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# Increasing Post-Acute and Long Term Care Coding for Advance Care Planning in an Outpatient Setting

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Increasing Post-Acute and Long Term Care Coding for Advance Care Planning in an Outpatient

Setting

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**Dedication**

To my husband, parents, family and friends – thank you. Without your unending love and support, this long journey would not have been possible. I am so grateful and blessed.

### **Acknowledgements**

I wish to acknowledge the contributions of my project advisory team members, who were crucial in guiding me throughout this scholarly project. Thank you for your continued support during this process and for all your time and dedication that helped guide this project to fruition.

### **Abstract**

Today's healthcare landscape is saturated with an aging U.S. population that is living longer and with more chronic conditions. One way to manage care for this aging population, especially those with chronic conditions, is through advance care planning (ACP). Healthcare providers are capable of engaging patients in these important healthcare discussions, yet use of methods to appropriately document and code for these services are lacking. There are Current Procedural Terminology (CPT) codes in existence that would be applicable for these services; however, they are not widely understood nor routinely used in clinical practice. Administrators at a large Midwestern healthcare organization's home based primary care program (HBPC) recognized this gap in care delivery and were open to a quality improvement initiative to address this clinical problem.

The purpose of this project was to close this practice gap by establishing a standardized documentation protocol using CPT codes for ACP services. A retrospective chart analysis of all patients enrolled in the HBPC program (N=430) determined that ACP is a major aspect of care delivery at HBPC, with a total of 98% (n=419) of the total patient population having a documented resuscitation order and 81% (n=347) of patients having a documented durable power of attorney; two crucial aspects of any ACP discussion.

A second chart audit (n=28) based on a simple random sampling of patients enrolled in HBPC in the last 60 days was completed to focus on CPT code utilization and associated documentation for ACP services. None of the charts in the second chart audit included the use of ACP CPT codes or the associated documentation. Ten charts did include documentation on time spent on ACP services, and therefore were used to create a projected return on investment (ROI) for ACP CPT codes. The projected ROI for ACP CPT codes found that HBPC missed

opportunities on 22 relative value units and reimbursement of \$1,234.30 on 10 single face-to-face patient encounters where ACP was discussed because ACP CPT codes and correct documentation were not utilized.

The second chart audit strengthened the need for an educational session with clinical staff to promote the use of a standardized documentation protocol using CPT codes for ACP services. An educational session was completed with staff to identify staff knowledge and attitude regarding ACP services codes and included a pre/post-education survey. The mean score for the pre-survey was 9.4; with one being strongly disagree to five being strongly agree for a total of five questions adding up to 25. The mean score for the post-survey was 19.3. In comparing the two scores, the post-survey score increased by 39.6% representing a small to medium effect size statistically. This revealed that staff knowledge and attitude regarding CPT codes for ACP services had a positive change following the educational session.

A final chart audit using a convenience sample of patients with an ACP discussion three weeks after the education session (n=55) was completed to assess for changes in documentation for ACP services. Documentation requirements that align with the CMS (2016) requirements for ACP CPT codes did not significantly improve following the educational session. Despite the lack of significant change in documentation, the educational session was still beneficial for staff knowledge regarding ACP CPT codes. Additionally, both chart audits identified three variables (consent, explanation of advance directives, and time spent on ACP discussions) that were most likely to be missed in documentation. This strengthened the need for continued employee education regarding implementation of CPT codes for ACP services as well as a standardized documentation protocol to guide providers through the implementation process in the future.

Upon completion of this project, a standardized documentation protocol for ACP services now exists at the HBPC practice. This scholarly project has major implications for practice. The estimated return on investment from the use of CPT codes for ACP services highlighted the potential increase in relative value units for provider productivity as well as increases in reimbursement (for a standard fee-for-service model) captured by utilizing these codes. The educational session received support from the staff, and educational materials from the session can be utilized for future practice. Finally, the protocol will help to standardize workflow around ACP services, which are a large component of routine patient care delivery at HBPC. A standardized documentation protocol using CPT codes for advance care planning is one way to address the current gap in practice and promote quality, cost-effective care delivery at a home based primary care program.

**Keywords:** ‘home based primary care’, ‘advance care planning’, ‘advance directives’, ‘advance care planning codes’, ‘outpatient’, ‘billing and coding’, ‘Medicare’

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## **Executive Summary**

Today's healthcare landscape is saturated with an aging U.S. population that is living longer and with more chronic conditions. One way to manage care for this aging population, especially those with chronic conditions, is through advance care planning (ACP). Utilization of ACP services in routine practice directly promotes patient outcomes including reduced hospitalizations (Weathers et al., 2016; Brinkman-Stoppelenburg, Rietjens, & van der Heide, 2014); increased hospice use (Bischoff, Sudore, Miao, Boscardin, & Smith, 2013; Brinkman-Stoppelenburg et al., 2014); increased patient and family satisfaction with care; and improved quality of care at the end of life (Bischoff et al., 2013; Brinkman-Stoppelenburg et al., 2014).

Healthcare providers are capable of engaging patients in these important healthcare discussions, yet the use of methods to appropriately document and code for these services are lacking. Appropriate documentation and coding is important, as this system of terminology (also known as Current Procedural Terminology or CPT codes) is used to report medical procedures and services to public and private health insurance programs for claims processing and reimbursement (American Medical Association, 2018). There are CPT codes in existence that would be applicable for ACP services; however, they are not widely understood nor routinely used in clinical practice. Administrators at a large Midwestern healthcare organization's home based primary care program (HBPC) recognized this gap in care delivery and were open to a quality improvement initiative to address this problem.

Advance care planning services are a crucial aspect of patient care delivery at HBPC and all patients are encouraged to have their first ACP discussion within 60 days of enrollment. However, there is currently no standardized documentation process in practice that includes the use of CPT codes for ACP services. Care delivery for advance care planning at home based

primary care could be expanded upon to include appropriate CPT code utilization and documentation for advance care planning discussions.

Advance care planning service codes were recently approved for reimbursement by the Centers for Medicare and Medicaid Services and include two new CPT codes used to file claims for ACP services (Medicare Learning Network, 2016). Appropriate billing and coding for ACP services have numerous benefits, including: greater revenue capture for visits targeting ACP, streamlining documentation (differentiating the ACP narrative from the standard evaluation and management documentation), more accurately describing services delivered through billing data (Rogers, n.d.), encouraging provision of ACP services, tracking the use of these services and the impact on patient outcomes (American Academy of Family Physicians [AAFP], 2015), and highlighting provider productivity.

The purpose of this Doctor of Nursing Practice (DNP) project was to address the gap in providing quality, cost-effective care delivery at a home-based primary care program through increased utilization of standardized documentation and use of CPT codes for advance care planning services. This was accomplished by answering the following clinical questions: 1.) Can quality, cost-effective care delivery by healthcare providers be improved by appropriate utilization of advance care planning protocols; 2.) Does staff knowledge at a HBPC program increase after an education session on a standardized documentation protocol using CPT codes for advance care planning; and 3) Does a standardized documentation protocol using CPT codes for advance care planning increase utilization of post-acute and long-term care coding utilization (i.e. use of advance care planning codes) and increase provider productivity awareness as evidenced by increased relative value units (RVUs)?

A standardized documentation protocol using CPT codes for advance care planning was developed and included: a description of CPT codes for ACP services and documentation requirements in the electronic health record; benefits and barriers to ACP CPT codes; examples of ACP CPT codes in practice; current state of practice at HBPC; and a projected return on investment (ROI) with the use of ACP CPT codes. The DNP project also included an initial chart audit to determine current state of ACP practice for all patients at HBPC and a second, focused chart audit with a random sample of patients to determine the current state of ACP documentation and code usage. Furthermore, an educational session was completed with staff on ACP CPT codes. Estimated cost of the project was \$385.56, which included the staff members' time to participate in an educational session regarding the new ACP CPT codes.

A retrospective chart audit of all patients enrolled at HBPC (N=430) was completed to better understand the current state of ACP services and recognized gaps in care that would need to be addressed to promote quality care delivery at HBPC. At HBPC, a total of 98% (n=419) of patients had a documented resuscitation order listed in the chart. Of those patients, 55% (n=235) were documented as do-not-resuscitate (DNR) and 43% (n=184) were documented as a full code. The resuscitation order of the remaining 2% of patients (n=11) was not listed. Of those with a DNR status, 67% (n=158) had formal documents uploaded to the chart and 33% (n=77) did not have formal documents unloaded. Of the uploaded forms, 64% (n=99) of the DNR forms were considered validated, and 37% (n=59) were not validated based on the legal documentation requirements of the state.

The chart audit also addressed those patients with a documented medical durable power of attorney (DPOA). Eighty one percent of patients (n=347) had a medical DPOA documented in the chart, while 19% did not (n=83). Of those listed in the chart, 80% (n=277) had DPOA

forms uploaded and 20% (n=70) did not. Of those with documents uploaded, 68% (n=188) met the requirements to be validated, 27% (n=74) were not validated, and 5% (n=15) were guardianship letters that had expired. Despite the large number of patients with ACP addressed, a large percentage lacked the formal documents and specific documentation requirements for these forms to be considered legal and validated. With an understanding of this baseline data, staff at HBPC are actively engaging in discussions on next steps to address this gap in practice and promote quality care at HBPC through their ACP services.

A second chart audit was completed with a simple random sampling (n=28) to analyze CPT code utilization for ACP face-to-face encounters; whether current documentation aligned with the documentation requirements for ACP CPT codes; and how many relative value units (RVUs) were associated with the current ACP face-to-face encounters. Relative value units are used to determine the fee for healthcare services provided to patients and are also used as a method to calculate the volume of work conducted by a healthcare provider in treating patients (National Health Policy Forum, 2015). None of the audited charts utilized ACP billing codes for the advance care planning discussions. Based on the initial chart analysis, none of the 28 face-to-face encounters for advance care planning discussions included all four documentation requirements for utilization of ACP CPT codes.

Ten patient charts from the audit were utilized to develop a projected ROI for the use of ACP CPT codes because total time spent on ACP services was documented and differentiated from the time spent counseling and coordinating patient care. The total number of RVUs associated from the 10 face-to-face patient encounters that included an ACP discussion was 40.9. This corresponds to an estimated \$2,290.80 potential for financial reimbursement. With the use of the CPT codes for ACP services, total RVUs would increase to 62.9 and financial

reimbursement would increase to \$3,525.10. These findings suggested that HBPC could have gained 22 RVUs and, if functioning in a standard fee-for-service model, reimbursement of \$1,234.30 on 10 single face-to-face patient encounters where ACP was discussed. When putting this in the perspective of over 400 patients, many of whom have had at least one ACP discussion, HBPC could seek to gain even greater levels of RVUs, thereby promoting quality, cost-effective care delivery.

Once the standardized documentation protocol was developed, the DNP student provided an educational session to staff (n=14) to increase staff knowledge on CPT codes for ACP services. This was evaluated based on pre-/post-survey, which was created to analyze a change in clinician knowledge gained and attitudes towards the use of CPT codes for ACP services following an educational session. The mean score for the pre-survey was 9.4; with one being strongly disagree to five being strongly agree for a total of five questions adding up to 25. The mean score for the post-survey was 19.3. In comparing the two scores, the post-survey score increased by 39.6% representing a small to medium effect size statistically. Overall, this revealed that staff knowledge and attitude regarding CPT codes for ACP services had a positive change following the educational session and this session could be an important part of continued employee education.

A final chart audit using a convenience sample of patients with an ACP discussion three weeks after the education session (n=55) was completed to assess for changes in documentation for ACP services. Documentation requirements that align with the CMS (2016) requirements for ACP CPT codes did not significantly improve following the educational session. Despite the lack of significant change in documentation, the educational session was still beneficial for staff knowledge regarding ACP CPT codes. Additionally, both chart audits identified three variables

(consent, explanation of advance directives, and time spent on ACP discussions) that were most likely to be missed in documentation. This strengthened the need for continued employee education regarding implementation of CPT codes for ACP services as well as a standardized documentation protocol to guide providers through the implementation process in the future.

Implementation of CPT codes for ACP services had been a gap closure initiative at HBPC. However, prior to this scholarly project, the organization did not have a standardized documentation protocol for CPT code use for ACP services to guide the implementation. The organization identified this as an area of need for the organization to guide clinical practice change. Without this protocol, the program failed to capture numerous benefits of appropriate utilization of documentation and CPT code use for ACP services. Key stakeholder investment, as well as the formation of an ACP Billing Opportunities workgroup, will promote the sustainability of this initiative going forward.

The impact of a standardized documentation protocol is significant. With the standardized documentation protocol, HBPC will be able to capture greater levels of RVUs, which will be important for providers at HBPC for contract negotiations or evaluations. Also, CPT codes for ACP services have financial incentives for fee-for-service programs as evidenced by the projected ROI for ACP CPT codes. Additionally, the benefits of using CPT codes for ACP services (particularly the associated RVUs and reimbursement) would encourage provision of ACP services, which is the goal of any healthcare organization to promote what is best for the patient. Finally, the implementation of a standardized documentation protocol using CPT codes for advance care planning aligns with the strategic plan of the program to improve patient outcomes through advance care planning services.

In summary, this DNP project answered the clinical questions. Staff knowledge significantly changed following an educational session on CPT codes for ACP services, as evidenced by the comparison of pre-post survey responses. The standardized documentation protocol using CPT codes for advance care planning would increase provider productivity awareness, as evidenced by the projected ROI that includes RVUs for ACP CPT codes. Future work will need to investigate the impact of the standardized protocol on the implementation of ACP CPT codes. Implementation of a standardized documentation protocol using CPT codes for advance care planning services would promote quality, cost-effective care delivery at a HBPC program.



## Increasing Post-Acute and Long Term Care Coding for Advance Care Planning in an Outpatient Setting

Today's healthcare landscape is driven by an overall desire to achieve the Triple Aim, a nationwide healthcare goal that seeks to optimize the healthcare system by improving patient experience of care, improving health of populations, and reducing cost of care (Institute for Healthcare Improvement, 2009; McKesson, 2017). Recently, some organizations have expanded upon the Triple Aim, adding a fourth goal of improving the work life of healthcare providers and provider satisfaction (Bodenheimer & Sinsky, 2014). This fourth goal is an important addition as there is widespread burnout and dissatisfaction reported within the health care workforce. Healthcare provider burnout is associated with lower patient satisfaction, reduced health outcomes, and increased costs (Bodenheimer & Sinsky, 2014). The goals of the Quadruple Aim are more encompassing of several important aspects of healthcare delivery.

The Quadruple Aim goals are particularly important to address as the U.S. population is experiencing considerable growth in its older population. This growth could further burden hardworking health care providers due to the complex, health related changes that occur in older age. These changes result in growing trends of declining capacity and an increased likelihood of living with one or more chronic conditions that require ongoing monitoring or treatment (World Health Organization, 2015). These conditions are extremely costly for U.S. healthcare expenditures and 86% of the nation's \$2.7 trillion annual health care costs are for individuals with chronic conditions and mental health conditions (Centers for Disease Control, 2017). These statistics are staggering, and suggest that healthcare providers must explore opportunities to better manage these aging individuals with chronic conditions – while also preserving healthcare providers' joy in their work life.

One way to manage care for this aging population, especially those with chronic conditions, is through advance care planning (ACP) and advance directives. Engaging patients in ACP discussions has become increasingly more common in today's practice. Including ACP services in routine practice directly promotes the goals of the Triple Aim, and ACP planning been found to reduce hospitalizations (Weathers et al., 2016; Brinkman-Stoppelenburg, Rietjens, & van der Heide, 2014); increase hospice use (Bischoff, Sudore, Miao, Boscardin, & Smith, 2013; Brinkman-Stoppelenburg et al., 2014); increase patient and family satisfaction with care; and improve quality of care at the end of life (Bischoff et al., 2013; Brinkman-Stoppelenburg et al., 2014).

An understanding of the importance of ACP is not lacking in the healthcare world. However, methods to standardize documentation for ACP services and use of appropriate Current Procedural Terminology (CPT) codes for these services are not routinely utilized. Appropriate utilization of these codes is important as CPT codes are used to report medical procedures and services to public and private health insurance programs for claims processing and reimbursement (American Medical Association, 2018). Additionally, standardized documentation and CPT code usage for advance care planning services could promote the fourth goal of the Quadruple Aim by easing the workflow of healthcare providers.

Administrative personnel within a large Midwestern healthcare organization recognized this gap in practice that required a change. A standardized means to document and code for these services would promote patient and organizational outcomes through increased provider productivity awareness, increase provider incentive to engage in ACP discussion, and potential increase in future reimbursement. It also aligns with the program's strategic mission to improve patient outcomes through advance care planning services. A standardized documentation

protocol using CPT codes for advance care planning was one way to address this gap in practice and promote quality, cost-effective care delivery a large Midwestern healthcare organization's home based primary care (HBPC) program.

### **Problem Statement**

Healthcare providers recognize that advance care planning is a critical aspect of patient management; however, advance care planning can often be difficult for providers due to the nature of ACP discussions and competing work tasks. Advance care planning discussions can be emotional for both the provider and the patient, and may require extensive, lengthy discussions before a decision is made. Additionally, implementing ACP services may be in competition with other important clinical and organization tasks, tasks that are sometimes more intensively monitored (Lund, Richardson, & May, 2015). Advance care planning services are complex and time consuming interactions with sometimes uncertain and emotive outcomes, and can quickly become incompatible with other clinical demands. These barriers, paired with the ever-growing demand for healthcare providers to meet quality measures and secure financial reimbursements for their organizations, result in providers questioning how to best provide important ACP services to their patients while also meeting the needs of the organization. This could lead to a strain in provider satisfaction, which could negative impact all goals listed in the Quadruple Aim.

A home based primary care program, part of a large Midwest healthcare system, identified that this is a problem that required a change to better meet the needs of the patient, the providers, and the organization. Advance care planning is a major aspect of patient care delivery at this home based primary care program, largely in part to the unique population in which they serve. Most patients within this program are direct referrals from the system's insurance health plan, because they have been designated as "high utilizers" of health care services with

associated high costs of care (Home Based Primary Care, 2017). This patient population is often comprised of individuals with complex, chronic and disabling diseases (Edes et al., 2014) and individuals who may be nearing the final stages of their lives. This aspect of care is so important that all newly enrolled patients to the HBPC program are encouraged to have an ACP discussion with a healthcare provider within 60 days of enrollment. Often, this discussion is not limited to one encounter and ACP may occur at multiple points in a patient's care trajectory.

Providers at home based primary care are skilled at engaging patients in advance care planning discussions that promote patient outcomes, but these skills could be expanded upon to include appropriate CPT code utilization and documentation for these discussions. Appropriate billing and coding for advance care planning services have numerous benefits, including: greater revenue capture for visits targeting ACP, streamlining documentation (differentiating the ACP narrative from the standard evaluation and management documentation), more accurately describing services delivered through billing data (Rogers, n.d.), encouraging provision of ACP services, tracking the use of these services and the impact on patient outcomes (American Academy of Family Physicians [AAFP], 2015), and highlighting provider productivity.

Administrative personnel at HBPC recognized that these benefits could directly impact care at HBPC. While the HBPC program is not a fee-for-service program, staff members still utilize face-to-face billing codes because the administrators recognized the importance of remaining accountable for patient encounters. Using face-to-face billing codes allows administrators to track clinical staff work and quantify the work that is done at HBPC.

Administrators at HBPC recognized an opportunity for quality improvement using CPT billing codes for ACP services to better capture this quality work providers routinely engage in with patients and to increase provider productivity awareness. Implementing a standardized

documentation protocol using CPT codes for ACP services would align with this goal of maintaining accountability by promoting a better means of tracking the quality work providers engage in with patients; tracking of ACP outcomes such as hospitalizations, hospice use, and patient satisfaction; and encouraging provision of ACP services.

The only benefit that would not directly impact HBPC presently, but has potential in the future, would be the reimbursement for billing and coding of ACP services. Although ACP services codes are a contracted billable code through the insurer (Priority Health, 2017), due to HBPC's capitated per member/per month funding, increased use of billing and coding for ACP services would not impact reimbursement for HBPC. However, this outcome would be important in the future if the HBPC program expands to include additional payers that could be billed in a fee-for-service model that would result in greater reimbursement for ACP services. Additionally, if implementation of a standardized protocol for ACP proved to be successful at HBPC (which often serves as a pilot site for new initiatives), this protocol could be initiated at other departments within the larger organization who follow the more standard fee-for-service model. This would allow the organization to capture all the potential benefits of appropriate billing and coding for ACP services.

A Doctor of Nursing Practice (DNP) project was implemented at the HBPC program to answer the following clinical questions: Can quality, cost-effective care delivery by healthcare providers be improved by appropriate utilization of advance care planning protocols? Additionally, does staff knowledge at a HBPC program increase after an education session on a standardized documentation protocol using CPT codes for advance care planning? Finally, does a standardized documentation protocol using CPT codes for advance care planning increase post-acute and long-term care coding utilization (i.e. use of advance care planning codes) and increase

provider productivity awareness? Evidence from the literature and current trends in healthcare billing and reimbursement guided the development of a standardized documentation protocol using CPT codes for advance care planning at the HBPC program.

### **Evidence-Based Initiative**

A comprehensive literature review was conducted to explore a variety of aspects related to this topic and to guide practice change. First, literature was reviewed to identify common characteristics of home based primary care programs and the outcomes of home based primary care. Next, advance care planning was analyzed to identify barriers and facilitators of ACP and outcomes of ACP. Finally, current trends in billing and reimbursement of ACP were analyzed.

The literature review included a variety of articles with different levels of evidence. Levels of evidences, often depicted in a pyramid model (Appendix A), are assigned to research studies based on the methodological quality of the design, the validity, and applicability to patient care (Winona State University, 2017). This review included a total of 9 articles regarding home based primary care and 6 studies regarding advance care planning (Appendix B). Study designs included in the home based primary care review included high-level evidence with two systematic reviews (Stall, Nowaczynski, & Sinha, 2014; Totten et al., 2016). Study designs also included moderate-level evidence with one mixed-method study (Edes et al., 2014) study; two case-control studies (De Jonge et al, 2014; Reckrey et al., 2015); one retrospective cohort studies (Edwards, Prentice, Simon, & Pizer, 2014); one descriptive analysis study (Leff et al., 2015); one longitudinal study (North, Kehn, Bent & Hartman, 2008) and one case report (Beales & Edes, 2009). No low-level evidence (i.e. background information/expert opinion) was used for this topic.

Study designs included in the advance care planning review included high-level evidence with three systematic reviews (Brinkman-Stoppelenburg et al., 2014; Lund et al., 2015; Weathers et al., 2016). Study designs also include moderate-level evidence with two cohort studies (Bischoff et al., 2013; Silveira, Wiitala, & Piette, 2014); and one cross-sectional study (Rao, Anderson, Lin, & Laux, 2014). Lower level evidence, including background information and expert opinion in the form of grey literature (or material not commercially published), was also explored in this literature review.

### **Home Based Primary Care**

Home based primary care programs continue to gain increased popularity both in practice and in research. In practice, HBPC combines home-based care for medical management and care coordination, and may also include arranging or delivering long-term services and supports for the patient population (Totten et al., 2016). In the literature, researchers often investigate two major areas of HBPC: characteristics of HBPC programs and outcomes of HBPC.

**Characteristics of Home Based Primary Care Programs.** Many HBPC programs exist throughout the country and while the programs are not identical, they do share many commonalities. A major commonality among HBPC programs is the use of a team approach or interdisciplinary care. Multiple research studies, including two systematic reviews and one case-control study, reported the involvement of an interprofessional care team with a variety of healthcare professionals including physicians, nurse practitioners, physician assistants, nursing and licensed medical social workers (Reckrey et al., 2015; Stall et al., 2014; Totten et al., 2016). A common aspect of the team approach includes regularly scheduled meetings with the care team to discuss patient care (Leff et al., 2015; Stall et al., 2014).

In terms of patient characteristics, researchers performing a systematic review have found that patients who are frail, more ill, terminally ill or in higher risk categories benefit more from HBPC compared to those with lower levels of illness severity or disability (Totten et al, 2016). Despite these commonalities, there is a wide variation in the services provided by HBPC. Based on the current evidence, there is no apparent pattern of services associated with differences in patient outcomes; however, most interventions included assessment and coordination of patient care (Totten et al, 2016). Despite lacking a common pattern of service found in research literature, there is often agreement in research regarding the outcomes associated with HBPC programs.

**Outcomes of Home Based Primary Care Programs.** Researchers most often focus on the following outcomes for HBPC programs: cost, healthcare utilization, and individual and caregiver outcomes. In general, most researchers have found that HBPC programs result in organizational cost savings. One case study reported a 24% drop in total cost of care from \$38,000 to \$29,000 (Beales & Edes, 2009). In another longitudinal study, researchers reported a 1-year cost savings of more than \$1 million, with fewer hospitalizations accounting for 98% of the savings (North et al., 2008). Home based primary care programs have also shown to lower Medicare costs in multiple studies, which include one case-control study, one mixed-methods study, and a systematic review (De Jonge et al., 2014; Edes et al., 2014; Totten et al., 2016). These studies found that HBPC programs lower Medicare costs ranging from 11.7% to 28.1%. Additionally, a case-control study found that HBPC programs can also lower hospital costs. Many of these costs savings are related to changes in healthcare utilization.

Multiple studies of the role of HBPC on healthcare service utilization have been found in the research literature, with a primary focus on outcomes including emergency room (ER) visits,



specialty visits and hospitalizations. Two systematic reviews reported reductions in emergency room visits after a HBPC intervention and researchers found that ER visits were reduced from a range of 9.8% to 48% (Stall et al., 2014; Totten et al., 2016). Furthermore, one study listed in a systematic review found a 23% reduction in specialty visits after a HBPC intervention (Totten et al., 2016).

A reduction in hospitalizations is one of the most frequently reported outcomes of HBPC programs. In one systematic review, seven studies reported on substantial reductions in hospitalizations ranging from 23% to 84% as well as a substantial reduction in inpatient bed days ranging from 37.4% to 62% before and after enrollment in a HBPC program (Stall et al., 2014). Another systematic review reported similar findings and researchers reported that HBPC reduced hospitalizations (ranging from 7.9% to 84%) and hospital days (ranging from 36.5% to 69%; Totten et al., 2016). These findings are also supported by individual studies that reported on similar outcomes of reduced hospital admissions and hospital days. One mixed-methods study reported 25.5% significant reduction in hospital admissions (Edes et al., 2014) and another retrospective cohort study reported an absolute reduction in the probability of hospitalization of 5.8% in 1 year (Edwards et al., 2014).

Finally, individual and caregiver outcomes have also been addressed in the literature in a systematic review and one mixed-methods study. Home based primary care programs have been found to improve outcomes in patient satisfaction with care and quality of life, as well as a decrease in caregiver burden (Totten et al., 2016). Patients of HBPC programs also report “high satisfaction with HBPC team access, education, and continuity of care, which they felt contributed to fewer exacerbations, emergency visits, and hospitalizations” (Edes et al., 2014, p. 1955).

### **Advance Care Planning**

Extensive studies on the topic of advance care planning have been found in research literature, particularly as it relates to completion of advance directives, barriers/facilitators to ACP, and patient outcomes. While there is a robust amount literature regarding these topics, literature regarding billing and reimbursement for advance care planning services is lacking. Therefore, grey literature was analyzed to fill the gaps in the research literature with additional government, academic, and business knowledge.

