Improving Patient Outcomes and Private Practice Profitability

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Michelle L. Hill is a registered nurse in Arizona.

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Abstract

Medicare implemented a yearly Annual Wellness Visit (AWV) to improve quality patient care through early detection of declining health. However, there has been only partial provider participation since its inception, which potentially delays treatment and negatively impacts patient outcomes. The aim of this quality improvement project was to assess the feasibility of implementing a standardized electronic AWV template into private primary care practices to improve the consistency of delivery and documentation. The project designer utilized the theory of transitions (TOT) to facilitate the project execution. An electronic Excel-based template was designed to capture and calculate all aspects of the AWV, including billing codes, to allow for ease and consistency of use within a small primary care practice over two weeks. A provider performed the AWVs using the electronic template after completing a hands-on tutorial and reviewing an educational handout. Data were retrieved from a 7-question, 5-point Likert scale questionnaire given to the provider to assess the effectiveness of the electronic template versus a paper assessment. The results of this study indicated overall satisfaction with using leveraged technology to provide consistency of AWVs to improve patient outcomes, provider satisfaction, and increase revenue through uniform charting and billing. The outcomes of this project provide a basis of existing evidence for using standardized methods to perform and track Medicare AWVs.

Keywords: Annual Wellness Visit, Medicare, MIPS, primary care, financial sustainability, profitability

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The United States is faced with managing an aging population like nothing it has seen before. With age comes increased healthcare costs due to longer life spans and more chronic illness than in the past. Many people today are affected by multiple comorbidities, which can be costly to patients, their families, healthcare organizations, and the country. The key to a productive aging society is to maintain good health through prevention and education, manage chronic disease with regular primary care visits and practical self-management skills, and improve quality of life. Many programs and models are designed to promote quality health care and cost-effectiveness lack uniformity, which may negatively impact the financial sustainability of private practice and lead to poor patient outcomes through decreased quality care and disease prevention (Basu et al., 2015).

Problem Statement

The management of patients with chronic and complex health problems is a significant challenge in primary care. The current care model is reflexive and imbalanced, with an uncoordinated system of multiple providers managing one patient (Bleijenberg et al., 2016). Small primary care practices struggle to deliver individualized patient-centered care while keeping up with current advancements in quality of care, as guided by Medicare, and maintaining a financially sustainable business (Basu et al., 2018).

In a continually changing healthcare system, the emphasis is on providing evidence-based care and prevention without extensive costs. Value-based care models centered on pay-for-performance have become the programs of choice. These models require a considerable amount of upfront training relating to how coding and billing work, the types of services needed at each visit, and how best to transition while still conducting business (Basu et al., 2018). Researchers

have demonstrated that such value-based systems can increase revenue without increasing costs and can improve quality, and management of disease prevention provided and healthcare provided to patients (Basu et al., 2018).

There is a paucity of literature examining the initial cost and labor burdens placed upon smaller private practices when implementing process changes. Primary care providers have concerns about providing the reimbursable services due to time constraints. The number of administrative duties takes staff away from managing the practice's daily needs (Berdahl et al., 2019). These concerns are valid and may directly impact provider, staff, and patient satisfaction. Unless the implementation of these value-based systems is streamlined, small private practices will continue to suffer financially and perhaps have to close their doors, directly impacting the population they are attempting to serve.

Purpose and Rationale

This paper reviews the benefits of chronic disease management and value-based care models in primary practice. The goal is to understand whether these models promote improved patient outcomes for prevention and chronic disease education and management, increase organizational profitability while minimizing costs, and assist private primary care practices with quality healthcare delivery improvements and financial sustainability.

Background and Significance

Private Internal Medicine Practice

In their landmark review, Wagner et al. (1996) discussed the lack of incentives encouraging primary care providers to spend time assessing health status and quality of life, and

educating patients for self-management. The review found delays in detecting clients' declining health, the lack of education in managing chronic illnesses, and ineffective interventions not addressing psychosocial distress all led to poor outcomes for chronic disease in primary practice (Wagner et al., 1996).

Today, Medicare is attempting to initiate chronic illness care and preventive measures to improve healthcare quality. As part of the Quality Payment Program, Medicare wants primary care organizations to provide scientifically acceptable evidence-based services. Through meeting these expectations, organizations are paid based on how well they provide these quality measures (Centers for Medicare & Medicaid Services [CMS], 2020). One such program implemented on January 1, 2017, is the Merit-Based Incentive Payment System (MIPS) (Berdahl et al., 2019). The MIPS program incentivizes providers in primary care to improve the quality of care provided to adults aged 65 years and older (Chung et al., 2018).

The MIPS program includes an Annual Wellness Visit (AWV), which is 100% paid by Medicare. These are high yield appointments that help meet meaningful use guidelines and practice revenue goals (Hatcher, 2020). Appointments are approximately 30-45 minutes and provide an opportunity to collect information from the health risk assessment for chronic disease and other health related topics. This information is useful for timely screening for disease prevention and management. AWVs also allow time for cognitive screening, advanced care planning, and personalized health advice. If problems are discovered, referrals are ordered for services such as physical therapy, psychological services, and nutritional interventions for diabetes or weight management if appropriate (CMS, 2021).

Value-Based Interventions

Health care interventions for older adults in the early stages of decline are promising, primarily when targeted at populations with specific risk factors, such as individuals with lower levels of education (Bleijenberg et al., 2016). In an ongoing randomized controlled trial study, researchers evaluated the effectiveness of how the implementation of behavioral science could improve health outcomes using an electronic health record (EHR)-based deprescribing tool. The tool protects older adults from the unintentional consequences of overprescribing, drug interactions, or potentially hazardous drugs, which could lead to falls or additional health risks (Lauffenburger et al., 2021). Streamlining available technologies to meet the needs of patients and providers can go a long way toward improving health outcomes through preventive care measures.

Braillard et al. (2018) described the impact of chronic disease management (CDM) from the perspectives of primary care doctors. The doctors reported feelings of powerlessness and frustration with the limited time they had to address all that was needed during the visit. The extensive tasks that needed to be performed in the limited time left providers struggling with initiating the relationships needed to manage chronic illness long term. Physicians expressed frustration over the possibility of missing essential steps with assessments or detailed medication reviews due to time constraints.

CDM, comprehensive medication management (CMM), MIPS, and AWV are all examples of value-based models of care. Concurrent use is possible depending on the patient's age and whether the need arises. Basu et al. (2018) discussed the need to remain competitive by adapting strategies to remain financially stable in a continually changing healthcare market. Incentive programs have played a significant role in influencing quality care delivery by connecting it to pay-for-performance.

Practice Transition

Evaluations of evidence-based and quality of care provided are inconsistent with how they are measured; thus, the reliability and validity of these interventions are unknown (Khadjesari et al., 2017). In an article detailing the MIPS program's first year, the authors found high rates of only partial participation in the program (Apathy & Everson, 2020). In some cases, primary care physicians worried that the administrative burdens were detracting from patient-centered care, thus impacting patient and physician satisfaction (Berdahl et al., 2019). As with a systematic approach to research, the standardization of outcome measurements within the healthcare field for new evidence-based tools is a critical issue to address (Khadjesari et al., 2017).

Desired Outcomes

In a Houston area clinic group, physicians and pharmacists evaluated the effectiveness of a CMM system implementation. The analysis found that the CMM addressed medication problems for its participants. Medication errors were reconciled, patients were protected, and the organization saved more than a million dollars in medication costs (Chung et al., 2020). Ultimately, these outcomes are desirable in healthcare.

Holstein (2018) proposed the need for nurse practitioners (NPs) to promote policy changes within the legislative branch to allow them to practice in all 50 states at the level trained. The author notes that NPs have unique expertise in managing chronic health conditions, and educating patients on self-care management techniques (Holstein, 2018). As with the AWVs, the management of chronic conditions requires sufficient time to recognize potential problems and develop trusting relationships. NPs are perfectly positioned to take up the challenges of time during organizational changes to meet the current and future healthcare paths.

Internal Evidence

In the private primary care practice described in this project, more than 95% of the patient demographic consisted of people over the age of 65 utilizing Medicare as primary insurance. Providers needed to address quality improvement and pay-for-performance through the MIPS. The MIPS program includes an AWV fully covered by Medicare. These are high-yield appointments that help providers meet meaningful use guidelines and practice revenue goals (Hatcher, 2020). The author proposed creating a tool designed to work with the existing EHR system to capture all services performed during the AWV and link each service to its proper code for facilitated reimbursements and tracking. The purpose of this tool is to increase income while providing the evidence-based practice (EBP) quality improvements Medicare requires. The recent implementation of an EHR system was a significant financial undertaking for this relatively small practice. Since its inception, the business has experienced problems utilizing the EHR to its full potential, including capturing and recording appropriate codes for reimbursement purposes.

The costs and challenges of navigating a new system and learning the Medicare reimbursement requirements while maintaining enough financial revenue to sustain the practice have been difficult. The potential for financial return exists within the MIPS program and AWV if time permits. In 2020, the practice recorded 2,347 patient visits over 44 weeks. When calculating the same number of patients coming in for an AWV and adding incidental charges for services met outside of the AWV coverage, the projected annual income would increase by approximately 62% (Hatcher, 2020). Pairing financial incentives with quality preventive care is associated with increased compliance with value-based services (Navathe et al., 2019). Financial return is an important aspect

of practice change, providing for the practice owners, employees, and their patients during improvements while helping individuals with their chronic health conditions.

