nurses to provide culturally sensitive and relevant care to patients across the spectrum of ages and illnesses (AACN, 2006).

Conceptual models from varying disciplines were used to plan and guide the pilot project. Each of the models were used to help guide the health and wellness needs of elderly Medicare recipients throughout their aging journey. Public health science concepts were used to determine the nature and significance of the healthcare problem during the initial organizational assessment. The significance of chronic disease and other common aging issues was assessed on a local and national level by collecting statistical information specific to aging individuals. The student also introduced a practice change to the clinic. The RN-led AWV pilot was initiated as an alternative format to provide preventive health services and care coordination to Medicare recipients within the clinic.

**Organizational and Systems Leadership.** Improving patient and health outcomes can be accomplished partly by focusing on eliminating healthcare disparities, promoting patient safety, and creating an excellence in practice (AACN, 2006). Organizational and systems leadership was displayed throughout the project process. The student demonstrated this *Essential* by conducting an organizational needs assessment of the clinic to determine the most appropriate project that would meet the needs of the organization, while maintaining a feasible project that could be completed in the designated timeframe to meet graduation requirements. The project was designed as a pilot to meet the needs and goals of the clinic. Principles from business, finance, economics, and health policy were used during the assessment, design, delivery, and evaluation of the outcomes measures during the AWV pilot project, thus ensuring the practice changes were acceptable.

Leadership and advanced communication skills were used throughout the project. The student took the unique needs and interests of the key stakeholders within the office as well as the unique needs of the patients into consideration when making all decisions for project

implementation and sustainability. Cultural and ethical sensitivity was maintained throughout the project by demonstrating compassion to patients and clinic staff. Additionally, the project was submitted to the university's HRRC to ensure the project was non-research.

**Clinical Scholarship and Analytical Methods.** Key foundations of DNP education are scholarship and research. A DNP graduate is prepared to apply these skills in the clinical setting by translating research into practice, consequently resulting in increased knowledge and improved practices (AACN, 2006). After completing the organizational needs assessment, a comprehensive literature review of the existing evidence on AWVs and the supporting screening tools used during these visits was completed. Although there was very limited research available on the AWV, the findings from the literature search were used to guide the pilot protocol. In addition, the student facilitator built a step-by-step guide for completing the AWV. This resource is complete with screenshots of the process as well as a section dedicated to frequently asked questions and resources to help score the standardized screening tools. The guide is intended to be a resource and used for training new RN case managers regarding the AWV process. Furthermore, the purpose of the guide is to promote sustainability of the pilot project, while aiding in system-wide practice change within the clinic. Statistical analysis including descriptive statistics, Pearson's correlations, clustered column charts, and scattered dot charts were utilized to analyze data gathered from the pilot project.

**Information Systems Technology.** Technological advances in the healthcare system have created a healthcare system that operates largely through the use of technology and information systems. As a result, the DNP-prepared graduate is equipped to explore technological advances and apply relevant information that will assist in improving patient and population outcomes. The student demonstrated knowledge and skills in this competency by



assisting with the electronic health record template customization for the AWV pilot project. With assistance from key stakeholders within the clinic, the student programmed new procedure results tools into the electronic medical record for the evidence-based standardized screening tools. Programming the Mini-Cog, CAGE, TUG, and GDS into the electronic health record allows for easy data extraction and tracking; this also ensures patient outcomes and measures are being met for clinic reimbursement measures for meaningful use. In order to meet the CMS requirements for billing and reimbursement the student worked closely with the billing department to ensure the AWV charting met all of the objectives.

In an effort to promote sustainability of the pilot project, the student navigated the test environment of the electronic medical record to develop a step-by-step guide to assist RNs in completing the AWV. The guide contained several screenshots to ensure adequate visual representation was available for training purposes. Lastly, the student used Microsoft Excel data analysis technology to evaluate the surveys and data collected during the AWV pilot project.

**Advocacy for Health Care Policy.** Engaging in health care policy is an expectation of the DNP graduate. Healthcare policy on the organizational and governmental level must be taken into account when delivering health care changes or suggesting change initiatives (AACN, 2006). Throughout the project process, considerations for the organization's policy and procedures were integrated into the AWV protocol. In regards to political advocacy from the governmental level, this project did not directly incorporate advocacy opportunities; however, the student had to be aware of CMS policies that affected reimbursement.

**Interprofessional Collaboration.** A key to providing care to elders with complex chronic illness is providing care using an interprofessional approach. Interprofessional collaboration allows individuals from various disciplines or specialties to contribute to the

patient's plan of care, all while providing safe, timely, effective, and efficient care (AACN, 2006). Collaboration and care coordination were the backbone to the pilot project. One of the outcome measures on the survey specifically asked if the Medicare AWV has improved care coordination and early intervention for patients. The student facilitator found that interprofessional collaboration was integral to the project success. Many of the patients received information or services from multiple disciplines during their visit, including, but not limited to RN and provider assessment and consultation, dental consultation, and social work support for community resource management. Furthermore, the student worked directly with a team of key stakeholders within the clinic to create staff specific education and patient resources.

**Population Health and Clinical Prevention.** Implementation of concepts from clinical prevention and population health are important to the DNP graduate. These ideas help guide the health and wellness needs of the nation (AACN, 2006). The student analyzed how preventive health care and chronic disease management were delivered during a Medicare beneficiaries' AWV. Based on the needs identified in the clinic, a customized pilot implementation of the AWV was created for the clinic to trial to help improve care coordination and resources for this vulnerable population. The student took several variables into consideration when tailoring the pilot due to socioeconomic, environmental, and community issues that are unique to the population the FQHC clinic serves, by addressing gaps in care. For example, preventive services including dental care was a service that was commonly included into a patient's plan of care.

**Advanced Nursing Practice.** DNP programs are tailored to provide training and education within a distinct specialty such as adult-gerontology, pediatrics, psychiatric, or health systems leadership (AACN, 2006). The student demonstrated growth in advancing nursing practice by facilitating an innovative pilot project geared towards the aging population within the

FQHC clinic. The student acted as a consultant throughout the implementation period as well as a change agent in the clinic during the entire project process. The change initiative stemmed from the needs that were identified in the organizational assessment. Barriers that were originally identified include the need to optimize preventive health services and care coordination for high-risk patients who receive care in the clinic. Consequently the RN-led AWV redesign was created.

### **Dissemination of Outcomes**

The information gathered during the project timeframe was disseminated to the scholarly committee. The project facilitator also presented the results of the project to the collaborating site, and offered suggestions to help promote continued quality improvement and sustainability of the project. To ensure sustainability, the project facilitator created step-by-step resources to help guide the RN case managers through the visits. In addition, all of the resources needed for project sustainability were provided to the clinic in a binder format. Since there is very limited research on the RN-led AWV in an FQHC setting, the results of the quality improvement project may be a helpful guide for other organizations that are considering an alternative format for their AWV. As a result, the student facilitator is interested in publishing the results of the pilot study in a nursing or healthcare journal as an additional means of dissemination. Lastly, the student presented the finding of the project in a brief oral format at the student scholar's day held at the university.

### **Conclusion**

The Medicare AWV is a wellness screening intended to delay the onset of chronic conditions, through early screening and personalized prevention plans (Hain, 2014). However, there are many barriers to implementing the AWV in a standardized format at the pilot clinic due

to (a) time constraints, (b) provider preference, (c) patient comorbidities or acute care issues take precedence, (d) poor functional status, (e) transportation problems, and (f) language barriers. The AWV does not require a physical exam and it does not have to be completed by a primary care provider (Snyder, 2013). Therefore, an alternate format using an RN-led format is feasible to consider implementing as a protocol in the clinic. The clinic currently employs five RN case managers; these case managers currently coordinate services for high-risk patients. Given the RNs' current responsibilities and educational backgrounds that focuses on health promotion and care plan personalization it is evident that they are experts in providing high quality, evidence-based care.