**Completion of Advance Care Planning.** Current data regarding completion rates for advance care planning and advance directives vary based on the source. Researchers of one cross-sectional study based on 7946 respondents found that only 26.3% of respondents reported having an advance directive (Roa et al., 2014). The researchers found that the most reported reason for not having an advance directive was lack of awareness. Those who completed an advance directive were associated with having an older age, more education, and higher income and were more likely to have a chronic disease and a regular source of medical care. Advance directives were less-frequent among non-white responders and those who reported not knowing if they had an end of life concern.

This number varies substantially in comparison to another retrospective study of 6,122 participants that reported an increase in participants with advance directives from 47% in 2000 to 72% in 2010, likely due to increased use of durable power of attorney for healthcare documents (Silveira et al., 2014). Despite the inconsistency in the reports, the results still highlight the fact that many individuals still do not have an advance directive to direct their medical care. This may be due to the current barriers to ACP that persist in healthcare.

**Barriers and Facilitators to Advance Care Planning.** Lund et al. (2015) conducted a systematic review to investigate barriers and facilitators to advance care planning. They included 12 articles and found that key facilitators to advance care planning include a specially-prepared staff that utilized a structured approach to interactions surrounding advance care planning. Barriers to advance care planning included competing, concurrent work demands, the emotional and interactional nature of the patient-professional interactions around advance care planning, problems in shared decision making and preferences within and between healthcare organizations.

**Outcomes of Advance Care Planning.** There is extensive literature on the role of advance care planning on patient outcomes. Many articles have reported the correlation between advance care planning interventions and patient outcomes. Bischoff et al. (2013) found in their observational cohort study that patients engaged in advance care planning were less likely to die in a hospital, more likely to be enrolled in hospice, and less likely to receive hospice for 3 days or less before death. Additionally, individuals who had an advance directive, durable power of attorney, or an advance care planning discussion were significantly more likely to use hospice. While these researchers did not find a statistically significant difference in hospitalizations, Weathers et al. (2016) did find one study in their systematic review of randomized control trials that advance care planning interventions were associated with decreased hospitalization for nursing home residents and decreased use of resources.

Brinkman-Stoppelenburg et al. (2014) found similar findings in their systematic review that looked at two different types of advance directives: do-not-resuscitate and do-not-hospitalize orders. The researchers found that do-not-resuscitate orders reduce the use of cardiopulmonary support measures, hospitalizations and increased the use of hospice care. Do-not-hospitalize

orders were also shown to decrease hospitalizations and increase hospice use. Multiple studies, including two systematic reviews and one cohort study, have also found that advance care planning results in increased patient and family satisfaction with care (Weathers et al., 2016) and improved quality of care at the end of life (Bischoff et al., 2013; Brinkman-Stoppelenburg et al., 2014).

**Billing and Reimbursement of Advance Care Planning.** While advance care planning is a common topic in healthcare literature, research on billing and coding for advance care planning is more obscure. This may be due to the relative newness of advance care planning codes and reimbursement for these services. Much of the information regarding the billing and coding is found through public information sites. This grey literature can be used in conjunction with current evidence-based literature to help guide organizations in the best methods to promote advance care planning services and the appropriate coding of these services.

***Advance Care Planning Service CPT Codes.*** Advance care planning service CPT codes were recently approved for reimbursement by the Centers for Medicare and Medicaid Services and include two new CPT codes used to file claims for advance care planning services: 99497 (for the first 30 minutes of ACP) and 99498 (each additional 30 minutes of ACP) (Medicare Learning Network, 2016). These codes can be used for Medicare reimbursement for ACP as either an optional, covered benefit of the Medicare Annual Wellness visit (AWV) or as separate part B service when it is medically necessary (Medicare Learning Network, 2016). Medicare has not established any frequency limits on advance care planning and there are no place-of-service limitations for utilizations of the new advance care planning codes.

These services can be billed in both facility and non-facility settings by physicians and non-physician practitioners (NPP) including nurse practitioners and physician assistants

(Medicare Learning Network, 2016). The services must be billed with appropriate documentation which includes a summary of the discussion with the beneficiary or family members regarding the voluntary nature of the discussion (i.e. declaration of verbal consent), documentation regarding the explanation of advanced directives as well as a completion of these forms when performed (however not required), who was present, and time spent in discussion during the face-to-face encounter (CMS, 2016).

Reimbursement for advance care planning codes is based on relative value units, or RVUs. Relative value units are used to determine the fee for healthcare services provided to patients and are also used as a method to calculate the volume of work conducted by a healthcare provider in treating patients (National Health Policy Forum, 2015). For CPT code 99497, the work RVU is 1.50 (CMS, 2018a), with an estimated payment of \$81.55 (CMS, 2018b). The work RVU for 99498 is 1.40 (CMS, 2018a), with an estimated payment of \$71.02 (CMS, 2018b). These RVUs and associated payments would be adjusted based on geography and vary based on local coverage determinations. Utilization of these specific codes also allows CMS (and individual healthcare organizations) to track ACP services to analyze the impact of these services on patient outcomes (AAFP, 2015).

Several barriers to billing for advance care planning services exist which may limit the applicability of these new billing codes in clinical practice. First, providers must obtain verbal consent from the patient prior to initiation of a discussion regarding advance care planning. Beneficiaries, family members and/or surrogates must be given a clear opportunity to decline to receive advance care planning services and may also receive assistance for completing legal documents outside the scope of the Medicare program in addition to or without physician or NPP consultation (CMS, 2016).

Second, when ACP services are provided and billed for outside of the covered Medicare annual wellness visit (AWV), the beneficiary will be subjected to a potential deductible or coinsurance cost (CMS, 2016). Some healthcare organizations that do not participate in Medicare AWV but do provide ACP services will be faced with this dilemma regarding whether to subject the patient to potential cost if the provider utilizes the ACP CPT codes. Third, not all insurance providers cover reimbursement for ACP services. Finally, billing for ACP services is limited to physicians and NPPs including nurse practitioners, physician assistants, and clinical nurse specialists (Jones, Acevedo, Bull & Kamal, 2016). These limitations must be taken into consideration when implementing protocols to increase utilization of ACP billing codes.

### **Synthesis of the Literature**

This review identified common features in the literature regarding home based primary care programs and advance care planning, as well as identified detailed methods for appropriately documenting and coding for ACP services. Researchers have found that HBPC has the potential to significantly lower Medicare costs (De Jonge et al., 2014; Edes et al., 2014); substantially lower hospitalizations rates (Stall et al., 2014; Totten et al., 2016); and significantly lower hospitalizations in some studies (Edes et al., 2014) as well as reduce emergency room visits (Totten et al., 2016) and specialty care visits (De Jonge et al., 2014). Finally, patients of HBPC programs have reported high levels of satisfaction with their care (Edes et al., 2014; Stall et al., 2014).

Similarly, advance care planning supports positive patient outcomes. Patients who are engaged in advance care planning are often less likely to die in a hospital, more likely to be enrolled in hospice, and less likely to receive hospice for 3 days or less before death (Bischoff et al., 2013). Additionally, those individuals who had an advance directive, durable power of

attorney, or an advance care planning discussion were significantly more likely to use hospice. Specific advance care planning tools such as do-not-resuscitate (DNR) orders and do-not-hospitalize orders were shown to reduce the use of cardiopulmonary support measures (DNR orders only), hospitalizations and increased the use of hospice care (both DNR and do-not-hospitalize orders) (Brinkman-Stoppelenburg et al., 2014).

Despite these positive outcomes, advance care planning and completion of advance directives continues to be lacking in healthcare, with anywhere from 26.3% to 72% of patients reporting completion of advance directives (Roa et al., 2014; Silveira et al., 2014). This may be due to several identified barriers to advance care planning that include competing and concurrent work demands, the emotional and interactional nature of the patient-professional interactions around advance care planning, problems in shared decision making, and preferences within and between healthcare organizations (Lund et al., 2015). These barriers must be addressed to increase the number of patients with completed advance directives.

Advance care planning continues to be a major aspect of patient care delivery for providers at a HBPC program. Administration and staff at HBPC strive to provide optimal patient care, while also promoting the goals of the organization. Establishing a standardized documentation protocol using CPT codes for ACP services is one way to promote quality, cost-effective care. Additionally, this protocol may also help to address one of the major barriers of ACP regarding competing clinical and organizational work demands by quantifying the effort and productivity that is required for these discussions and by increasing provider incentive to engage in these discussions. This would support the use of ACP as a part of routine care delivery, just as other clinical tasks (such as diabetic foot exams) have become routine practice. This protocol will detail the use of CPT codes for ACP services in practice and will be based on

the current evidence to support utilization of the codes as well as guided by conceptual models for the creation and implementation of the protocol.

### **Conceptual Models**

Conceptual models and implementation frameworks serve as guides towards understanding a phenomenon of interest and guiding a change for the phenomenon within the organization. For this project, the phenomenon of interest was developing and implementing an evidence-based protocol for advance care planning services, which included utilization of appropriate CPT coding and associated documentation, to improve quality, cost-effective care delivery at a home based primary care program. The Chronic Care Model and the PARIHS Framework served as the conceptual model and implementation framework for the creation of a standardized documentation protocol using CPT codes for advance care planning at the HBPC program.

#### **The Chronic Care Model**

The Chronic Care Model (CCM) identifies essential elements of a health care system that promote high-quality chronic disease care (Improving Chronic Illness Care, 2017; Wagner, 1998). These elements include the community, which includes self-management support, and the health system, which includes delivery system design, decision support and clinical information systems (Appendix C). Each element includes a list of evidence-based change concepts, which, when used on combination, foster productive interactions between informed patients who take an active role in their care and the providers with resources and expertise. The result of this interaction is improved outcomes.

This project focused on the health system segment of the model and subsequent elements included in the health system. The goal of a health system is to create a culture, organization and



mechanisms that promote safe, high quality patient care (Improving Chronic Illness Care, 2017). Members of the health system, starting with senior leadership, must be motivated and prepare for change throughout the organization by translating improvement measures into clear goals and policies that promote system change. These policies must be supported with incentives for quality care and open communication among team members. The delivery design system assures delivery of effective and efficient clinical care and self-management support by defining roles and tasks among team members, using planned interactions to support evidence-based care, use of clinical case management services for complex patients, ensure regular care team-follow up, and delivery of culturally sensitive care. Decision support promotes clinical care that is based on evidence and patient preferences by utilizing evidence-based guidelines in daily clinical practice, sharing this evidence with patients to encourage participation, and using proven provider educational methods to maintain up-to-date practices.

Finally, clinical information systems organize patient and population data to facilitate efficient, effective care delivery by facilitating individual care planning, shared information with patients and providers to coordinate care, and monitoring performance of the practice team and care system. The CCM has been tested with research and studies in the literature support the use of the CCM as an integrated framework to guide practice redesign (Coleman, Austin, Brach, & Wagner, 2009) and supports improvements in clinical outcomes in primary care settings (Baptista et al., 2016).

The Chronic Care Model and the elements pertaining to the health system aspect of the model guided the development of a standardized documentation protocol using CPT codes for advance care planning. Senior leadership at HPBC had already called for change throughout the organization that would promote high quality and cost effective care. Expanding upon current

ACP practices to include a standardized protocol for documentation and appropriate CPT code use for these services would promote organizational incentives by increasing provider productivity awareness and tracking of ACP outcomes. To support delivery system design, the protocol defined the roles and tasks among team members, i.e. who can use CPT codes for ACP services and the appropriate documentation needed in the electronic health record. Additionally, evidence from the literature supported the creation of the standardized protocol.

Clinical information systems to support ACP are currently in place at HBPC in the form of the ACP Navigator, a feature of HBPC's electronic medical record (EMR), Epic. The ACP Navigator feature is used to document patients' goals of care and treatment preferences in one location in the patient's EMR. Furthermore, this Navigator feature can be used to monitor performance by tracking the number of individuals who have received ACP and have completed the necessary documents for ACP. This Navigator feature was used in conjunction with a standardized documentation protocol using CPT codes for ACP and served as the location in which providers documented ACP discussions and used CPT codes for these services.

The concept of decision support from the Chronic Care Model and the elements associated with this concept guided the delivery of the project to staff at HBPC. To embed a standardized documentation protocol using CPT codes into daily clinical practice, the project had to include an educational component with staff at HBPC to establish a prepared, proactive team. This educated team was better prepared to engage in interactions with an informed, active patient. This relationship promoted positive outcomes including quality patient care through ACP and improved organizational outcomes through increased CPT code use for ACP services and increased provider productivity awareness. While the CCM described the phenomenon of

interest and guided the creation of a standardized ACP protocol, the PARiHS Framework guided the implementation of the project.

### **The PARiHS Framework**

The Promoting Action on Research Implementation in Health Services (PARiHS) Framework was developed in 1998 as a framework to promote successful implementation of research into practice through an interaction of three core elements: evidence, context and environment (Appendix D) (Kitson, Harvey, & McCormack, 1998). The framework developed from the following equation:  $SI=f(E, C, F)$ ; where successful implementation (SI) equals the function (f) of the relationship between the nature of evidence (E), context in which the proposed change is set to be implemented (C) and the mechanisms by which the change will be facilitated (F) (Appendix E). The higher the ratings on each factor, the more likely to produce a successful change (National Collaborative Centre for Methods and Tools, 2011).

**Evidence.** Evidence is defined as “a combination of research, clinical expertise, and patient choice” (Kitson, Harvey, & McCormack, 1998, p. 150). Evidence will range from low to high, depending on the context of the evidence. For example, research evidence based on anecdotal or descriptive factors is considered low evidence, while systematic evaluations are high evidence. Clinical expertise may be defined as a widely divided professional consensus (low evidence) or high levels of consensus (high evidence). Lastly, patient choice takes the form of either overlooked patient options (low evidence) or a process of patient feedback and shared decision making (high evidence).

High levels of evidence support both HBPC programs and advance care planning. Home based primary care programs have been shown to lower Medicare costs (De Jonge et al., 2014; Edes et al., 2014); hospitalization rates (Edes et al., 2014; Stall et al., 2014; Totten et al., 2016),

emergency room visits (Totten et al., 2016) and specialty care visits (De Jonge et al., 2014). Advance care planning results in similar outcomes including patients less likely to die in a hospital, more likely to be enrolled in hospice, and less likely to receive hospice for 3 days or less before death (Bischoff et al., 2013) and reduced hospitalizations (Brinkman-Stoppelenburg et al., 2014). Advance care planning as an intervention itself is widely accepted by both clinicians and patients and has become more of a routine aspect of clinical care, as evidenced by the growing numbers of patients with advance directions (Silveira et al., 2014).

Additional aspects of ACP, including utilizing specific codes for these services, are also becoming more widely accepted by clinicians, as evidenced by the support of major healthcare organizations for using CPT codes for ACP services (AAFP, 2013) and the support of new coding models for ACP services by a large Midwestern healthcare system. This relationship between research evidence (high evidence for outcomes of ACP paired with low evidence for CPT codes for ACP services in the grey literature), clinical expertise (high evidence of clinician acceptance regarding ACP in clinical practice), and patient choice (moderate to high evidence of the growing trend of patients engaging in ACP) was considered throughout the implementation of this project. This evidence was provided to staff during an education session to promote the use of a standardized documentation protocol using CPT codes for ACP discussions.

**Context.** Kitson et al. (1998) define context as “the environment or setting in which the propose change is to be implemented” (p. 150). Context includes three core elements including culture, leadership and measurements. Culture at HBPC is highly patient centered and staff at the program are supported through a collaborative, interdisciplinary model of care delivery. Routine collaborative meetings and a focus on promoting quality improvement initiatives reveal the value that the organization places on the individual staff members and the program itself.

Leadership roles are clearly defined at HBPC. Additionally, staff at HBPC have their own clearly defines roles and responsibilities and staff actively work together to provide quality patient care.

To facilitate implementation of CPT codes for ACP services, administrative personnel at HBPC, the DNP student, and key members of the Health Education and Decision Making department at the organization established an ACP Billing Opportunities Work Group to serve as leaders for this project and to explore and develop standard work for ACP billing using the new ACP CPT codes, 99497 and 99498. This work group included individuals from organizational, payer, and patient perspectives. Finally, the HBPC program routinely monitors its system and services through patient and provider reported measures. The advance care planning CPT codes would allow administrative personnel to add to their current quality measures to assess patient outcomes associated with these codes including hospitalizations, hospice use, and patient satisfaction. Furthermore, the RVUs associated with the advance care planning CPT codes would allow administrative personnel to better track provider productivity numbers for services currently in practice but not being captures under the current coding system.

**Facilitation.** Facilitation is the type of support that is necessary to assist others to change their attitudes, skills, ways of thinking and working (Kitson et al., 1998). This is often initiated with the role of a facilitator, which is influenced by dimensions of personal characteristics, clarity of facilitator role and style of the organization. Staff members at HBPC maintain high levels of respect, authenticity and credibility due to close relationships they establish with patients enrolled in HBPC programs. Because their work is home based (and not in an office like standard office visit models), the staff must be flexible in their work as much of the work is provided in the field.

Additionally, due to the nature of ACP discussions, these services must be completed by empathic practitioners who provide consistent presence and support for the patient. An outside facilitator role, taken on by the DNP student, assisted in engaging staff at HBPC with this project to change ways of thinking and working. These core elements are high within the HBPC program, and in consideration with evidence and context, were used as outcome indicators (described later in this paper) and promoted the implementation of a standardized documentation protocol using CPT codes for advance care planning at the HBPC organization.

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

Home based primary care is a primary care program that is part of a large Midwestern health system, which provides patients the opportunity to receive all their routine medical care within their homes. This program was piloted at the health system in 2012 with 90 patients and has continued to expand yearly (Daly, 2013), with over 400 patients currently enrolled in the program. Currently, the program is funded through the health system's insurer, who provides a per member, per month capitated amount based on the current staffing model and costs of running the program. Although HBPC is not a fee-for-service program, administrative personnel at HBPC understand that they need to be accountable for patient encounters so staff members still utilize face-to-face billing codes. This allows HBPC administrative personnel to track clinical staff work and quantify the work that is being done within the program.

This new financial model supports the quality care that the providers at HBPC provide to their patients because the fee-for-service model would not be sustainable due to the limited volume of patients that are seen per day. Because this model is new, the administrative personnel at HBPC are actively working on how to best optimize the model to promote patient and program outcomes. Administration at the HPBC program had recognized the potential of

increased utilization of CPT billing codes for advance care planning services. These codes would better capture the quality care providers provide to their patients through increasing provider productivity awareness as well as promoting patient outcomes by providing greater incentive to engage in ACP discussions.

An organizational assessment, guided by Burke & Litwin's (1992) model of Model of Organizational Performance and Change (Appendix F), was conducted to identify an area of need at HPBC and identify the feasibility of conducting a project in this setting. The organizational assessment recognized that HBPC is a rapidly growing organization with supportive administration and staff that actively engage in ways to promote patient and organizational outcomes. The program has already shown to produce positive outcomes by decreasing inpatient and emergency room admission rates for the patients enrolled in the program by 47% (AHA Media, 2014). Continuing to address these patient outcome measures, as well as outcomes for the program, is a continuous quality improvement endeavor that would be supported by expanding on current face-to-face coding by increasing the use of CPT codes for ACP services.

In addition to patient outcomes, increasing utilization of CPT codes for ACP services would promote organizational outcomes. Increased utilization of these CPT codes would allow administration at HBPC to better track the quality care providers engage in with their patients (through the RVU system). It also would provide added incentive for providers to engage in ACP services, which further reinforced patient outcomes. While increased use of the codes would not increase reimbursement presently at HBPC (due to the current capitated funding system), these codes have the potential to result in increased reimbursement if HBPC began to include additional payers in the future that could be billed in a fee-for-service model.

Furthermore, this project may be duplicated to other settings within the larger organization that utilize a fee-for-service model for reimbursement. Finally, this project would align with the organizations strategic plan to improve patient outcomes through optimizing advance care planning services.

To address both patient and organizational outcomes, a standardized advance care planning protocol to help guide providers in their practice toward utilizing appropriate CPT coding and associated documentation for ACP services was implemented within the organization. A strengths, weaknesses, opportunities and threats (SWOT) analysis of the identified problem and solution is a crucial promoting the success and sustainability of a quality improvement project (Appendix G).

### **Strengths**

A major strength at HBPC was the key stakeholders directly involved in the practice. The management team and staff were open and supportive to new ideas and change, as exemplified by their willingness to accept DNP students and implementation of projects. Additionally, the small workforce allowed the change to spread easier and faster through the organization (Appendix H). The EMR system that was currently in use did not need to be updated to facilitate the use of new CPT codes, which allows for a smoother change in process.

Furthermore, utilization of CPT codes for ACP services allowed administrative personnel to better track the quality care providers deliver to their patients through increased RVUs associated with the codes, which would identify increased provider productivity awareness. Finally, the potential for increased provider productivity awareness added incentive for providers to engage in advance care planning discussions more frequently with patients, thus promoting patient outcomes.



**Weaknesses**

Weaknesses related to the problem and intervention included limited access to staff and potential staff inconsistencies with the changes. Because the providers responsible for coding a visit were typically off site, it was difficult to facilitate a time to discuss these changes with all staff members in one setting. Additionally, it could be difficult for staff going forward with these changes to remain consistent in utilizing the appropriate CPT codes as they often work individually at remote sites where there are less resources available to answer questions or clarify appropriate code use. Finally, the billing staff (also a key stakeholder) will have to closely monitor charts (especially in the initial phases of implementation) for the correct documentation required of the new CPT codes. If documentation was incorrect, the biller would then need to reconcile this with the provider. This could increase workloads for both parties involved. These factors strengthened the need for the educational component of this intervention.

**Opportunities**

There are multiple opportunities that resulted from the initiation of this quality improvement intervention. Initially, the development and implementation of the standardized protocol would promote increased coding for ACP discussions currently in practice but not being adequately captured in current CPT code utilization. A major incentive for the larger organization to billing for these specific codes would be the opportunity for increased financial gain by maximizing reimbursement for ACP services. This would improve the financial stability of the program as well as the cost-effectiveness of care.

While this was not something that could presently occur for HBPC (due to the capitated system from the insurer), it had potential for future reimbursement if HBPC began to enroll patients from additional payers who could be billed services in a standard fee-for-service model.

Additionally, this project could be initiated in other departments of the larger organization that do obtain reimbursement through the fee-for-service model. Furthermore, the increased incentives to utilize advance care planning codes could result in an increase in ACP discussions, which ultimately promotes patient goals and outcomes.

### **Threats**

The threats to this proposed intervention included increased workload and specific requirements for use of CPT codes for ACP services. The specific documentation associated with the CPT codes for ACP services may increase the workload of the practice, mainly for providers and the billing staff. The increased workload could also result in employee frustration if they do not understand the necessity of this documentation for the coding of the services.

Additionally, there are barriers to utilizing ACP CPT codes (as defined earlier in this paper). However, another local healthcare organization found success in implementing ACP CPT codes despite the known barriers, particularly the barrier of a potential patient deductive or co-pay. Through an internal audit, members of that organization found that 70% of those patients who were billed for ACP services paid no out of pocket expense (Health Education and Decision Making, 2017). Of the 30% remaining, the patients had a \$5 to \$15 co-pay.

## **Project Plan**

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

The purpose of this DNP project was to address the gap in providing quality, cost-effective care delivery at a home-based primary care program through increased utilization of standardized documentation and use of CPT codes for advance care planning services. This was accomplished by answering the following clinical questions: 1.) Can quality, cost-effective care delivery by healthcare providers be improved by appropriate utilization of advance care planning

protocols; 2.) Does staff knowledge at a HBPC program increase after an education session on a standardized documentation protocol using CPT codes for advance care planning; and 3) Does a standardized documentation protocol using CPT codes for advance care planning increase post-acute and long-term care coding utilization (i.e. use of advance care planning codes) and increase provider productivity awareness as evidenced by increased RVUs?

A standardized documentation protocol using CPT codes for advance care planning was developed and implemented by meeting the following objectives:

- Establish an ACP Billing Opportunities Workgroup to explore and develop standard work for ACP billing using CPT codes 99497 and 99498, with an initial meeting on 11/29/17 and for continued meetings as standard work develops.
- Develop a standard documentation protocol using CPT codes for ACP services, with the insight from the ACP Billing Opportunities Workgroup, that includes a detailed description of CPT codes for ACP services, how to document for these codes, and examples of use of these in practice through a case study by January 8, 2018. The protocol included both capitated (for HBPC) and non-capitated (for more standard fee-for-service models) options for use in practice. The non-capitated protocol could be utilized in other settings within the larger healthcare organization.
- Present capitated protocol to Director of Operations of Post-Acute Services and Regional Supervise of HBPC to approve for implementation by January 8, 2018.
- Perform a chart audit to evaluate current trends in billing for ACP services at HPBC by selecting charts of patients enrolled in HBPC in the last 60 days (the time frame in which an initial ACP discussion is projected to occur) by January 31, 2018. For a quality sample size, the DNP student audited the charts of at least 50% of the new

enrollees at HBPC in a 60-day time-period, with a goal of 30 charts. This was a simple random sample.

- Present at a monthly Operations Meeting with key stakeholders at HBPC (billing, providers, practice manager, regional supervisor director) to educate staff on the new protocol on February 19, 2018. This included a pre-/post-survey to be completed by clinical staff in attendance (Appendix I).
- Perform a second chart audit to evaluate new trends in billing (CPT code utilization with documentation and associated RVUs) for ACP services at HPBC by selecting charts of patients who had an ACP discussion in the three weeks following the education session by March 12, 2018.
- Disseminate findings regarding success of protocol (based on findings from chart audit) to key stakeholders, including members of ACP Billing Opportunities Workgroup, by March 27, 2018.

### **Type of Project**

The DNP scholarly project was considered a quality improvement project as it aims to initiate change via an intervention to promote practice improvement (Rouen, 2017).

Additionally, the institutional review board (IRB) at the Grand Valley University and the organization determined that the DNP project did not meet the definition of research (Appendix J). The intervention for the DNP scholarly project was a standardized documentation protocol for advance care planning using CPT codes for ACP services. The protocol was established based on evidence from research literature and grey literature to improve upon healthcare outcomes and workflow processes at a home based primary care program (Rouen, 2017).

### **Setting and Needed Resources**

This quality improvement project was conducted at a home based primary care program affiliated with a large Midwestern healthcare system. A team had been established at Grand Valley State University to assist the DNP student in the implementation of this project and included an organizational mentor (the Regional Supervisor of HBPC), a member with expertise in health systems leadership, and a project advisor with expertise in the DNP scholarly project. At the organization, an ACP Billing Opportunities Workgroup was established with individuals representing the organization and the insurer to explore and develop a standardized documentation protocol using CPT codes for ACP services.

The implementation of the standardized documentation protocol using CPT codes for advance care planning services was set to be initiated at an Operations Meeting at HPBC, which is comprised of all the staff working for HBPC. Consideration was given, after a discussion with the Director and Regional Supervisor, to narrow down the staff members involved in the meeting to those who would be directly responsible for coding for ACP services including physicians and nurse practitioners as well as inviting a representative from billing and coding. The enactment of this new protocol occurred in the community setting by physicians and nurse practitioners who bill for face-to-face patient encounters.

Several resources were necessary to complete this project. A major resource included staff time, which was spent in collaborative meetings to discuss the implementation of the project and during an educational session when the project was implemented. Additional resources for this education session were paper supplies for the pre/post survey and educational handouts. Finally, the EMR was utilized to collect and analyze data pre/post implementation of the protocol.

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

The design for this evidence-based initiative was guided by Kitson, Harvey and McCormack's (1998) PARIHS framework. The initiative was guided by the three core elements of this model: evidence, context and environment.