PICO(T)

Practice change is a recurring theme in healthcare. There can be problems reconciling the continued desire to provide the best quality care and with the need to keep pace with advances in technology while remaining fiscally conservative. This inquiry has led to the formulation of a clinically relevant PICO(T) question, “In a primary care clinic (P), how does the implementation of value-based care models (I) compared with standard systems (C) affect the financial sustainability of the practice (O)?

Search Strategy

An exhaustive search of the literature was performed to answer the PICOT question. The databases searched were PubMed, ABI/Inform, CINAHL, ProQuest, Scopus, Cochrane Library, and Arizona State University's digital repository. Keywords included: primary care, private practice, primary care provider, Medicare, Annual Wellness Visit, MIPS, chronic disease management, value-based care models, pay-per-service, pay-for-performance, incentive payments, financial sustainability, profitability, income and financial stability. MeSH terms were utilized, further studies were retrieved from data mining sources within related articles, and government websites were searched for related gray literature.

Inclusion criteria were studies evaluating incentives or reimbursements to practitioners meeting value-based quality measures and outcomes related to the primary care practice's financial viability in providing these services. Exclusion criteria were salaried providers without the possibility of incentive pay or bonuses for performance, any non-preventive Medicare-related

services, and studies that did not include private practice. Works written before 2016 were filtered.

Scopus

An initial search yielded 10,398 articles. With revised keywords and the exclusion of research published before 2016, 58 results remained and one article was chosen. A secondary revision of keywords adding profitability and defining the population as a providers rather than a patients resulted in 15 articles, none of which were relevant.

PubMed

After revising the search keywords several times, 68 articles yielded two possible results, and additional filters led to 23 reports. Six high level articles were retained for further evaluation. A secondary search was needed answer the PICO question further. Refining the keywords to relay value-based care and financial viability initially yielded 51 articles, and with additional filters for age and study type, 16 more articles were selected for further review.

ABI/Inform

An expansion of keywords applied to this database resulted in 1153 articles. With applied limits and refining keywords, the database produced 119 results. Several articles were retrieved for relevance but none were higher than level III evidence to support the PICO question. One article of gray literature was retained for the final review.

Critical Appraisal and Synthesis

The manuscripts chosen were subjected to a rapid critical appraisal checklist relative to the study type (Melnyk & Fineout-Overholt, 2011). They were subject to additional scrutiny through a breakdown of descriptive and inferential statistical analysis and were then placed

within an evaluation table for further review (see Appendix A, Table A1). Ten quality studies were retained for this manuscript. All articles included level I-III evidence. The studies comprised one meta-analysis, one randomized controlled trial, three cohort studies, one systematic review, three retrospective studies, and one observational quasi-experiment. Each study was placed in a synthesis table to evaluate common themes and note any outliers (see Appendix A, Table A2). The table demonstrates the three types of incentives used within value-based care models. In the United States, MIPS and AWVs are used by the Medicare system. Due to the large degree of heterogeneity of P4P schemes, single-payer type entities were used as a comparative measure to Medicare. These included the Veteran's Administration, Canada's Medicare system, and evidence from 12 other countries worldwide. Quality indicators included chronic disease or medication management improvements, all-cause quality improvements, increased preventive care visits, and reduced hospital readmissions and ER visits.

Due to the nature of subject matter, all 10 studies were retrospective, thus potentially limiting validity through bias while performing chart reviews. Apart from one systematic review reporting results in a narrative form, studies reported findings in terms of significance, odds ratios, and confidence intervals, leading to the reliability of the evidence presented. Of the 10 studies, 9 demonstrated evidence of improved quality outcomes at some level. One outlier stressed the importance of using a more homogenous approach to reporting findings within research assessing P4P schemes, allowing for an easier understanding of what works, why it works, and how to employ a similar design (Zaresani et al., 2021). Another common theme among the articles was the concern for cherry-picking patients from the healthiest and most compliant to receive quality care interventions. The concern appeared to be that the healthcare provider would then achieve more of the required markers to ensure maximum P4P. Although

this concern is valid, the 10 studies in this manuscript did not show any evidence of promoting health service inequities.

Discussion

The evidence indicates that value-based care models have a positive impact on quality care measures. P4P schemes, whether paid in bonuses, MIPS reimbursements, or AWV incentives, increase the likelihood that a primary care provider will ensure these measures are met. The evidence presented showed improved treatment for hypertension, diabetes, and multi-comorbidities, as well as medication management. Preventive care visits, including AWVs, help providers meet quality measures in one visit, leading to increased prevention screenings, earlier problem detection, and decreased hospital readmissions and ER visits. The discussion of private practice profitability did not appear in many articles; rather, P4P schemes tended to focus on a more individualized provider approach. In theory, this may be advantageous for smaller private practices if a clear guide is made available to facilitate quality implementation measures and allow for full utilization and participation. P4P schemes are particularly beneficial for the older population who have the most comorbidities across all populations. Helping private practices to meet all quality measure expectations can improve the overall health and quality of life for seniors.

Theory Application

Utilizing a theoretical framework is helpful for organizing research findings and explaining conceptual evidence in a structured, systematic way. As a middle-range theory, the theory of transitions (TOT; see Appendix B, Figure 1) fits well with the complex variations in organizational change (Smith & Liehr, 2018). TOT focuses on change, support through transition, and the promotion of optimal outcomes through preparation and knowledge. Changing

environmental conditions that affect people's lives in a work environment are considered organizational transitions (Smith & Liehr, 2018). Organizational transitions may affect the structure, function, or dynamics of a practice (Schumacher & Meleis, 1994) and following the steps of TOT can lead to a smoother transition. The framework requires an understanding of the needs of the practice and the stakeholders involved in the transition. A plan to address unanticipated barriers is practical, as is a well-organized management plan to help develop connectedness and confidence.

A former Arizona State University doctoral student supported the transition of patient medical records from paper charting to a new EHR system for her doctoral project (Long, 2021) for the above-mentioned private practice. The project managed to implement significant organizational change by utilizing the TOT framework. Therefore, it is with this theory that an innovative idea led to organizational change.

The lead project investigator developed an electronic AWV template utilizing leveraged technology to meet the needs of financially strapped small private practices. The electronic AWV template is designed specifically to address consistency when performing the AWV by meeting all CMS requirements. Diagnosis codes and screening codes including current MIPS requirements, are embedded into each section. The template provides consistent, reliable charting due to its ability to auto-populate billing and screening codes into a summary section once the AWV is completed. The auto-capture of codes is paramount to the success of an electronic AWV template, as the codes can be easily copied from the summary section and placed into the billing section of the patient EHR allowing for a significant time savings, decreased coding transcription errors, and the ability to now track all aspects of the AWV.

Implementation Framework

The continuous quality improvement (CQI) model is a quality improvement model geared toward implementing EHR systems in healthcare practice (National Learning Consortium [NLC], 2013). CQI explicitly supports the practice of utilizing meaningful use guidelines and Medicare's EHR incentive program, which has transitioned into MIPS. The evidence derived from the 10 articles describes the benefits of quality care through provider usage of P4P programs. MIPS is, in and of itself, the very essence of a P4P scheme, naturally leading to choosing CQI for the project (see Appendix B, Figure 2). The project design aims to move from an area in need of improvement to a desired future state. Through the application of continuous quality improvements, this goal is possible.

The CQI framework model begins with the desire to continually improve quality. By moving through the steps laid out in the CQI framework, the electronic AWV template can be optimized as a quality improvement tool. From the structure process ensuring that the technology is adaptable for use to a broad range of individuals through to the outcome stage where the project is completed, the CQI framework is a perfect fit for a project of this caliber. CQI works with a continuous feedback loop allowing the project manager to return to the beginning and continue improving the electronic AWV tool to achieve the best possible template with the easiest workability.

Planning and Intervention

The AWV is essential for smaller private practices to stay current with the most effective evidence-based care for patients and augment practice revenue. As stated previously the above practice in question was struggling with financial concerns. This inquiry led to the evaluation question: For a geriatric primary care practice, does

implementing an AWV checklist within the EHR system improve practice profitability at eight weeks post-intervention?

The project designer remained in close contact with the site champion to ensure the continued alignment of goals and project approval. Initial steps included coordinating schedules with the EHR representative, reviewing secure storage alternatives, and ensuring that appropriate methods to maintain the anonymity of all protected data related to the project were in place. Once these initial measures were achieved, the AWV tool was assessed for readiness and implementation. An educational handout was constructed before implementation of the AWV tool. Finally, a review of the project team and an assessment of additional members were undertaken.

Potential Outcomes

A streamlined approach to support the goals of Medicare's AWV and address the challenges for optimum use in private practice is paramount. As the evidence suggests, P4P schemes increase the quality of care given to patients, address preventive measures, and decrease hospital readmissions and ER visits (Cross et al., 2017). A tool that allows for easy tracking and implementation of paid-for-services, which are often performed but not billed, can have long-lasting implications for the financial bottom line. Potential barriers to this project exist for the very reason the practice needs this tool: a genuine hurdle of financial burden. The goals of providing the highest quality care and maintaining the viability of smaller private practices go hand in hand. The focus moving forward should be on increasing quality patient outcomes without negatively affecting private practice profitability and sustainability.

Methods

To assess the feasibility of improving the consistency and documentation of Medicare's AWV to improve patient outcomes, improve provider satisfaction, and potentially increase future revenue, an electronic AWV template was developed for implementation into a single small private practice. Education and support were given to all participants involved during the project implementation period. There was one evaluation period at the end of the project utilizing an electronic AWV template evaluation questionnaire.