The pilot further provided support for the quality of care the RNs provide within the clinic. Overall the RNs were able to provide the AWVs efficiently while enhancing care coordination and preventive services for high-risk patients. The RNs were able to quickly identify high-risk patients using the screening tools provided, and suggest early interventions such as physical therapy, increased home support, removing tripping hazards in the home, or increased clinic services such as attending smoking cessation classes. There were several benefits identified by having the RN-led visits instead of the physician led visits. The visits encouraged patients to take an active role in their healthcare decisions by creating personalized goals to work on. Additionally, the new process allows the primary care providers to see more patients with acute and chronic visits during the day, thus allow for increased revenue for the clinic as a whole. Furthermore, the AWV has the opportunity to stimulate a great deal of revenue as the AWV is reimbursed at a higher rate than a traditional sick visit, and other services can be addressed and billed for such as vaccinations, labs, or follow-up care for chronic disease or preventive care.

The purpose of the project was the development of a protocol for implementing a registered nurse-led annual wellness visit in a primary care, federally qualified health center (FQHC) in a lakeshore community in southwest Michigan. Data was collected over a six-week pilot period. The results of the pilot project showed room for improvement in regards to long-term education and sustainability, however in general, the project was well-received and beneficial for the clinic staff and patients.

The project facilitator addressed some of the barriers that were encountered by creating a step-by-step resource that can be used to guide the AWV and answer common questions regarding the visit. The student also provided follow-up education to the employees during a staff meeting to offer suggestions for sustainability, shared the project results, and answered any final questions regarding the AWV process. Lastly, the student-project facilitator presented the outcomes of the project to the scholarly committee to gain additional feedback and suggestions for sustainability and future research.

The overarching goals of the pilot project were to show increased acceptability of the new AWV format as well as an increased return on investment. These outcome measures were met in the pilot study. Additionally, the clinic found benefit in the pilot, and has decided to adopt the pilot as a system-wide implementation project. Overall, the pilot project helped improve care coordination. This was evident by increased patient participation in their plans of care, easily accessible preventive services, and identification of additional resources and enhanced chronic disease management services for complex patients or caregivers. Given the decision to implement the pilot as a system-wide protocol, the clinic should considering measuring data specific to patient outcomes in the future. Measuring patient outcomes would ensure the visit has long-term benefit for the high-risk patients the clinic services.

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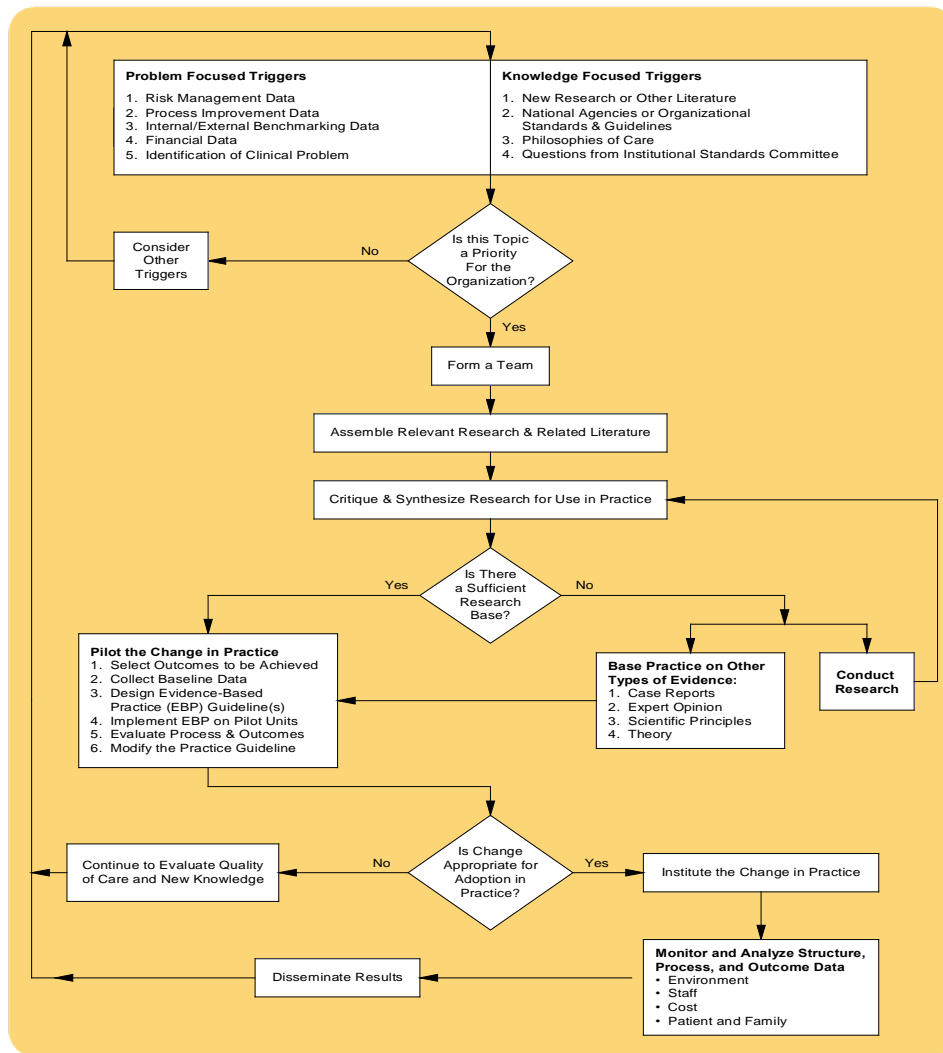
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Appendix A

The Iowa Model of Evidence-Based Practice to Promote Quality Care

**The Iowa Model of Evidence-Based Practice to Promote Quality Care**



◇ = a decision point

Titler, M.G., Kleiber, C., Steelman, V.J., Rakel, B. A., Budreau, G., Everett, L.Q., Buckwalter, K.C., Tripp-Reimer, T., & Goode C. (2001). The Iowa Model Of Evidence-Based Practice to Promote Quality Care. *Critical Care Nursing Clinics of North America*, 13(4), 497-509.

**REQUESTS TO:**  
Department of Nursing  
University of Iowa Hospitals and Clinics  
Iowa City, IA 52242-1009

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**Kimberly Jordan - University of Iowa Hospitals and Clinics**

December 8, 2016 at 4:32 PM

KJ

To: Jennifer Campbell

Reply-To: Kimberly Jordan - University of Iowa Hospitals and Clinics

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**Grand Valley State University**