**Evidence.** Evidence derived from the literature review, both scholarly and through grey literature, informed the creation of a standardized advance care planning protocol. Healthcare data from CMS (2016) and The Medicare Learning Network (2016) supported the use of the new CPT codes for advance care planning. Clinician understanding of the evidence provided at an education session on the new protocol was assessed by a pre/post survey and was planned to be further assessed in the use of the new codes in future practice (as evidenced by a chart review before and after the educational session).

**Context.** In keeping with the culture of the HBPC organization, this quality improvement sought to promote quality, cost-effective care delivery by standardizing the way in which providers document and code for ACP services. This supported organizational goals and outcomes by increasing provider productivity awareness and promoting patient outcomes by encouraging ACP discussions. The protocol clearly defined which staff members can utilize these codes in their roles and how to appropriately use these codes, as well as appropriate documentation for the codes, in their own practice. Furthermore, the outcomes of this project would continue to be measured after the education session, following implementation, to monitor how these new service codes were utilized throughout the system.

**Facilitation.** The DNP student enacted the role of the facilitator of this quality improvement project to assist staff through this change. This role was enacted during the educational session and was completed with the goal of changing staff perspective and workflow towards increased utilization of new CPT codes for ACP services. Members of the ACP Billing

Opportunities Workgroup also served as facilitators in the use of CPT codes for ACP services in practice beyond the HBPC department and after the DNP student completed the project.

### **Participants**

The project included two participant populations:

1. Clinician population: Staff at home based primary care including physicians (MDs and DOs), nurse practitioners, physician assistants, social workers, registered nurses, billing specialist and administrative personnel (practice manager and Director of Operations of Post-Acute Services). This sample was limited to those who are directly involved in ACP services.
2. Patient population: Medical records of adult patients enrolled in a large Midwestern healthcare system's home based primary care program.

A convenience sample was used for the clinician population due to the easy access of these participants who are required by the program to be a part of the monthly Operations Meeting.

The patient population was a convenience sample of patients enrolled in the HBPC program with the only inclusion criteria being enrollment in the last 60 days as identified by the social worker responsible for new patient enrollment (n=40). From this initial sample, a simple random sampling was obtained resulting in the final sample that would be included in the pre-education session chart audit (n=30). This final sample met the projected patient population requirements of at least 50% of newly enrolled patient charts included in the audit and a goal of 30 charts total for a quality sample size. Data were collected from this sample from the initial day of enrollment through 60 days of enrollment (the time when an initial ACP discussion was suggested to occur). The post-education chart audit was conducted with a convenience sample of patients who had an ACP discussion three weeks after the education session (n=55).

**Measurement: Sources of Data and Tools**

Data collection was completed for both populations involved in the project (Appendix K) and was based on elements in the PARIHS framework. Data were collected from the clinician population using a pre-/post-survey in the form of a Likert scale with one optional, open-ended question at the educational session (Appendix I). The variables to be analyzed were provider knowledge, measured by change in clinician knowledge, and attitude towards documentation and coding for advance care planning services on the survey.

Data from the patient population were obtained through reviews of the patient medical records to assess for the second variable, practice change. This was measured by CPT code utilization for ACP face-to-face encounters, provider documentation associated with the CPT code utilization for ACP face-to-face encounters (i.e. patient voluntary consent; summary of conversation including length/complexity, who was present, and start/stop time or total minutes; form completion; and diagnosis) and RVUs for ACP face-to-face encounters at baseline and three weeks after the educational session. The data were collected manually. Additional baseline data were collected from all patients presently enrolled at HBPC (N=430) to better understand the current state of practice at HBPC for ACP services. Data obtained from both populations were de-identified to respect participant privacy.

**Steps for Implementation of Project**

Steps for implementation of the project were as follows (Appendix L):

1. Establish an ACP Billing Opportunities Workgroup to explore and developed standard work for ACP billing using CPT codes 99497 and 99498, with an initial meeting on 11/29/17 and for continued meetings as standard work develops.



2. Develop a standard documentation protocol (capitated and non-capitated) using CPT codes for advance care planning in conjunction with the ACP Billing Opportunities Workgroup by January 8, 2018
3. Present protocol to Director of Operations of Post-Acute Services and Regional Supervise of HBPC to approve for implementation by January 8, 2018
4. Use EPIC EMR to perform a chart audit to evaluate current trends in coding (including CPT code use and associated documentation) for ACP services at HPBC by January 31, 2018 (Appendix K).
5. Complete an educational session on the new protocol with clinician population, including a pre-/post-survey of clinicians in attendance (Appendix I), at a monthly Operations Meeting on February 19, 2018
6. Use Epic EMR to perform a second chart audit (based on a convenience sample of patients who had an ACP discussion three weeks after the education session) to evaluate new trends in coding for ACP services at HPBC (including CPT code use and associated documentation) (Appendix K) by March 12, 2018.
7. Disseminate findings regarding success of protocol (based on findings from chart audit) to key stakeholders, including members of ACP Billing Opportunities Workgroup, by March 27, 2018
8. Defend the final project at the DNP student's university by March 27, 2018.
9. Upload the final protocol to a protected network drive by April 19, 2018

### **Project Evaluation Plan**

The final project was evaluated based on the following:

- Clinical Question 1: Can quality, cost-effective care delivery by healthcare providers be improved by appropriate utilization of advance care planning protocols? This was evaluated based on acceptance of the standardized documentation protocol using CPT codes for advance care planning services by administrative personnel and key stakeholders as a sustainable aspect of clinical care delivery at HBPC going forward. It was also evaluated by the projected return on investment for ACP CPT code use through RVUs and estimated reimbursement associated with the use of these codes.
- Clinical Question 2: Does staff knowledge at a HBPC program increase after an education session on a standardized documentation protocol using CPT codes for advance care planning? This was evaluated based on pre-/post-survey (Appendix I), which analyzed change in clinician knowledge gained and attitudes towards the protocol before and after the educational session.
- Clinical Question 3 Does a standardized documentation protocol using CPT codes for advance care planning increase post-acute and long-term care coding utilization (i.e. use of advance care planning codes) and increase provider productivity awareness as evidenced by increased RVUs? This was evaluated based on data collected from the pre-/post chart audit, through manual data collection, by assessing for changes in CPT code utilization consistent with the codes provided in the protocol and associated RVUs (Appendix K).

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

Ethics and human subjects' protection was addressed with the institutional review board (IRB) affiliated with the large Midwestern health system due the involvement of clinician and patient data in this project. Both IRBs determined that the quality improvement project did not

meet the definition of research, and therefore approval from the IRB was not required (Appendix J). Data collection began following IRB review. All data collected was de-identified. The data was stored on the health system's internal network, and that data was not stored, shared, or saved on a thumb drive, in cloud storage, or on any Grand Valley devices (including transfer of data by GVSU or personal email). Only the project team had access to the data and the data were only used for completion of this project.

### **Budget**

Most of the expenses for implementation of the standardized protocol for advance care planning within HBPC were related to the time spent by the DNP student (an in-kind donation) and for the educational session to educate staff on the protocol (Appendix M). This session was conducted during a pre-planned monthly Operations Meeting, which all staff members were required to attend. The educational session excluded non-billing staff for cost savings, and included only those parties directly involved with billing or ACP services including physicians, nurse practitioners, social workers, registered nurses, and administrative personnel (practice manager and the Director of Operations). Projected costs were based on the staff members' time to partake in the educational session and complete a 5 question pre-/post-survey (approximately 15 minutes). The estimated cost of the educational session was \$331.30.

### **Stakeholder Support**

Stakeholder support is crucial in the success of an implementation initiative such as this project to improve upon quality, cost effective care delivery at a HBPC program. Key stakeholders, including administrative personnel and the regional supervisor, had identified a gap in care delivery at HBPC which could be improved to promote organizational outcomes and had shown support for a DNP student to initiate a quality improvement plan aimed at closing this gap

(Appendix N). This desire to close the gap in care delivery was also felt by organizational members outside of the HBPC department, as evidenced by the willingness of members of the Health Education and Decision Making department in establishing an ACP Billing Opportunities Workgroup to facilitate implementation of this standard work for ACP billing. The creation of a standardized advance care planning documentation protocol using CPT codes helped guide clinicians at HBPC, predominantly the physicians and nurse practitioners who are also key stakeholders, towards optimizing their face-to-face encounters with patients by increasing utilization of ACP service CPT codes.

Outside stakeholders were also impacted by this intervention. Patients were impacted by the barriers of advance care planning service codes, as they may be responsible for copays and deductibles if this code is billed. Furthermore, the healthcare system's insurance company was also involved in this project to determine payer perspectives regarding the use of CPT codes for ACP services. Whenever a change is implemented, it is important to address how key stakeholders will be impacted to formulate the most appropriate process for change and to promote the sustainability of the initiative.

### **Sustainability**

Sustainability is a crucial aspect to consider when planning and implementing a quality improvement initiative. Without sustainability, an organization risks having to solve a problem repeatedly. To promote sustainability, the DNP student considered three main categories: staff, organization and process (Minnier, 2014). Staff sustainability was supported by engagement and education provided at the education session, as well as through a supportive leadership who believed in this change. Staff sustainability was supported by providing the educational session materials to administrative personnel at HBPC for ongoing staff education. Process sustainability

was supported the delivery of the protocol (capitated and non-capitated) to the organization for future use in practice. Additionally, reports generated out of Epic regarding the RVUs generated from new CPT service codes could be used for future contract negotiations or provider evaluations. Organizational sustainability was supported by the infrastructure, which was already primed and ready to utilize new CPT codes without having to change the EMR, and the culture, which was open to change as evidenced by the history of prior DNP projects.

The initiation of an ACP Billing Opportunities Workgroup will also promote sustainability and will continue to work with ACP services beyond the timeframe of the DNP project. This workgroup is highly invested in the implementation of ACP CPT codes for ACP services, and the development of this group was an unintended consequence of the DNP project. This workgroup supports organizational buy-in as it includes members of the HBPC program and members from the larger health system. In the future, the workgroup will also include a representative from the insurer to guide a successful implementation of ACP CPT codes into routine patient care delivery. The ACP Billing Opportunities workgroup will serve as a vehicle to continue this quality improvement initiative beyond the timeframe of the DNP project, and beyond the HBPC care setting into different settings within the health system if implementation is successful. The HBPC program often serves as a pilot site for new initiatives with the goal of spreading the initiatives system wide. Finally, a new DNP student will follow the current student and can assess success of the standardized documentation protocol in the future as a part of her Immersion experience to ensure long term sustainability.

### **Implementation of ACP CPT Codes**

Unfortunately, implementation of the CPT codes for ACP services was not able to be completed during the timeline of this project. During the development phase of this project, the

ACP Billing Opportunities Workgroup sent a project proposal to the healthcare system's management operating system. This project proposal requested to have the assistance of a Medicare Intermediary expert to work with the ACP Billing Opportunities Workgroup to assist in the development of an implementation plan for ACP CPT codes in practice. A Medicare Intermediary expert has been critical to the success of other billing workgroups in the state to receive Medicare support for the billing change.

Despite multiple attempts to expedite this process, the project proposal requesting the assistance of a Medicare Intermediary expert was not approved during the timeline of this project. This was likely due to the many system wide changes that were occurring at the same time as this project, including the transition to a new electronic medical record for the whole healthcare system. The goal of the ACP Billing Opportunities Workgroup was to receive support from the organization (through collaboration between stakeholders from HBPC and the organization's Health Education and Decision Making group) and the payer (through the Medicare Intermediary expert). Without one of these factors, the implementation of CPT codes for ACP services would be at risk for sustainability. Because of this, implementation of the ACP CPT codes was placed on hold until all members of the ACP Billing Opportunities Workgroup, including the Medicare Intermediary expert, could come together to formulate the implementation strategy. However, the DNP project continued, with the modification of delaying implementation of ACP CPT codes presently, to assist in preparing staff at HBPC for appropriate timing of implementation and to determine project outcomes.

### **Project Outcomes**

Included in the implementation plan for the quality improvement initiative was an evaluation of project outcomes. The following outcomes were realized following this quality improvement initiative.

### **Current State of ACP Services at HBPC**

As the DNP project progressed, key stakeholders at HBPC including the Regional Supervisor and the practice manager requested to expand the project to include a baseline summary of ACP services at HBPC. This would allow key stakeholders to better understand the current state of ACP services and recognized gaps in care that would need to be addressed to promote quality care delivery at HBPC.

A retrospective chart analysis was completed for all patients enrolled at HBPC (N=430) to better understand the current state of ACP in the practice (Appendix O). The following variables were analyzed from the data: number of patients with documented resuscitation order; number of patients with do not resuscitate (DNR) code status forms uploaded to the chart; number of patients with a validated DNR form; number of patients with documented durable power of attorney (DPOA); number of patients with DPOA forms uploaded to the chart; and number of patients with a validated DPOA form. Data were analyzed using descriptive statistics.

**Resuscitation Order.** Resuscitation order refers to the level of medical intervention for resuscitation that a patient wishes to receive should the need arise. While specific terminology may vary based on the location, the most common resuscitation orders listed in the patient's EMR at HBPC include Full and Do Not Resuscitate (DNR). Full code includes the use of all resuscitation measures to keep a patient alive. Do not resuscitate would indicate that the patient does not want CPR (or other resuscitative measures) if their heart or breathing stop. Requests to

include or exclude certain interventions can be included in the DNR paperwork per the patient's preferences.

At HBPC, a total of 98% (n=219) of patients had a documented resuscitation order listed in the electronic medical record. Of those patients, 55% (n=235) were documented as DNR and 43% (n=184) were documented as a full code. The resuscitation order of the remaining 2% of patients (n=11) was not listed. This was due to unclear documentation, patient refusal of ACP services, or ACP not yet being addressed.

Of those with a DNR status, 67% (n=158) had formal documents uploaded to the chart and 33% (n=77) did not have formal documents unloaded. Formal documents for full code status are not required, therefore they were not included in the data collection. The most common reasons for the lack of DNR forms included waiting on witness signatures or completed forms not yet being provided from the family.

Forms that are uploaded must meet the following requirements to be considered validated, legal documents in the state:

- 1) the declarant/the declarant's advocate must sign and date the form;
- 2) the declarant's attending physician must sign and date the form on or after the date of the declarant; and
- 3) two witnesses over the age of 18 (at least one who is not a family member or heir) must sign on the same date as the declarant (Legislative Counsel, State of Michigan, 2018).

Based on these requirements, 64% (n=99) of the DNR forms were considered validated, and 37% (n=59) were not validated most often due to issues with signatures and dates.



**Durable Power of Attorney.** A durable power of attorney (DPOA) is an individual appointed by the patient to handle specific health, legal and financial responsibilities. At HBPC, documentation of a medical DPOA is an essential part of the ACP discussion. Based on the baseline chart audit, 81% of patients (n=347) had a medical DPOA documented in the chart, while 19% did not (n=83). Of those with a medical DPOA listed in the chart, 80% (n=277) had DPOA forms uploaded and 20% (n=70) did not. The causes for those who did not have a DPOA documented or DPOA forms uploaded were consistent with those listed above under resuscitation orders. Validation of DPOA forms includes:

- 1) patient signature and date;
- 2) two witness signatures with dates to match patient signature; and
- 3) patient advocate acceptance signature (Michigan Legislature, 2018).

Of those with DPOA documents uploaded, 68% (n=188) met the requirements to be validated, 27% (n=74) were not validated most often due to issues with signatures and date, and 5% (n=15) were guardianship letters that had expired.

**Summary.** Overall, these results reveal that a substantial number of patients at HBPC have resuscitation order or advance directives addressed, which is in line with the goals of staff at HBPC to engage all patients in ACP discussions. Despite the number of patients with ACP addressed, a large percentage still lack the formal documents and specific documentation requirements for these forms to be considered legal and validated. Most often these forms were not considered validated because they lacked a key element of correct dates for signatures. While certain patients are lacking the required forms for resuscitation status and DPOA, the team at HBPC is actively seeking to retrieve or correct these forms as to ensure that the patient's wishes are clearly documented in the chart. With an understanding of this baseline data, staff

members at HBPC are actively engaging in discussions on next steps to address this gap in practice and promote quality care at HBPC through their ACP services.

### **Clinical Question 1**

The first clinical question was as follows: Can quality, cost-effective care delivery by healthcare providers be improved by appropriate utilization of advance care planning protocols? This evaluation was based upon the acceptance of the standardized documentation protocol using CPT codes for advance care planning services by administrative personnel and key stakeholders as a sustainable aspect of clinical care delivery at HBPC for future practice. It was also evaluated by the projected return on investment for ACP CPT code use through RVUs and estimated reimbursement associated with the use of these codes.

It is well understood that ACP promotes positive outcomes; and newer evidence also suggests that correct CPT code utilization and documentation for ACP services promotes positive outcomes as well. Administrators at HBPC recognized the ability of ACP CPT codes to optimize ACP services, yet lacked a standardized plan for implementing these codes. The standardized protocol helped to fill that void.

The standardized documentation protocol using CPT codes for advance care planning services (Appendix P) provided to administrators at HBPC included the following:

- Description on how to code for ACP services
- Documentation requirements for ACP CPT codes
- Benefits and barriers to ACP CPT codes
- Examples of ACP CPT codes in practice
- Current state of practice
- Return on investment from utilization of ACP CPT codes

The return on investment (ROI) for advance care planning CPT codes was included in the protocol to strengthen the support for implementation of CPT codes for advance care planning services at HBPC. The ROI for ACP CPT code use included projected increases in RVU and projected reimbursement for a standard fee-for-service model practice. The ROI for ACP CPT codes was limited to 10 patient charts that were included in the second chart audit as described in the participant section of the project plan. These 10 charts were selected because total time spent on ACP services was documented and differentiated from the time spent counseling and coordinating patient care. The total number of RVUs associated from the 10 face-to-face patient encounters that included an ACP discussion were 40.9. This estimates to a total of \$2,290.80 for financial reimbursement for face-to-face patient encounters for both the evaluation and management time and the ACP service.

The 10 patient charts were then analyzed with the use of ACP CPT codes to determine projected RVUs and associated reimbursement. With the use of the ACP CPT codes, total RVUs increased to 62.9 and financial reimbursement increased to \$3,525.10. These findings suggested that HBPC missed opportunities on 22 RVUs and (if functioning in a standard fee-for-service model) reimbursement of \$1,234.30 on 10 single face-to-face patient encounters where ACP was discussed. When putting this in the perspective of over 400 patients, many of whom have had at least one advance care planning discussion, HBPC could seek to gain even greater levels of RVUs, thereby promoting quality, cost-effective care delivery.

The final protocol was presented to key stakeholders at HBPC including the Director of Post-Acute Services and the Regional Supervisor at HBPC. These key stakeholders had already expressed their interest in initiating CPT codes for ACP services, and the protocol (particularly the ROI for ACP CPT codes) reinforced that desire to begin utilizing ACP CPT codes. The

protocol was verbally accepted by these key administrative personnel and provided to them to serve as a care delivery guideline for correct documentation and coding of ACP services.

### **Clinical Question 2**

The second clinical question was as follows: Does staff knowledge at a HBPC program increase after an education session on a standardized documentation protocol using CPT codes for advance care planning? This was evaluated based on pre-/post-survey (Appendix I), which was created to analyze a change clinician knowledge gained and attitudes towards the use of CPT codes for ACP services following an educational session. Staff were provided an educational handout (Appendix Q) summarizing ACP CPT codes. The resource included the following information:

- Description on how to code for ACP services
- Documentation requirements for ACP CPT codes
- Benefits and barriers to ACP CPT codes
- Examples of ACP CPT codes in practice

The educational session included a completion of the pre-survey before and the post-survey after the session, as well as allowed a time for questions and answers. Results were analyzed by descriptive statistics and the signed rank test to determine statistical significance.

The pre-survey and post-survey (Appendix I) were administered to a total of 14 clinicians at HBPC before and after the education session. The disciplines included social workers (SW, n=3), care managers/registered nurses (CM, n=6), and providers (n=3 physicians and 2 nurse practitioners). The session was missing one nurse practitioner. The pre-test included five questions rated on a Likert Scale (1-5), and were identical to post-test questions. A response of five indicated the participant strongly agreed with the statement and a one indicated the clinician

strongly disagreed with the statement. The post-test also included an open-ended question for staff feedback which stated, “Are there any additional comments you would like to tell us?”

**Pre-Survey Results.** Questions one through three focused on staff knowledge regarding CPT codes for ACP services. Question one stated, “I can describe different methods of billing for advance care planning services.” Question two stated, “I can describe the CPT codes used to bill for advance care planning services.” For both questions, 86% (n=12) of staff stated they strongly disagreed or disagreed with that statement. Question three stated, “I can describe the documentation required for the use of advance care planning codes”, and 79% (n=11) stated they strongly disagreed or disagreed with that statement.

Questions four and five focused on staff attitude regarding CPT codes for ACP services. Question four stated, “I feel confident in billing and coding of advance care planning services” and 85% (n=12) of staff stated they strongly disagreed or disagreed with that statement. Question five stated, “I feel additional coding options for advance care planning services would be beneficial to my practice”, and 64% (n=9) of staff stated they strongly disagreed, disagreed or neither agree nor disagree with that statement.

These findings remained constant when the results were broken down by role at HBPC. For question 1, 100% (n=3) of SW strongly disagreed, 83% (n=5) of CM strongly disagreed or disagreed, and 80% (n=4) of providers strongly disagreed or disagreed. For question 2, 100% (n=3) of SW strongly disagreed, 83% (n=5) of CM strongly disagreed or disagreed, and 80% (n=4) of providers strongly disagreed or disagreed. For question 3, 100% (n=3) of SW strongly disagreed, 67% (n=4) of CM disagreed, and 80% (n=4) of providers strongly disagreed or disagreed.

For question 4, 100% (n=3) of SW strongly disagreed, 84% (n=5) of CM strongly disagreed or disagreed, and 80% (n=4) of providers strongly disagreed or disagreed. For question 5, 67% (n=2) of SW strongly disagreed, 67% (n=4) of CM disagreed, but 100% (n=5) of providers agreed or strongly agreed. None of the respondents included an answer to the open-ended question included in the post-survey.

A summary of the results (Appendix R, S) indicated minimal staff knowledge regarding the CPT codes for ACP services, as evidenced by low number responses to the first three knowledge based questions. These findings are not surprising as the use of these new ACP CPT codes within the organization are minimal, with the Director of HBPC projecting that these codes had only been utilized twice within the whole healthcare system.

Staff attitude regarding their confidence with CPT codes for ACP services and the benefits of said codes also appears to be lacking, likely due to the limited knowledge regarding the applicability and use of ACP CPT codes. However, providers at HBPC appear open to new billing methods as evidenced by their positive response to question five. This was likely due to their prior knowledge of capturing billing and coding for face-to-face patient encounters.

**Post-Survey Results.** In all cases, the post surveys had higher ratings on average (i.e. more agreeing responses). For the knowledge based questions 1, 2, and 3, 93% (n=13) of staff responded with agree or strongly agree. For the attitude based question 4, 57% (n=8) of staff responded with agree. For question 5, 64% (n=9) of staff responded with agree or strongly agree.

When broken down by role, the post survey results continued to have higher ratings on average. For question 1, 100% (n=3) responded with agree, 83% (n=5) of CM responded with agree, and 100% (n=5) of providers responded with agree or strongly agree. For question 2,

100% (n=3) of SW responded with agree or strongly agree, 83% (n=5) of CM responded with agree, and 100% (n=5) of providers responded with agree or strongly agree. For question 3, 100% (n=3) of SW responded with agree or strongly agree, 83% (n=5) of CM responded with agree, and 100% (n=5) of providers responded with agree or strongly agree.

For question 4, 100% (n=3) of SW responded with neither agree nor disagree or agree, 83% (n=5) of CM responded with neither agree nor disagree or agree, and 100% (n=5) of providers responded with agree. For question 5, 66% (n=2) of SW responded with agree or strongly agree, 50% of CM responded with agree (n=3), and 80% (n=4) of providers responded with agree or strongly agree.

A summary of the results (Appendix R, S) indicated an overall positive response from staff, regardless of role, to the educational session on CPT codes for ACP services for both knowledge and attitude. The most positive response came from providers, likely due to their familiarity with billing and coding. Social work and CM also responded positively, but the clarity of their role in billing within the “incident to” clause was presently not as clear. This presumably impacted their attitude towards CPT codes for ACP services. The “incident to” clause for SW and CM will be explored further within the ACP Billing Opportunities workgroup and will be reintroduced at time of implementation.

**Comparison of Pre-Survey Versus Post-Survey.** A comparison of the pre-survey and post-survey results was completed to further synthesize the outcomes of the educational session. When compared to pre-survey results, at the  $\alpha=0.05$  level, questions 1 through 4 were all significantly different between the pre- and post-surveys. In a comparison of question 1 (pre-to post), the p-value was 0.0002; question 2 had a p-value of 0.0001; question 3 had a p-value of

0.0002; and question 4 had a p-value of 0.0002. Question 5 was not statistically significant (p-value of 0.0625).

The DNP student then compared total pre-survey results to post-survey results to assess effect size to quantify the total difference between the surveys. This was important because the sample size of the clinician population was small (n=14), and therefore may not be considered large enough to test statistical assumptions. The mean score for the pre-survey was 9.4; with one being strongly disagree to five being strongly agree for a total of five questions adding up to 25. The mean score for the post-survey was 19.3. In comparing the two scores, the post-survey score increased by 39.6% representing a small to medium effect size statistically. Overall, this revealed that staff knowledge and attitude regarding CPT codes for ACP services had a positive change following the educational session and this session could be an important part of continued employee education.

### **Clinical Question 3**

The third clinical question was as follows: Does a standardized documentation protocol using CPT codes for advance care planning increase post-acute and long-term care coding utilization (i.e. use of advance care planning codes) and increase provider productivity awareness as evidenced by increased RVUs? This projected evaluation was to be based on data collected from the pre-/post chart audit, through manual data collection, by assessing for changes in CPT code utilization consistent with the codes provided in the protocol and associated RVUs, and documentation for advance care planning services (Appendix T).

Despite being unable to collect data regarding the implementation of ACP CPT codes, the DNP student performed a second, pre-education session chart audit to expand upon the current state at HBPC. This was a focused chart audit based upon a convenience sample of patients



enrolled in the HBPC program in the last 60 days. This chart audit focused on ACP CPT code usage and the associated documentation required to bill for these codes.

Forty patients were identified by the enrollment social worker as being enrolled in HBPC in the last 60 days. From this initial sample, a simple random sampling was collected resulting in the final sample that would be included in the chart audit (n=30). This final sample met the projected patient population requirements of at least 50% of newly enrolled patient charts included in the audit and a goal of 30 charts total for a quality sample size. Of the 30 charts, 28 patients had an ACP discussion with a provider within the first 60 days of enrollment. The remaining two charts were excluded from the data collection due to the lack of an ACP discussion.

The variables analyzed in the initial chart audit included CPT code utilization for ACP face-to-face encounters; RVUs associated with the current ACP face-to-face encounters; and whether current documentation aligned with the documentation requirements for ACP CPT codes. Documentation changes following the educational session were also audited in the electronic medical record. The following results were extracted from the second chart audit.

**Pre-Education CPT Code Utilization.** The following CPT codes were utilized: 99433 – Home Visit (1 out of 28), New Patient; 99345 – Home Visit, New Patient (25 out of 28); 99349 – Home Visit, Established Patient (1 out of 28); and 99350 – Home Visit, Established Patient (1 out of 28). The code 99345 accounted for 89% of the CPT codes used for the ACP encounters, while the other codes accounted for the remaining 11% of encounters. None of the audited charts utilized ACP billing codes for the ACP discussions (an expected finding as ACP CPT codes were not currently in practice at HBPC).