Ethical Considerations

Human subject protections and all requirements laid out within the Collaborative Institutional Training Initiative (CITI Program) course work were complied with, as required by Arizona State University's Internal Review Board (IRB). Both the project investigator and co-investigator have successfully completed this training. Approval from Arizona State University's IRB (see Appendix C) was obtained prior to project implementation. The feasibility evaluation questionnaire for the electronic AWV template was the only evaluation undertaken in this project. The evaluation form was anonymous, and due to the small sample size, the questionnaire was kept in a locked safe along with the signed informed consent forms (see Appendix D) at the primary investigators home. The primary investigator was the only person with access to the completed questionnaire and signed consent forms.

The investigators did not have access to the completed AWV forms, nor did they know any specific patient information. Completed electronic AWV templates were kept by the provider within the respective secured patient charts inside the practice's EHR for future use. The template was uploaded as an external document inside the tab "Medical Forms Report". Under HIPAA policies and procedures, the above-stated project site remains fully compliant

with regard to secured data storage, encryption, and confidentiality, and all accessible electronic computers, including desktops, and laptops, have individual password protections.

Population and Setting

The project site, located in the Southwestern United States, is a small private primary care practice consisting of three providers: two physicians and one family nurse practitioner. The practice specializes in internal and geriatric medicine, serving the local community. Approximately 95% of the practice`s patients use Medicare insurance. The project site does not require any specific regulations or review board processes. Inclusion criteria were any participants employed at or affiliated with the project site who could provide an AWV to a patient within their scope of practice. Participants had to be English speaking and 18 years or older. Exclusion criteria were individuals not affiliated with the project site and those who did not wish to participate.

Objectives

The goal of this quality improvement project was to find an affordable, sustainable method to improve patient outcomes while maintaining private practice profitability through consistent charting and billing using the electronic AWV template. Medicare sets out a list of quality measures it wishes providers to meet, yet it has no set process or template of how to achieve these measures consistently. The Medicare policy MIPS is meant to increase patient outcomes by incentivizing providers to adopt quality care preventive measures. With an increase in meeting MIPS scores through the utilization of the project template, providers should be able to increase their reimbursements at a higher rate, thus resulting in a desirable situation in which providers maintain profitability and patients receive the best quality care.

Project Description

This project aimed to assess the feasibility of use by implementing an electronic AWV template into a small private practice over a two-week intervention period. Prior to the intervention period, the author reviewed the electronic AWV tool for compatibility and efficiency and edited it as needed. Several check-ins with stakeholders occurred prior to project implementation to assess goals and schedule a convenient intervention time period. An educational printed handout with snap shots of the electronic tool and directions was given to the provider to keep after an in-person hands-on tutorial was conducted by the author (see Appendix F). A questionnaire was given to the participant at the end of the two-week intervention.

Instrumentation

The Electronic Annual Wellness Visit Template Evaluation Questionnaire consists of a seven-question survey designed by the primary investigator (see Appendix G). The questionnaire has not been recognized for validity and reliability indicators; however, the survey was evaluated positively for face validity via the project mentor and IRB representatives. The questionnaire was used to assess the provider's opinions regarding the template after using the tool for two-weeks. The questions focused on ease of use, convenience and time management, consistency, affordability, and revenue potential, and ultimately, factors related to patients' health outcomes. The questions were delivered using seven questions on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The participants were also encouraged to voice their opinions, suggestions, or concerns related to the intervention.

Data Collection and Analysis

The completed questionnaire was collected at the end of the intervention period. Data remained anonymous and kept in a locked safe for analysis. Due to the single sample size, questionnaire results were hand tabulated, and the results were verified by uploading the data

into Intellectus Statistics™ software. Descriptive statistics were used to analyze the survey results. The electronic AWV template was designed using leveraged technology to provide an affordable alternative to costly EHR upgrades that are not accessible for smaller private practices. Therefore, other than time, the project implementation involved no monetary costs to the practice or the project investigators.

Results

Data analysis was conducted using descriptive statistics. The one provider who participated in the project intervention responded to the survey questions about the electronic AWV template with overall satisfaction. All responses were marked as either “strongly agree” or “agree” on a 5-point Likert scale. Of the seven questions, the provider strongly agreed that the template was easy to learn, easy to use, and more consistent, and that auto-population of codes improved revenue. The participant answered “agree” in response to remaining questions about the AWV template aiding in time management with regard to the convenience of the billing code summary section, the ability of the electronic AWV template to help improve patient health outcomes, and the provision of an affordable and convenient option for small private practices to implement into their regular yearly AWV assessments.

The participant also added commentary related to the template, noting that modifiability would help them meet future goals that may change over the years. The participant reported that the electronic template would remain in use within the practice due to its convenience and the ability to upload the template into the existing EHR as an external document. The provider also stated that the template would then be accessible to other providers in the future, thus allowing for sustainability.

The potential to consistently assess whether a patient has had their recommended vaccinations, cancer screenings, and cognitive screenings can have a great impact for providing consistent assessments and detecting declines in health early in the aging process. The electronic AWV template primarily assists the provider through consistent assessment, charting, and billing of the AWV, adding the potential for financial return by utilizing the billing summary for reimbursements of services rendered, and time management related to utilizing a simple systematic approach with each patient who is eligible for their yearly AWV assessment. The system benefits patient outcomes through preventive care that leads to improved health outcomes, benefits the provider and practice through improving income potential, and benefits overall Medicare costs through quality care patient health management. The potential impact on policy has yet to be seen. The author hypothesizes that the utilization of a simple tool using leveraged technology, such as the electronic AWV template, will allow for better tracking of patient outcomes through preventive care, thus allowing for a clear analysis of future recommendations related to affordable quality senior healthcare.

Discussion

Summary

This quality improvement project aimed to assess the feasibility of an electronic AWV template using leveraged technology to provide an easy and affordable method of improving uniformity for yearly assessments in a small private practice. Although the sample size was small, the intervention demonstrated the potential for the implementation of this type of template. Medicare involvement with similar template support may be the catalyst for improving small private practice compliance with the performance of consistent AWVs.

Limitations, Barriers, and Challenges

The limitations of the project included the small sample size. Although the project site had three providers, only one engaged in testing the intervention. The nurse practitioner provider worked mainly as a partner to one of the physician providers and generally performed the AWVs for about half of the practice's patients, assisted with patient follow-ups, and provided outside support to existing patients admitted to skilled nursing facilities after hospitalization. Because of this partnership, there were only two providers in the practice performing AWVs. The nurse practitioner was the project's champion, so their participation was paramount to the project's success. Despite a recent transition to a new EHR from paper charting, one physician provider refused to participate in electronic charting and therfore the project intervention.

Literature Findings

To date, there remains a paucity of literature evaluating patient health outcomes and healthcare spending in relation to the effects of providing an AWV (Moore et al., 2021). Research is also lacking in the area of small practice income when providing reliable CMS-level quality care. In a study assessing the benefits and costs of implementing innovative methods to increase the rates of AWVs, one method implemented a standardized AWV template into an Epic EHR system for a provider group of more than 150 serving over 34,000 patients. They focused on ease and efficiency when conducting the AWVs. Results of the study showed a significant increase of 63% in AWVs after the first year, and a 68% increase at a similar organization in the second year, indicating a great benefit for patients. A total of 87% of the providers met the target goals (Moore et al., 2021).

Early disease identification and prevention measures managed through health screenings prevent chronic disease progression and save hundreds of thousands of dollars in Medicare-related costs (Fragala et al., 2019). An assessment of data from health systems focused on AWV

patient engagement and education found that there were significant CMS quality care gap closures in areas, where they were missing prior to the AWV. The report also indicated increases in downstream revenue with referrals, thus driving revenue, closing care gaps, and improving patient health outcomes (Linnert, 2021). Furthermore, a study examining the Medicare AWVs performed by providers in physician-led accountable care organizations found that organizations that prioritizing AWVs for their patients may improve healthcare quality and reduce costs due to the increase in preventive care delivery (Beckman et al., 2019). The utilization of the AWV improves preventive care for the elderly population, thus improving healthy aging (Jiang, et al., 2018).

Recommendations for Further Research

Future goals and research could include examining the participation rates of AWVs in larger studies of small private practices. Within these studies, assessment of goal markers achieved with each visit, including the impact on MIPS score capture, the percentage of screenings in comparison to past years without an electronic template, and the ability to detect illnesses early in their progression, is needed to gauge patient outcomes. Due to the complexities and inconsistencies when performing AWVs, future studies should address the financial impact on private practice. A recommendation for a Medicare-led national study with a comparison of a standardized AWV template versus current practice may provide meaningful information about whether this type of support is necessary for small private urban, rural, and remote practices to remain in sustainable business in the future. Finally, assessing patient outcomes related to the consistent use of a standardized AWV template in a national longitudinal study is paramount for evaluating patient health and healthcare costs in the long term.

Conclusion

In conclusion, this author found a problem with the lack of consistency in the delivery of Medicare AWVs in a small private primary care practice. The challenges facing the practice in their attempts to meet the needs of their patients while maintaining a sustainable practice included hardships due to the considerable financial burden of transitioning to a new EHR from paper charting. Training staff, managing MIPS scores electronically, learning how to utilize an entirely new billing system, learning the ins and outs of preventive care through CMS requirements of an AWV, and understanding how to maximize patient benefits and reimbursement income continued to cause difficulties for the practice. Planning an intervention to provide relief was one step in assessing the needs of small private practices that provide care to the nation's senior citizens. The next step is to explore the measures Medicare can take to meet the goals it sets for patients, while supporting small private practices with the tools to succeed and provide the best quality care possible.