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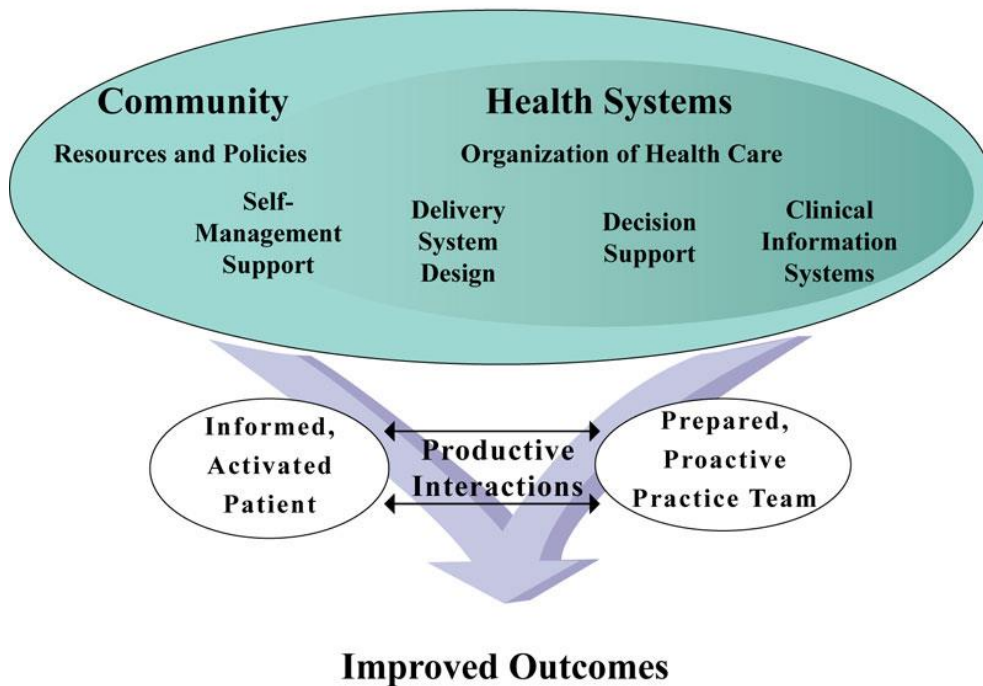
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If you have questions, please contact Kimberly Jordan at 319-384-9098 or [kimberly-jordan@uiowa.edu](mailto:kimberly-jordan@uiowa.edu).



## Appendix B

## The Chronic Care Model

**The Chronic Care Model**

Developed by The MacColl Institute  
 © ACP-ASIM Journals and Books

Retrieved from:

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Apr 14, 2017

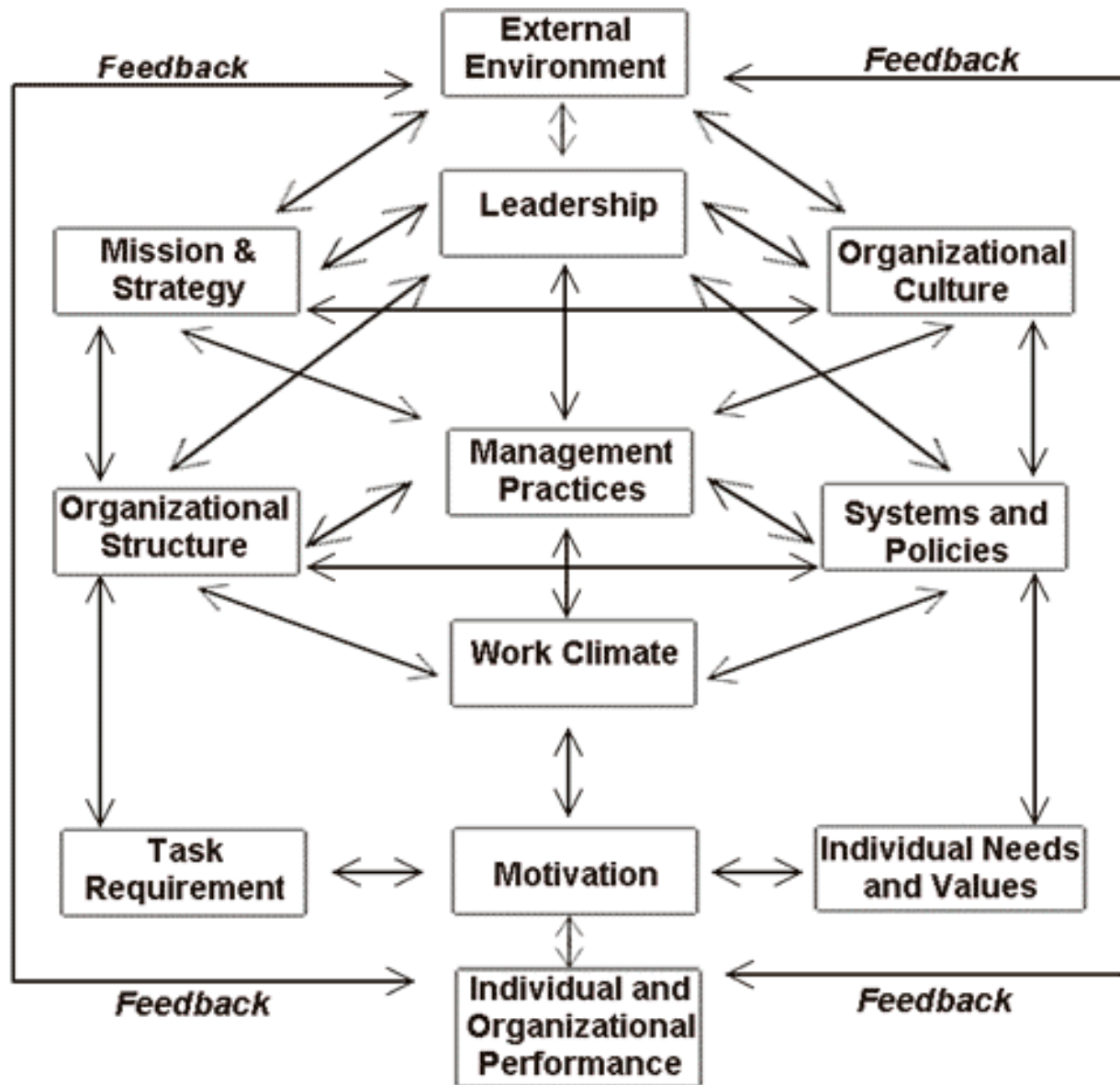
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Title of the article or chapter the portion is from	NA
Editor of portion(s)	N/A
Author of portion(s)	N/A
Volume of serial or monograph.	N/A
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## Appendix C

## The Burke-Litwin Model of Organizational Performance and Change



*Figure 1.* A model of organizational performance and change. Reprinted with permission from “A Causal Model of Organizational Performance and Change,” by W. W. Burke and G. H. Litwin, 1992, *Journal of Management*, 18, 528. Copyright 1992 by Southern Management Association.



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**Title:** A Causal Model of Organizational Performance and Change  
**Author:** W. Warner Burke, George H. Litwin  
**Publication:** Journal of Management  
**Publisher:** SAGE Publications  
**Date:** 09/01/1992

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Appendix D

SWOT Analysis

Annual Wellness Visit Redesign

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- New application of existing process</li> <li>- Enhanced care coordination and identification of high-risk patients</li> <li>- Synergistic with the clinics vision and mission</li> <li>- Adequate staff, intellectual property, and internal resources</li> <li>- Visionary culture</li> </ul>	<ul style="list-style-type: none"> <li>- IT redesign necessary to capture all components required on AWV</li> <li>- New structure for educating, providers, patients, RN case managers, MA's, billing, and scheduler</li> <li>- Increased patient load for RN case managers</li> <li>- Stakeholders concerns regarding patient protection</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>- Improved safety system</li> <li>- Reducing/ identifying health disparities and decreasing overall healthcare costs</li> <li>- Strong referral system for increased care coordination with in the region (e.g.- Commission on aging, physical therapy etc.)</li> </ul>	<ul style="list-style-type: none"> <li>- Change in the environment (e.g.-age or economic structure) or available resources</li> <li>- Loss of customers or grant funding</li> <li>- Misinformation</li> </ul>

## Appendix E

## Annual Wellness Visit with Registered Nurse-Protocol

**PROTOCOL NUMBER:****PROTOCOL ALSO FOUND:****TITLE: Annual Wellness Visit with Registered Nurse****EFFECTIVE DATE: 12/2/16 REVISED DATE: REVIEWED:****PURPOSE: Continued wellness while providing a personalized prevention plan****SCOPE:** This Policy applies to all [REDACTED] Medicare patients due for Subsequent Annual Wellness Visit at [REDACTED].**COMPLIANCE: All Providers****PROCEDURE:**

- Patients will be told at visit with provider (PA, NP, DO, MD) that they are due for their Annual Wellness Visit (AWV) and will be scheduled to see the RN Case Manager for this visit.
- Scheduled at check out for 1.5 hours with RN Case Manager.
- A letter will be given outlining the process and purpose of the AWV  
Letter to include: The patient will not have a full physical/provider visit.  
Patient to bring all medications to visit.