**Pre-Education Relative Value Units.** Relative value units were analyzed based on the CPT codes used for the 28 face-to-face patient encounters for ACP services. The total RVUs were 111.24. Relative value units with ACP CPT codes post implementation were unable to be collected. This was because of the inability to implement ACP CPT codes in practices during the timeline of this project. However, a projected ROI for advance care planning CPT codes (see section for Clinical Question 1) was created to determine potential increases in RVUs and reimbursement related to advance care planning CPT code use.

**Pre-Education Documentation.** The next variable, documentation, was broken down into four categories: consent, advance directives, attendance, and time. This was based upon the suggested documentation requirements proposed by CMS (2016), which include:

- A summary of the discussion with the beneficiary or family members regarding the voluntary nature of the discussion (i.e. declaration of verbal consent)
- Documentation regarding the explanation of advanced directives as well as a completion of these forms when performed (however not required)
- Who was present
- Time spent in discussion during the face-to-face encounter (which must be differentiated from the counseling/coordination time for the E/M code, if applicable)

The data collected was based upon the 28 patients charts that had an ACP discussion with a provider. Of these patients, only 21% (n=6) patient charts included documentation of consent, which was documented as “agreed to conversation”, or “declined conversation” as in the instance of one patient. The remaining 79% (n=22) did not include documentation of patient consent.

Documentation regarding the explanation of advance directives was minimal, with only 14% (n=4) of patient charts including this in the documentation. Despite this low number, many

of the charts included documentation of resuscitation order (94%, n=26) and DPOA (65%, n=17). One could assume that to have these discussions regarding resuscitation orders and DPOA, the provider would explain these advance directives. However, to qualify for the ACP CPT codes, this must be explicitly documented.

The next aspect of documentation includes who was present for the discussion. Documentation of attendance was included in 82% (n=23) of the patient charts. Finally, documentation of the time spent on the ACP discussion is required as these codes are time based. Only 36% (n=10) of the charts included specific time spent on ACP services. While many charts included total time spent with the patient, there was not a differentiation between the time spent on counseling and coordinating care and the time spent on ACP. Based on the initial chart analysis, none of the 28 face-to-face encounters for ACP discussions included all 4 documentation requirements for utilization of ACP CPT codes.

**Post-Education Documentation.** The DNP student completed a chart audit nearly three weeks following the educational session to determine if documentation for advance care planning services changed to better align with the documentation requirements for ACP CPT codes. The variables assessed were based upon the suggested documentation requirements proposed by CMS (2016) as listed in the pre-education documentation section. The sample was based on a convenience sample of patients who had an ACP discussion one week following the educational session by any HBPC provider (physician or NP). There was a total of 120 patients seen by a provider nearly three weeks following the educational session; 55 of those patients had an advance care planning discussion. The chart audit included five providers (2 physicians and 3 nurse practitioners). Four of the five providers attending the educational session on ACP CPT codes.

Documentation requirements according to CMS (2016) were assessed for each patient. None of the patients with an ACP discussion had documentation of verbal consent. There was a minor increase in the explanation of advance directives, and three patient charts (0.05%) did include documentation of an explanation of advance directives. Consistent with the chart audit completed before the educational session, many of the charts included documentation of resuscitation order (93%, n=51) and DPOA (91%, n=50).

The next aspect of documentation includes who was present for the discussion. Documentation of attendance was included in 75% (n=41) of the patient charts. Finally, documentation of the time spent on the ACP discussion was not included in any of the audited charts. Based on the post-educational session chart audit, none of the 55 face-to-face encounters for ACP discussions included all 4 documentation requirements for utilization of ACP CPT codes (consistent with the pre-educational session chart audit).

**Summary.** In summary, it was evident by the large percentage of patient encounters in the initial chart audit (93% of patients having an ACP discussion with a provider in the pre-educational session chart audit) that ACP is a crucial aspect of patient care delivery at HBPC. Current documentation regarding ACP was inconsistent; however much of the documentation did include aspects of the required documentation for ACP CPT codes. Additionally, the use of the ACP Navigator has increased consistency with ACP documentation and would serve as an ideal location to include all documentation for ACP CPT codes.

Documentation requirements that align with the CMS (2016) requirements for ACP CPT codes did not significantly improve following the educational session. There was an increase in documentation of DPOA status (65% pre-educational session, and 91% post educational session) and three charts also included documentation regarding the explanation of advance directives.

However, the educational session resulted in a small effect size statistically (less than 20% change before and after implementation) for changes in ACP documentation. The lack of a substantial change in documentation was likely due to it not being explicitly stated in the educational session that providers should begin documentation per the ACP service code guidelines as ACP CPT codes were not formally implemented at that time. Furthermore, not all providers attended the educational session.

Despite the lack of significant change in documentation, the educational session was still beneficial for staff knowledge regarding ACP CPT codes. Additionally, both chart audits identified three variables (consent, explanation of advance directives, and time spent on ACP discussions) that were most likely to be missed in documentation. This will strengthen the need for continued employee education regarding implementation of CPT codes for ACP services as well as a standardized documentation protocol to guide providers through the implementation process in the future.

### **Implications for Practice**

Implementation of CPT codes for ACP services had been a gap closure initiative at HBPC and aligned with the programs strategic plan to improve patient outcomes through advance care planning services. However, prior to this scholarly project, the organization did not have a standardized documentation protocol for CPT code use for ACP services to guide the implementation. The organization identified this as an area of need for the organization, to guide clinical practice change, and for the patient, to encourage provision of ACP services. The focus of this DNP scholarly project was on implementing this protocol to guide practice change. The project resulted in several strengths and successes, as well as some difficulties and weaknesses

and limitation to the project. Each of these topics, beginning with the relation to healthcare trends, will be addressed in the following section.

### **Relation to Healthcare Trends**

Healthcare organizations strive to reach or maintain the Triple Aim: to improve patient experience of care, improve health of populations, and reduce cost of care (Institute for Healthcare Improvement, 2009). More recently, this has expanded to include a fourth aspect – provider satisfaction – and is known as the Quadruple Aim (Bodenheimer & Sinsky, 2014).

A home based primary care program at a large Midwestern healthcare organization is no exception. Providers at HBPC are skilled at providing high quality patient care, particularly through advance care planning, which promotes the patient experience of care and the overall health of the patient population. However, this provision of patient care could continue to be improved with CPT codes for ACP services. These service codes align with the Quadruple Aim by improving patient experience of care, improving health of populations, improving financial outcomes, and promoting health care provider satisfaction.

Improving financial outcomes is an important aspect of any healthcare organization. This quality improvement project had major financial implications as evidenced in the projected ROI for ACP CPT codes included in the standardized documentation protocol. This increase in RVUs would be important for providers at HBPC for contract negotiations or evaluations. Furthermore, the higher numbers of RVUs would also more accurately depict the quality care providers at HBPC deliver to their patients, which is often not clearly reflected in provider productivity awareness, and encourage provider satisfaction with their work. Because providers at HBPC see fewer patients during the day than standard office visit models, it is important that

these face-to-face encounters accurately capture the quality work that practitioners provide to their patients.

Additionally, the increase in reimbursement would be beneficial for HBPC in the future if the program began accepting additional fee-for-service payers. The ROI for advance care planning CPT codes could support the implementation of CPT codes for advance care planning services in other departments within the larger health system that currently practice the fee-for-service model. Finally, utilization of ACP CPT codes would promote the tracking of ACP services and patient outcomes associated with these services. These implications incentivized the integration of a standardized documentation protocol using CPT codes for advance care planning into routine care delivery.

### **Project Strengths and Successes**

The DNP scholarly project resulted in several strengths and successes. Most notably, the project resulted in a standardized documentation protocol for CPT code use for ACP services to serve as a guide for implementation of ACP CPT codes. These service codes are highly valuable in clinical practice and have multiple benefits including: greater revenue capture for visits targeting ACP, streamlining documentation (differentiating the ACP narrative from the standard evaluation and management documentation), more accurately describing services delivered through billing data (Rogers, n.d.), encouraging provision of ACP services, tracking the use of these services and the impact on patient outcomes (AAFP, 2015), and better highlighting provider productivity.

Another strength of the scholarly project was the creation of a projected ROI based on the utilization of CPT codes for ACP services compared to evaluation and management codes alone. The ROI for ACP CPT codes identified missed opportunities that could have been captured with

the appropriate utilization of ACP CPT codes. For a total of 10 charts alone, HBPC could have captured 22 more RVUs and \$1,271.85 more in reimbursement (not presently, but if the program was a standard fee-for-service model) if the ACP CPT codes would have been utilized in addition to the standard evaluation and management codes for a face-to-face patient encounter with a physician, NP or PA. One could hypothesize that because ACP services are a major aspect of patient care delivery at HBPC (as evidenced by 98% of patients having some type of ACP discussion), these opportunities for greater RVU and revenue attainment could be exponential for the future of HBPC and the delivery of ACP services.

A major success of the DNP scholarly project was the opportunity to collaborate with members of HBPC, as well as members of the larger healthcare organization. Key stakeholders within the organization were supportive of the new initiative and recognized the benefits of ACP CPT codes. The DNP student's scholarly project included the formation of the ACP Billing Opportunities Workgroup, which included individuals from multiple specialties throughout the hospital including representatives from the system and payer. This group was largely invested in the implementation of the ACP codes and will continue to be involved in implementation beyond the timeframe of the DNP student's involvement. This supports the sustainability of the project long-term.

In addition to administrative and organizational support, there was evidence of staff support as well. Following the educational session, in all cases, the post surveys had higher ratings on average (i.e. more agreeing responses) when analyzed collectively with all respondents and when broken down by role at HBPC. Overall, this reveals that staff knowledge and attitude regarding ACP CPT codes had a positive change following the educational session.



Another strength of the scholarly project was the retrospective chart analysis of all patients presently enrolled at HBPC (N=430) to determine the current state at HBPC for ACP. This chart analysis identified those patients who had documentation of important aspects of ACP services, including resuscitation order and DPOA. Perhaps more importantly, it identified those patients who did not have these services completed or who did not have validated documents, which will allow staff at HBPC to address these missing elements in the future. Finally, the protocol and educational materials were based on evidence-based research and gray literature to guide clinicians in the use of CPT codes for ACP services. Despite these strengths and successes, the DNP scholarly project also included some difficulties and weaknesses.

### **Difficulties and Weaknesses of Project**

One of the largest difficulties encountered during the scholarly project was obtaining project proposal approval from the organization's management operating system. A request was initiated from the ACP Billing Opportunities Workgroup to the management operating system to provide the group with a Medicare Intermediary Expert as a resource for the implementation of the ACP CPT codes in practice. The Medicare Intermediary Expert would serve as a resource to the workgroup to ensure that the correct actions were being taken to implement the CPT codes for ACP services. Without this Expert, the workgroup would be at a risk of implementing the ACP CPT codes without the support of the payer. This would result in the organization potentially missing key elements that would be required to bill for these codes, putting the use of ACP CPT codes at risk for failing in practice.

The ACP Billing Opportunities Workgroup and key stakeholders at HBPC, including the Director of Operations and the Regional Supervisor, recognized that this resource would be crucial to the successful implementation of CPT codes for ACP services. Despite multiple

attempts to expedite this process, the Workgroup was unable to obtain approval from the management operating system within the timeline of the DNP student's project and implementation of CPT codes for ACP services was not completed with this current scholarly project. However, the DNP student continued to work closely with the ACP Billing Opportunities Workgroup until graduation and a future DNP student plans to continue working with HBPC.

A weakness to the project was in the staff educational session. The educational session did not have full staff attendance despite being required. One nurse practitioner was missing from the education session, which may have affected the post-education session chart audit as her charts were included in the audit. Furthermore, the "incident to" clause which would allow additional HBPC personnel involved in ACP discussions (i.e. social work and care managers) had not been fully addressed and is an area that will continue to be explored in the future by the ACP Billing Opportunities workgroup. This may have impacted how social workers and care managers responded to the survey. Finally, the billing specialist for HBPC was invited to the educational session, but did not attend. As the billing specialist is a crucial aspect in billing and coding, the educational material will be provided to her for review via email.

### **Limitations of Project**

Limitations to the DNP scholarly project were related to data collection and analysis. The data gathered in the baseline chart audit of all enrolled patients at HBPC and the second chart audit with limited charts were evaluated using qualitative data in addition to quantitative data. The qualitative data collection was subjective based on the DNP student's interpretation of the chart review. This could result in inconsistencies in the future if a second chart reviewer performed the same chart analysis. Furthermore, post-implementation data regarding the use of

ACP CPT codes and associated documentation could not be obtained due to the inability of ACP CPT codes to be implemented within the original timeline of the DNP scholarly project. Finally, the clinician population size was small (n=14), so results may not be generalizable to other settings.

### **Plans for Dissemination of Outcomes**

Dissemination of the final outcomes related to a standardized documentation protocol using CPT codes for advance care planning was first completed with key stakeholders within the HBPC program, specifically the Director of Operations and the Regional Supervisor and provided via email. Once approval was obtained from these parties, staff educational materials were disseminated to all staff who engage in ACP services at HBPC through an educational session. These materials were also provided to administrative personnel for ongoing continuing education. Furthermore, the protocol and educational materials would be available for dissemination to other departments within the organization based on the discretion of the Director of Operations.

A final presentation on the protocol including the results of the quality improvement project was completed with the DNP student's project team. Additionally, a poster presentation of the DNP student's final project was completed at the healthcare organization, where the audience included the public and the organization's research nurse. The final write-up was uploaded to Grand Valley State University's ScholarWorks ©. Finally, consideration was given towards dissemination of the DNP students work by publishing an article to a journal that focuses on palliative care or healthcare business, economics, or billing, to add to the literature which is currently lacking on advance care planning billing and coding.

### **Conclusion**

This project included a quality improvement initiative to support quality, cost effective care delivery at a large Midwestern healthcare system's home based primary care program through the implementation of a standardized documentation protocol using CPT codes for advance care planning. Healthcare providers at HPBC are skilled at providing advance care planning services to the unique patient population in which they serve. However, appropriate CPT codes were not effectively being utilized for these crucial, often time consuming and potentially repeated, conversations with patients and families. This resulted in the program failing to capture the benefits of appropriately documenting and coding for ACP services.

Additionally, provider productivity for advance care planning services was not accurately being captured with the current coding model. Capturing accurate provider productivity is an important measure for any organization, particularly one in which there are limited patient volumes such as the home based primary care program. Key stakeholders, including administrative personnel, recognized this gap in care delivery and were open to facilitating quality improvement initiatives to fill this gap. In summary, implementation of a standardized documentation protocol using CPT codes for advance care planning services addressed this gap in care and promotes quality, cost-effective care delivery at a HBPC program.

### **DNP Essentials**

The DNP Essentials are considered the core competencies for which all advance practice nursing roles are built (American Association of Colleges of Nursing [AACN], 2006). These competencies are integral components of the DNP education and therefore the DNP student integrated each DNP Essential into the final scholarly project. Each Essential will be explored and will include a description on how the Essential supported the quality improvement initiative.

#### **Essential I: Scientific Underpinnings for Practice**

Essential I encourages the DNP student to integrate nursing science and science-based nursing theories with knowledge from other disciplines to promote the highest level of nursing practice and practice change (AACN, 2006). This Essential was realized throughout the development of the DNP Project portfolio, which included a thorough organizational assessment guided by Burke and Litwin (1992), a systematic literature review to support an evidence-based practice change, and two theoretical frameworks to guide implementation. The DNP student also worked closely with key stakeholders within the organization to define the phenomenon of interest and develop a sustainable project plan.

### **Essential II: Organization and Systems Leadership for Quality Improvement and Systems Thinking**

Essential II encouraged the DNP student to enact the role of a leader within an organization to develop and evaluate care delivery approaches to meet current and future needs of the patients (AACN, 2006). This Essential was met when the DNP student completed a thorough organizational assessment to determine the current needs of the organization. This organizational assessment provided a foundation for the DNP student to develop a new care delivery approach, by developing a standardized documentation protocol for CPT code for ACP services, that would address both current and future organizational and patient needs. The DNP student ensured accountability for the quality of the project by educating staff on the new protocol, providing a budget for the protocol, and analyzing the cost-effectiveness of the initiative through a return on investment.

### **Essential III: Clinical Scholarship and Analytic Methods for Evidence-Based Practice**

Essential III encourages the DNP student to critically analyze evidence and translate evidence-based research into practice (AACN, 2006). The DNP student integrated this

competency into the project through a systematic literature review that guided the development of the protocol. The retrospective chart audits, which guided the return on investment, also provided meaningful evidence to the organization regarding the extent of ACP services at HBPC and how CPT codes for ACP services could improve upon these services already in practice. Furthermore, the DNP student served as a consultant for the organization based on an understanding of ACP CPT codes gleaned from current literature.

#### **Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care**

Essential IV encourages the DNP student to utilize health information technology (HIT) to evaluate and monitor outcomes of care (AACN, 2006). Throughout the project, the DNP student utilized HIT to generate reports of current CPT code utilization and associated RVUs and reimbursement. Furthermore, the DNP student navigated the EMR to extract data regarding current ACP services to establish an understanding of the current state of practice at HBPC. Finally, the use of the standardized documentation protocol using CPT codes for advance care planning services would allow administrative personnel to extract reports from the electronic medical record based on advance care planning CPT codes to analyze associated RVUs or patient outcomes.

#### **Essential V: Health Care Policy for Advocacy in Health Care**

Essential V encouraged the DNP student to critically analyze health policies and health related issues and influence policy makers at all levels (AACN, 2006). The DNP student worked directly with individuals at HBPC that directly influence program and organizational policies, including the Director of Operations and the Regional Supervisor. Furthermore, the DNP student participated in the ACP Billing Opportunities Workgroup, which also influences health

policy changes within the larger organization. The relationships with these policymakers provided the student with support in her quality improvement project.

### **Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes**

Essential VI encourages the DNP student to utilize effective communication skills to collaborate with intraprofessional and interprofessional teams to create health care change (AACN, 2006). The DNP student routinely integrated this Essential into practice while implementing her quality improvement project. The DNP student worked closely with individuals in her own profession, including clinicians at HBPC, as well as those outside her profession including social workers, administrative personnel, and members of the Health Education and Decision Making Committee. The DNP student led discussions with these individuals, as well as enacted the role of team member, to develop the quality improvement project.

### **Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health**

Essential VII encouraged the DNP student to analyze data related to individual and population health and synthesize the concepts to promote care delivery models that benefit clinical prevention and population health (AACN, 2006). The DNP student completed a retrospective chart audit to determine the current state of practice at HBPC. The data was analyzed to determine how the current state could be improved using a standardized documentation protocol for ACP services, which would promote provider productivity awareness and increased provision of these services. This protocol will guide future care

delivery for ACP services and can also be used to evaluate how these services are being utilized in practice.

### **Essential VIII: Advanced Nursing Practice**

Finally, Essential VIII described the role of the DNP student as an advance practice nurse (AACN, 2006). The DNP student enacted this Essential by designing an intervention based on nursing and other sciences, while also guiding individuals at HBPC throughout this transition. This quality improvement project linked practice, organizational, fiscal and population issues by addressing the implementation of standardized documentation protocol using CPT codes for ACP services. The outcomes of this project promoted organizational and patient outcomes.



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Appendix A

Levels of Evidence

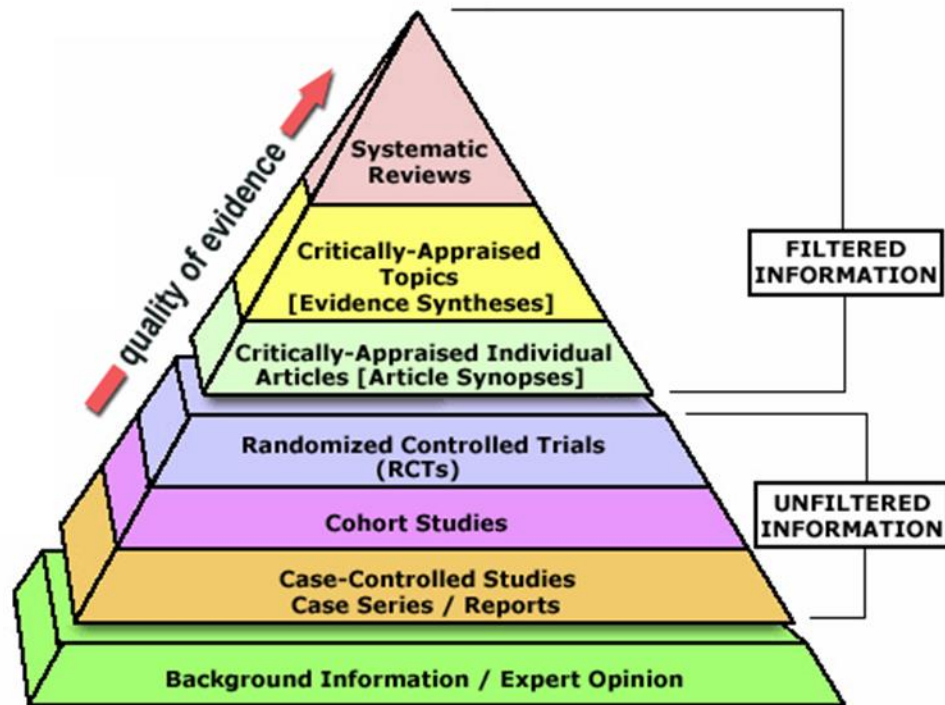


Figure 1: Hierarchy of evidence for qualitative questions. Reprinted from Evidence-Based Practice for Nursing: Evaluating the Evidence, by East Carolina University Library. Retrieved from <http://libguides.ecu.edu/c.php?g=17486&p=97640>.



Appendix B

Literature Review Table

Table 1. Literature review table.

Author, Year	Purpose	Sample	Design	Intervention /Measurements	Data collection & Attrition Rate	Data Analysis Technique	Major findings
Beales & Edes, 2009	This article focuses on the VA's HBPC program.	HBPC Veterans associated with the VA	Case report	N/A	N/A	N/A	In 2002, the VA conducted a national analysis of the use of HBPC and cost for the veterans who received care in HBPC. This analysis compared the 6 months before enrollment in HBPC with the next 6 months during HBPC. The results from 11,334 veterans in HBPC included reduction in hospital bed days of care by 62%, reduction in nursing home bed days of care by 88%, and an increase in all home care visits by 264%. The mean total VA cost of care dropped 24%, from \$38,000 to \$29,000 per patient per year. Building on this study, in 2006 the VA implemented a quality measure for HBPC that continually assesses the impact of HBPC on reducing inpatient use.

							comparing VA hospital and nursing home use during HBPC to the 6 months before enrollment in HBPC.
De Jonge et al., 2014	To determine the effect of home-based primary care (HBPC) on Medicare costs and mortality in frail elders.	HBPC cases (n = 722) and controls (n = 2,161) matched for sex, age bands, race, Medicare buy-in status (whether Medicaid covers Part B premiums), long-term nursing home status, cognitive impairment, and frailty.	Case-control	Medicare costs, utilization events, mortality.	Data was collected from 2004 to 2008. The follow-up period began in the month after the index month and continued until death, last month of FFS eligibility, long-term nursing home placement, or end of study period in December 2008	Univariate analysis was performed using analysis of variance, chi-square tests, and t-tests. Descriptive statistics were used to calculate prevalence of selected major chronic diseases, demographic characteristics, costs, and use patterns for baseline and follow-up periods. Multiple linear regression models were used to measure differences in Medicare costs, mortality, hospital admissions, hospital days, SNF days, ED visits, and specialist and generalist encounters. Covariates' estimated effect on expenditures was derived from a linear regression model, based on step-wise selection of major selected chronic diseases and base-line period use, with separate variables for home	During a mean 2- year follow-up, in univariate analysis, cases had lower Medicare (\$44,455 vs \$50,977, P = .01), hospital (\$17,805 vs \$22,096, P = .003), and skilled nursing facility care (\$4,821 vs \$6,098, P = .001) costs, and higher home health (\$6,579 vs \$4,169; P < .001) and hospice (\$3,144 vs. \$1,505; P = .005) costs. Cases had 23% fewer subspecialist visits (P = .001) and 105% more generalist visits (P < .001). In a multivariate model, cases had 17% lower Medicare costs, averaging \$8,477 less per beneficiary (P = .003) over 2 years of follow-up. There was no difference between cases and controls in mortality (40% vs 36%, hazard ratio = 1.06, P = .44) or in average time to death (16.2 vs 16.8 months, P = .30). HBPC reduces Medicare costs for ill elders, with similar

						health, hospitalization, and SNF care.	survival outcomes in cases and controls.
Edes et al., 2014	Cost projection using a hierarchical condition category (HCC) model adapted to the VA was used to determine VA plus Medicare projected costs for 9,425 newly enrolled HBPC recipients.	VA HBPC  N=9425 newly enrolled HBPC recipients	Mixed method	Total costs of care; perspective of care	To determine the effect of HBPC on VA+MC costs and to distinguish cost savings from cost shifting, concurrent analyses of VA and Medicare costs and usage for fiscal year (FY) 2006 (10/1/05–09/30/06) were performed.	Cost projection models and concurrent coefficient models	During HBPC, Medicare costs were 10.8% lower than projected, VA plus Medicare costs were 11.7% lower than projected, and combined hospitalizations were 25.5% lower than during the period without HBPC. Patients reported high satisfaction with HBPC team access, education, and continuity of care, which they felt contributed to fewer exacerbations, emergency visits, and hospitalizations. HBPC improves access while reducing hospitalizations and total cost.
Edwards, Prentice, Simon, & Pizer, 2014	To characterize the association between enrollment in Home-Based Primary Care (HBPC), a national home care program operated by the US Department of Veterans Affairs (VA), and hospitalizations	Veterans 67 years or older who were fee-for-service Medicare beneficiaries, were diagnosed as having diabetes mellitus and at least 1 other chronic disease, and had at least 1 admission to a VA or non-VA hospital in 2005 or 2006.	Retrospective cohort study	Admission to VA and non-VA hospitals owing to an ambulatory care-sensitive condition, as measured by the Agency for Healthcare Research and Quality's Prevention Quality Indicators in VA medical records and Medicare claims. Outcomes were	January 1, 2006, through December 31, 2010	Instrumental variable approach  Instrument: distance from each veteran's primary residence to the nearest VA facility that provides HBPC	Among 56 608 veterans, 1978 enrolled in HBPC. These patients were older (mean age, 79.1 vs 77.1 years) and had more chronic diseases (eg, 59.2% vs 53.5% had congestive heart failure). Multivariable predictors for HBPC enrollment included paralysis (odds ratio [OR], 2.11; 95% CI,