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Appendix A

Evaluation and Synthesis Table

Table A1

Evaluation Table Quantitative Studies

Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice/ Generalization
Chung et al. (2018). Preventative visit among older adults with Medicare's introduction of Annual Wellness Visit: Closing gaps in underutilization ***Country***: U.S. ***Funding***: Grant funds by AHRQ & HCSRN-	Inferred: Nola Pender's Health Promotion and Illness Prevention	***Design***: Retrospective study ***Purpose***: Assess how gaps in the underutilization of preventative healthcare visits can be reduced and utilization of preventative care services with a PCP before and after expansion of Medicare's	***N***=456,281-Total person years ***n***=108,734-unique patients ***Demographics***: Medicare patients ages 65-85 ***Setting:*** PC in mixed payer outpatient healthcare organization in northern CA ***Exclusion***: <65or85>year-old range	***IV1***: Medicare beneficiaries ***DV1***: Made a preventative visit ***DV2***: Age ***DV3***: CCI ***D4***: Visit frequency per year ***DV5***: primary insurance (1-Medicare FFS vs 2-HMO) ***Covariates***: sex, race/ ethnicity	CPT codes from EHR	Multilevel logistic regression model, stratified sample analysis, Chi-square, random effects model, Stata 11.1	***DV1***: 32% with 19% increase after Medicare expansion ***DV2***: 20% visit increase age70-74, 18% age 80-85, 17% age 75-79,15% increase age 65-69 ***DV3***: CCI=20% increase, CCI-2+=17% increase ***DV4***: 0 visit:20%, 1:16.1%, 2:16.7%,	***Level of Evidence***: Level III-Retrospective comparative study ***Strengths***: large sample size, long term assessment ***Weakness***: 1 single organization evaluated, healthy population on average, observational data, assessed the

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OAICs AGING Initiative ***Bias***: Ages 65-85		preventative visit coverage	***Attrition: N***/A **Definitions**: *N*: number of visits years 2007-2016 pre and post Medicare expansion	and indicators of year assessed for variance within the major variables ***Definitions***: Indicators of year include the years before and after Medicare expansion			3:15.6%, and 4+:14% ***DV5***: FFS-80.7% of participants with a 22% increase of preventative visits after expansion HMO-19.3% with 17% after expansion **Covariates**: all race/ethnicities showed an increase after expansion with the highest for Asians at 20% and AA lowest at 13% increase.	rate of AWV w/o content of visit including interventions addressed, no follow-up on long term outcome ***Feasibility***: AWV coverage with Medicare expansion increased the rate of visits with primary care reducing disparity in preventative health visits
Apathy et al. (2020) High rates of partial participation in the first year of	Inferred: Nola Pender's Health Promotion and Illness Prevention	***Design***: Retrospective study	***Demographics***: CMS Physician Compare database ***Setting***: Outpatient	***N***=1,631,647-total physicians participating in MIPS 2017	Data cleaning and validation ***Validity/ Reliability***: Physician	Multiple linear regression	***DV1***: 45.7% did not participate in at least one category and 54.3% participated in all	***Level of Evidence*** Level III ***Strength***: Large data set, varied throughout the US

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the Merit-Based Incentive Payment System ***Country***: U.S. ***Funding***: National Library of Medicine, AHRQ ***Bias***: CMS measurement values use of participation scores rather than performance scores in any given category		***Purpose***: Study examines the MIPS participation and clinician scores to comprehend how eligible providers attained payment adjustments and composite scores in the first year of MIPS	primary care organizations and individual practices ***Exclusion***: MIPS eligible clinicians who did not submit a claim within 6 months between 2017-2018 ***Attrition***: n/a	***IV1***: Eligible clinicians for MIPS program ***DV1***: overall composite score of participation 100% ***DV2***: quality measures 60% weighted ***DV3***: advancing care information25% weighted ***DV4***: improvement activities15% weighted ***Definition***: Weighted: indicating the percentage of total physicians participating in the individual measured components of MIPS usage	Compare data were incomplete with categorical breakdown, validation performed by weighting each MIPS performance category		categories, 10.9% skipped all 3 categories ***DV2***: 26.5% non-participation ***DV3***:34.8% non-participation ***DV4***:16.9%	***Weakness***: Unknown reasons for provider participation or non-participation under select categories; MIPS combined 3 separate quality programs leading to indeterminant variation; missing data of individual performance metrics ***Feasibility***: Full participation in MIPS continues to be a slow transition and with penalties coming in 2022 for non or partial use by providers

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Navathe et al. (2019). Effect of financial bonus size, loss aversion, and increased social pressure on physician pay-for-performance: A randomized clinical trial and cohort study ***Country***: U.S. ***Funding***: Commonwealth Fund and Robert Wood Johnson Foundation; ***Bias***: n/a	Inferred: Theory of Bureaucratic Caring	***Design***: RCT and cohort study ***Purpose***: Test whether increasing bonus size or adding behavioral economic principles of increased social pressure or loss aversion improves effectiveness of P4P	***N***=99- Total physicians within three groups included in the final analysis ***Demographics Setting***: physician hospital organization, and other advocate practices as a comparison in cohort ***Exclusion***:32 physicians due to not having the unique attributed patients for the study. 7 physicians terminated contracts ***Attrition***11% of patients with missing follow-up	***IV1***: Physician performance with quality measures ***DV1***-LBS ***DV2***-LA/LBS ***DV3***-ISP/LBS ***Cohort*** ***DV4***-LBS ***DV5***-non-LBS ***Definition***: Physician behavior outcomes evaluated using RCT -LBS alone, versus LBS with LA and LBS with ISP, and cohort study LBS versus non-LBS	Patient was unit of analysis; physician survey	Logistic regression; sensitivity analysis; difference in differences method; *t*-test to compare mean Likert scale responses; linear model with binomial distribution; logit link function; adjusted pairwise *P* value SAS software	***DV1***: 4.2% increase ***DV***2: 3.8% increase; p =.31 ***DV3***: 4-4% increase with adjusted pairwise testing: p =.81 ***DV4***: 4.1% increase ***DV5***: 2% increase	***Level of Evidence*** Level I ***Strength***: Relevant to P4P increasing expansion **Weakness**: Single institution setting exposed to LBS; relatively small final sample size of physicians, observational analysis subject to confounding ***Feasibility***: Increased bonus size was associated with improved QC compared to control. Adding ISP and opportunities for LA did not improve quality

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Citation: Gupta et al. (2019). Effects of pay-for performance for primary care physicians on diabetes outcomes in single-payer health systems: A systematic review ***Country***: Canada ***Funding***: ***Bias***: Only P4P within single payer systems reviewed. Short length of follow-up	Stated: PICOS: Population, Intervention, Comparison, Outcomes, Study type framework	***Design***: Systematic review with PRISMA ***Purpose***: An assessment whether P4P for physicians in PC and CM leads to better diabetes outcomes in single-payer national health systems	***N***= 717,166 total DM patients across all 10 studies ***Demographics***: Physicians receiving P4P for patient DM care within national single payer systems ***Setting***: PC and CM in 7 countries ***Exclusion***: Studies with no evaluation component, Studies lacking quantitative data, pilot project evaluations, qualitative studies ***Attrition***: none ***Definitions***: n/a	***IV1***: 10 -articles reviewed encompassing 8 P4P schemes ***DV1***: Patient DM outcomes with P4P ***DV2***: Patient DM outcomes with no P4P	Studies from countries with single-payer healthcare coverage evaluating P4P, all income level countries included	GRADE; narrative synthesis	Narrative evidence reflecting P4P may result in reduced mortality risk over long term care when link to performance metrics	***Level of Evidence***: Level I ***Strengths***: Large inclusion base spanning 7 countries, general representative patient population with DM ***Weakness***: only wealthy countries with P4P assessed ***Feasibility***: P4P schemes show effectiveness when incentives are tied to clear metrics

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Cross et al. (2017). Sustained participation in a pay-for-value program: Impact on high-need patients ***Country***: US ***Funding***: The Commonwealth Fund ***Bias***: n/a	Inferred: Donabedian's Quality Framework	***Design***: Longitudinal cohort study ***Purpose***: To assess impact of PCP in P4V is associated with improved care for high-need patients, compared to patients with no P4V for PCP	***N***= 17,443 patients ***Demographics***: Patients with 2 or more chronic health conditions in BCBMS insurance and PCP over a 4-year span. ***Setting***: 1582 PCP/ practices in Michigan with or without PGIP participation ***Exclusion***: Patients not continuously insured with BCBSM ***Attrition***:	***IV1***: High-needs patients with PCP using PGIP ***DV1***: hospital readmissions 30 & 90 day ***DV2***: ER visits ***DV3***: overall quality care ***DV4***: Medication management-specific quality ***DV5***: Overall medical-surgical cost	Practice claims data	Generalized linear mixed models Robust standard errors, log-normal distribution, Poisson distribution, normal distribution	***DV1***: Lower odds [OR] 30day-0.65 and 90day-0.63 with *P*<.01 ***DV2***: Lower odds [OR] 0.88; *P*<.01 ***DV3***: Higher 1.6%; *P*<.01 ***DV4***: Higher 3%; *P*<.01 ***DV5***: No difference; *P*=.123	***Level of Evidence***: Level I ***Strengths***: ***Weakness***: Study sample in MI alone, only 1/3 of patients in MI insured with BCBSM ***Feasibility***: High-need patients with PCP-PGIP participation had lower odds of hospital readmissions, ER visits, and higher quality care
Mandal et al. (2017). Value-based contracting innovated	Inferred: Quality and Outcomes Framework	***Design***: observational quasi-experiment	***N***= 1460 patients split equally into intervention and control group	***IV1***: Value-based contracting ***DV1***: RAF	Full encounter patient claims data	Cox proportional hazards model, Kaplan-Meier, Propensity-score model,	***DV1***: Increase by 6.1% averaging an additional $629.89 PMPY ***DV2***: CI=2.734 with *p*<.001	***Level of Evidence***: Level III ***Strengths***: Longitudinal