**Preparation for visit by RN Case Manager:**

- Packet of Resources to have ready for visit will include
- Review medical history
- CAGE Test (if positive for alcohol use)
- Medications
- TUG test (use a stop watch), prepare room with 10 foot line on floor, and use a chair with arms
- Mini Cog test

**AT CHECK IN-Medicare Wellness Visit check up**

- Geriatric Depression Screen

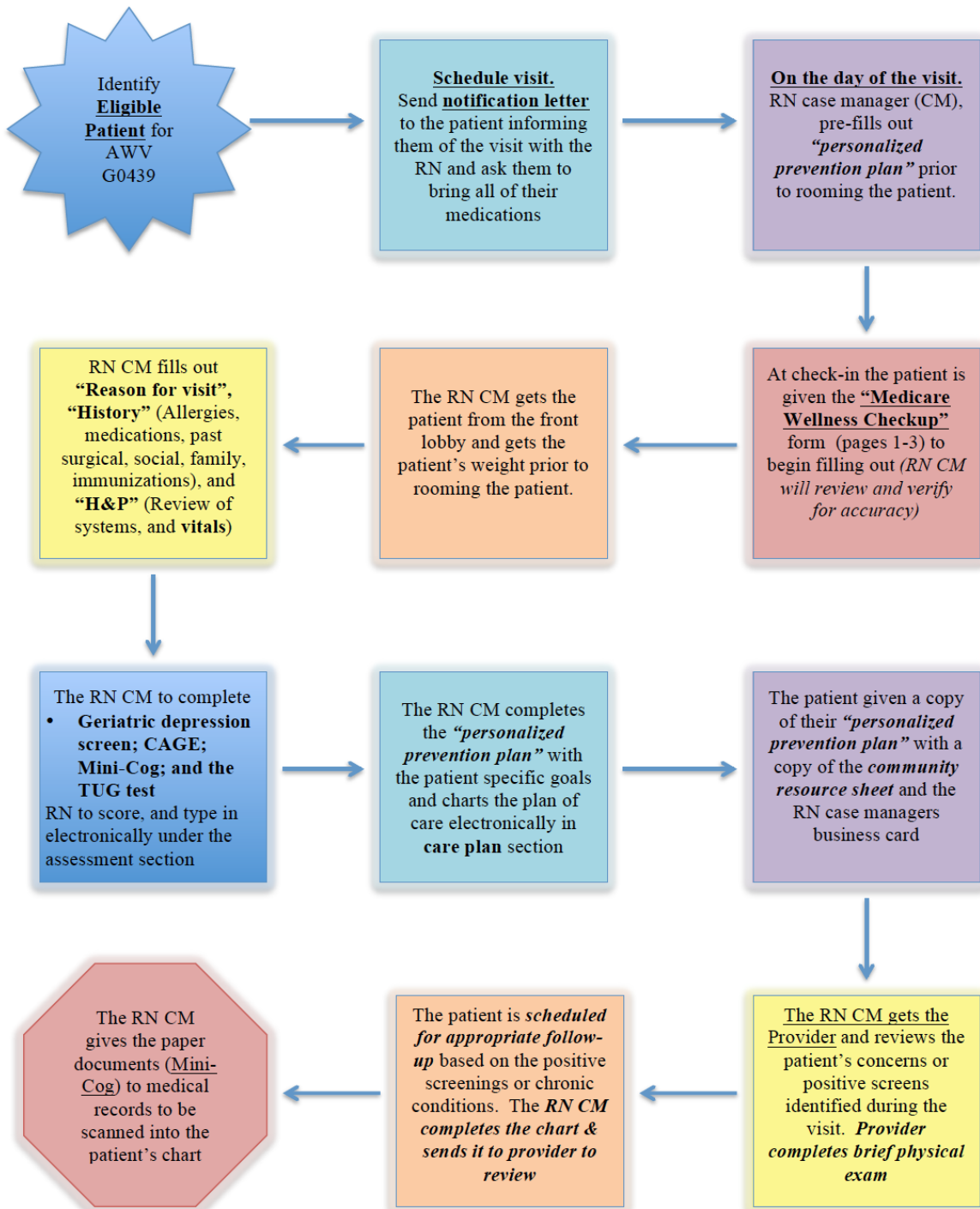
**AT CHECK OUT**

- Prevention Plan- Copy given to patient with dates of exam and RN to document in Health Maintenance folder to match and update in EHR
- Goals put into care plans
- Patient to be scheduled for any future visits

Appendix F

RN-Led AWV-Visual Tool

**Registered Nurse (RN) Led Annual Wellness Visit (AWV)  
From Start to Finish**



Appendix G

Personalized Prevention Plan

Personalized Prevention Plan

Annual Medicare Wellness Prevention Plan

Date \_\_\_/\_\_\_/\_\_\_

Patient \_\_\_\_\_ DOB \_\_\_/\_\_\_/\_\_\_

Primary Care Provider \_\_\_\_\_

RN Case Manager \_\_\_\_\_

Exams

- \_\_\_ Dental Exam
- \_\_\_ Eye Exam
- \_\_\_ Foot Exam (diabetic)

Scheduling Recommendations

- Annually \_\_\_\_\_
- Annually \_\_\_\_\_
- Annually \_\_\_\_\_

Immunizations

- \_\_\_ Flu
- \_\_\_ Pneumovax
- \_\_\_ Tetanus
- \_\_\_ Zostavax (Shingles)

- Annually \_\_\_\_\_
- Once \_\_\_\_\_
- Every 10 years \_\_\_\_\_
- Once \_\_\_\_\_

Labs

- \_\_\_ PSA (men)
- \_\_\_ Lipid
- \_\_\_ HgbA1c (diabetic)
- \_\_\_ TSH

- Annually \_\_\_\_\_
- Annually \_\_\_\_\_
- Every 3 months \_\_\_\_\_
- Per provider \_\_\_\_\_

Procedures/Screenings

- \_\_\_ Abdominal Ultrasound (past/current male smoker)
- \_\_\_ Bone Density (women)
- \_\_\_ Colonoscopy
- \_\_\_ Fecal Occult Blood Test (FOBT)
- \_\_\_ EKG
- \_\_\_ Mammogram (women)
- \_\_\_ Pap/Pelvic (women)

- Bi-annually \_\_\_\_\_
- Per guidelines \_\_\_\_\_
- Yearly \_\_\_\_\_
- Per provider \_\_\_\_\_
- Yearly \_\_\_\_\_
- Per guidelines \_\_\_\_\_

Short term goals set at today's visit:

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_



Appendix H

Pre-Pilot Survey

Pre-Pilot Survey

Annual Wellness Visit Redesign Intervention

Thank you for your willingness to participate in this short survey. The purpose of this pre-survey is to collect baseline data regarding the providers' and RN case managers' views of the Medicare Annual Wellness Visit (AWV) format. Upon completion of the project and statistical analysis, the findings from the project will be shared with those interested. Thank you for your participation!