	<p>owing to an ambulatory care-sensitive condition among older veterans with diabetes mellitus.</p>			<p>analyzed using distance from the veteran's residence to a VA facility that provides HBPC as an instrumental variable.</p>		<p>1.63-2.74), depression (OR, 1.99; 95% CI, 1.70-2.34), congestive heart failure (OR, 1.36; 95% CI, 1.17-1.58), and distance from the nearest HBPC-providing VA facility (OR, 0.59; 95% CI, 0.50-0.70 for &gt;10-30 vs &lt;5 miles). After controlling for selection using an instrumental variable analysis, HBPC was associated with a significant reduction in the probability of experiencing a hospitalization owing to an ambulatory care-sensitive condition (hazard ratio, 0.71; 95% CI, 0.57-0.89), with an absolute reduction in the probability of hospitalization of 5.8% in 1 year.</p> <p>Home-Based Primary Care is associated with a decreased probability of ambulatory care-sensitive condition hospitalization among elderly veterans with diabetes mellitus. In accountable care models, HBPC may have an important role in the management of older adults with multiple chronic diseases.</p>
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<p>Leff et al., 2015</p>	<p>To describe the characteristics of home- based primary care practices: staffing, administrative, population served, care practices, and quality of care challenges.</p>	<p>Home-based primary care practices in the United States; members of the American Academy of Home Care Medicine and nonmember providers identified by surveyed members. N=272 practices</p>	<p>Descriptive</p>	<p>A 58-item questionnaire that assessed practice characteristics, care provided by the practice, and how the quality of care that the practice provided was assessed.</p>	<p>One time baseline survey</p>	<p>Descriptive statistics were used to describe the characteristics of the practices. Bivariate analyses were used to describe practice characteristics associated with practices that used a defined quality improvement process in which quality of care data are collected and acted upon to improve the quality of care delivery as opposed to those that did not use such a process. Factors included in bivariate analyses were preselected: practice type (solo vs group), number of practice sites in the practice (one vs multiple sites), profit status of practice (for profit vs not for profit), provider compensation (productivity only vs salary and salary plus incentives), academic affiliation of practice (yes vs no), average daily census of practice (quartiles), practice holds regularly scheduled team</p>	<p>Survey response rate was 47.9%, representing 272 medical house calls practices. Mean average daily census was 457 patients (median 100 patients, range 1–30,972 patients). Eighty-eight percent of practices offered around-the-clock coverage for urgent concerns, 60% held regularly scheduled team meetings, 89% used an electronic medical record, and one-third used a defined quality improvement process.</p> <p>The following factors were associated with practices that used a defined quality improvement process: practice holds regularly scheduled team meetings to discuss specific patients (odds ratio (OR) = 2.07, 95% confidence interval (CI) = 1.02–4.21), practice conducts surveys of patients (OR = 8.53, 95% CI = 4.07–17.88), and practice is involved in National Committee for Quality Assurance patient-centered</p>
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						<p>meetings to discuss specific patients (yes vs no), practice uses an electronic medical record (yes vs no), practice conducts surveys of patients (yes vs no), practice conducts surveys of caregivers (yes vs no), practice involved in National Committee for Quality Assurance (NCQA) patient-centered medical home (yes vs no), practice is an Independence at Home Demonstration site (yes vs no). Finally, the odds of a practice using a defined quality improvement process were modeled using logistic regression. Statistically significant factors in bivariate analyses at <math>P &lt; .05</math> were included as covariates in the regression analysis.</p>	<p>medical home (OR = 3.27, 95% CI = 1.18–9.07).</p> <p>Ninety percent of practices would or might participate in quality improvement activities that would provide them timely feedback on patient and setting-appropriate quality indicators.</p> <p>There is a substantial heterogeneity of home-based primary care practice types. Most practices perform activities that lend themselves to robust quality improvement efforts, and nearly all indicated interest in a national registry to inform quality improvement. Home-based primary care and palliative care can serve an important function in providing value-based care to a vulnerable and costly group of individuals.</p>
North, Kehm, Bent, & Hartman, 2008	This study was designed to assess the effects of a NP-directed HBPC program on meeting standard performance	N = 104, All patients who were enrolled in the HBPC program in the ECHCS for at least 12 months ending December 31, 2003 and who	Longitudinal	Measurements included utilization data (“no shows”, hospitalizations, ED visits), preventative screening, cost savings	Data was collected using VA data and performance measures	Data were analyzed using Microsoft Windows Access 2000 and SPSS v11.0 for Windows. Results were to be considered	Advance directives, pain assessment, and urinary incontinence were screened at rates greater than 90%. Flu vaccines were given in 83% of patients and

	measures, reducing hospitalizations and ED visits, and cost effectiveness in managing a complex, elderly population.	received care at the Denver VA at least 12 months prior to HBPC enrollment				statistically significant when the p-values were less than 0.05. Paired sample t-tests were performed when comparing utilization data.	<p>pneumococcal vaccines were given in 73% of study participants. Cognition and depression screenings were conducted over three-quarters of the time.</p> <p>The number of hospitalizations, ED visits, and no-show appointments in patients receiving HBPC care were all significantly lower (<math>p &lt; 0.01</math>) when compared with utilization by the same group for 1 year pre-HBPC admission. The most dramatic reduction occurred in the number of hospitalizations with an 84% relative reduction. The numbers of ED and no-show visits were each reduced by greater than 45%.</p> <p>Total cost savings were over \$1 million. Hospitalization reductions accounted for 98% of the cost savings. The reduction in ED visits accounted for nearly \$15,000 in savings.</p>
Reckrey et al., 2015	To compare a pilot HBPC “Team Approach” program versus	The Mount Sinai Visiting Doctors (MSVD) Team Approach	Case/control	“Team Approach”: The new team consisted of two full-time physicians, one	The Team Approach was implemented in August 2009,	chi-square tests were used to compare the characteristics	On average, 32.6% of Team Approach patients and 29.4% of usual care patients

	<p>usual care hospitalization rates</p>	<p>(N=347 patients) and usual care (N=1,074)</p>		<p>full-time nurse practitioner, one full-time social worker, and one full-time administrative assistant. In the second year of the pilot, one full-time physician decreased his hours, and an additional part-time physician was added to the team to maintain two physician FTEs in the Team Approach. These team members worked only with Team Approach patients. The two registered nurses in the practice continued to jointly serve Team Approach and usual care patients. The Team Approach had a higher ratio of nurse practitioner to physician FTE than usual care; there was one nurse practitioner for every two physicians in the Team Approach and one nurse practitioner for approximately every six physicians in usual care. The ratio of social workers, administrative assistants, and registered nurses to physicians remained</p>	<p>and evaluation of the Team Approach occurred from January 2010 until December 2011.</p>	<p>Chi-square and Wilcoxon rank sum tests were used to compare the differences between Team Approach and usual care patients.</p>	<p>were hospitalized during 2010 and 2011 (P = .28). There were no statistically differences between mean hospitalizations per patient (0.59 and 0.57, P = .82) or annual hospital admission rates (0.73 and 0.82, P = .39) between Team Approach and usual care patients. Similarly, there were no statistically significant differences between percentage of patients with readmissions (22.1% and 20.6%, P = .73) or percentage of hospitalizations that resulted in readmission (9.7% and 9.1%, P = .73) between Team Approach and usual care patients. There were no statistically significant differences between patient satisfaction. There were no statistically significant differences between patient perceptions of team roles and functioning. This study demonstrates the feasibility, acceptability, and comparability of home-based primary care services delivered</p>
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				approximately the same in the Team Approach and usual care. hospital admissions and 30-day readmissions			by a structured team-based model of care that includes physicians, a nurse practitioner, a social worker, and an administrative assistant.
Stall, Nowaczynski, & Sinha, 2014	To describe the effect of home-based primary care for homebound older adults on individual, caregiver, and systems outcomes.	HBPC Programs  N=46,154 homebound community dwelling older adults  9 abstracts for review	Systematic review	Emergency department visits, hospitalizations, hospital bed days of care, long-term care admissions, long-term care bed days of care, costs, program design, and individual and caregiver quality of life and satisfaction with care.	A detailed literature search was conducted to identify all articles studying the effects of HBPC in community-dwelling older adults (aged ≥65). Published studies were identified through searches of PubMed, MEDLINE and the Cochrane Database from the date of database onset until March 15, 2014.	NA	Eight (88.9%) HBPC interventions reviewed demonstrated substantial reductions in at least one of the inclusion outcomes of emergency department visits, hospitalizations, hospital beds days of care, long-term care admissions, and long-term care bed days of care; seven programs (77.8%) demonstrated reductions in at least two of these outcomes.  The review also found that many of the HBPC programs reviewed positively affected several other important outcomes, including screening for common geriatric syndromes, individual and caregiver quality of life and satisfaction with care, vaccination rates, and engagement in end-of-life care discussions.  It was not possible to

							definitively assess the overall financial effect of HBPC interventions Age heterogeneity of the various interventions
Totten et al., 2016	To assess the available evidence about home-based primary care (HBPC) interventions for adults with serious or disabling chronic conditions.	Articles from January 1998 through May 2015 were identified using Ovid MEDLINE <sup>®</sup> , CINAHL <sup>®</sup> , ClinicalTrials.gov, Cochrane Database of Systematic Reviews, reference lists, and gray literature databases.	Systematic review	Health outcomes, patient/caregiver experience, utilization of services, patient and organizational characteristics, and interventions	N/A	N/A	The authors identified 4,406 citations and reviewed 221 full-text articles; 19 studies were included. Two were RCTs, while 17 were observational studies.  The strongest evidence (moderate) was that HBPC reduces hospitalizations and hospital days. Reductions in emergency and specialty visits and in costs were supported by less strong evidence, while no or unclear effects were identified on hospital readmissions and nursing home days. Evidence about clinical outcomes was limited to studies that reported no significant differences in function or mortality. HBPC had a positive impact on patient and caregiver experience, including satisfaction, quality of life, and caregiver needs, but the strength of evidence for these

							<p>outcomes was low.</p> <p>In studies that reported on the impact of patient characteristics, moderate evidence indicated that frail or sicker patients are more likely than others to benefit from HBPC. No identified studies assessed the impact of organizational characteristics. No adverse events were reported. Only one study examined the potential for a negative impact; none was found.</p> <p>The services included in the HBPC interventions varied widely, and no identifiable combination was related to more positive outcomes. We identified four studies that evaluated the addition of specific services. Combining palliative care and primary care home visits increased the likelihood of death at home (2 studies; low strength of evidence), while studies on adding caregiver support (1 study) or transitional care (1 study) to HBPC were</p>
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							rated as having insufficient evidence.
Advance Care Planning							
Bischoff, Sudore, Miao, Boscardin, & Smith, 2013	To determine whether advance care planning influences quality of end-of-life care.	Four thousand three hundred ninety- nine decedent subjects (mean age 82.6 at death, 55% women)	Observational cohort study	Outcomes included previously reported quality metrics observed during the last month of life (rates of hospital admission, in-hospital death, >14 days in the hospital, intensive care unit admission, >1 emergency department visit, hospice admission, and length of hospice 3 days).	Medicare data and survey data from the Health and Retirement Study (HRS) were combined to determine whether advance care planning was associated with quality metrics	Bivariate analysis, multivariable Poisson regressions	Seventy-six percent of subjects engaged in ACP. Ninety-two percent of ADs stated a preference to prioritize comfort. After adjustment, subjects who engaged in ACP were less likely to die in a hospital (adjusted relative risk (aRR) = 0.87, 95% confidence interval (CI) = 0.80–0.94), more likely to be enrolled in hospice (aRR = 1.68, 95% CI = 1.43–1.97), and less likely to receive hospice for 3 days or less before death (aRR = 0.88, 95% CI = 0.85–0.91). Having an AD, a DPOA or an ACP discussion were each independently associated with a significant increase in hospice use (P < .01 for all). Although there was no statistically significant difference in the rate of hospitalization during the last month of life between decedents who did and did not complete ACP, there was a significant difference in the rate

							<p>of in-hospital mortality between these groups.</p> <p>These findings suggest that older adults who engage in ACP are often admitted to the hospital in the last month of life but are more likely to be discharged to home or to a non-acute facility before their death, rather than remain in the hospital for their final days to weeks.</p> <p>ACP was associated with improved quality of care at the end of life, including less in-hospital death and increased use of hospice. Having an AD, assigning a DPOA and conducting ACP discussions are all important elements of ACP</p>
Brinkman-Stoppelenburg, Rietjens, & van der Heide, 2014	To present an overview of studies on the effects of advance care planning and gain insight in the effectiveness of different types of advance care planning.	The search yielded 3571 papers, of which 113 were relevant for this review.	Systematic review	QOL, length of hospitalizations, DNR orders	A systematic electronic search was conducted in the data-bases PubMed, EMBASE and PsycINFO for studies published in English language from January 2000 until December 2012	N/A	<p>Do-not-resuscitate orders were found to reduce the use of cardiopulmonary support measures, to reduce hospitalizations and to increase the use of hospice care.</p> <p>Do-not-hospitalize orders have almost invariably been shown to be related to a reduced number of hospitalizations and an</p>

							<p>increased use of hospice care.</p> <p>The effects of different types of advance care planning have been studied in various settings and populations using different outcome measures. There is evidence that advance care planning positively impacts the quality of end-of-life care. Complex advance care planning interventions may be more effective in meeting patients' preferences than written documents alone. More studies are needed with an experimental design, in different settings, including the community.</p>
<p>Lund, Richardson, &amp; May, 2015</p>	<p>To investigate barriers and facilitators to the implementation of ACPs, focusing on their workability and integration in clinical practice.</p>	<p>13 papers identified from 166 abstracts were included in the review</p>	<p>An explanatory systematic review of qualitative implementation studies.</p>	<p>Facilitators and barriers of ACP</p>	<p>Empirical studies that reported interventions designed to support ACP in healthcare. Web of Knowledge, Ovid MEDLINE, CINAHL, PsycINFO, British Nursing Index and PubMed databases were searched</p>	<p>Direct content analysis, using Normalization Process Theory, to identify and characterize relevant components of implementation processes.</p>	<p>Key factors facilitating implementation were: specially prepared staff utilizing a structured approach to interactions around ACPs.</p> <p>Barriers to implementation were competing demands of other work, the emotional and interactional nature of patient-professional interactions around ACPs, problems in</p>

							<p>sharing decisions and preferences within and between healthcare organizations.</p> <p>The following propositions were used to characterize factors that affect the implementation of ACP:</p> <ol style="list-style-type: none"> <li>1. Operational contexts are under pressure. Clinical and organizational pressures and the availability and preparation of staff affect opportunities to initiate and operationalize complex interventions like ACPs.</li> <li>2. Patient trajectories are uncertain. Prognostic uncertainty is an important factor that affects the clinical decision to initiate discussion of ACPs with patients and their significant others.</li> <li>3. Negotiations have unpredictable outcomes. Responses of patients and their significant others to the initiation of ACPs are unpredictable and emotionally complex.</li> <li>4. Advance Care Plans may not be actioned. The operational outcome of ACPs are</li> </ol>
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							unpredictable because clinical and organizational factors that intervene to confound elicited plans and preferences.
Rao, Anderson, Lin, & Laux, 2014	To characterize U.S. adults who did and did not have an advance directive and examine factors associated with their completion, such as the presence of a chronic condition and regular source of health care.	adults aged 18 years and older who participated in the 2009 or 2010 HealthStyles Survey N= 7946	Cross-sectional	Outcomes included associations between advance directive completion and demographic and socioeconomic variables (education, income, employment status); presence of a chronic condition; regular source of health care; and self-reported EOL concerns or discussions	Data were analyzed in 2013 from a mail panel survey designed to be representative of the U.S. population.	Likelihood ratio tests; multiple logistic regression analyses	Of the 7946 respondents, 26.3% had an advance directive. The most frequently reported reason for not having one was lack of awareness. Advance directive completion was associated with older age, more education, and higher income and was less frequent among non-white respondents. Respondents with advance directives also were more likely to report having a chronic disease and a regular source of care. Advance directives were less frequent among those who reported not knowing if they had an EOL concern. These data indicate racial and educational disparities in advance directive completion and highlight the need for education about their role in facilitating EOL decisions.

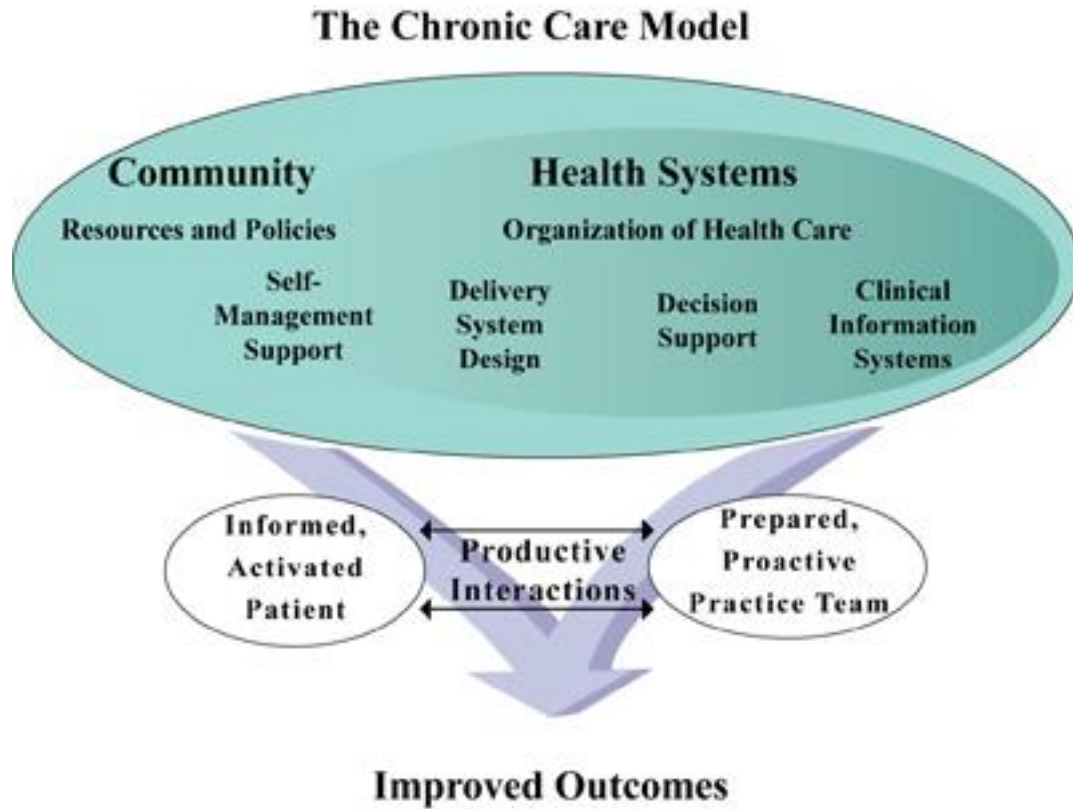


<p>Silveira,, Wiitala, &amp; Piette, 2014</p>	<p>To describe trends in advance directive (AD) completion from 2000 to 2010 and to explore the relationship between AD and hospitalization and hospital death at the end of life.</p>	<p>Health and Retirement Study (HRS) participants who died between 2000 and 2010 and were aged 60 and older at death (N = 6,122).</p>	<p>Retrospective cohort study</p>	<p>Trends over time in rates of AD completion, hospitalization before death, and death in hospital</p>	<p>The sample included data from proxy interviews for 6,122 individuals who died between 2000 and 2010, of whom 6,005 had AD status available.</p>	<p>multivariable logistic regression models</p>	<p>The proportion of decedents with an AD increased from 47% in 2000 to 72% in 2010. At the same time, the proportion of decedents with at least one hospitalization in the last 2 years of life increased from 52% to 71%, and the proportion dying in the hospital decreased from 45% to 35%. After adjusting for confounding by sociodemographic characteristics, the trend in declining hospital death over the decade was negligibly associated with the greater use of ADs. There has been a significant increase in rates of AD completion over the last decade, but this trend has had little effect upon hospitalization and hospital death, suggesting that AD completion is unlikely to stem hospitalization before death.</p>
<p>Weathers et al., 2016</p>	<p>This systematic review examines the impact of ACP on several outcomes in older adults (&gt;65 years) across all</p>	<p>Systematic review of RCTs w/ older adults</p>	<p>9 RCTs, total of 3646 older adults were included (range 72–88 years)</p>	<p>Outcomes included symptom management, quality of care and healthcare utilization</p>	<p>Searches of the CINAHL, PubMed and Cochrane databases.</p>		<p>The majority of studies were conducted in the USA and only one was conducted in Europe. In these studies, there was evidence that ACP</p>

	healthcare settings.						<p>interventions decreased hospitalization and use of resources, increased patient and family satisfaction with care and increased the use of ACDs. The outcomes measured across studies were categorized into ACP outcomes, and patient and family outcomes. In the first category, studies reported an increase in the documentation of EOL care preferences, and completion rates of a durable power of attorney or ACD. Patient and family outcomes also improved. For example, knowledge of ACP, concordance with EOL wishes, and understanding of EOL preferences were generally improved. Additionally, more discussions regarding EOL care took place as a consequence of ACP interventions. However, patient outcomes like symptom management, quality of care at the end of life and quality of dying have not been measured in these studies and this is clearly a deficit.</p>
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Appendix C

The Chronic Care Model



Developed by The MacColl Institute  
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*Figure 1.* Model for improvement of chronic illness care. Reprinted from “Chronic disease management: What will it take to improve care for chronic illness?,” by E. H. Wagner , 1998, *Effective Clinical Practice*, 1, 2-4. Copyright 1996-2017 by The MacColl Institute, © ACP-ASIM Journals and Books. Reprinted with permission from ACP-ASIM Journals and Books.

Appendix D

The PARIHS Framework

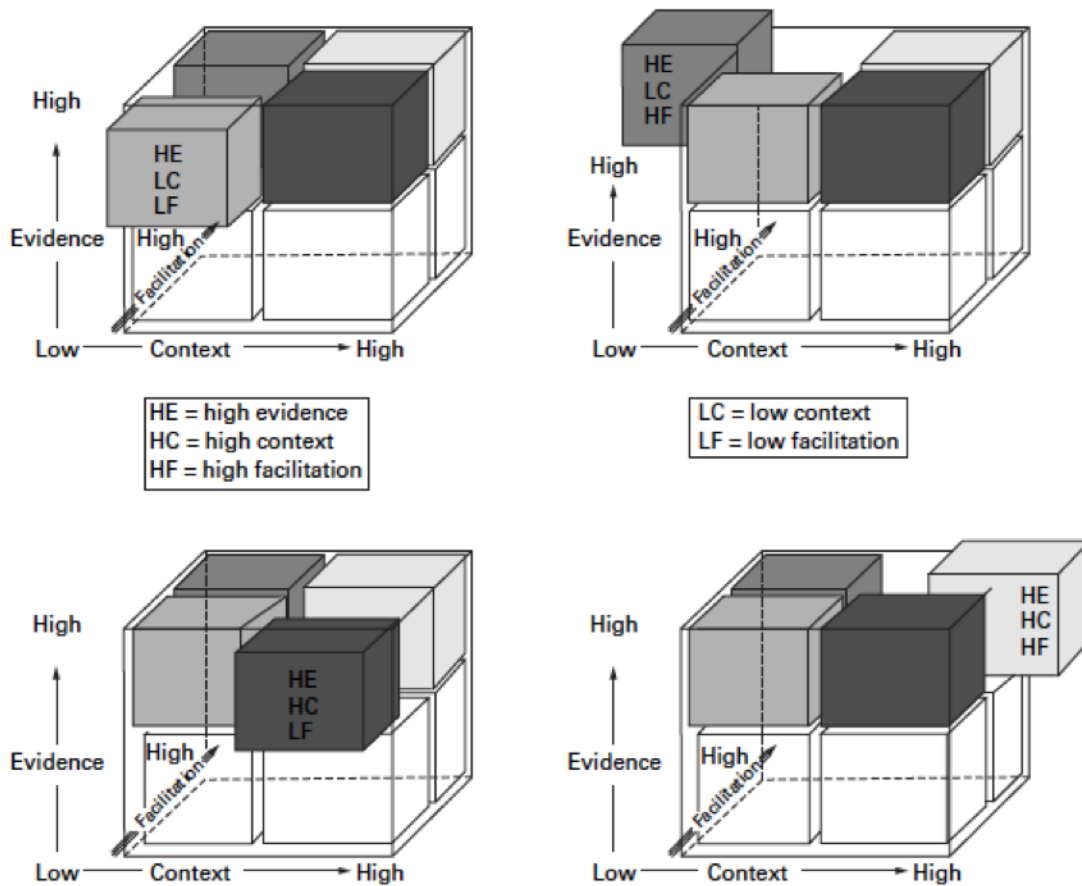
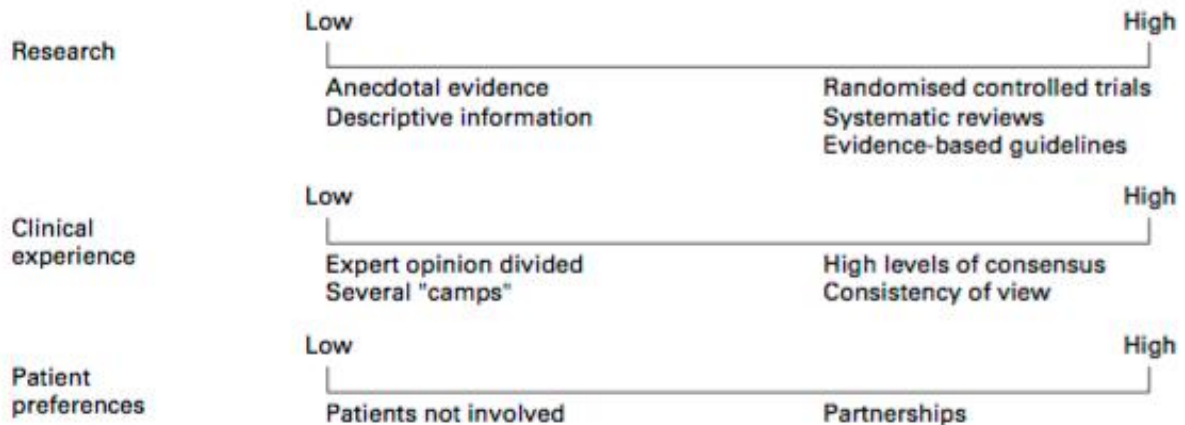


Figure 2. A three-dimensional matrix in which evidence, context, and facilitation can either be expected to influence the outcome in a positive or negative way. Reprinted from “Enabling the implementation of evidence based practice: A conceptual framework,” by EA. Kitson, G. Harvey, & B. McCormack, 1998, *Quality in Health Care*, 7, 149-158. Copyright BMJ Publishing Group Ltd. Reprinted with permission from BMJ Publishing Group Ltd.