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Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice/ Generalization
Medicare Advantage healthcare delivery and improved survival ***Country***: US ***Funding***: None ***Bias***: n/a		***Purpose***: Assess if there is a difference in value-based contracting with MAO versus F4S with MA alone with utilization and outcome improvements	***Demographics***: Community dwelling MA members 65-years and older ***Setting***: Primary care setting in Pacific Northwest area ***Exclusion***: <65 ***Attrition***: none	***DV2***: preventative care utilization ***DV3***: Survival		CCI, logistic regression model, nearest-neighbor matching, permutation testing, DID model, IRR, forest plot, R Foundation for Statistical Computing	***DV3***: Increase 6% benefit	comparison a statistically similar control ***Weakness***: Environmental and social factors not included ***Feasibility***: Value-based contracting between MAOs and providers improve clinical outcomes and survivability, and promote cost effectiveness.
Huang et al. (2016). Disease-specific pay-for-performance programs: Do the P4P effects differ between diabetic	Inferred: Quality and Outcomes Framework	***Design***: Retrospective comparative study ***Purpose***: Evaluate the effectiveness on DM-P4P program on	***N***= 52,276-DM patients ***Demographics***: aged 20 yrs or older ***Setting***: ambulatory care setting ***Exclusion***: persons w/o DM	***IV1***: DM-P4P ***DV1***: DM care with MCC ***DV2***: DM care w/o MCC	Health insurance data base	Propensity score matching; MPR; GEE with logit link; Poisson distribution; DID,	***Reported as***: ***DV1***: Increased QC exams=0.86, *P*<0.001, visits=0.02, *P*<0.05; ACSCs= -0.016, *P*<0.001 ***DV2***: Increased QC exams=1.10,	***Level of Evidence***: Level III ***Strengths***: 4 years of data analyzed ***Weakness***: Age and MCC a factor in outcomes, P4P

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patients with and without multiple chronic conditions? ***Country***: Taiwan ***Funding***: Ministry of National Science and Technology of Taiwan ***Bias***: n/a		quality of DM care in patients with DM&MCC vs DM& no MCC compared to no P4P	or younger than 21 yrs and persons expired prior to study end. ***Attrition***: death not calculated in final results				*P*<0.001, visits=0.02, *P*<0.05; ACSCs= -0.009, *P*<0.001	incentive increases mid-evaluation period ***Feasibility***: Long term positive impact on QC for all patient with a larger impact on MCC patients
Petersen et al. (2016). Impact of a pay-for-performance program on care for Black patients with hypertension: Important answers in the	Inferred: Quality and Outcomes Framework	***Design***: Cluster RCT-nested ***Purpose***: Evaluate effect of P4P on QC for HTN	***N***=50-intervention group, ***n***=17-control group ***Demographics***: Black patients ***Setting***: VA hospital-PC setting	***IV1***: Hypertensive patients treated per JNC 7 hypertension guidelines ***DV1***: Blood pressure control	Electronic chart review; Monte Carlo cycles, unit of measurement: PY/PI	Linear regression; Akaike's information criterion, log-likelihood function; chi square; variance inflation factor; Benjamini-Yekutiele method;	***DV1:*** 6.3%: 95% CI; 0.8-11.7% increase with PY/PI over control	***Level of Evidence***: Level I ***Strengths***: RCTs of payment methods not well researched, single payment approach, incentives more meaningful to

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Citation	Theoretical/ Conceptual Framework	Design/ Method/ Purpose	Sample/Setting	Variables	Measurement/ Instrumentation	Data Analysis	Results/ Findings	Level of Evidence; Application to practice/ Generalization
era of the Affordable Care Act ***Country***: US ***Funding***: The Veterans Affairs HSR&D, IIR, NIH, and Houston VA HSR&D Center of Excellence ***Bias***: Study was based upon the relative differences in effective treatments for Black, non-Hispanics however, other races and ethnicities were not evaluated which could be perceived as bias			***Exclusion***: any patient outside of Black non-Hispanic race ***Attrition***: none	or appropriate treatment ***Definitions***: Risk selection: physicians picking patients based on their health conditions in order to maximize performance incentives		Bootstrap analysis; *t*-test; SAS 9.2		salaried physicians studied, availability of large data ***Weakness***: Not generalizable to private PCP, varying amounts of incentives not studied ***Feasibility***: P4P improved BP control and appropriate HTN response w/o producing risk selection.

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LeBlanc et al. (2017). Influence of pay-for-performance program on glycemic control in patient s living with diabetes by family physicians in a Canadian province. ***Country***: Canada ***Funding***: Centre for medical research at the University of Sherbrooke and the Canadian Institutes of Health and research along with the NB	Inferred: The Conceptual Framework for Fidelity Implementation	***Design***: Cohort study, repeated cross-sectional perspective ***Purpose***: To assess whether the implementation of an incentive program changes the quality of care for diabetes at a population level	***N***=83,580-eligible diabetic patients ***Demographics***: age>20 yrs, diabetic patients followed by practitioners eligible to receive incentives ***Setting***: primary care ***Exclusion***: under 20 ***Attrition***: ***Definitions***:	***IV1***: PCP receiving P4P vs no P4P ***DV1***: Receiving at least 2 HA1C tests per year ***DV2***: Difference in HA1C values	Retrospective provincial laboratory data repository records for patients with an increase HA1C level	Linear regression; logistic regression; multilevel modelling; SPSS	***DV1***: 1.23, 99% CI-1.18-1.28 and showing increase of 56% following incentive implementation; DV2: no difference with intervention: SD=1.4 vs SD=1.4 with control -0.01, 99% CI -0.03-0.02	***Level of Evidence***: Level I ***Strengths***: first study to assess glycemic control at population level, adequate comparison group for study, 10 years of data analyzed ***Weakness***: comorbidities not considered, ***Feasibility***: P4P show greater odds for receiving at least 2 HA1C tests per year, but without significant changes in level of glycemic control. With better follow-up, lowering patient's

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Health Research Foundation ***Bias***: None								HA1C levels is promising.
Zaresani & Scott, (2021). Is evidence on the effectiveness of pay for performance schemes in healthcare changing? Evidence from a meta-regression analysis ***Country***: Canada ***Funding***: NHMRC and PCHSS ***Bias***: none	Inferred: PICOS: Population, Intervention, Comparison, Outcomes, Study type framework	***Design***: Meta-regression ***Purpose***: To study the effects of P4P schemes and evidence related to statistical significance of success across countries	***N***= 620- total reported effect sizes ***Demographics***: P4P schemes, 12 different countries, ***Setting***: studies including outpatient and hospital ***Exclusion***: studies without a control and studies not adjusting for covariates ***Attrition***: none	***IV1***: study (23) with P4P scheme (37) ***DV1***: positive outcomes with statistical significance	Data were extracted from studies meeting research design criteria including effect sizes within interrupted time series designs, DID designs, and RCTs	Generalized linear model; logit link function, DID, ITS, RCT, BA	***DV1***: Proportion of 0.53 or 53% (326 of 620)	***Level of Evidence***: Level I ***Strengths***: Studies from 12 countries reviewed, ***Weakness***: masked heterogeneity of schemes ***Feasibility***: P4P remains inconsistent and with poorly designed schemes, leading to a slow progression.

