Use of Change Agent to Facilitate Implementation of Personalized Health Plans

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USE OF A CHANGE AGENT TO FACILITATE IMPLEMENTATION OF PERSONALIZED HEALTH PLANS

A doctoral project submitted in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice

By

COLLEEN MIRANDA
M.S., Wright State University, 1999

2015
Wright State University College of Nursing and Health/
The University of Toledo College of Nursing
I HEREBY RECOMMEND THAT THE DOCTORAL PROJECT PREPARED UNDER MY SUPERVISION BY Colleen Miranda ACCEPT ENTITLED Use of a Change Agent to Facilitate Implementation of Personalized Health Plans IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Doctor of Nursing Practice.

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ABSTRACT

Miranda, Colleen DNP, Doctor of Nursing Practice Program, Wright State University and University of Toledo, 2015. Use of a Change Agent to Facilitate Implementation of Personalized Health Plans

In 2015, the Centers of Disease Control and Prevention reported that the most common, costly but preventable health problems are heart disease, stroke, cancer, diabetes, obesity, and arthritis. Literature shows preventable chronic diseases have increased in the current healthcare system. Healthcare leaders are calling for a change in the current faulty healthcare delivery system to personalized healthcare. A patient-centered approach focuses on the health gains that can be made in the prevention and treatment of chronic disease with a higher level of patient engagement.

The Veterans Health Administration (VHA) is advocating patient-centered care (PCC) to focus on the health gains that could be made in the prevention and treatment of chronic disease with a higher level of patient engagement. To aid in empowering veterans to take ownership of their healthcare the VHA has endorsed use of Personalized Health Plans (PHP). VHA directed primary care healthcare professionals to use a patient-centered approach to encourage veterans to make a holistic self-evaluation then create personalized goals or PHP, focusing on their whole being, not just their medical illnesses to improve health and wellbeing. However, patient-centered care with documentation of PHPs across
the VHA has met some resistance. In fiscal year 2014, October 1, 2013 to September 30, 2014, a midwestern VHA primary care administration, reported their clinics only initiated 66 PHPs from 32 patient aligned care teams (PACTs) that each saw approximately 270 veterans a day. The administration required an immediate action plan to promote patient-centered care and increase the number of PHPs.

To intervene in this dilemma, Lewin’s Change Theory and the Institute for Healthcare Improvement’s Model for Improvement, known for accelerating process improvement, were used as the framework for this process improvement project to evaluate if the utilization of a change agent would facilitate implementation of PHP. The change agent used multiple strategies of guidance, facilitation, and inspiration in three successive one-month Plan-Do-Study-Act cycles to promote PHP among 29 patient aligned care teams (PACTs). The use of a change agent did promote the implementation of PHP. After the change agent became involved the total number of PHPs increased across these midwestern primary care clinics. However, the increase in PHPs per PACT was not as high as desired. The aim was for PACTs to initiate 3 PHPs a week or 12 PHPs a PDSA Cycle. Over the three-month intervention, the aim of 12 PHPs initiated per PACT a month occurred just ten times, only 39% of the aim was met. Several factors could have restrained PACTs from rapidly increasing their numbers of PHPs, including time restraints and electronic health record limitations. Recommendations to facilitate PHP implementation are to decrease barriers and increase facilitators to this change in practice.
TABLE OF CONTENTS

I. Introduction .................................................................................................................. 1

   Problem ......................................................................................................................... 5

   Guiding Framework ....................................................................................................... 6

   Clinical Question ........................................................................................................... 6

   Purpose and Aim of the Project ..................................................................................... 8

II. Appraisal and Synthesis of Evidence ........................................................................ 9

   Implementation of PHP .................................................................................................. 9

   Use of Change Agent Strategies .................................................................................. 21

   Synthesis of evidence ................................................................................................... 28

III. IMPLEMENTATION OF THE PROJECT .............................................................. 30

   Project Setting/Population ............................................................................................ 30

   Implementation Plan .................................................................................................... 31

   Key Stakeholders .......................................................................................................... 31

   Forming the Team ......................................................................................................... 31

   Setting Aims .................................................................................................................. 32