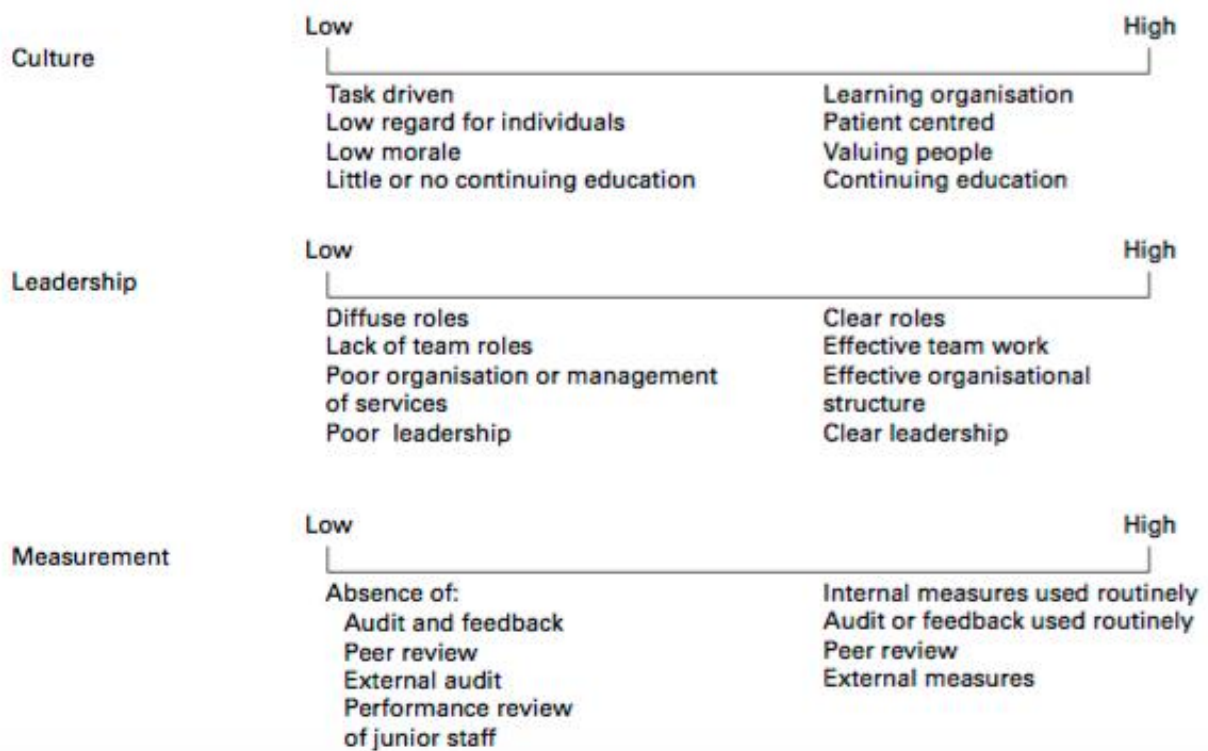
Appendix E

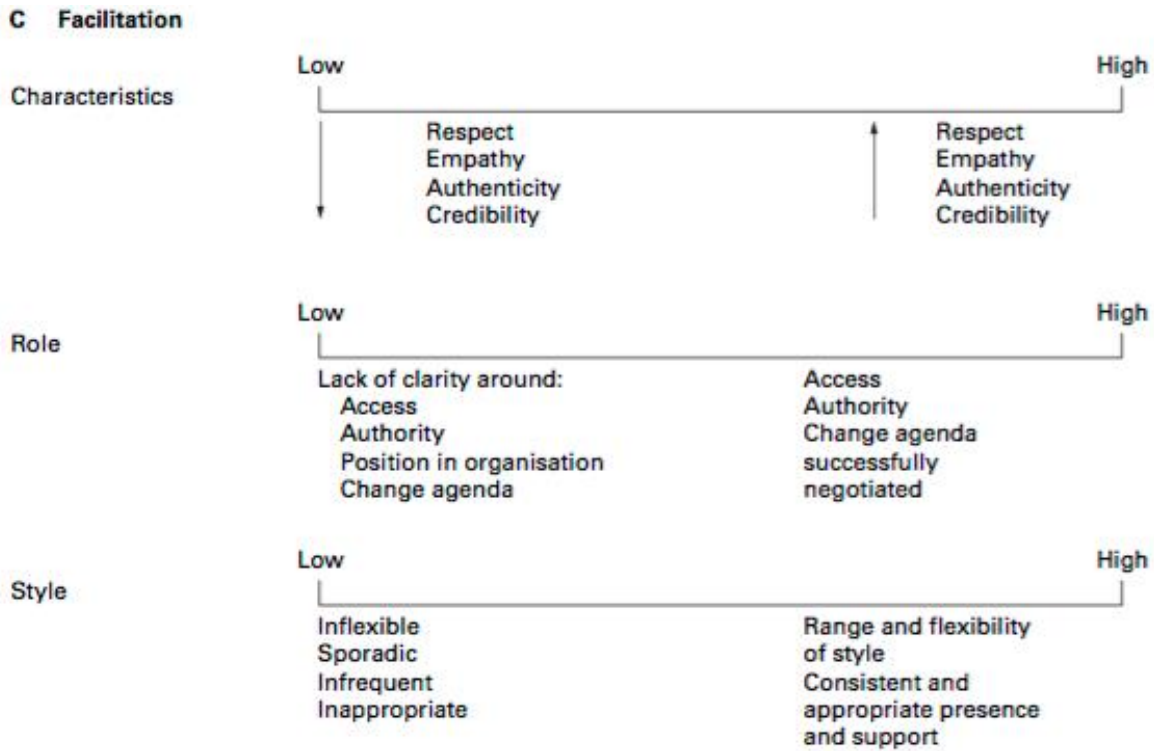
Evidence, Context and Facilitation from the PARIHS Framework

**A Evidence**



**B Context**





*Figure 3.* Conditions for evidence, context, and facilitation. Reprinted from “Enabling the implementation of evidence based practice: A conceptual framework,” by EA. Kitson, G. Harvey, & B. McCormack, 1998, *Quality in Health Care*, 7, 149-158. Copyright BMJ Publishing Group Ltd. Reprinted with permission from BMJ Publishing Group Ltd.

Appendix F

The Burke-Litwin Model of Organizational Performance and Change

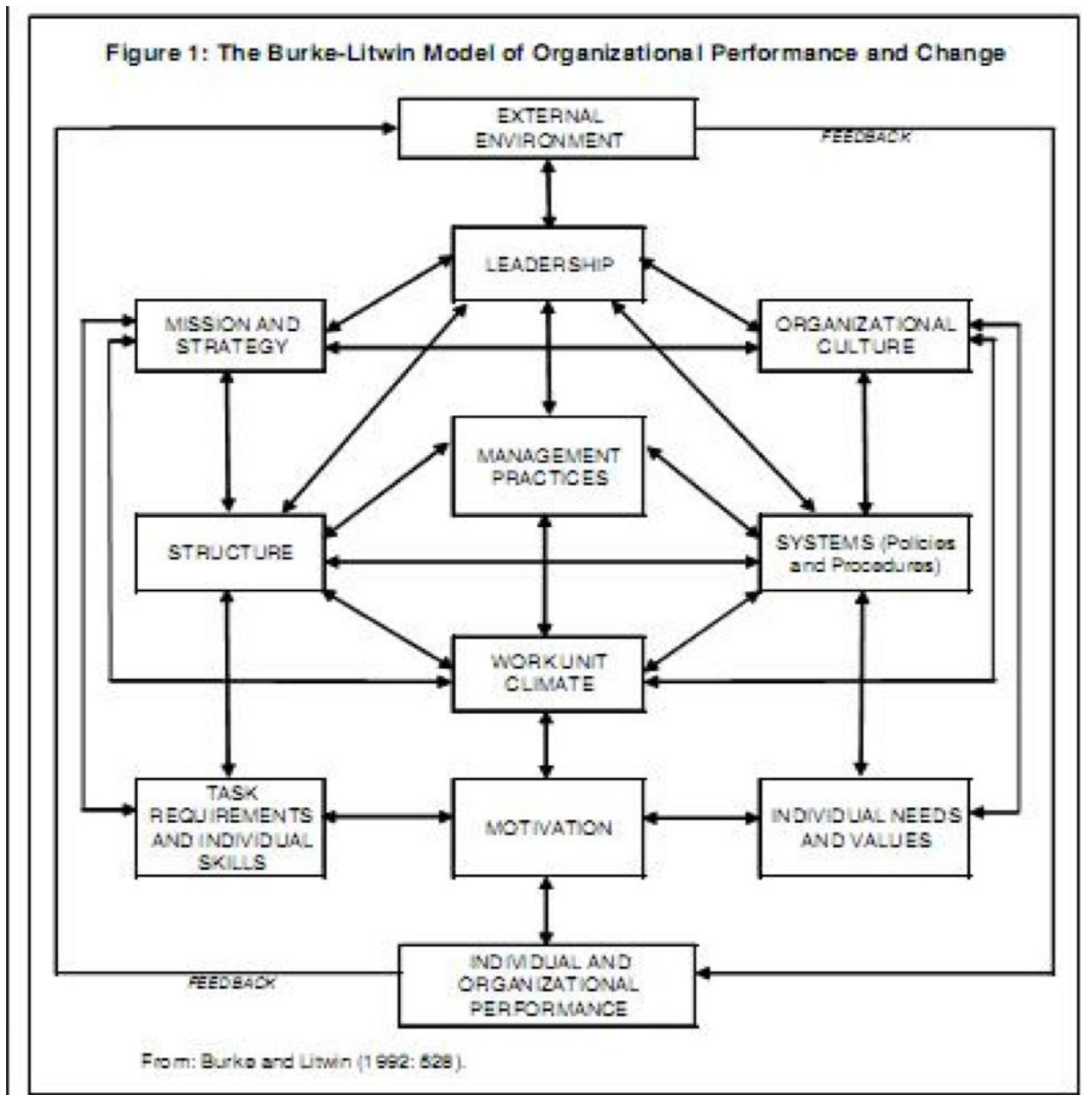


Figure 1. A model of organizational performance and change. Reprinted from “A Causal Model of Organizational Performance and Change,” by W. W. Burke and G. H. Litwin, 1992, *Journal of Management*, 18(3), 528. Copyright 1992 by Southern Management Association.

Appendix G

SWOT Analysis of the Identified Problem and Solution

Table 1. SWOT analysis of the identified problem and solution.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Support from management</li> <li>• Employees open for change</li> <li>• Small workforce</li> <li>• EMR capabilities to document billing and coding</li> <li>• Increase productivity awareness</li> <li>• Increase in advance care planning discussions with patients</li> </ul>	<ul style="list-style-type: none"> <li>• Limited access to all staff at one time in one location</li> <li>• Lack of staff consistency with change (documentation, coding)</li> <li>• Variable work sites</li> <li>• Increased workload, especially for billing department</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Increase use of coding for advance care planning</li> <li>• Capture higher levels of RVUs for providers</li> <li>• Potential for increased future reimbursement</li> <li>• Improved patient outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Increased workload</li> <li>• Not all providers typically involved in advance care planning are able to bill for the new codes</li> <li>• Specific requirements to bill for the codes                             <ul style="list-style-type: none"> <li>○ Barriers to advance care planning service codes</li> <li>○ Not covered by all insurance providers</li> <li>○ Need for informed consent from patient</li> <li>○ Potential for patient co-pay/deductible</li> </ul> </li> </ul>



Appendix H

Home Based Primary Care Organizational Structure

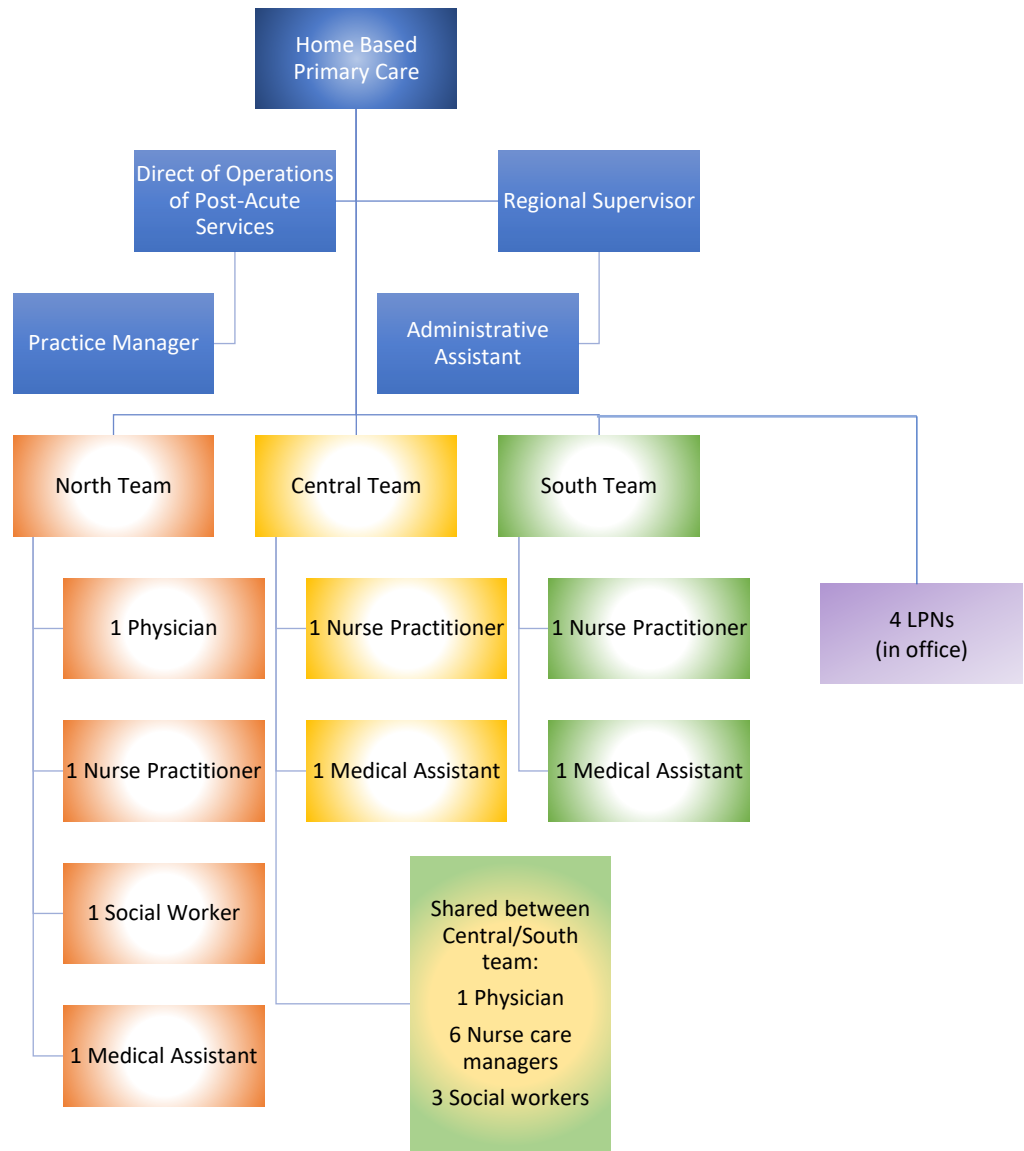


Figure 1. Staff organizational structure at home based primary care.

## Appendix I

## Pre/Post-Survey for Clinician Population

For each of the statements below, please circle the response that best characterizes how you feel about the statement, where: 1= Strongly Disagree; 2= Disagree; 3= Neither Agree nor Disagree; 4= Agree; And 5= Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I can describe different methods of billing for advance care planning services.	1	2	3	4	5
I can describe the CPT codes used to bill for advance care planning services.	1	2	3	4	5
I can describe the documentation required for the use of advance care planning codes.	1	2	3	4	5
I feel confident in billing and coding of advance care planning services.	1	2	3	4	5
I feel additional coding options for advance care planning services would be beneficial to my practice.	1	2	3	4	5

Are there any additional comments you would like to tell us?

Appendix J

IRB Determination Letters



DATE: December 22, 2017

TO: Dianne Conrad, DNP  
 FROM: HRRC  
 STUDY TITLE: Increasing Post-Acute and Long-Term Care Coding Utilization for Advance Care Planning in an Outpatient Setting  
 REFERENCE #: 18-134-H  
 SUBMISSION TYPE: HRRC Initial Submission

ACTION: Not Human Subjects Research  
 EFFECTIVE DATE: December 22, 2017  
 REVIEW TYPE: Administrative Review

Thank you for your submission of materials for your planned scholarly activity. It has been determined that this project does not meet the definition of covered human subjects research\* according to current federal regulations and the following:

The purpose of this project is to provide a standardized documentation protocol using Current Procedural Technology (CPT) codes for advance care planning in a home based primary care program. This is a performance improvement project that is not designed to be generalizable. Therefore, it does not meet the federal definition of human subjects research.

The project, therefore, does not require further review and approval by the HRRC.

If you have any questions, please contact the Office of Research Compliance and Integrity, at (616) 331-3197 or 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.



NON HUMAN RESEARCH DETERMINATION

December 14, 2017



IRB#: 2017-318

PROTOCOL TITLE: Increasing Post-Acute and Long-Term Care Coding Utilization for Advance Care Planning in an Outpatient Setting

Dear [Redacted]

On December 14, 2017, the above referenced project was reviewed. It was determined that the proposed activity does not meet the definition of research as defined by DHHS or FDA.

Therefore, approval by [Redacted] IRB is not required. This determination applies only to the activities described in the IRB submission and does not apply if changes are made. If changes are made and there are questions about whether these activities are research involving human subjects, please submit a new request to the IRB for a determination.

A quality improvement project may seek publication. Intent to publish alone is insufficient criterion for determining whether a quality improvement activity involves human subject research. However, please be aware when presenting or publishing the collected data that it is presented as a quality improvement project and not as research.

Please be advised, this determination letter is limited to IRB review. It is your responsibility to ensure all necessary institutional permissions are obtained prior to beginning this project. This includes, but is not limited to, ensuring all contracts have been executed, any necessary Data Use Agreements and Material Transfer Agreements have been signed, documentation of support from the Department Chief has been obtained, and any other outstanding items are completed (i.e. CMS device coverage approval letters, material shipment arrangements, etc.).

Your project will remain on file with the Office of the IRB, but only for purposes of tracking research efforts within the [Redacted]. If you should have questions regarding the status of your project, please contact the Office of the IRB at [Redacted].

Sincerely,



cc: Emily McCloskey, Quality Specialist

Figure 1 and 2. IRB determination letters from organization and university.

Appendix K

Data Collection Table

Table 1. Data collection table.

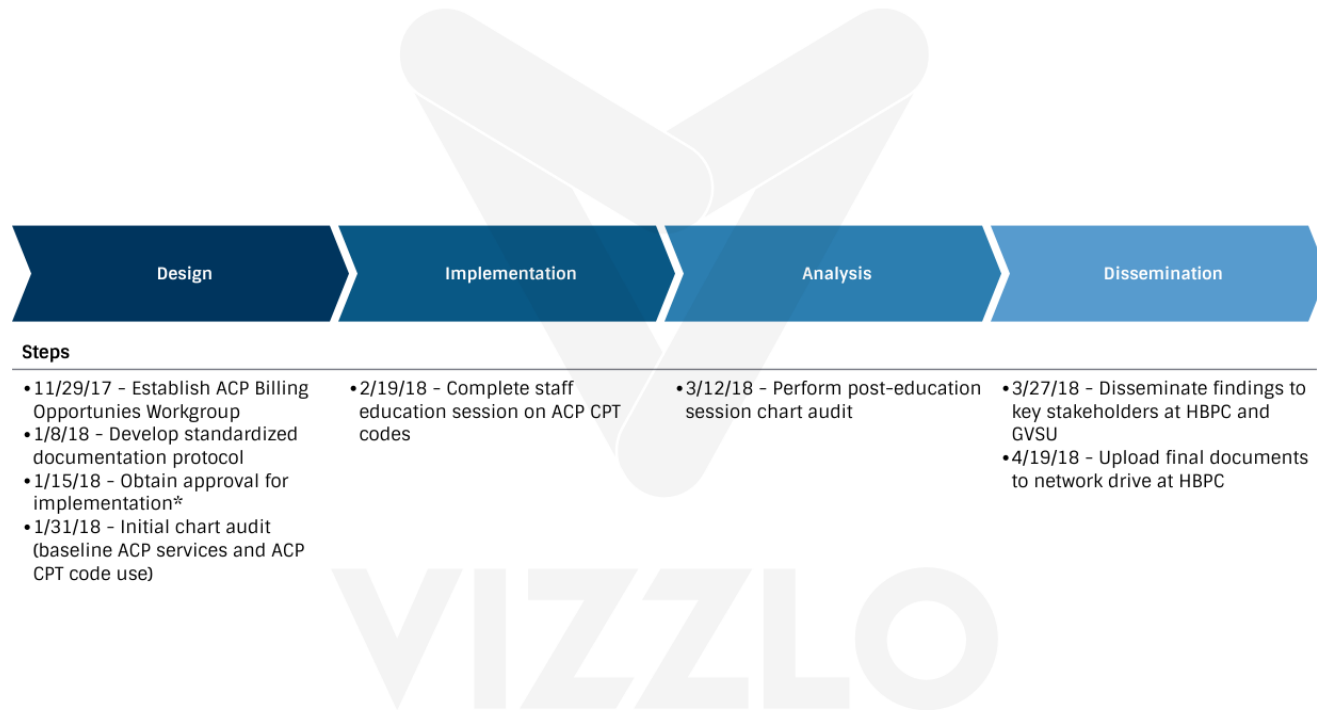
<b>Implementation Outcome</b>	<b>Variable</b>	<b>Measurement</b>	<b>Data Location</b>	<b>Collection Method</b>	<b>Data Collector</b>	<b>Baseline Data</b>	<b>Post Implementation Data</b>
Evidence	Provider knowledge	Change in clinician knowledge regarding billing and coding for advance care planning services (Questions 1-3)	Pre/post Survey	Manual collection	Doctoral Student		
Facilitation		Change in clinician attitude towards billing and coding for advance care planning services (Questions 4-5)	Pre/post Survey	Manual collection	Doctoral Student		
Context	Practice change	CPT code utilization for ACP face-to-face encounters	Billing summary of face-to-face encounters in the EMR	Manual collection	Doctoral Student		
		Correct documentation for CPT code utilization for ACP face-to-face encounters*	Provider documentation of face-to-face encounters in the EMR	Manual collection	Doctoral Student		
		RVUs for ACP face-to-face encounters	2017 National Physician Fee	Manual collection	Doctoral Student		

			Schedule Relative Value File				
--	--	--	------------------------------------	--	--	--	--

\*Documentation includes: a summary of the discussion with the beneficiary or family members regarding the voluntary nature of the discussion (i.e. declaration of verbal consent); documentation regarding the explanation of advanced directives as well as a completion of these forms when performed (however not required); who was present; time spent in discussion during the face-to-face encounter (which must be differentiated from the counseling/coordination time for the E/M code, if applicable) (CMS, 2016)

Appendix L

Timeline for Implementation



E. McCloskey, DNP Student



Figure 1. Steps for implementation of project.

## Appendix M

### Financial Operating Plan

Doctor of Nursing Practice Project Financial Operating Plan		
Increasing Post-Acute and Long-Term Care Coding Utilization for Advance Care Planning in an Outpatient Setting		<u>Reference</u>
<b>Revenue</b>		
Project Manager Time (in-kind donation)	\$ 21,000.00	
Team Member Time (total):	\$ 385.56	
Physician(s) (3)	\$ 137.40	1
Nurse Practitioner(s) (2)	\$ 48.21	2
Medical social workers(s) (3)	\$ 42.12	3
Nurse Case Manager(s) (6)	\$ 106.10	4
Practice Manager	\$ 13.07	5
Director of Operations	\$ 38.66	6
Consultations		
Billing Department	\$ 35.00	7
Laptop	\$ 300.00	
Revenue Source - RVUs (based on initial chart audit ROI)	\$ 1,271.85	Projected based on 10 patients
<b>TOTAL INCOME</b>	<b>\$ 23,377.97</b>	
<b>Expenses</b>		
Project Manager Time (in-kind donation)	\$ 21,000.00	
Team Member Time (total):	\$ 385.56	
Physician(s) (3)	\$ 137.40	
Nurse Practitioner(s) (2)	\$ 48.21	
Medical social workers(s) (3)	\$ 42.12	
Nurse Case Manager(s) (6)	\$ 106.10	
Practice Manager	\$ 13.07	
Director of Operations	\$ 38.66	
Consultations		
Billing Department	\$ 35.00	
Laptop	\$ 300.00	
<b>TOTAL EXPENSES</b>	<b>\$ 22,106.12</b>	
<b>Net Operating Plan</b>	<b>\$ 1,271.85</b>	

References

1. Salary.com. (2017). Michigan physician - family practice salaries. Retrieved from <http://www1.salary.com/MI/family-physician-salary.html>.
2. Salary.com. (2017). Michigan nurse practitioner salaries. Retrieved from <http://www1.salary.com/MI/Nurse-Practitioner-salary.html>
3. Salary.com. (2017). Michigan medical social worker (MSW) salaries. Retrieved from <http://www1.salary.com/MI/Medical-Social-Worker-MSW-salary.html>
4. Salary.com. (2017). Michigan case manager salaries. Retrieved from <http://www1.salary.com/MI/case-manager-salary.html>
5. Indeed. (2017). Practice manager salaries in Michigan. Retrieved from <https://www.indeed.com/salaries/Practice-Manager-Salaries,-Michigan>.
6. Salary.com. (2017). Michigan operations director salaries. Retrieved from <http://www1.salary.com/MI/Operations-Director-salary.html>
7. Salary.com. (2017). Michigan medical billing clerk salaries. Retrieved from <http://www1.salary.com/MI/Medical-Billing-Clerk-salary.html>
8. Salary.com. (2017). Michigan medical records coding technician salaries. Retrieved from <http://www1.salary.com/MI/Medical-Records-Coding-Technician-salary.html>

Figure 1. Financial operating plan.

## Appendix N

## Letter of Support from Organization

September 28, 2017

To whom it may concern,

This letter is to verify that GVSU DNP student Emily McCloskey can complete her final project entitled "Increasing Post-Acute and Long-Term Care Coding Utilization for Advance Care Planning in an Outpatient Setting" at [REDACTED]. She will be working with Dr. Iris Boettcher as her organizational mentor. The time frame of the project will be until April 2018.

We appreciate the opportunity to support Emily in her project and will provide her access to data and resources required to effectively complete her project.

Sincerely,



Mark D. Holcomb, MSA  
Director, Operations, Post-Acute Services  
[REDACTED]

cc Iris Boettcher, MD

*Figure 1.* Letter of support from organization.



Appendix O

Current State of Advance Care Planning at HBPC

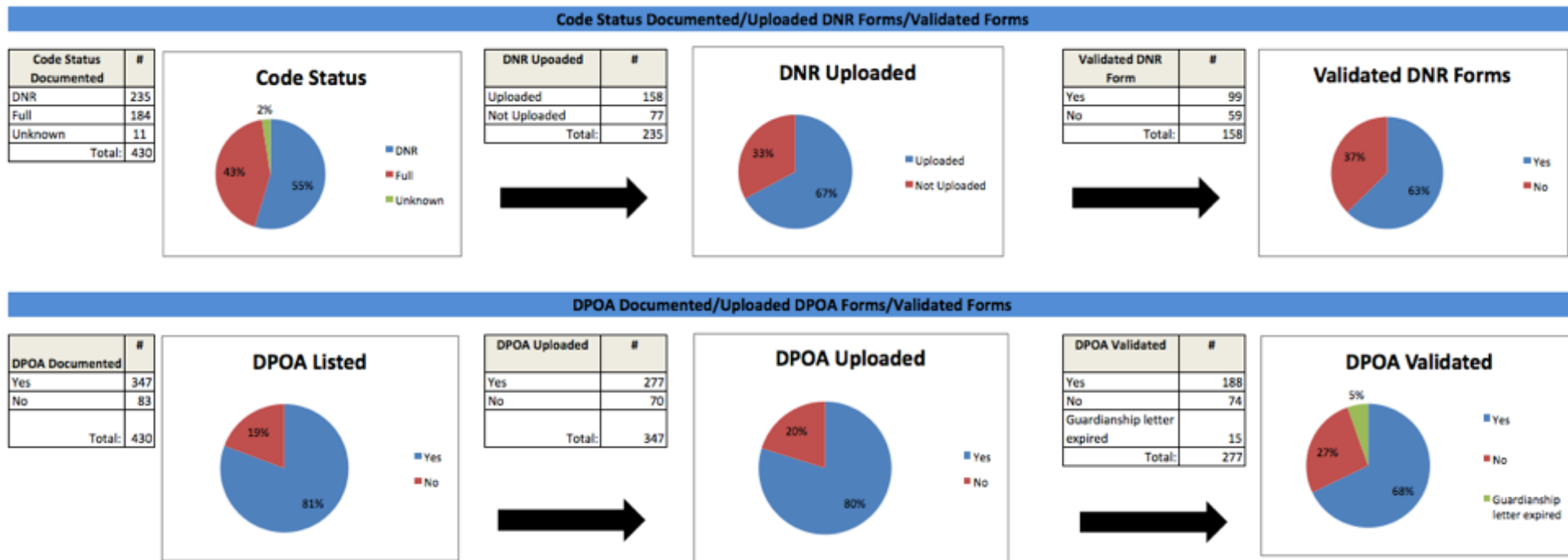


Figure 1. Current state of advance care planning services at home based primary care.