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Table A2

Synthesis Table

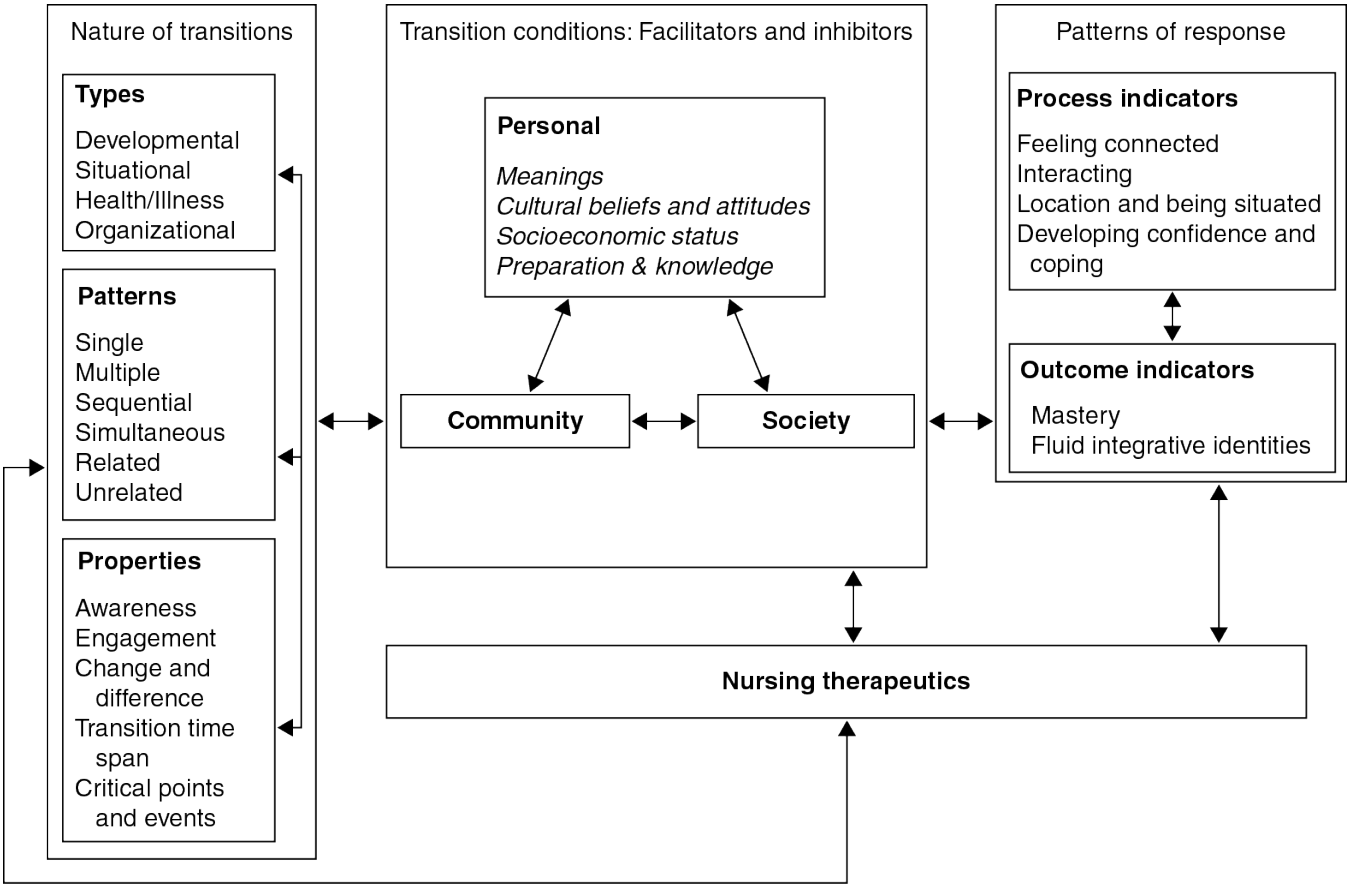
Article Synthesis										
Title	Apathy & Everson	Chung, et al.	Cross, et al.	Gupta & Ayles	Huang, et al.	LeBlanc, et al.	Mandal, et al.	Navathe, et al.	Petersen, et al.	Zaresani & Scott
Year	2020	2018	2017	2019	2016	2017	2017	2019	2017	2021
Design/LOE	RS/III	RCS/III	COS/I	SR/I	RCS/III	COS/CS/I	OQE/III	RCT-COS/I	RCT/I	MRA/I
Value-Based Models										
MIPS/AWV	X	X					X			
P4P			X	X	X	X	X	X	X	X
Quality Improvement Indicators										
Chronic disease or medication management	↑		↑	↑	↑		↑	↑	↑	→
Preventative care visits or all- cause QI		↑	↑			↑	↑			→
Hospital readmissions or ER visits			↓							→

AWV-Annual Wellness Visit, **COS**-Cohort study, **CS**-Cross-sectional, **LOE**-level of evidence, **MIPS**-Merit-Based Incentive Payment System, **MRA**-Meta-regression analysis, **OQE**-Observational quasi-experiment, **P4P**-pay-for-performance, **QI**-quality improvement, **RCS**-Retrospective comparative study, **RCT**-Randomised controlled trial, **RS**-Retrospective study, **SR**-Systematic Review

Appendix B

Figure 1

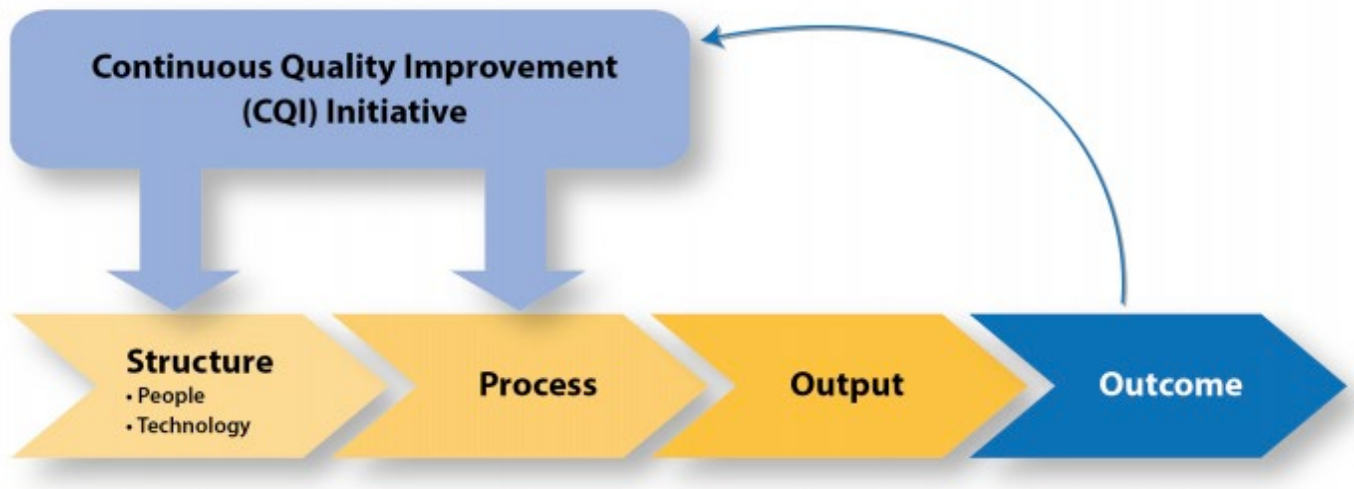
Theory of Transitions



(Smith & Lier, 2018)

Figure 2

Continuous Quality Improvement Framework Model



(The National Learning Consortium [NLC], 2013)

Appendix C

IRB Approval

EXEMPTION GRANTED

Monica Rauton
EDSON: DNP
-
monica.rauton@asu.edu

Dear Monica Rauton:

On 12/3/2021 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Improving Patient Outcomes and Private Practice Profitability
Investigator:	Monica Rauton
IRB ID:	STUDY00014967
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• CITI Training Certificate, Category: Non-ASU human subjects training (if taken within last 3 years to grandfather in); • Education Guide for AWV Template, Category: Participant materials (specific directions for them); • Hill_Annual Wellness Visit Excel Template, Category: Technical materials/diagrams; • Improving Patient Outcomes and Private Practice Profitability, Category: IRB Protocol; • Project Consent, Category: Consent Form; • Project Questionnaire, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Site Permission, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);

Appendix D

Informed Consent

Study Participant Consent

I am a graduate student under the direction of Professor Dr. Monica Rauton in the Edson College of Nursing and Health Innovation at Arizona State University. I am conducting a test study to improve the consistency of Medicare's Annual Wellness Visit (AWV) performed by providers of small private practice to better patient outcomes.

I am inviting your participation, which will involve using an electronic AWV template while performing the patient AWV for 5-10 patients. The template is a point and click Excel sheet which includes labeled tabs for ease of use. The expected duration of your participation shall be no more than 14 days to completion. Participation also involves filling out a survey including questions evaluating performing the AWV post project implementation. You have the right not to answer any question, and to stop participation at any time.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. You must be 18 years of age or older and a provider or supervised student-provider at the project site medical practice to participate in the study.
Your responses to the post test survey will be used to assess the feasibility of using an electronically based, uniform template for the AWV in small private practice serving a majority of Medicare patients. There are no foreseeable risks or discomforts to your participation other than the time commitment spent training on the use of the AWV template and the additional time participating in expressing your opinions of the AWV template within the above-mentioned questionnaire. We will spend approximately 15-minutes to train you in the use of the template and will ask you to spend an additional10-15-minutes completing the survey after you have used the template.

Your responses will be confidential. All participant surveys will be kept under lock and key in a safe at the co-investigator's home. The de-identified study data will only be shared in aggregate form with the study investigators for the purpose of analysis. Furthermore, the raw study data will be solely used to perform and write an analysis and discussion of the results and shall not be shared outside of the written report of the post-study results. The results of this study may be used in reports, presentations, or publications. Questionnaires will be devoid of any identifying information regarding the participant, patient identifying data, or project site.

If you have any questions concerning the research study, please contact the research team at: Dr. Monica Rauton- Primary investigator, monica.rauton@asu.edu or Michelle Lenée Hill, BSN, RN, co-investigator, mlhill6@asu.edu (602) 295-2765. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study.
By signing below, you are agreeing to be part of the study.