For purposes of comparing your pre-pilot answers to those we wish to obtain afterward, please provide the birthdate of a spouse or loved one that you will remember when we ask again in several weeks: \_\_\_\_\_

**\*\*Please circle the answer that best represents your practice or feelings\*\***

**My comfort in administering the Annual Wellness Visit**

None          Low          Moderate          High

**My comfort in creating a personalized prevention plan for each patient at his or her Medicare Annual Wellness Visit in order to fulfill Medicare requirements**

None          Low          Moderate          High

**I feel that the Medicare Annual Wellness Visit has improved care-coordination for patients**

No    Somewhat    Yes

**I feel that the Medicare Annual Wellness Visit has improved preventive services and early intervention for chronic disease management**

No    Somewhat    Yes

**I feel confident in my ability to identify physical, psychological, and socioeconomic factors that may affect health and functional status of patients, during the Annual Wellness Visit**

No    Somewhat    Yes

**I feel that the Annual Wellness Visit process is standardized within the clinic**

No    Somewhat    Yes

**I feel that my schedule allows enough time to conduct a thorough Annual Wellness Visit**

No    Somewhat    Yes

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Appendix I  
Post-Pilot Survey

Post-Pilot Survey

Annual Wellness Visit Redesign Intervention

Thank you for your willingness to participate in this short survey. The purpose of this post-survey is to collect follow-up data regarding the providers' and RN case managers' views of the Medicare Annual Wellness Visit (AWV) format. Upon completion of the project and statistical analysis, the findings from the project will be shared with those interested. Thank you for your participation!

So that we can compare these answers to those you gave before the pilot please provide the birthdate of the same loved one you identified on the survey before the pilot: \_\_\_\_\_

**\*\*Please circle the answer that best represents your practice or feelings\*\***

**My comfort in administering the Annual Wellness Visit**

None          Low          Moderate          High

**My comfort in creating a personalized prevention plan for each patient at his or her Medicare Annual Wellness Visit in order to fulfill Medicare requirements**

None          Low          Moderate          High

**I feel that the Medicare Annual Wellness Visit has improved care-coordination for patients**

No    Somewhat    Yes

**I feel that the Medicare Annual Wellness Visit has improved preventive services and early intervention for chronic disease management**

No    Somewhat    Yes

**I feel confident in my ability to identify physical, psychological, and socioeconomic factors that may affect health and functional status of patients, during the Annual Wellness Visit**

No    Somewhat    Yes

**I feel that the Annual Wellness Visit process is standardized amongst the clinic**

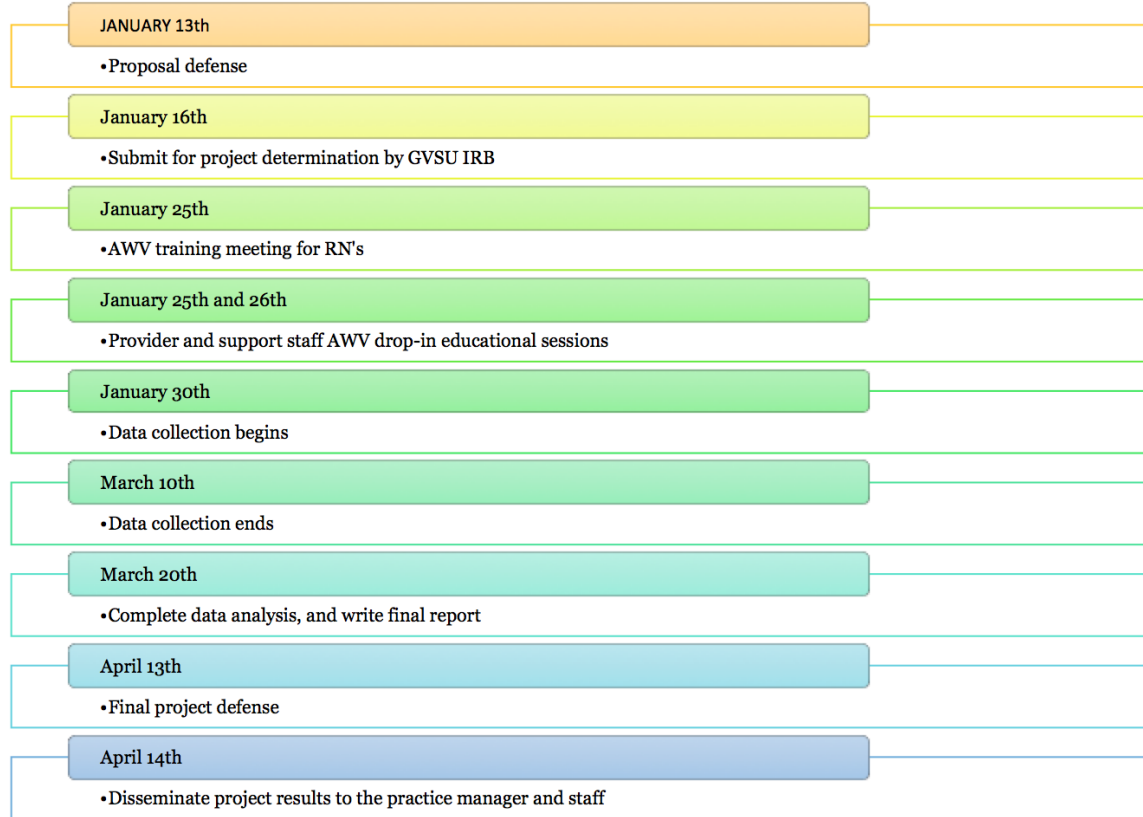
No    Somewhat    Yes

**I feel that my schedule allows enough time to conduct a thorough Annual Wellness Visit**

No    Somewhat    Yes

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Appendix J Implementation Timeline



## Appendix K

## Internal Review Board Determination



DATE: January 18, 2017

TO: Jennifer Campbell, BSN  
 FROM: Grand Valley State University Human Research Review Committee  
 STUDY TITLE: [1010438-1] Development of a Protocol for Implementing a Registered Nurse Led Annual Wellness Visit in a Primary Care Setting  
 REFERENCE #: 17-107-H  
 SUBMISSION TYPE: New Project

ACTION: NOT RESEARCH  
 EFFECTIVE DATE: January 18, 2017  
 REVIEW TYPE: Administrative Review

Thank you for your submission of materials for your planned research study. It has been determined that this project:

*Does not* meet the definition of covered human subjects research\* according to current federal regulations. The project, therefore, *does not* require further review and approval by the HRRC.

Any research-related problem or event resulting in a fatality or hospitalization requires immediate notification to the Human Research Review Committee Chair, Dr. Steve Glass, (616)331-8563 **AND** Human Research Protections Administrator, Dr. Jeffrey Potteiger, Office of Graduate Studies (616)331-7207. See *HRRC policy 1020, Unanticipated problems and adverse events*.

Exempt research studies are eligible for audits.

If you have any questions, please contact the Office of Research Integrity and Compliance at (616) 331-3197 or [rci@gvsu.edu](mailto:rci@gvsu.edu). The office observes all university holidays, and does not process applications during exam week or between academic terms. Please include your study title and reference number in all correspondence with our office.

\*Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge (45 CFR 46.102 (d)).

*Human subject* means a living individual about whom an investigator (whether professional or student) conducting research obtains: data through intervention or interaction with the individual, or identifiable private information (45 CFR 46.102 (f)).

Scholarly activities that are not covered under the Code of Federal Regulations should not be described or referred to as *research* in materials to participants, sponsors or in dissemination of findings.