   Establishing Measures ................................................................................................. 33
### LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Veteran-Centered Circle of Health and Well-Being</td>
<td>3</td>
</tr>
<tr>
<td>2. Intervention of change agent strategies to promote PHP</td>
<td>29</td>
</tr>
<tr>
<td>3. Monthly number of PHPs initiated per PACT in the 3 months prior to the intervention against the aim</td>
<td>42</td>
</tr>
<tr>
<td>4. Cumulative of PHPs initiated per PACT 3 months prior to intervention</td>
<td>43</td>
</tr>
<tr>
<td>5. PHPs initiated per PACT post intervention PDSA Cycle One</td>
<td>44</td>
</tr>
<tr>
<td>6. PHPs initiated per PACT post intervention for PDSA Cycle Two</td>
<td>51</td>
</tr>
<tr>
<td>7. PHPs initiated by PACTs in PDSA Cycles One and Two</td>
<td>52</td>
</tr>
<tr>
<td>8. Cumulative data PHPs per PACT for PDSA Cycles One and Two</td>
<td>53</td>
</tr>
<tr>
<td>9. PHPs initiated per PACT post intervention for PDSA Cycle Three</td>
<td>56</td>
</tr>
<tr>
<td>10. PHPs documented for PACTs for PDSA Cycles One, Two, &amp; Three</td>
<td>57</td>
</tr>
<tr>
<td>11. PHP cumulative data for PDSA Cycles One, Two, &amp; Three</td>
<td>58</td>
</tr>
<tr>
<td>12. Cumulative numbers of PHPs initiated: Actual versus and expected after implementation of change agent at month 5</td>
<td>60</td>
</tr>
<tr>
<td>13. Cumulative of all PHPs initiated per PACT</td>
<td>61</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PICOT Format</td>
<td>7</td>
</tr>
<tr>
<td>2. Revised PICOT Format</td>
<td>7</td>
</tr>
<tr>
<td>3. Hierarchy of Evidence</td>
<td>9</td>
</tr>
<tr>
<td>4. Lessons and Strategies to Facilitate PCMH</td>
<td>18</td>
</tr>
<tr>
<td>5. Appraisal and Synthesis of Evidence to Implement PHP</td>
<td>20</td>
</tr>
<tr>
<td>6. Role of Change Agent</td>
<td>25</td>
</tr>
<tr>
<td>7. Synthesis of Evidence of Change Agent Roles and Strategies</td>
<td>27</td>
</tr>
<tr>
<td>8. Synthesis of Evidence</td>
<td>28</td>
</tr>
<tr>
<td>9. PHP Implementation Survey Questions</td>
<td>34</td>
</tr>
</tbody>
</table>
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I share the credit of my work with my husband Cesar. He is always by my side with unending support and encouragement towards achieving my personal and professional goals.
DEDICATION

This project is dedicated to my family and in memory of my father Robert Knapp.
Without their love, support, and assistance with cars, childcare, and computers I would have never made it this far. Thanks for always being there for me.
I. Introduction

The goal of Healthy People 2020 is "to improve the health of all Americans" (U.S. Department of Health and Human Services, 2013). Unfortunately, lack of attention to controlling health risk behaviors can lead to preventable chronic health conditions like diabetes and hypertension. According to the Centers of Disease and Control or CDC (2015) the overall problem is the cost, related to loss of quality of life and billions of dollars spent on diagnosis and treatment of preventable health complications. An agonizing price for health conditions that could have been prevented if people were actively engaged in improving their health and well-being. The traditional approach to healthcare where the provider directs a patient’s health outcomes is not working. Preventable health conditions continue to plague the nation despite recommendations of healthcare professionals for patients to make lifestyle modifications. According to the CDC, in 2010 chronic diseases caused 7 of 10 deaths and consumed 75% of the healthcare dollars (2015). How are healthcare providers supposed to empower patients to take a comprehensive look at their life and health and encourage them to take steps to better their life?