Appendix P

Standardized Documentation Protocol Using CPT Codes for ACP Services

A Standardized Documentation Protocol Using Current Procedural  
Terminology Codes for Advance Care Planning Services

Emily McCloskey

Grand Valley State University

**Table of Contents**

**Introduction**.....3  
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     Description of Codes.....4  
     Documentation Requirements.....4  
     Provider, Beneficiary, and Location Eligibility .....5  
**Benefits and Barriers**.....7  
**Examples in Practice**.....8  
**Current State of Practice**.....10  
     Current State of Advance Care Planning Services .....10  
     Current State of Advance Care Planning CPT Codes and Documentation .....13  
**Return on Investment**.....17  
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### **Introduction**

Beginning January 1, 2016, the Centers for Medicare and Medicaid Services (CMS) approved reimbursement for voluntary advance care planning with two new Current Procedural Terminology (CPT) codes used to file claims for advance care planning services: 99497 and 99498 (Medicare Learning Network, 2016).

This resource will include the following information:

- Description on how to code for ACP services
- Documentation requirements for ACP CPT codes
- Benefits and barriers to ACP CPT codes
- Examples of ACP CPT codes in practice
- Current state of practice
- Return on investment from utilization of ACP CPT codes

**Overview of Advance Care Planning Service Codes**

**I. Description of Codes**

The following codes are used to file claims for ACP services:

<b>CPT Code</b>	<b>Description</b>	<b>Relative Value Units (RVUs)</b>	<b>Estimated Reimbursement</b>
99497	“Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; first 30 minutes, face-to-face with the patient, family member(s), and/or surrogate”	1.50	\$81.55
99498	“Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; each additional 30 minutes (list separately in addition to code for primary procedure)”	1.40	\$71.02
	(Medicare Learning Network, p. 2, 2016)	(CMS, 2018a)	(CMS, 2018b)

**II. Documentation Requirements**

- a. Will vary based on source
- b. CMS (2016) suggests:
  - i. A summary of the discussion with the beneficiary or family members regarding the voluntary nature of the discussion (i.e. declaration of verbal consent)
  - ii. Documentation regarding the explanation of advanced directives as well as a completion of these forms when performed (however not required)
  - iii. Who was present

- iv. Time spent in discussion during the face-to-face encounter (which must be differentiated from the counseling/coordination time for the E/M code, if applicable)
    - c. No specific diagnosis is required for ACP codes to be billed, but would be appropriate to report on the disease or conditions that is being counseled on with the patient (Medicare Learning Network, 2016)
    - d. Should consult Medicare Administrative Contractors
- III. Provider, Beneficiary, and Location Eligibility
  - a. Provider Eligibility
    - i. Can be billed by physicians and non-physician practitioners including nurse practitioners, physician assistants, and clinical nurse specialists (Jones, Acevedo, Bull & Kamal, 2016)
      - 1. “Incident to” services apply
  - b. Beneficiary Eligibility
    - i. Medicare waives both the coinsurance and the Medicare Part D deductive for ACP when it is provided during the Medicare Annual Wellness Visit (Medicare Learning Network, 2016)
    - ii. Have no frequency limits  
(i.e. There are no limits to the number of times ACP can be reported in a certain timeframe. However, documentation should reflect a change in the patient’s health status and/or wishes regarding goals of care.) (Medicare Learning Network, 2016)
  - c. Location Eligibility

- i. No place-of-service limits; can be billed in both facility and non-facility locations and is not limited to a specific specialty (Medicare Learning Network, 2016)
- ii. Can be billed with an evaluation and management (E/M) code, or as a stand-alone code (Medicare Learning Network, 2016)

**Benefits and Barriers to ACP CPT Codes**

Benefits	Barriers
<ul style="list-style-type: none"> <li>• Greater revenue capture for visits targeting ACP</li> <li>• Streamlining documentation</li> <li>• More accurately describing services delivered through billing data</li> <li>• Encouraging provision of ACP services</li> <li>• Tracking the use of these services and the impact on patient outcomes</li> <li>• Highlighting provider productivity</li> </ul> <p>(American Academy of Family Physicians, 2015; Rogers, n.d.)</p>	<ul style="list-style-type: none"> <li>• Verbal consent required from patient</li> <li>• Beneficiary may be subject to co-pay or deductible</li> <li>• Not all insurance providers cover reimbursement for ACP services</li> <li>• Limited to physicians and non-physician practitioners (NPs, PAs, clinical nurse specialists)                             <ul style="list-style-type: none"> <li>• “Incident to” clause to be explored to include additional staff involved in ACP discussions</li> </ul> </li> </ul> <p>(CMS, 2016; Jones, Acevedo, Bull &amp; Kamal, 2016)</p>

### Examples in Practice

#### *Example 1:*

A physician performed a new patient home visit with the patient in which 50 minutes were spent discussing and managing his comorbid conditions, and 50 minutes were spent on advance care planning.

- E/M CPT code used: **99345**
  - Home visit for the evaluation and management for a new patient, which requires 3 key components: a comprehensive history, a comprehensive exam, and medical decision making of high complexity; typically, 75 minutes (American Medical Association, 2015)
  - **Total RVUs: 4.09**
- Alternate option with ACP CPT:
  - If billing on time:
    - E/M: **99343** (lowered due to the time; only 50 minutes spent on evaluation and management)
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes) + **99498** (each additional 30 minutes, billable at 45 minutes)
    - **Total RVUs: 5.43**
  - If billing on complexity (Medicare Learning Network, 2017):
    - E/M: 99345
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes) + **99498** (each additional 30 minutes, billable at 45 minutes)
    - **Total RVUs: 6.99**



*Example 2:*

A physician performed a new patient home visit with the patient in which 30 minutes were spent discussing and managing his comorbid conditions, and 30 minutes were spent on advance care planning.

- E/M CPT code used: **99345**
  - **Total RVUs: 4.09**
- Alternate option with ACP CPT:
  - If billing on time:
    - E/M: **99342** (lowered due to the time; only 40 minutes spent on evaluation and management)
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes)
    - **Total RVUs: 3.02**
  - If billing on complexity:
    - E/M: **99345**
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes)
    - **Total RVUs: 5.59**

### Current State of Advance Care Planning Services

A chart audit was recently conducted with all patients at home based primary care (HBPC) between the dates of 12/8/17 and 1/15/18 to assess the current state of ACP. The following variables were analyzed:

- Resuscitation Order
  - Documentation of resuscitation order
  - Resuscitation order form uploaded
  - Validation of resuscitation order (Legislative Counsel, State of Michigan, 2018)
    - The declarant/the declarant's advocate must sign and date the form
    - The declarant's attending physician must sign and date the form on or after the date of the declarant
    - Two witnesses over the age of 18 (at least one who is not a family member or heir) must sign on the same date as the declarant
- Durable power of attorney (DPOA)
  - Documentation of DPOA
  - DPOA form uploaded
  - DPOA Validated (Michigan Legislature, 2018)
    - Patient signature and date
    - Two witness signatures with dates to match patient signature
    - Patient advocate acceptance signature

The findings are as follows (and are subject to change):

**Resuscitation Order:** A total of 98% of patients had a documented resuscitation order listed in the chart (n=419). Of those patients, 55% (n=235) were documented as DNR and 43%

(n=184) were documented as a full code. A resuscitation order for the remaining 2% of patients (n=11) was not listed. This was due to unclear documentation, patient refusal of ACP services, or ACP not yet being addressed.

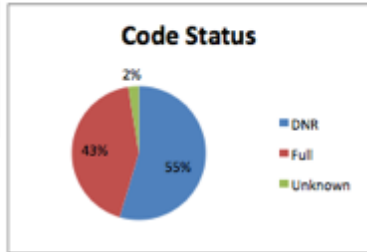
Of those with a DNR status, 67% (n=158) had formal documents uploaded to the chart and 33% (n=77) did not have formal documents unloaded. Formal documents for full code status are not required, therefore they were not included in the data collection. The most common reasons for the lack of DNR forms included waiting on witness signatures or completed forms not yet being provided from the family. Of the uploaded forms, 64% (n=99) of the DNR forms were considered validated, and 37% (n=59) were not validated.

**DPOA:** Based on the baseline chart audit, 81% of patients (n=347) had a medical DPOA documented in the chart, while 19% did not (n=83). Of those with a medical DPOA listed in the chart, 80% (n=277) had DPOA forms uploaded and 20% (n=70) did not. The causes for those who did not have a DPOA documented or DPOA forms uploaded were consistent with those listed above under resuscitation order. Validation of DPOA forms includes: 1) patient signature and date; 2) two witness signatures with dates to match patient signature; and 3) patient advocate acceptance signature (Michigan Legislature, 2018). Of those with DPOA documents uploaded, 68% (n=188) met the requirements to be validated, 27% (n=74) were not validated, and 5% (n=15) were guardianship letters that had expired.

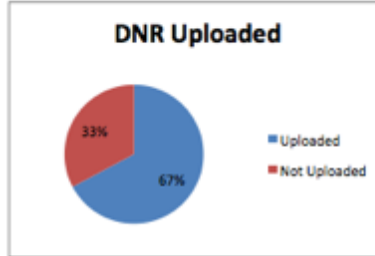
Graphical Breakdown of Current State of Advance Care Planning Services at HBPC

Code Status Documented/Uploaded DNR Forms/Validated Forms

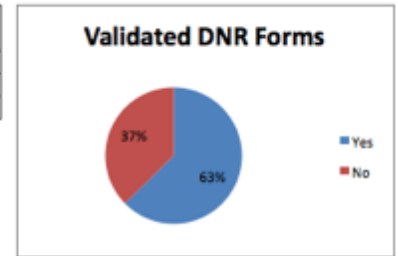
Code Status Documented	#
DNR	235
Full	184
Unknown	11
<b>Total:</b>	<b>430</b>



DNR Uploaded	#
Uploaded	158
Not Uploaded	77
<b>Total:</b>	<b>235</b>

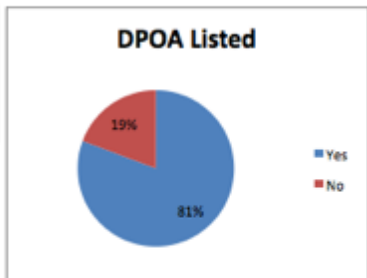


Validated DNR Form	#
Yes	99
No	59
<b>Total:</b>	<b>158</b>

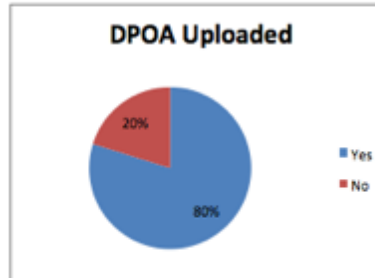


DPOA Documented/Uploaded DPOA Forms/Validated Forms

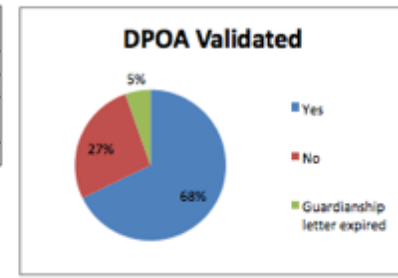
DPOA Documented	#
Yes	347
No	83
<b>Total:</b>	<b>430</b>



DPOA Uploaded	#
Yes	277
No	70
<b>Total:</b>	<b>347</b>



DPOA Validated	#
Yes	188
No	74
Guardianship letter expired	15
<b>Total:</b>	<b>277</b>



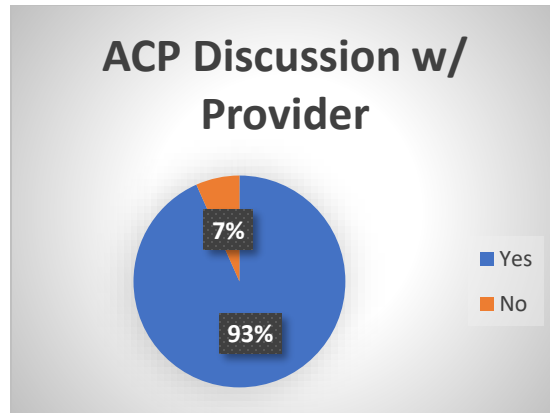
### **Current State of Advance Care Planning CPT Codes and Documentation**

A chart audit was recently conducted with a select group of patients at HBPC to assess readiness for implementation of ACP CPT Codes. This group was selected based on a list of newly enrolled patients in HPBC. The list was narrowed down to 30 patient charts based on a simple random sampling. The following variables were analyzed:

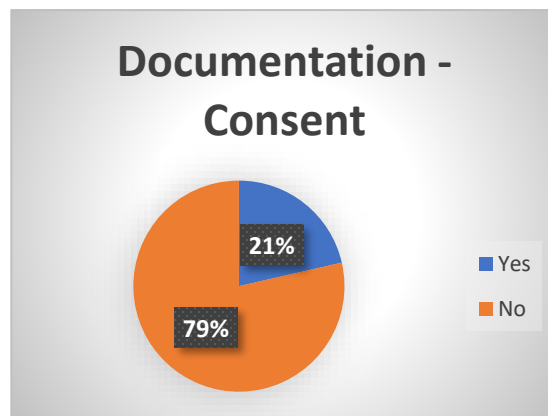
- ACP discussion conducted with provider (physician or advance practice provider)
- Documentation
  - Consent
  - Context of discussion
  - Advance Directives
    - Resuscitation order
    - DPOA
  - Who was present for the discussion?
  - Time for ACP discussion
- CPT code usage

The findings are as follows (and are subject to change):

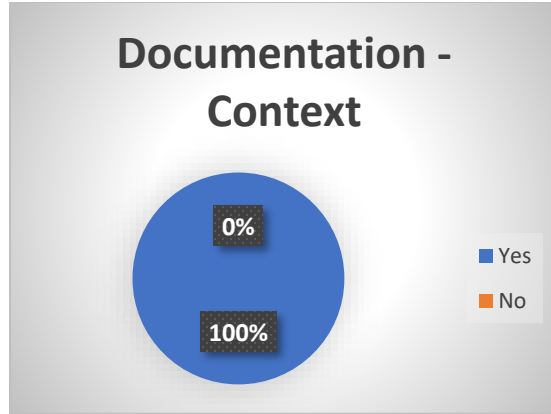
- ACP discussion conducted with provider (physician or advance practice provider):  
Of the 30 charts that were audited, 93% (n=28) patients had a discussion with the provider regarding ACP and 7% (n=2) patients did not have an ACP discussion.



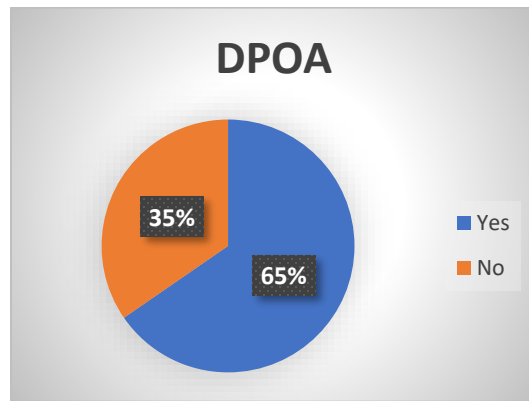
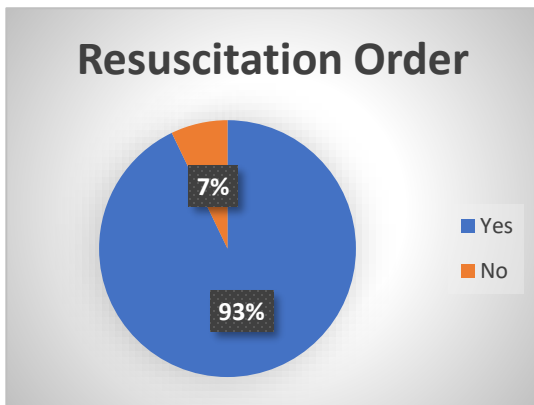
- Documentation
  - Consent: Of the 28 patients who had an ACP discussion with the provider, 21% (n=6) had consent documented (in the form of accepting the conversation) to the ACP service, and 79% (n=22) did not have consent documented.



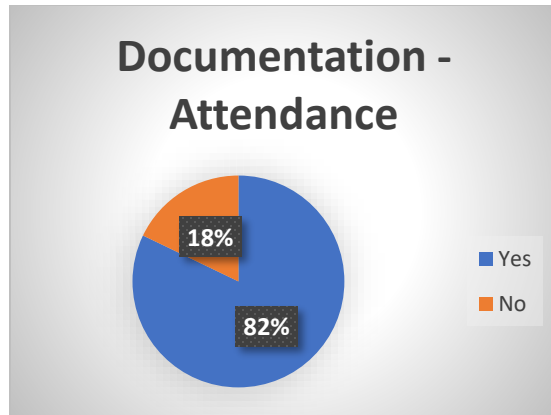
- Context of discussion: Of the 28 patients, all patients had documentation of the context of the discussion (i.e. what was discussed).



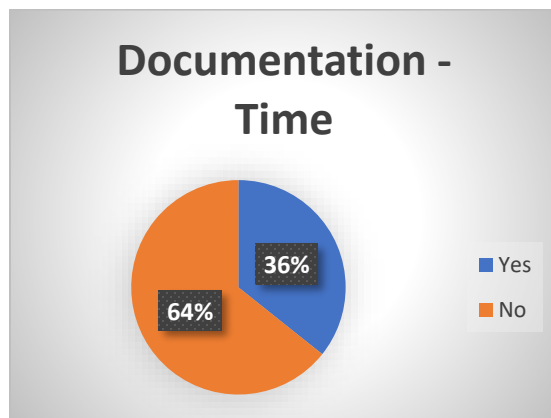
- Advance Directives: Of the 28 patients, resuscitation order was addressed for 93% (n=26), and not addressed for 7% (n=2). Durable power of attorney was addressed for 65% (n=17) of patients and not addressed for 35% (n=9).



- Who was present for discussion: Of the 28 patients, 82% (n=23) patients had documentation of who was present during the ACP discussion and 18% (n=5) patients did not have documentation of who was present during the ACP discussion.



- Time for ACP discussion: Of the 28 patients, 36% (n=10) patients had documentation of total time spent during the ACP discussion and 64% did not (n=18).



- CPT Code Usage: None of the audited charts included the use of ACP CPT codes. Most the charts audited (89%, n=25) utilized 99345 for a home visit, new patient. The remaining charts (11%, n=3) utilized 99344 (home visit, new patient), 99349 (home visit, established patient), and 99350 (home visit, established patient).



**Return on Investment**

**Projected Return on Investment for ACP Service Codes**

Current State								
Patient	Time Spent (Overall)	Time Spent (E/M)	Time Spent (ACP)	Current E/M CPT	ACP CPT 99497	ACP CPT 99498	RUV	Reimbursement
2	70	35	35	99345			4.09	\$ 232.54
3	100	50	50	99345			4.09	\$ 232.54
8	90	45	45	99345			4.09	\$ 232.54
11	60	30	30	99345			4.09	\$ 232.54
13	80	40	40	99345			4.09	\$ 232.54
16	90	45	45	99345			4.09	\$ 232.54
17	80	40	40	99345			4.09	\$ 232.54
33	70	35	45	99345			4.09	\$ 232.54
36	60	30	30	99345			4.09	\$ 232.54
41	90	45	45	99345			4.09	\$ 232.54

**Total: 40.9 \$ 2,325.40**

Future State								
Patient	Time Spent (Overall)	Time Spent (E/M)	Time Spent (ACP)	E/M CPT	ACP CPT 99497	ACP CPT 99498	RUV	Reimbursement
2	70	35	35	99345	99497		5.59	\$ 320.75
3	100	50	50	99345	99497	99498	6.99	\$ 398.70
8	90	45	45	99345	99497	99498	6.99	\$ 398.70
11	60	30	30	99345	99497		5.59	\$ 320.75
13	80	40	40	99345	99497		5.59	\$ 320.75
16	90	45	45	99345	99497	99498	6.99	\$ 398.70
17	80	40	40	99345	99497		5.59	\$ 320.75
33	70	35	45	99345	99497	99498	6.99	\$ 398.70
36	60	30	30	99345	99497		5.59	\$ 320.75
41	90	45	45	99345	99497	99498	6.99	\$ 398.70

**Total: 62.9 \$ 3,597.25**

**Missed Opportunities: 22 \$ 1,271.85**

## References

- American Medical Association. (2015). *CPT 2015 professional edition*. Retrieved from <http://iranesthesia.org/wp-content/uploads/2016/05/CPT-2015-Professional-Edition.pdf>.
- Centers for Medicare and Medicaid Services. (2016). *Frequently asked questions about billing the physician fee schedule for Advance Care Planning services*. Retrieved from <https://www.cms.gov/medicare/medicare-fee-for-service-payment/physicianfeesched/downloads/faq-advance-care-planning.pdf>
- Centers for Medicare and Medicaid Services. (2018a). *Physician fee schedule – January 2018 release*. Retrieved from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Relative-Value-Files-Items/RVU18A.html?DLPage=1&DLEntries=10&DLSort=0&DLSortDir=descending>.
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Appendix Q

Staff Educational Materials

**Advance Care Planning (ACP) Service Codes**

Beginning January 1, 2016, the Centers for Medicare and Medicaid Services (CMS) approved reimbursement for voluntary advance care planning with two new Current Procedural Terminology (CPT) codes used to file claims for advance care planning services: 99497 and 99498 (Medicare Learning Network, 2016).

This resource will include the following information:

- Description on how to code for ACP services
- Documentation requirements for ACP CPT codes
- Benefits and barriers to ACP CPT codes
- Examples of ACP CPT codes in practice

The following codes are used to file claims for ACP services:

<b>CPT Code</b>	<b>Description</b>	<b>Relative Value Units (RVUs)</b>	<b>Estimated Reimbursement</b>
99497	“Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; first 30 minutes, face-to-face with the patient, family member(s), and/or surrogate”	1.50	\$81.55
99498	“Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; each additional 30 minutes (list separately in addition to code for primary procedure)”	1.40	\$71.02
	(Medicare Learning Network, p. 2, 2016)	(CMS, 2018a)	(CMS, 2018b)

**Documentation:**

- Will vary based on source
- CMS (2016) suggests:
  - A summary of the discussion with the beneficiary or family members regarding the voluntary nature of the discussion (i.e. **declaration of verbal consent**)
  - Documentation regarding the explanation of advanced directives as well as a completion of these forms when performed (however not required)

- Who was present
- **Time spent in discussion during the face-to-face encounter** (which must be differentiated from the counseling/coordination time for the E/M code, if applicable)
- No specific diagnosis is required for ACP codes to be billed, but would be appropriate to report on the disease or conditions that is being counseled on with the patient (Medicare Learning Network, 2016)
- Should consult Medicare Administrative Contractors

**Provider, Beneficiary, and Location Eligibility:**

- Can be billed by physicians and non-physician practitioners including nurse practitioners, physician assistants, and clinical nurse specialists (Jones, Acevedo, Bull & Kamal, 2016)
  - “Incident to” services apply
- Medicare waives both the coinsurance and the Medicare Part D deductible for ACP when it is provided during the Medicare Annual Wellness Visit (Medicare Learning Network, 2016)
- No frequency limits (i.e. There are no limits to the number of times ACP can be reported in a certain timeframe. However, documentation should reflect a change in the patient’s health status and/or wishes regarding goals of care.)
- No place-of-service limits; can be billed in both facility and non-facility locations and is not limited to a specific specialty
- Can be billed with an evaluation and management (E/M) code, or as a stand-alone code

**Benefits/Barriers:**

Benefits	Barriers
<ul style="list-style-type: none"> <li>● Greater revenue capture for visits targeting ACP</li> <li>● Streamlining documentation</li> <li>● More accurately describing services delivered through billing data</li> <li>● Encouraging provision of ACP services</li> <li>● Tracking the use of these services and the impact on patient outcomes</li> <li>● Highlighting provider productivity</li> </ul> <p>(American Academy of Family Physicians, 2015; Rogers, n.d.)</p>	<ul style="list-style-type: none"> <li>● Verbal consent required from patient</li> <li>● Beneficiary may be subject to co-pay or deductible</li> <li>● Not all insurance providers cover reimbursement for ACP services</li> <li>● Limited to physicians and non-physician practitioners (NPs, PAs, clinical nurse specialists)                             <ul style="list-style-type: none"> <li>● “Incident to” clause to be explored to include additional staff involved in ACP discussions</li> </ul> </li> </ul> <p>(CMS, 2016; Jones, Acevedo, Bull &amp; Kamal, 2016)</p>

**Examples in Practice:**

*Example 1:*

A physician performed a new patient home visit with the patient in which 50 minutes were spent discussing and managing his comorbid conditions, and 50 minutes were spent on advance care planning.

- E/M CPT code used: **99345**
  - Home visit for the evaluation and management for a new patient, which requires 3 key components: a comprehensive history, a comprehensive exam, and medical decision making of high complexity; typically, 75 minutes (American Medical Association, 2015)
  - **Total RVUs: 4.09**
- Alternate option with ACP CPT:
  - If billing on time:
    - E/M: **99343** (lowered due to the time; only 50 minutes spent on evaluation and management)
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes) + **99498** (each additional 30 minutes, billable at 45 minutes)
    - **Total RVUs: 5.43**
  - If billing on complexity (Medicare Learning Network, 2017):
    - E/M: 99345
      - Comprehensive history
        - chief complain (CC) documented, history of present illness (HPI) documented, review of systems (ROS) documented, pertinent past, family, and/or social history (PFSH) documented
      - Comprehensive exam
        - At least 9 organ systems
      - Medical decision making of high complexity
        - Number of diagnoses or management options: extensive
        - Amount and/or complexity of data to be reviewed: extensive
        - Risk of significant complications, morbidity, and/or mortality: high
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes) + **99498** (each additional 30 minutes, billable at 45 minutes)
    - **Total RVUs: 6.99**

*Example 2:*

A physician performed a new patient home visit with the patient in which 30 minutes were spent discussing and managing his comorbid conditions, and 30 minutes were spent on advance care planning.

- E/M CPT code used: **99345**
  - **Total RVUs: 4.09**
- Alternate option with ACP CPT:
  - If billing on time:
    - E/M: **99342** (lowered due to the time; only 40 minutes spent on evaluation and management)
    - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes)
    - **Total RVUs: 3.02**

- If billing on complexity:
  - E/M: **99345**
  - ACP CPT: **99497** (for the first 30 minutes, billable at 15 minutes)
  - **Total RVUs: 5.59**

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## Appendix R

## Pre/Post Survey Results in Table Format

Title	n (%)
Provider	5 (35.71%)
Social Worker	3 (21.43%)
Care Manager/Nurse	6 (42.86%)

Question 1: I can describe different methods of billing for advance care planning services.

	Question 1 Pre	Question 1 Post	Comparison: Pre-to Post (p-value)
Strongly Agree	0	1 (7.14%)	0.0002
Agree	1 (7.14%)	12 (85.71%)	
Neither Agree nor Disagree	1 (7.14%)	1 (7.14%)	
Disagree	4 (28.57%)	0	
Strongly Disagree	8 (57.14%)	0	

Question 2: I can describe the CPT codes used to bill for advance care planning services.

	Question 2 Pre	Question 2 Post	Comparison: Pre-to Post (p-value)
Strongly Agree	0	2 (14.29%)	0.0001
Agree	0	11 (78.57%)	
Neither Agree nor Disagree	2 (14.29%)	1 (7.14%)	
Disagree	4 (28.57%)	0	
Strongly Disagree	8 (57.14%)	0	

Question 3: I can describe the documentation required for the use of advance care planning codes.