## Appendix L

## Scripting Explaining the AWV Appointment

**Scripting Explaining the AWV Appointment**

The purpose of this visit is wellness care – health care that may lower your risk of illness or injury. This visit is a wellness visit that Medicare pays for once a year to identify health risks and help you reduce them. During this wellness visit you will be asked several questions about your health and home safety. This exam is not your typical “physical” exam. The visit today will focus on updating your complete health history and provide other services:

- Screenings to detect depression, risk for falling and other problems.
- A limited physical exam to check your blood pressure, weight, vision and other things depending on your age, gender and level of activity.
- As well as recommendations for other wellness services and healthy lifestyle changes.
- At the end of the visit, your provider will come in to listen to your heart and lungs and address any immediate concerns.

## Appendix M

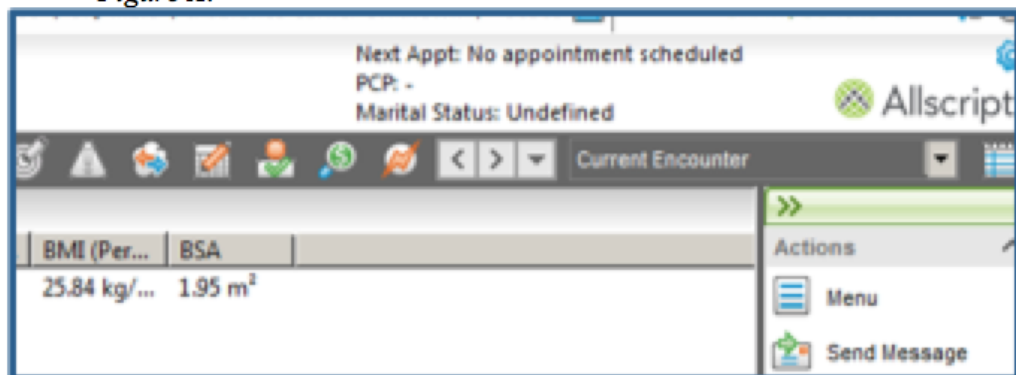
## RN AWV Guide

# RN Led AWV Guide G0439

## Step-by-Step Instructions for Completing the AWV in the EHR (Note: Test Chart)

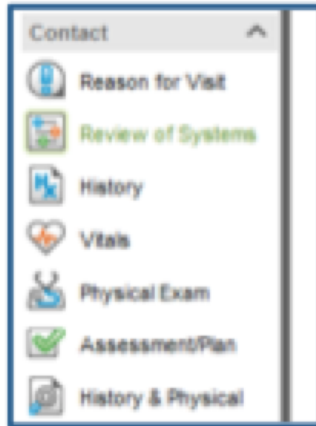
1. Open the patient's chart from the encounter screen
2. To create an AWV template click on the **lightening bolt icon with white circle** on the top of the screen (*see figure A*)
  - a. There will be a file labeled [REDACTED]
  - b. Double click on this file
  - c. Look for **AWV-G0439**, double click this to open the template
  - d. A pop-up will appear that ask if you would like to combine this encounter. Click, **No**.
  - e. Now you have an AWV template created. This will help guide the visit.

Figure A:



3. Go to the left hand side of the screen to **Reason for Visit** (see Figure B), double click on this.

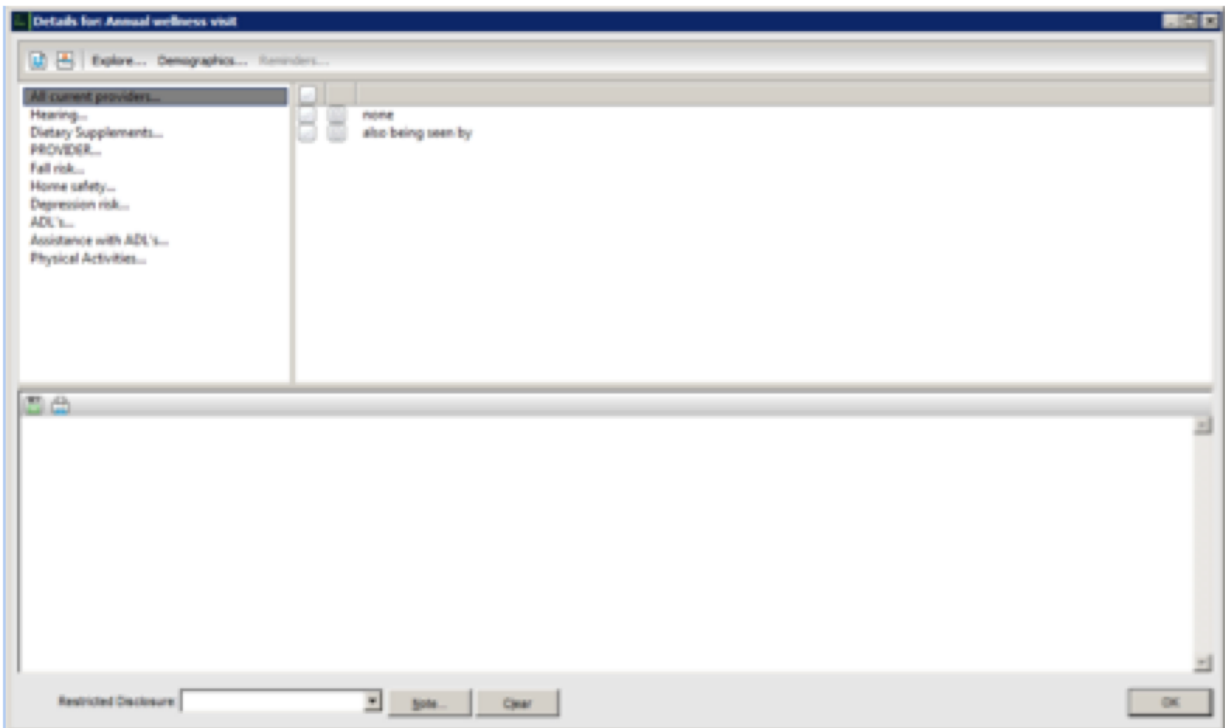
Figure B:



- a. A new screen will pop up titled **Details for: Annual wellness visit** (see Figure C). Fill out the entire screen starting with **All current providers**.
- b. Under the section **all current providers**. Click on **none** or also **being been by**. If the patient is seeing other providers, annotate by clicking on the document button on the right of the check mark to annotate other specialists the patient is currently seeing (e.g.- Cardiologist, Gastroenterologist, Podiatry)
- c. Continue going through the questions for **hearing** and **dietary supplements**, check the appropriate boxes that apply to the patient.
- d. Next you will see the word **PROVIDER**, don't stop here, please continue to fill out the questions that correlate to **Fall risk**, **Home safety**, **Depression risk**, **ADL's**, **Assistance with ADL's** and **Physical Activities**.

*\*\*Note: Under Assistance with ADL's: be sure to only check on the ADL's the patient requires assistance with. If needed you can annotate additional details regarding assistance the patient receives (sample note -**Shopping** → daughter Jane does all shopping)*

Figure C:



4. Next click on **Review of Systems** on the left hand side of the screen (*see Figure D*)
  - a. The Review of Systems screen will pop up (*see Figure E*). The review of systems is pre-programmed as a negative assessment. Therefore go through each section that is highlighted (**General, skin, HEENT, Respiratory, Cardiovascular, Gastrointestinal, Male Genitourinary, Neurological, and Psychiatric**) with the patient. Based on the patient's responses, change any answer that is not correct, to reflect the appropriate response (*e.g.- If the patients reports a decreased appetite click on decreased appetite under the General review and switch the red x mark to a green check mark*).