Medicare and Medicaid are calling for a change from the current defective healthcare delivery system to personalized healthcare. A patient-centered focus is vital in assessing the patient’s readiness for health and well-being promotion (McMullen, May, Staton, & Pace, 2007). In 2001 an historic report, Crossing the Quality Chasm: New
"Health System for the 21st Century," the Institute of Medicine proposed the transition to a new personal healthcare system that meets the needs of the patient. Unfortunately, change has been slow as medical professionals are challenged with how to best implement personalized healthcare.

The Veterans Health Administration’s (VHA) is the largest integrated healthcare system in America (2015b). In 2013 there were over 86.4 million veterans enrolled in the VHA (National Center for Veterans Analysis and Statistics, 2014). One of the VHA strategic goals is to provide veterans with personalized, proactive, and patient driven health care with the use of personalized health plans (PHP). Patient-driven health care requires a change from the traditional approach to focusing on what really matters to the person, whole health, and not just their medical illnesses. Veterans are more likely to have a greater number of chronic health problems than nonveterans leading to physical limitations (CDC, 2015). Beyond common chronic health conditions, many veterans have military related health concerns due to war injuries, post-traumatic stress disorder, and/or exposure to an assortment of chemical, physical, and/or environmental hazards (U.S. Department of Veterans Affairs, 2014e). These compounding health problems may increase the barriers veterans have to managing their health. The multifaceted toll that chronic health problems take on veterans is costly. However, the proposed 2015 VA budget to take care of veterans is $163.9 billion, an increase of 3% or $2.0 billion from 2014 (U.S. Department of Veterans Affairs, 2014b). Nationwide implementation of personalized healthcare could make major improvements in the health outcomes of veterans.
The VHA’s new health promotion model is the Circle of Health and Well Being (Figure 1) also known as the components of proactive health and well-being. This model (Figure 1) is used to aid the veteran in recognizing all aspects of their health (U.S. Department of Veterans Affairs, 2014a). In the model, the veteran is at the center of the circle surrounded by all the healthy living aspects of their life. This approach encourages the veteran to take a comprehensive view of all aspects of their life and health.

*Figure 1. Veteran-Centered Circle of Health and Well-Being.*

The U.S. Department of Veterans Affairs (VA) 2010-2014 Strategic Plan vowed to provide patient-centered care throughout the VHA to achieve better veteran health outcomes (U.S. Department of Veterans Services, 2010). To transform healthcare into
being more patient-centered, the VHA had to make changes to their primary care program by implementing the Patient-Centered Medical Home (PCMH) model in 2010 throughout all primary care clinics (Rosland et al., 2013). The PACT model promotes patient-centered care and empowers veterans to build PHP to meet their whole health and well-being goals (U.S. Department of Veterans Affairs, 2015). To support this endeavor, the VHA created the Office of Patient-Centered Care and Cultural Transformation with a supportive website, databases for decision support, clinical information systems, and tutorials on how to implement patient-centered care in primary care clinics. All VHA primary care facilities held mandatory all staff meetings and trainings to develop PACTs. Each PACT core consists of a provider, nurse practitioner, physician, or physician’s assistant, a registered nurse case manager, a licensed practical nurse, a medical support assistant, and the veteran with their family. Supporting the PACTs are a pharmacist, dietician, behavioral health counselor, and social worker to meet the veteran’s health needs and personal goals. The VHA’s goal was to have PACTs fully implement PHP by September 30, 2014.

The PHP is part of the paradigm shift away from the traditional approach or provider driven healthcare by inspiring the patient to participate in management of their health and well-being. The PHP changes the routine of the usual primary care visit by encouraging the veteran to be actively engaged in their healthcare. Each PACT decides how they want to implement PHP. There is a standard mandatory VHA’s PHP template (Appendix A) for the documentation of the veteran’s health goals and a patient determined period for follow up. The VHA wants all veterans to make holistic self-evaluations then create a PHP with patient-centered goals focusing on their whole being.
Unfortunately, this part of the practice transformation did not occur throughout the VHA by September 2014. The revised 2014-2020 VA Strategic Plan mandates VA healthcare professionals to improve care by putting the veteran in control of their health outcomes (U.S. Department of Veterans Services, 2014d) through using PHP.