Name:

Signature: Date:

Appendix E

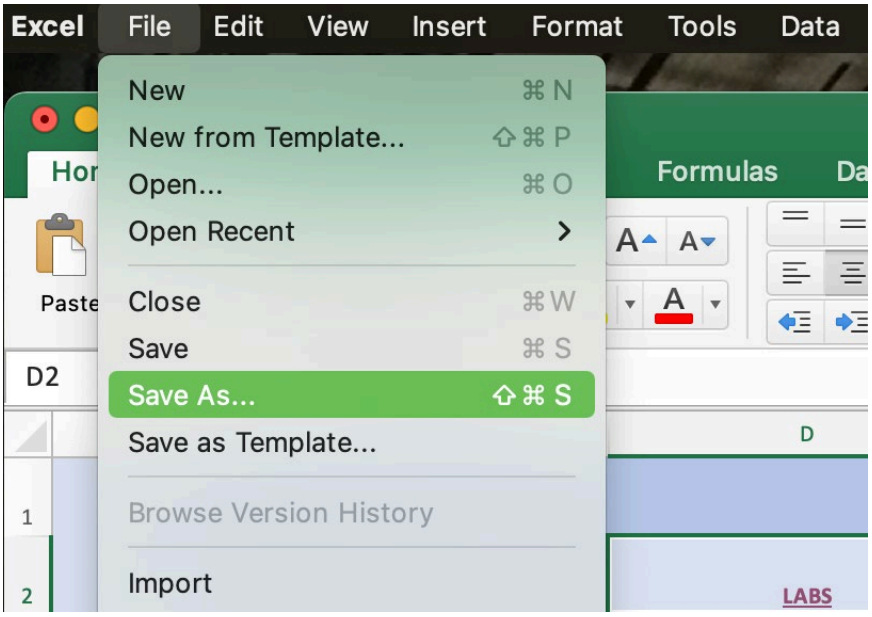
Electronic Annual Wellness Visit Template

Double click on icon to view

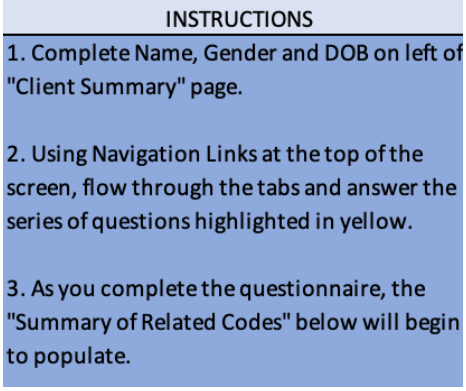
Appendix F

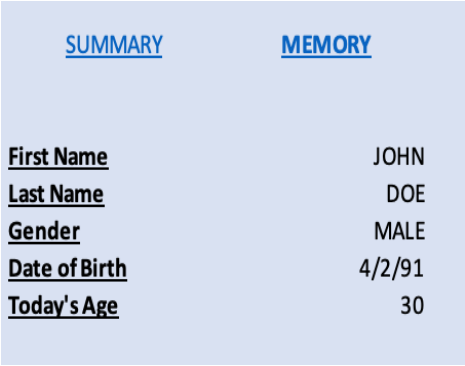
Annual Wellness Visit (AWV) Excel Template Education

Step 1: Open AWV template and "save as" Patient **Last Name_First Initial_AWV_Date and Year**. Depending on your preference of managing patient data within HIPAA compliance, save to a secure file to be accessed for the upcoming assessment.

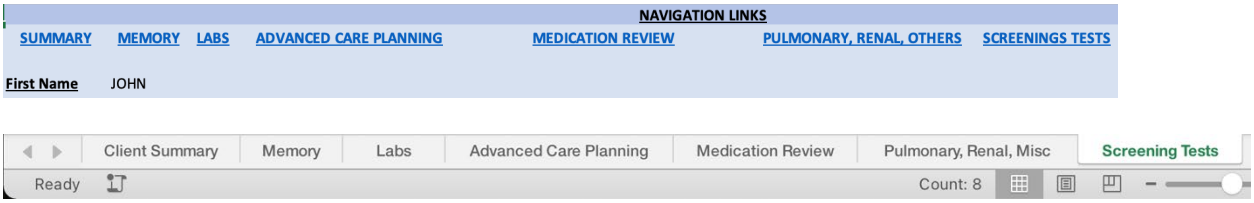


Step 2: Following the outlined instructions, start with inputting the patients name, gender, and date of birth at the top-left of the client summary. The age will auto-populate once the DOB has been input. The additional pages of the AWV will also auto-populate the patient information at the top-left of each page.



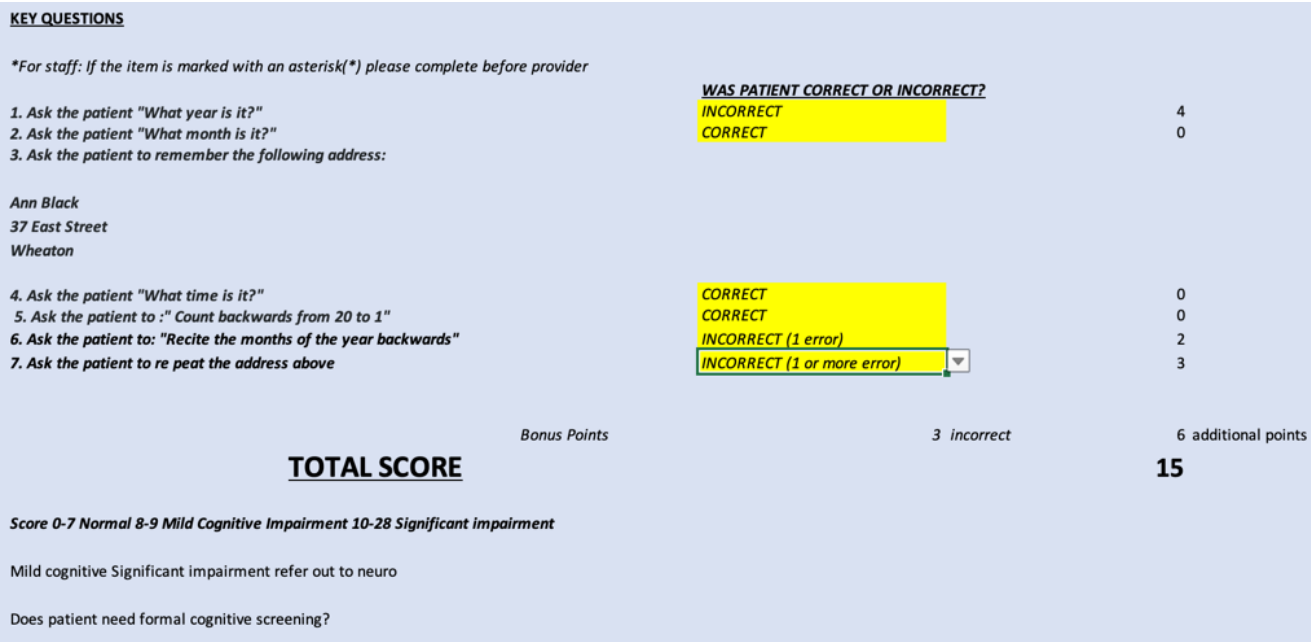


Step 3: Use the navigation links at the top or bottom of the template to flow through the tabs and answer the series of questions highlighted in yellow.



Step 4: Some of the questions may be input prior to meeting with the patient, such as recent lab values or known medications. These items are to be reviewed with the patient to ensure accuracy. If applicable, in a future scenario, a medical assistant may ask the patient the "mini cognition questions", and input the most recent blood pressure into the template.

To the right of the highlighted answers, there is drop-down icon once the highlighted section has been activated with a click of the mouse. The appropriate patient response is then recorded into the template and any corresponding scores will auto-populate to the right of the answers. These scores will either calculate an overall score within a series of questions or generate a billing code, or diagnosis code as indicated.



KEY QUESTIONS

**For staff: If the item is marked with an asterisk(*) please complete before provider*

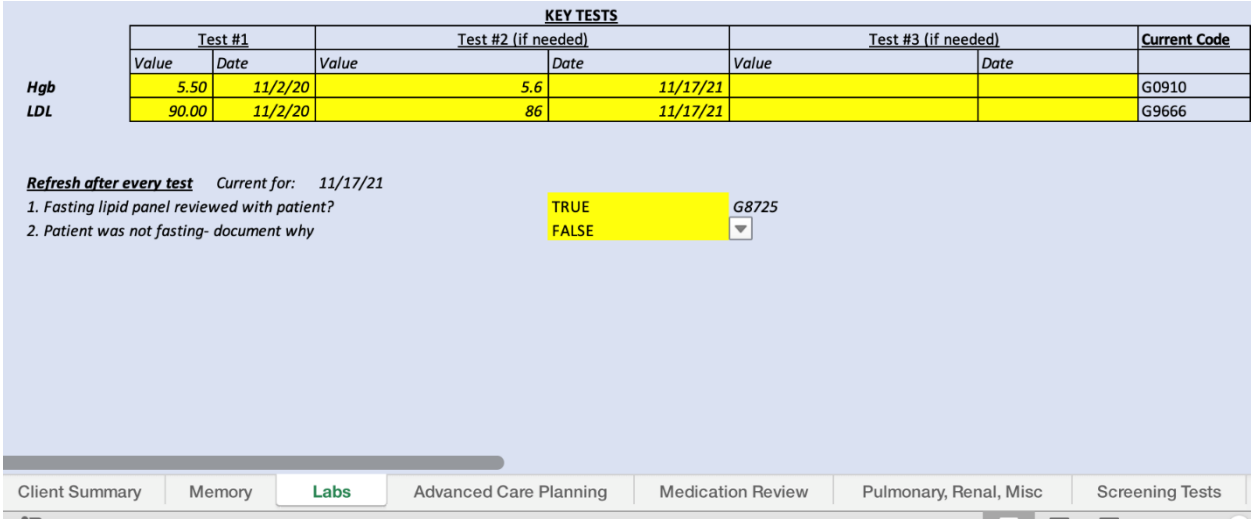
	WAS PATIENT CORRECT OR INCORRECT?	
1. Ask the patient "What year is it?"	*INCORRECT*	4
2. Ask the patient "What month is it?"	*CORRECT*	0
3. Ask the patient to remember the following address:		
Ann Black		
37 East Street		
Wheaton		
4. Ask the patient "What time is it?"	*CORRECT*	0
5. Ask the patient to :" Count backwards from 20 to 1"	*CORRECT*	0
6. Ask the patient to: "Recite the months of the year backwards"	*INCORRECT (1 error)*	2
7. Ask the patient to re peat the address above	*INCORRECT (1 or more error)*	3
Bonus Points	*3 incorrect*	6 additional points
TOTAL SCORE		**15**

Score 0-7 Normal 8-9 Mild Cognitive Impairment 10-28 Significant impairment

Mild cognitive Significant impairment refer out to neuro

Does patient need formal cognitive screening?