Figure D:

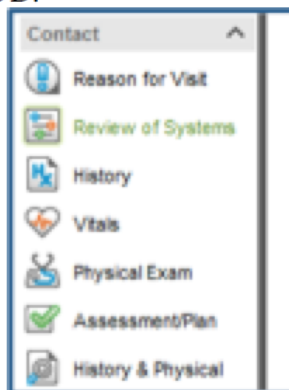
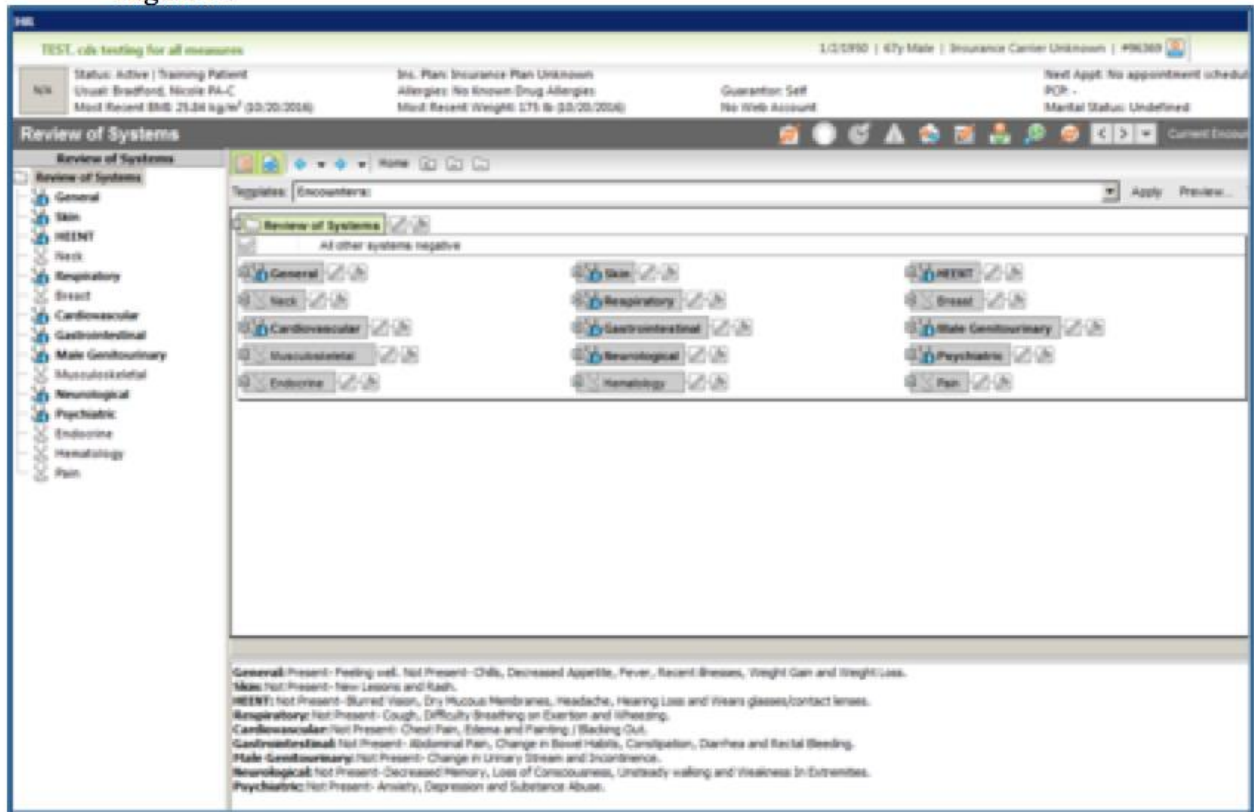


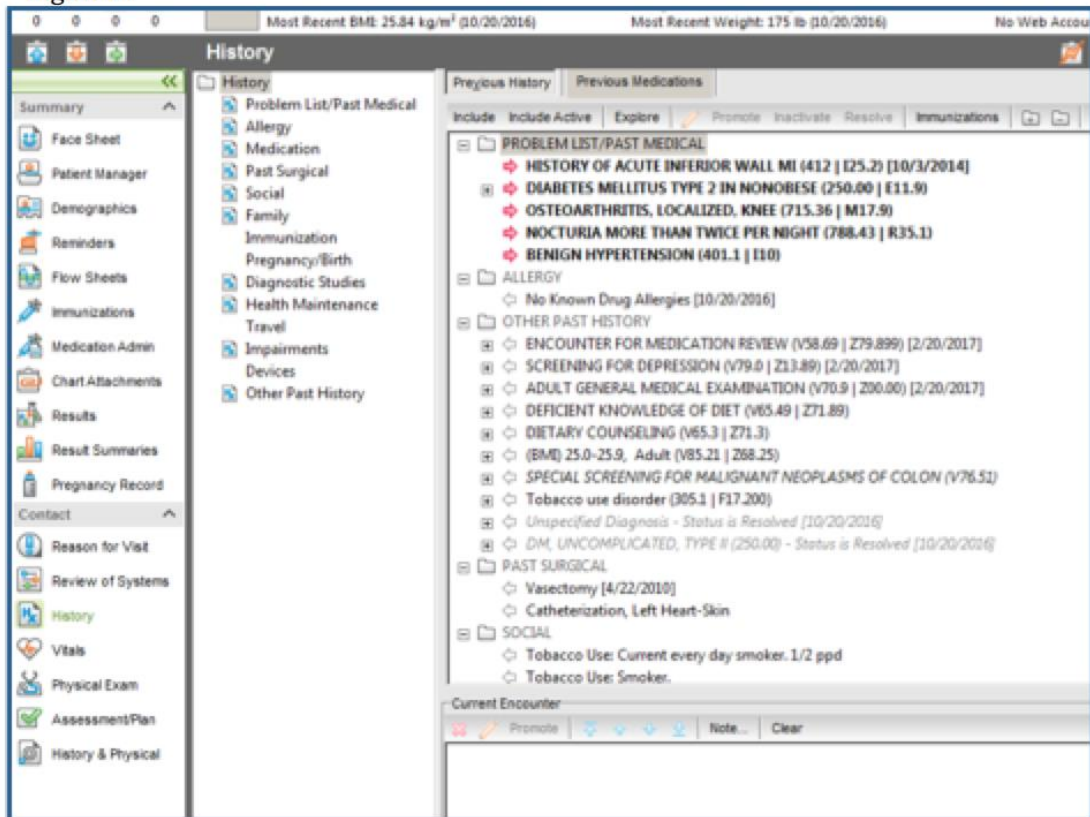


Figure E:



5. Next select the **History** button on the left hand of the screen (*see Figure D*)
  - a. The history screen will appear (*see Figure F*). Update the following sections: **Allergy, Medication, Past Surgical, Social, Family, and Immunization**.
  - b. Be sure to *double click* the heading of each section you reviewed to ensure the content is include into the **Current Encounter** section on the bottom of the screen.

Figure F:



\*\*\* **Note:** if the patient did not bring their medications you can still review the medications however you can not charge for the medication reconciliation. Details on deleting the medications reconciliation charge will be covered under Step 10.