**Problem**

The problem of interest for this project came from a cascade of problems, uncontrolled health risk factors to multiple chronic health conditions to PACT barriers to implement a practice change from the traditional provider driven approach to PHP or a patient driven approach to healthcare management. In 2012-2013 a midwest veterans administration primary care clinic trialed having veterans complete a multiple page personal health inventory and working with PACTs to create PHPs. This trial failed. The veterans and staff disliked the lengthy process. In late 2013 a primary care PHP team assembled and developed an abbreviated paper one-page version of the personal health inventory or PHP Assessment Tool Sheet called Health Check (Appendix B) and the staff was briefed on the need to implement patient-centered care and PHP. In preparation for implementing personalized care there were multiple PACT educational opportunities: patient-centered care training, PHP orientation, TEACH for Success (2012), and Relationship-Based Care (2015). Primary care leadership also offered PACTs incentives to support PHP, increased scheduled visit time to do a PHP, and authorization to disregard automatic computerized clinical charting reminders if a PHP was initiated. Despite the huge emphasis placed on implementing PHP, few PACTs engaged in personalized health promotion and documented PHPs. By the September 2014, only 66 PHP notes were completed by more than 27 PACTs that saw an average of
270 veterans a day. An informal survey of PACT members cited multiple barriers to personalized healthcare promotion and initiation of PHPs: time, comfort level writing PHPs, negative attitude towards PHP, and lack of motivation to make a practice change. The Primary Care Clinic’s administration declared personalized care implementation a priority and wanted an immediate intervention to support this practice change as evidenced by an increase in the documentation of PHPs.

On January 27, 2015 the Primary Care Clinic’s administration assembled a group of primary care staff interested in accelerating the adoption of personalized patient care and implementing PHP to intervene in this dilemma.

**Guiding Framework**

The Institute for Healthcare Improvement’s Model for Improvement or MOI (2015b) framework was used to guide this process improvement project and further identify the problem. The model was chosen because it is known for expediting improvement. The MOI consists of the answering the following three questions: 1) what are we trying to accomplish?; 2) how will we know that a change is an improvement?; and 3) what change can we make that will result in improvement? The MOI also consists of cycles for learning and improvement or the Plan Do Study Act (PDSA) Cycles. The steps of the MOI are: forming a team, setting aims, establishing measures, selecting changes, testing changes, implementing changes, and spreading changes.

**Clinical Question**

The PICOT format was used to develop the clinical question, “What are we trying to accomplish?” and guide the literature search based on population, intervention, comparison, outcome, and time. The problem was that PACTs were not fully
implementing patient-centered care as evidenced by the small amount of documented PHPs.

Table 1

*PICOT Format*

<table>
<thead>
<tr>
<th>PICOT CONCEPT</th>
<th>PROJECT SPECIFICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Patient-aligned care teams</td>
</tr>
<tr>
<td>Intervention</td>
<td>Change intervention to implement personalized health planning</td>
</tr>
<tr>
<td>Outcome</td>
<td>Effect on numbers of documented personalized health plans</td>
</tr>
<tr>
<td>Comparison</td>
<td>Change intervention compared to no intervention</td>
</tr>
<tr>
<td>Time</td>
<td>Over three months</td>
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The PICOT question was for PACTs, how will utilization of a change intervention to implement PHP compared to no intervention affect the numbers of documented PHPs across 3 months? Based on the following literature view, the PICOT question was changed. The group of primary care staff interested in accelerating the implementation of PHP selected a change agent to intervene in this dilemma. The PICOT format and question were revised to develop the clinical question and further guide the literature search.

Table 2

*Revised PICOT Format*

<table>
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<tr>
<th>PICOT CONCEPT</th>
<th>PROJECT SPECIFICS</th>
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<tr>
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</tr>
<tr>
<td>Time</td>
<td>Over three months</td>
</tr>
</tbody>
</table>

The PICOT question was for PACTs in a Midwestern Veterans Health Administration’s primary care system, how will utilization of a change agent to promote
PHP compared to no intervention affect the numbers of documented PHPs across 3 months?