Step 5: As you move through the template, you will notice a few areas where laboratory values or vitals will be requested. Simply click the mouse on the highlighted area and type in the values and dates. Edit by clicking on highlighted area with the mouse and pressing back space to erase.



KEY TESTS

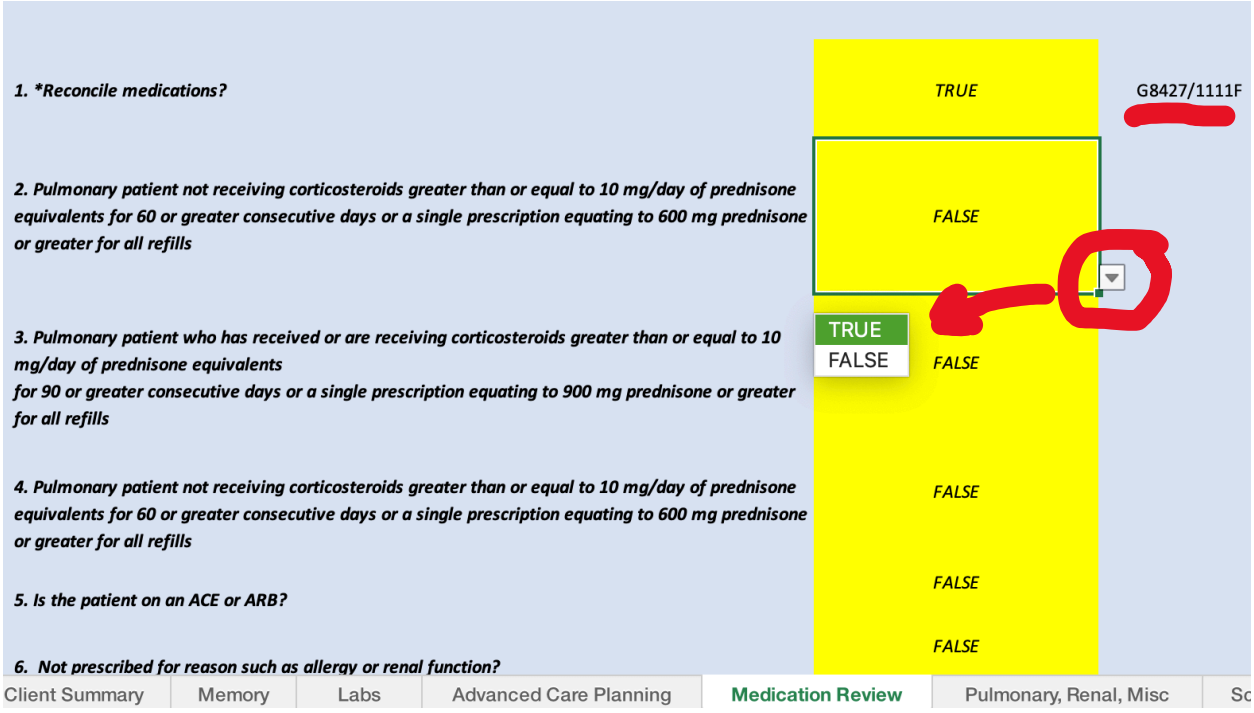
	Test #1		Test #2 (if needed)		Test #3 (if needed)		Current Code
	Value	Date	Value	Date	Value	Date	
Hgb	5.50	11/2/20	5.6	11/17/21			G0910
LDL	90.00	11/2/20	86	11/17/21			G9666

Refresh after every test Current for: 11/17/21

1. Fasting lipid panel reviewed with patient? TRUE G8725
2. Patient was not fasting- document why FALSE

Client Summary | Memory | Labs | Advanced Care Planning | Medication Review | Pulmonary, Renal, Misc | Screening Tests

Step 6: All patients require medication reconciliation. Follow the prompts and utilize the drop-down menu to the right as shown below. Again, billing codes will auto-populate as indicated by the chosen answers.



1. *Reconcile medications? TRUE G8427/1111F

2. Pulmonary patient not receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600 mg prednisone or greater for all refills FALSE

3. Pulmonary patient who has received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 90 or greater consecutive days or a single prescription equating to 900 mg prednisone or greater for all refills TRUE FALSE FALSE

4. Pulmonary patient not receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600 mg prednisone or greater for all refills FALSE

5. Is the patient on an ACE or ARB? FALSE

6. Not prescribed for reason such as allergy or renal function? FALSE

Client Summary | Memory | Labs | Advanced Care Planning | Medication Review | Pulmonary, Renal, Misc | Sc

*Some diagnosis codes will auto-populate based upon answers given. This is to ensure the patient chart has the correct diagnosis within their EHR as indicated through previous screening results. Please verify at the completion of the AWV that the patient's medical history has been correctly updated.

Bone Density		
7. On Prolia, Fosamax, or similar?	*TRUE*	G8633
8. DEXA women ages 65-85 every 24 months	*TRUE*	M85.9
9. DEXA for men on feminizing hormone every 24 months ages 60-80	*FALSE*	
10. Patients not assessed for risk of bone loss;	*TRUE*	G8863
11. Patient with documented results of a central dual-energy x-ray absorptiometry (DEXA) ever being performed	*FALSE*	
12. Patient had a bone mineral density test in the past two years or received osteoporosis medication or therapy in the past 12 months	*TRUE*	G9769
Smoking		
13. Current smoker?	*FALSE*	
14. Current smoker order CT of chest-- Be sure to chart Counseling visit to discuss need for lung cancer screening using low dose CT scan (LDCT) (service is for eligibility determination and shared	*FALSE*	

Client Summary | Memory | Labs | Advanced Care Planning | Medication Review | **Pulmonary, Renal, Misc** | Screening Tests

Step 7: Ensure immunization status is updated either by indicating "already received" or "declined". A value of "unavailable" indicates the vaccination status has not been addressed.

16. Patient not identified as an unhealthy alcohol user when screened for unhealthy alcohol use using a systematic screening method audit tool.	*FALSE*	
DEPRESSION SCREENING		
17. Depression score PHQ9	*TRUE*	G0444
18. Major depressive disorder documented at the initial evaluation	*FALSE*	
FALLS		
19. Fall risk screening complete? aka Get Up and Go Test (+/- 30 seconds)	*TRUE*	M1069
20. Future Risk of Fall? Patient has 2 or more falls in the last year	*FALSE*	
20a. Risk assessment with chart documentation review medications, home life, fall hazards, refer for therapy	*FALSE*	
VACCINES		
21. Flu Vaccine Status	*ALREADY RECEIVED*	G8482
22. Pneumonia Vaccine Status? MIPS	*ALREADY RECEIVED*	4040F
23. General Pain Assessment	*NO PAIN PRESENT*	1126F
THYROID		
24. Further work up required for Thyroid nodule?	*THYROID NODULE IDENTIFIED FURT*	G9956
DEMENTIA		
	FALSE	

Client Summary | Memory | Labs | Advanced Care Planning | Medication Review | Pulmonary, Renal, Misc | **Screening Tests**

Step 8: Once the AWV assessment is completed the client summary page will display the codes addressed during the visit and the diagnosis codes to ensure addition to the patient's medical history. These codes may be copied and pasted into the billing section of the EHR for reimbursement purposes.

The template may be saved in the patient's EHR under the "other medical documents" tab. The template may facilitate future AWV assessments by pulling up the previous year and comparing for significant changes.

SUMMARY OF RELATED CODDES AND FEEDBACK, BY CATEGORY

Memory Quiz Score	*Labs*	*Advanced Care Planning*	*Medication Review*	*Pulmonary, Renal, etc*	*Misc Screenings*	
15	*G0908*	*99497/1123f HAS DECISION MAKER*	*G8427/1111F*		*G8536*	G8482
	G9666	*3044F*				4040F
Note:	*G8725*					1126F
0-7 Normal						
8-9 Mild Impairment						G9956
10-28 Significant		*Negative*				
impairment		*G2102*				
				G8633		
				M85.9		
				G9769		
				1036F/G9903	*G0444*	
					M1069	
						Z97.3

Client Summary | Memory | Labs | Advanced Care Planning | Medication Review | Pulmonary, Renal, Misc | Screening Tests | +

Any questions or concerns can be directed to the author of the AWV Excel template at:

Michelle L. Hill
Mlhill6@asu.edu
(602) 295-2765

Appendix G

Electronic Annual Wellness Visit Evaluation Questionnaire

This questionnaire is designed to assess the provider's opinions after using the Annual Wellness Visit (AWV) Excel template for performing the yearly patient AWV assessment. This questionnaire should take no more than 10 minutes to complete. Responses will help us understand the feasibility of using an AWV template in independent private practices.

Please read each statement and indicate how strongly you agree or disagree by marking the check box in front of your answer. Thank you!

1. I found the AWV template was easy to learn.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

2. I found the AWV template was easy to navigate and use.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

3. I found the AWV template aided with time management in relation to the convenience of the billing code summary section.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

4. I believe the AWV template helps maintain consistency with performing Medicare's Annual Wellness Visits.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

5. I believe the AWV template can help improve patient health outcomes.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

6. I believe the AWV template is an affordable and convenient option for small private practices to implement into their regular their yearly AWV assessments.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

7. I believe the AWV template has the potential to improve revenue through its auto-capture summary of billing codes.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○