	Question 3 Pre	Question 3 Post	Comparison: Pre-to Post (p-value)
Strongly Agree	0	2 (14.29%)	0.0002
Agree	1 (7.14%)	11 (78.57%)	
Neither Agree nor Disagree	2 (14.29%)	1 (7.14%)	
Disagree	5 (35.71%)	0	
Strongly Disagree	6 (42.86%)	0	

Question 4: I feel confident in billing and coding of advance care planning services.

	Question 4 Pre	Question 4 Post	Comparison: Pre-to Post (p-value)
Strongly Agree	0	0	

Agree	0	8 (57.14%)	0.0002
Neither Agree nor Disagree	2 (14.29%)	4 (28.57%)	
Disagree	2 (14.29%)	2 (14.29%)	
Strongly Disagree	10 (71.43%)	0	

Question 5: I feel additional coding options for advance care planning services would be beneficial to my practice.

	Question 5 Pre	Question 5 Post	Comparison: Pre-to Post (p-value)
Strongly Agree	2 (14.29%)	3 (21.43%)	0.0625
Agree	3 (21.43%)	6 (42.86%)	
Neither Agree nor Disagree	3 (21.43%)	4 (28.57%)	
Disagree	4 (28.57%)	0	
Strongly Disagree	2 (14.29%)	1 (7.14%)	

\*Significance based on a p value <0.05

Appendix S

Pre/Post Survey Results in Graphical Format

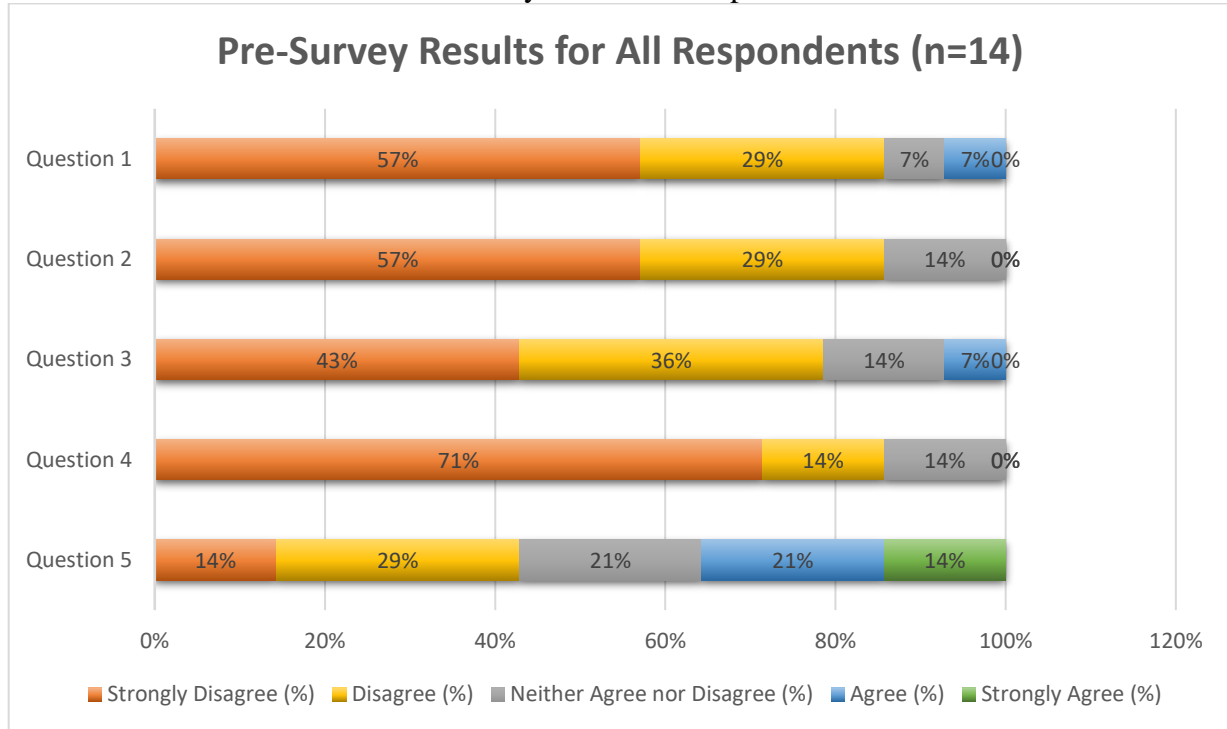


Figure 1. Pre-survey results for all respondents.

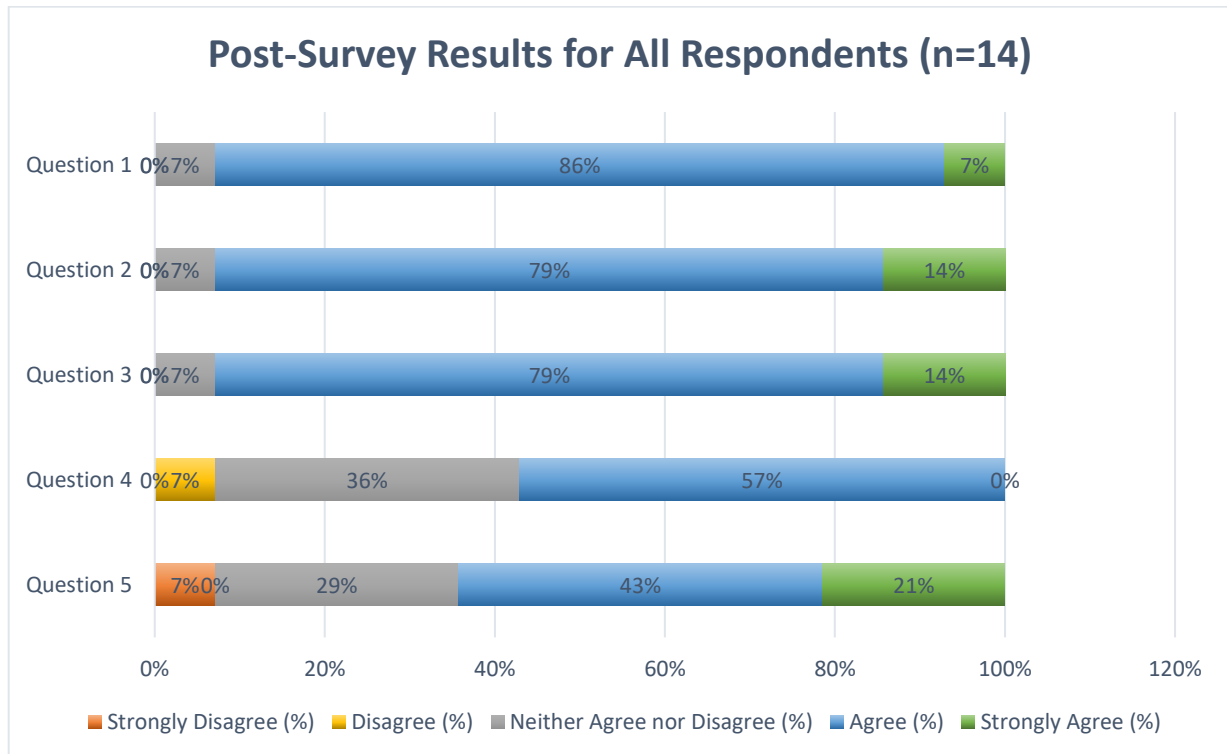


Figure 2. Post-survey results for all respondents.

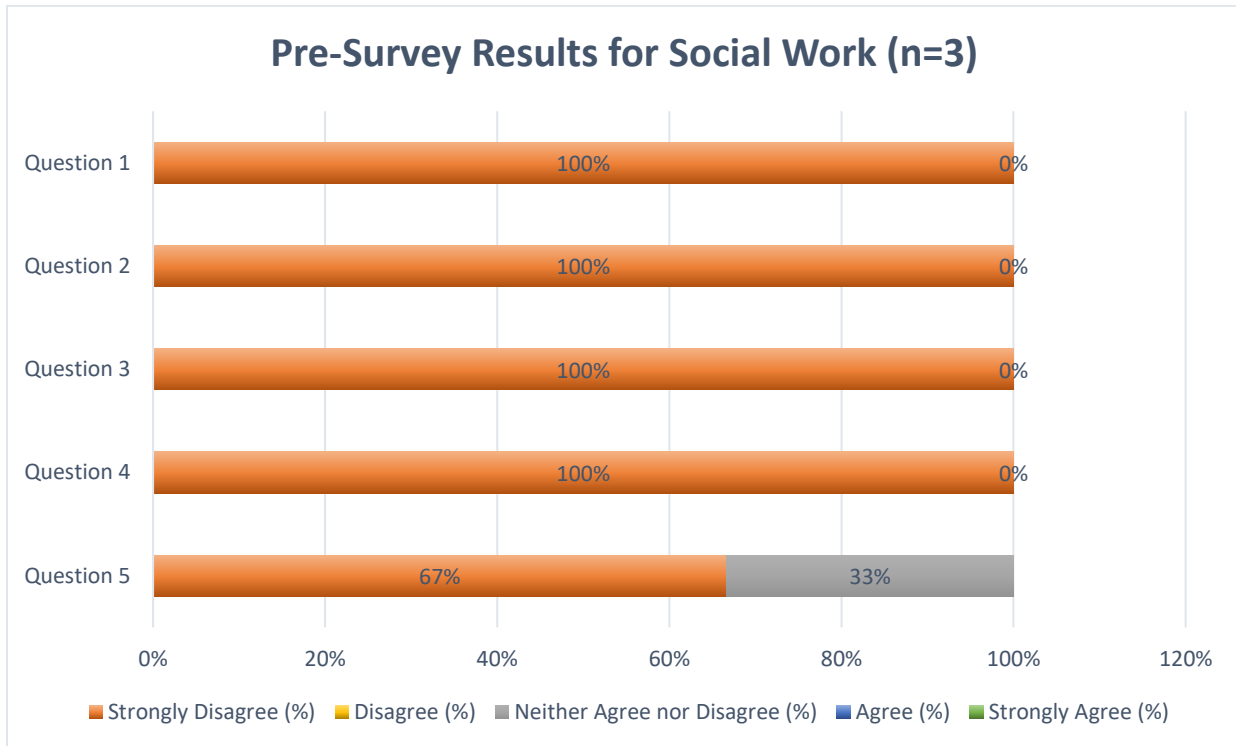


Figure 3. Pre-survey results for social workers.

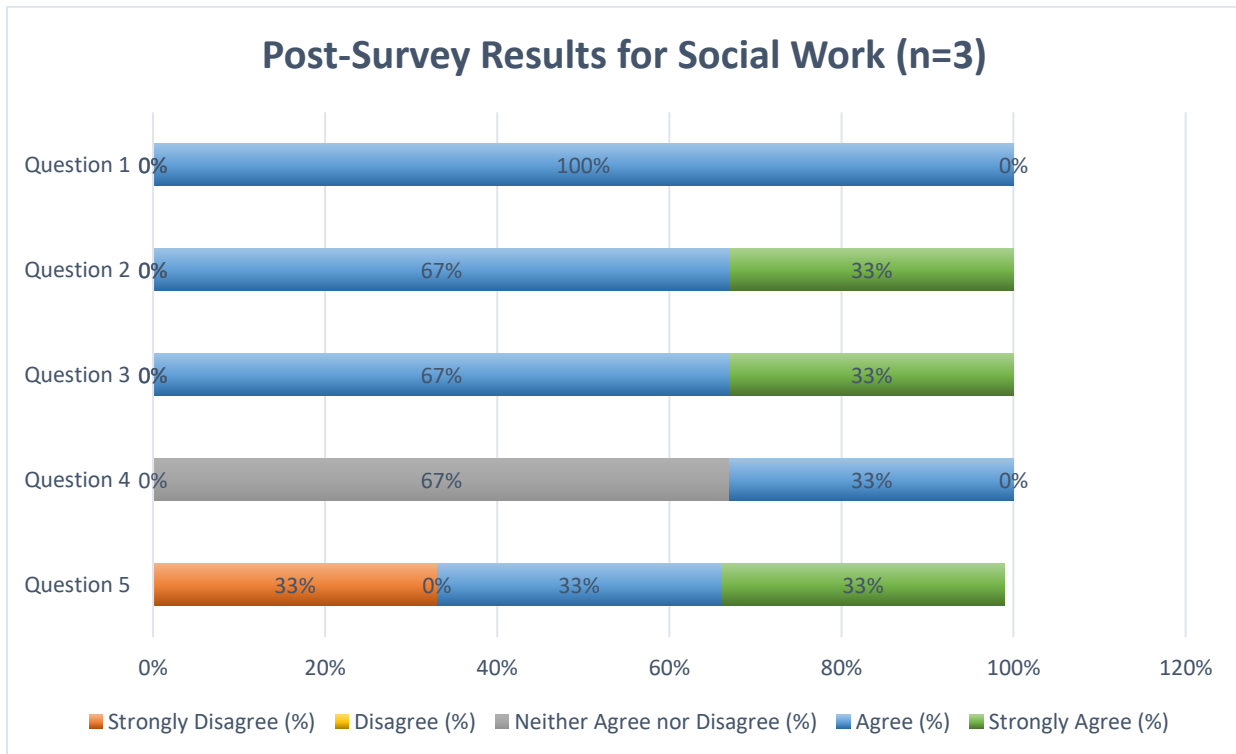


Figure 4. Post-survey results for social workers.

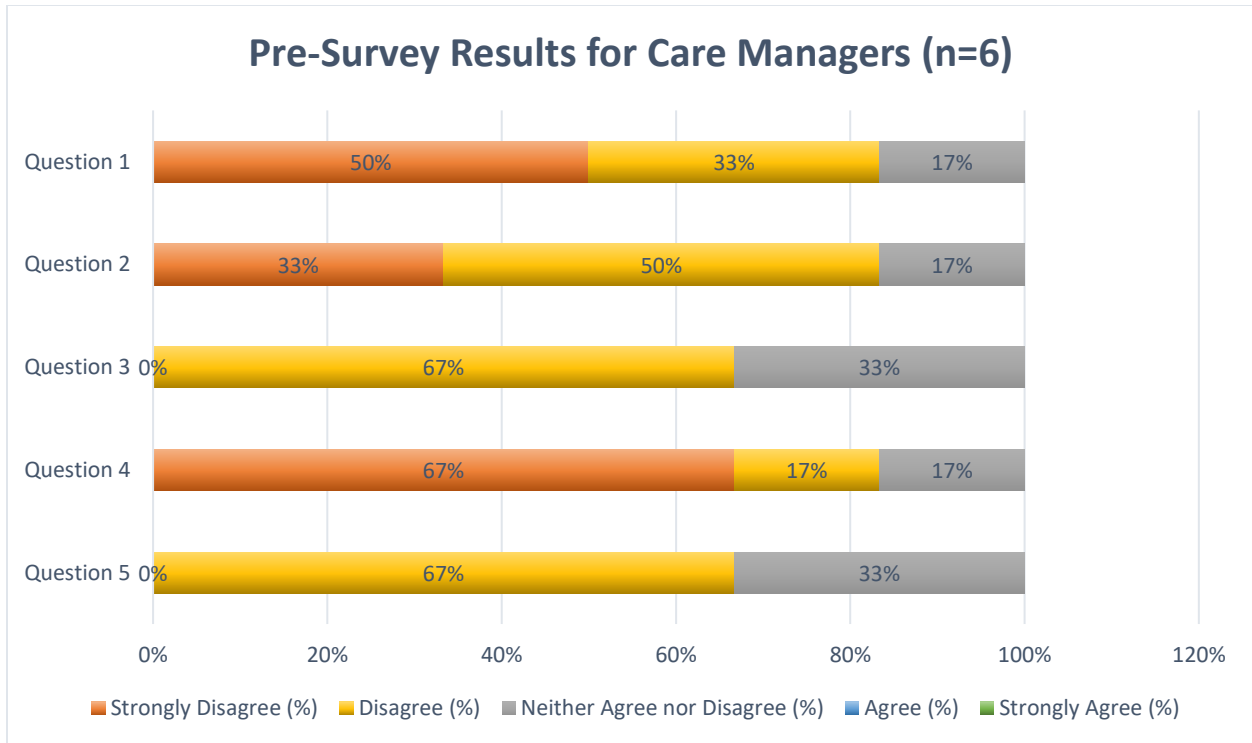


Figure 5. Pre-survey results for care managers.

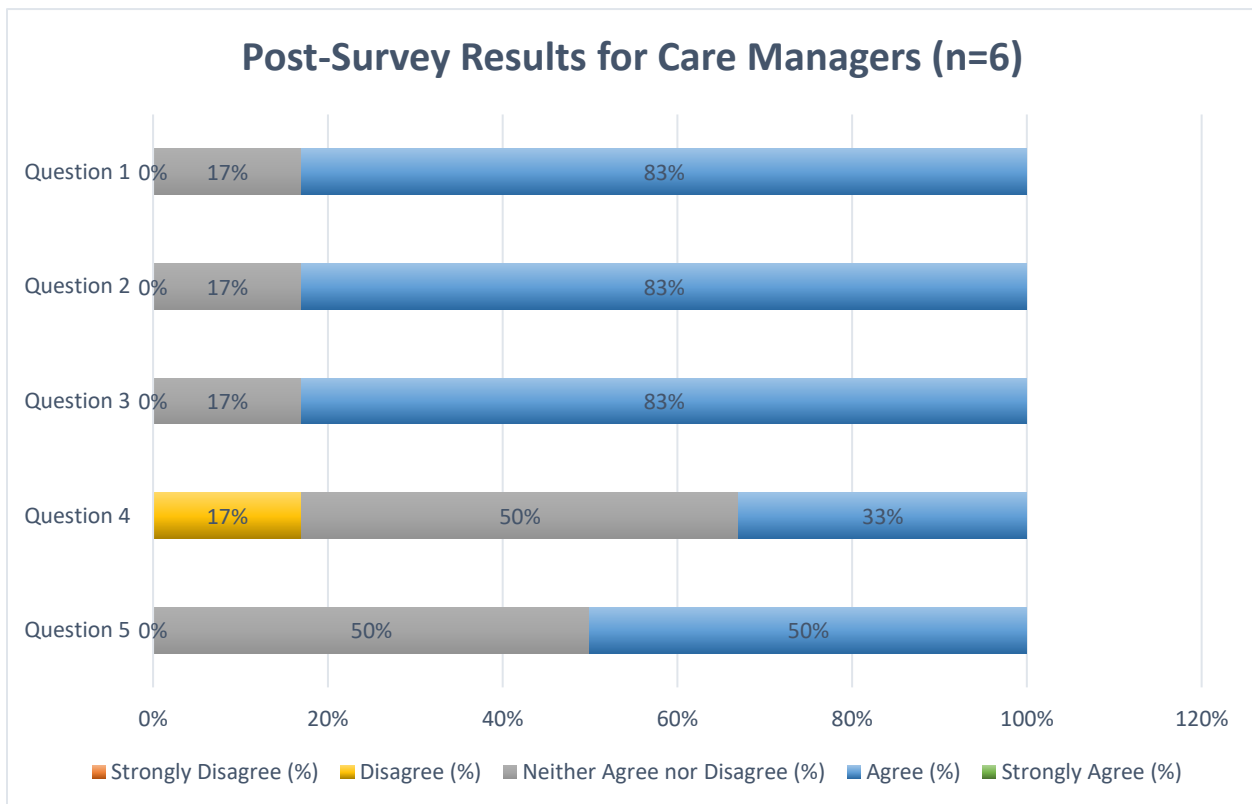


Figure 6. Post-survey results for care managers.

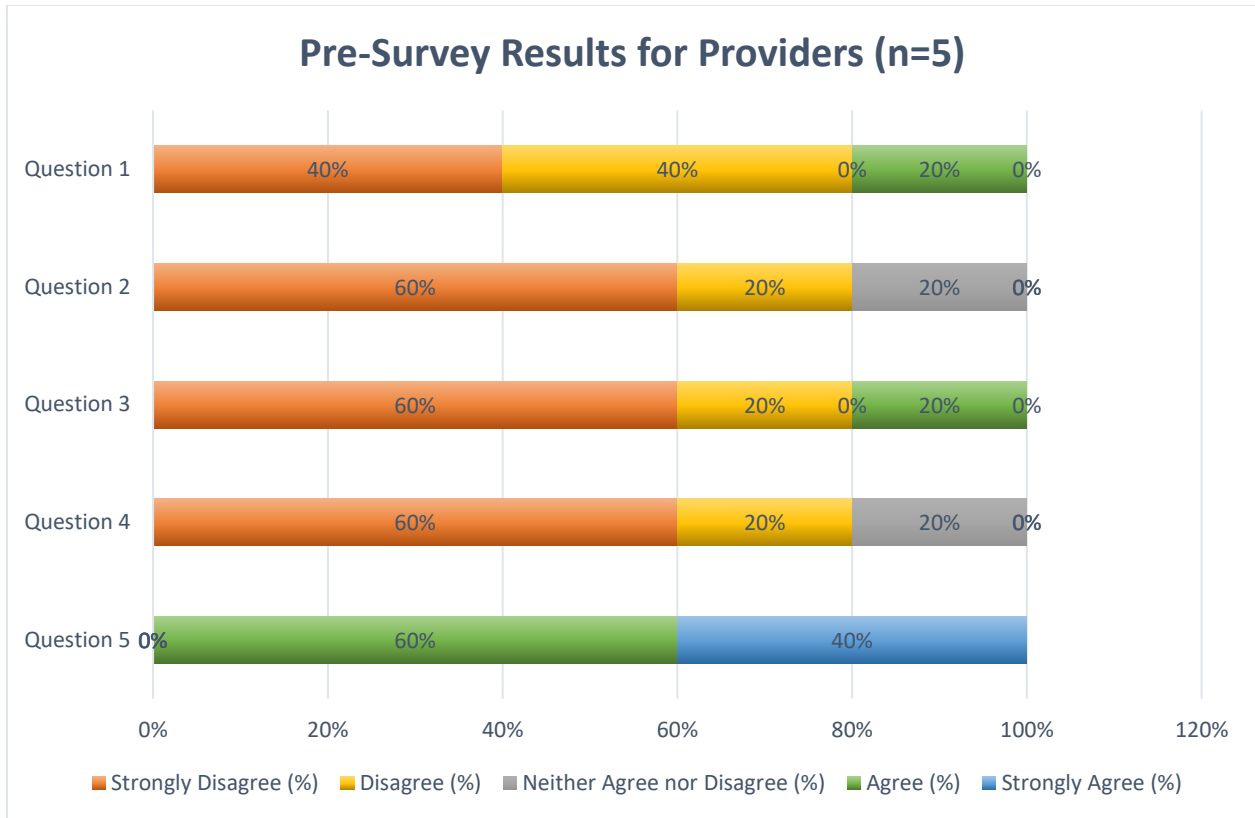


Figure 7. Pre-survey results for providers (physicians and nurse practitioners).

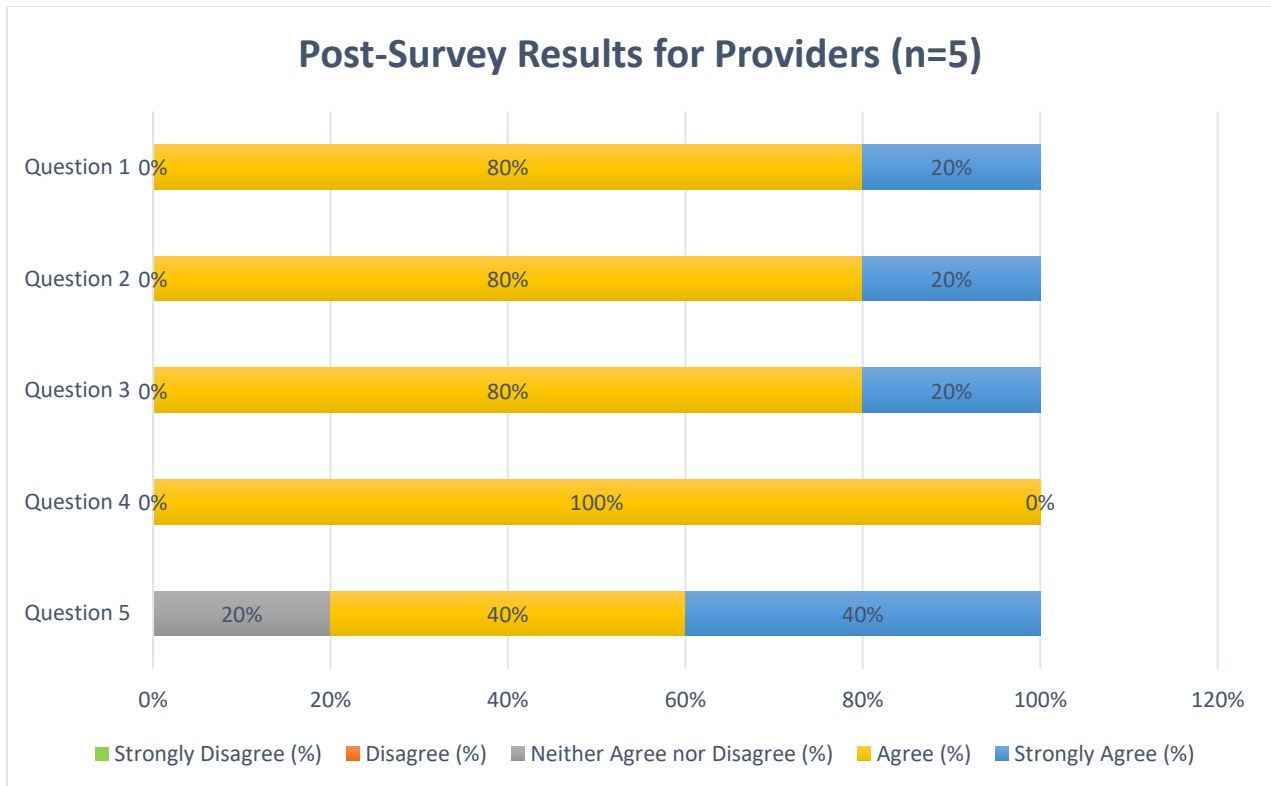


Figure 8. Post-survey results for providers (physicians and nurse practitioners).

Appendix T

Data Collection with Results from Chart Audit

Table 1. Data collection table with results from pre-and post education session chart audits.

<b>Implementation Outcome</b>	<b>Variable</b>	<b>Measurement</b>	<b>Data Location</b>	<b>Collection Method</b>	<b>Data Collector</b>	<b>Baseline Data</b>	<b>Post Implementation Data</b>
Context	Practice change	CPT code utilization for ACP face-to-face encounters	Billing summary of face-to-face encounters in the EMR	Manual collection	Doctoral Student	89% 99345	N/A
						11% 99433, 99349, or 99350	
						0% ACP CPT codes	
		Correct documentation for CPT code utilization for ACP face-to-face encounters	Provider documentation of face-to-face encounters in the EMR	Manual collection	Doctoral Student	Consent: 21% Yes 79% No	Consent: 0% Yes 100% No
						Explanation of Advance directives: 14% Yes 86% No	Explanation of Advance directives: 0.05% Yes 99.95% No
						Resuscitation Status Listed: 94% Yes 6% No	Resuscitation Status Listed: 93% Yes 7% No

						DPOA Listed: 65% Yes 35% No	DPOA Listed: 91% Yes 8% No
						Who was present: 82% Yes 18% No	Who was present: 75% Yes 25% No
						Time spent on ACP discussion: 64% Yes 36% No	Time spent on ACP discussion: 0% Yes 100% No
						All documentation requirements: 0%	All documentation requirements: 0%
		RVUs for ACP face-to-face encounters	2017 National Physician Fee Schedule Relative Value File	Manual collection	Doctoral Student	111.24	N/A; not implemented at this time