**Purpose and Aim of the Project**

The purpose of this practice improvement project was to see if the effect of a change agent would empower PACTs to support patient-centered healthcare and empower veterans to create PHPs. The aim of this evidence-based practice improvement project was to expedite the implementation of PHP, as evidenced by the number of documented PHPs. An initial appraisal and synthesis of literature was conducted to identify intervention strategies on implementing PCMH or PHP. One of the intervention strategies was the use of a change agent. Therefore, the second appraisal and synthesis of literature was conducted to identify intervention strategies of a change agent towards implementing a practice change, such as PCMH or PHP. The research studies were critiqued using a quality review rating score (Gaspar, 2009). The evidence from each article was also appraised based on Melnyk and Fineout-Overholt’s (2005) rating system for Hierarchy of evidence (Table 3). The articles are listed according to their level of evidence. The practice improvement project focused on the use of strategies of a change agent to improve the implementation of PHP from February 2015 through May 2015.
Table 3

Hierarchy of Evidence

<table>
<thead>
<tr>
<th>Level</th>
<th>Evidence Description</th>
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<tbody>
<tr>
<td>Level I</td>
<td>Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs) or evidence based guidelines based on systematic reviews of RCTs.</td>
</tr>
<tr>
<td>Level II</td>
<td>Evidence obtained from at least one well-designed RCT</td>
</tr>
<tr>
<td>Level III</td>
<td>Evidence obtained from well-designed controlled trials without randomization (e.g. quasi-experimental study)</td>
</tr>
<tr>
<td>Level IV</td>
<td>Evidence from nonexperimental studies (e.g. case control and cohort studies)</td>
</tr>
<tr>
<td>Level V</td>
<td>Evidence from systematic reviews of descriptive or qualitative studies</td>
</tr>
<tr>
<td>Level VI</td>
<td>Evidence from single descriptive or qualitative study</td>
</tr>
<tr>
<td>Level VII</td>
<td>Evidence from opinion of authorities and/or reports of expert committees</td>
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</table>

II. Appraisal and Synthesis of Evidence

Implementation of PHP

An appraisal and synthesis of evidence was completed to find interventions to improve implementation of personalized health planning (PHP). A systematic search of CINHAL and Medline was completed using the words derived from the PICOT question: personalized, patient-centered, patient-focused, shared-decision making, goal, medicine, and health. Literature in English was appraised from February 2005 to January 2015 if it addressed supporting and implementing personalized patient-centered health planning in primary care. Google Scholar was also searched using the key words. Thousands of articles were identified using only the individual keywords. However, when the key words were searched together only twenty were found. Then after reading beyond the abstract, eight articles did not offer evidence to support or interventions to implement PHP. Only twelve articles meeting the inclusion criteria were found, seven studies: four literature reviews and one expert opinion. A literature review table (Appendix C) was
constructed to compare the purpose, sample, setting, design, variables, instruments, results, and implications of each article.

**Level I Evidence.** A Cochrane Review, systematically evaluated randomized controlled trials and cluster-randomized trials with interventions leading healthcare clinicians and patients to shared-decision making and goal planning (Coulter et al., 2015). The trials had 10,856 participants combined to evaluate if personalized care planning for adults with chronic health conditions compared to usual care led to improved health outcomes. These studies were published before July 2013 and took place in primary care clinic or hospital clinics. All studies included an intervention with collaborative goal setting and action planning. Types of interventions found in the review focused on the patient, clinician, or patient and clinician. Interventions targeted at clinicians were specific training on personalized care planning, guidelines to elicit patients’ preferences, algorithms to guide care-planning process, brief tools to aid in creating goals, and electronic or printed personalized health plan to record and monitor goals for follow up. The review concluded that personalized care planning may have a positive effect on decreasing blood sugar, decreasing systolic blood pressure in diabetics, improving lung function and asthma control, and subsiding depression. Patient engagement on disease management may improve health outcomes. Personalized health planning may lead to better health outcomes.