6. Next select the **Vitals** tab (see Figure D) on the left hand of the screen. Type in the patient's current **vitals** and **weight** for this visit.
7. Once this section is complete the RN will review the 3 page: **Medicare Wellness Checkup** form (see Appendix A) and verify for accuracy.
  - a. If the patient was unable to complete the **Medicare Wellness Checkup** form the RN will help the patient complete the form by reading the questions out loud.
8. Next the RN case manager will administer:
  - a. **Geriatric Depression Screen** (Appendix B)
  - b. **Mini-Cog** (Appendix C),
  - c. **Timed Up and Go (TUG) test** (Appendix D)

- d. If the patient drinks alcohol the RN will also administer the **CAGE screening tool** (*Appendix E*)

**\*\*For questions regarding scoring the Mini-Cog. Refer to the commonly asked questions or troubleshooting section of this notebook.**

9. The RN will also be responsible for scoring the screening tools and typing the patient's scores into the EMR template. In order to enter the patient's score the RN must go to the **current plan** section of the chart (*see Figure G*) and click on the appropriate screening tool.
- Once the appropriate screening tool is selected the RN will click on the **ellipses** (*see Figure H*) located on the top right hand corner of the corresponding **Procedure Order** screen.
  - By clicking on the ellipses the RN will open the **procedures results entry screen** (*see Figure I*), on this screen the RN can program the score for the corresponding test that was administered
    - Geriatric Depression Screen, Mini-Cog, Timed-Up and Go, & CAGE screening tool

**\*\*Note the RN can annotate notes on the procedure results entry screen as necessary**

*Figure G:*

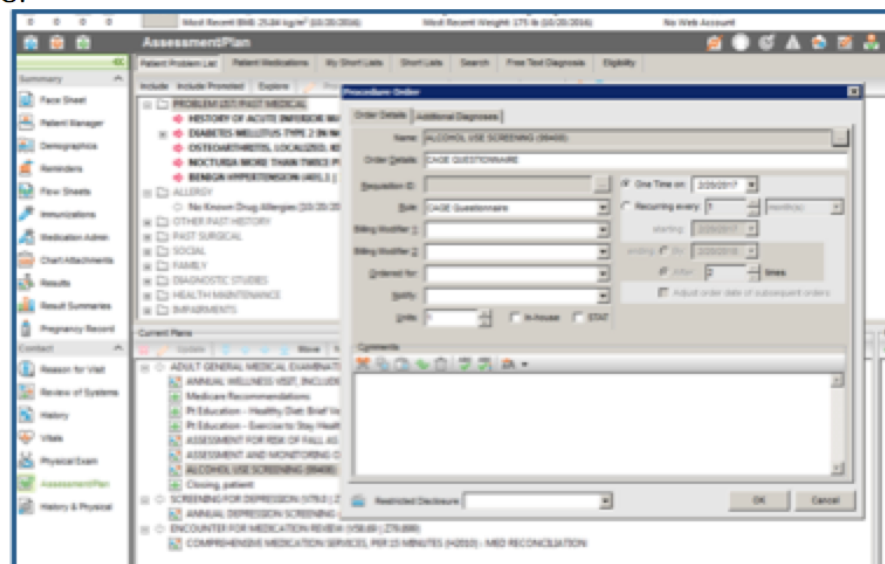


Figure H:

The screenshot shows a software window titled "Procedure Order" with two tabs: "Order Details" (selected) and "Additional Diagnoses".

**Order Details:**

- Name: ALCOHOL USE SCREENING (99408)
- Order Details: CAGE QUESTIONNAIRE
- Requisition ID: [Empty]
- Rule: CAGE Questionnaire
- Billing Modifier 1: [Empty]
- Billing Modifier 2: [Empty]
- Ordered for: [Empty]
- Notify: [Empty]
- Units: 1
- In-house  STAT

**Frequency Settings:**

- One Time on: 2/20/2017
- Recurring every: 1 month(s) starting: 2/20/2017
- ending  By: 2/20/2018
- After: 2 times
- Adjust order date of subsequent orders

**Comments:**

The comments section has a toolbar with icons for copy, paste, undo, redo, delete, and text formatting (bold, italic, underline, font color, background color). The text area is currently empty.

Figure I:

The screenshot shows a software window titled "Life-Tracking for all assessment tool". The main content area contains a questionnaire with five questions, each with three radio button options: "Yes", "No", and "N/A".

1. Do you ever get 500 mg needed to cut down on your drinking?
  - Yes
  - No
  - N/A
2. Do you ever get 500 mg needed to cut down on your drinking?
  - Yes
  - No
  - N/A
3. Do you ever get 500 mg needed to cut down on your drinking?
  - Yes
  - No
  - N/A
4. Do you ever get 500 mg needed to cut down on your drinking?
  - Yes
  - No
  - N/A
5. Do you ever get 500 mg needed to cut down on your drinking?
  - Yes
  - No
  - N/A

At the bottom of the window, there is a "Required" section with a "Play Procedures List" button and a search field.

10. If one of the standardized scoring tools was not completed the RN needs to remove the screening from the **current plans** screen (see Figure J). Furthermore, if the patient did not bring their medications with them to the appointment, the medication reconciliation code must be removed from the **current plans**.
- To remove an item from the current plans screen the RN will click on the item once that was not completed, when the item that needs to be deleted is highlighted the RN will click the **red x** in the upper left hand corner of the current plans screen.

**\*\*Note:** Removing these items ensures the patient charting and charges reflect the services that were provided at the appointment.

Figure J:

The screenshot shows a software window titled "Current Plans". The main content area contains a list of medical services, each with a small icon in the upper left corner. The service "ENCOUNTER FOR MEDICATION REVIEW (95804) (270.89)" is highlighted in blue.

- ADULT GENERAL MEDICAL EXAMINATION (9703) (280.89)
- ANNUAL WELLNESS VISIT, INCLUDES A PERSONALIZED PREVENTION PLAN OF SERVICE (PPS), SUBSEQUENT VISIT (9489)
- Medicare Recommendations
- Pt Education - Healthy Diet, Brief Version (1) diet
- Pt Education - Exercise to Stay Healthy, Brief Version (1) exercise
- ASSESSMENT FOR RISK OF FALL AS INDICATED (9423) - TUG TEST
- ASSESSMENT AND MONITORING OF MENTAL STATUS (264F) - MINI COG TESTING
- ALCOHOL USE SCREENING (9448) - CASE QUESTIONNAIRE
- Chgng. patient
- SCREENING FOR DEPRESSION (9703) (233.89)
- ANNUAL DEPRESSION SCREENING (9448) - GERIATRIC DEPRESSION SCREENING
- ENCOUNTER FOR MEDICATION REVIEW (95804) (270.89)**
- COMPREHENSIVE MEDICATION SERVICES, FOR 15 MINUTES (9088) - MED RECONCILIATION

At the bottom of the window, there is a "Billing Level" dropdown menu set to "SITE DEFAULT".

11. The RN will complete the **personalized prevention plan** (see Appendix F) with the patient specific goals. If the patient is unable to think of any goals for the year, the RN can help guide the patient to create at *least two goals*. It is often helpful to guide the patient to pick goals based on problems or areas of improvement that were identified based on the *Medicare Wellness Checkup* form or the *standardized screening tools*.
  - a. The RN will transfer the patient's goals that were created into the EHR. The RN should document the goals under the **care plans**. If a pre-programmed care plan that fits the patient's goal is not present, the RN can customize a care plan by clicking on other.
  - b. The RN should make a *copy* of the patients **personalized prevention plan**, so they can have a copy of their goals and screenings that are due. In addition, the RN should provide the patient with a copy of the updated **community resource sheet** put together by the clinic's social worker, as well as a copy of the RN case manager's **business card**.

*\*\*Note: The patient specific goals can be very specific or broad. The goals should be based on the patient's wishes for their health and wellness goals (e.g.- Attend a smoking cessation class next month, walk once a day, drink more water, see my grandchildren more, remove the rugs from my house)*

12. The RN case manager gets the provider and reviews the patient's concerns or positive screens identified during the visit.
  - a. The provider completes a brief physical exam
13. The patient is scheduled for appropriate follow-up based on the positive screenings or chronic conditions. The RN case manager completes the chart and sends it to the provider to review and sign.
14. The RN case manager labels all of the paper documents from the AWV with the patient's name and date of birth. All of the paper documents will be sent to the medical records department to be scanned into the patient's chart.