**Level III Evidence.** A team approach to using an electronic health records (EHR) and patient-centered care plan (PCCP) was found to improve collaborative self-management planning and increase patient-centered goal setting (Chunchu, Mauksch, Charles, Ross, & Pauwels, 2012). To implement PCCP the experimental staff was
educated on the principles of patient-focused care and how to document patient-centered goals. The experimental staff was also given extra time with patients during the initial implementation of PCCP to get accustomed to the change in practice. The study was conducted in a family medicine residency clinic September 2009 to August 2010. They used a control group with seven physicians, a medical assistant, and 30 patients and an experimental group with seven physicians, a medical assistant, and 28 patients. Only the experimental group had two hours of education, extra time in the beginning while first implementing PCCP, and a follow up with individual interviews. EHR review found that patients in the experimental group had more documented positive behavior change elements than patients in the control group (p<.001). Feedback from patients positively supported collaborative self-management planning and patient-centered goal setting.

In a comparable study, brief shared decision-making (SDM) goal-setting for patients with type two diabetes was evaluated using a single group pre and posttest design (Corser, Holmes-Rovner, Lein, & Gossain, 2007). The study used a convenience sample of 58 patients from a Michigan State University Internal Medicine Clinic over fifteen months in 2004 and 2005. The intervention consisted of two 2-hour lectures on diabetes practice guidelines, information on the study design, and role playing for resident physicians, nurses, and medical assistants. Forty-four patients received 28 page patient-decision support workbooks and one audio taped 2-hour education session followed by a visit with the nurse to identify at least one diabetes management goal to discuss with their physician. During the study timeframe, patients had between one to three office visits focusing on their diabetes management. Outcome measures addressed pre and posttest were HbA1C, weight, blood pressure, patient diabetes goals, perceived patient
empowerment, self-management, diabetes knowledge, co-morbidities, diabetes severity, diabetes attitudes, and diabetes empowerment. The SDM intervention resulted in increased diabetes management goal setting with 75.9% of patients having at least one diabetes management goal (p=.001) and increased patient knowledge of diabetes management (p<.001). Outcomes measures of diabetes HbA1C, weight, blood pressure improved slightly but not at substantial levels.

**Level IV Evidence.** Preliminary results of three patient-centered medical home (PCMH) pilots show that this model may improve patient health outcomes and decrease healthcare costs (Raskas, R, et al., (2012). This quantitative study evaluated early results of in three PCMH pilots in Colorado, New Hampshire, and New York. Patient-centered medical homes hopes to transform traditional primary care practices into a team based approach to patient-centered care and treatment planning. The study looked at 31,032 medical home patients in comparison with 350,015 control patients who were not a part of a medical home model practice across three practice sites. Patient-centered medical home model physicians were given information to support a personalized whole patient approach to care with shared-decision making. Physicians were also given pay incentives for meeting quality measures. Preliminary results of the study indicate an 18% per 1000 decrease in acute care admissions compared to 15% increase in the control patients, 15% per 1000 decrease in Emergency Room visits compared to 4% increase in control patients, and 0% increase in specialty visits compared to 10% increase in control group. Results also show improvement on diabetes care measures. The study indicated patient satisfaction was increased with the PCMH model. The New Hampshire data showed a 5% increase in cost for patients in PCMH model versus 15% increase in cost for patients
in traditional practice models. The study concluded that New York PCMH also had lower utilization rates, lower costs, and better compliance with evidence-based healthcare guidelines. For example, PCMH versus the traditional model resulted in an increased rate of hemoglobin A1C testing 82.1% versus 77.7% and a decrease in inappropriate pediatric antibiotic use, 27.5% versus 35.4%.

**Level V Evidence.** Four reviews in literature were analyzed. The first looked for themes concerning cardiovascular risk reduction (Cohen & Kataoka-Yahiro, 2009). The authors reported an improved adherence to recommendations for risk reduction in cardiovascular disease with shared decision making and goal setting. The authors reviewed 22 quantitative, qualitative studies, and meta-analyses between 1995 and 2008 pertaining to practice recommendations for reducing cardiovascular risk. The appraisal of these articles indicated multiple ways improving clinical practice can lower cardiovascular disease risk. Pertinent to this project the article also lists interventions to support practice changes with improved provider adherence using reminders, emphasis placed on desired change, provider education and awareness, and feedback to providers.

The second review of literature explored how different types of collaboration, including patient-focused management can improve outcomes in chronic disease (Gilbert, Staley, Lydall-Smith, & Castle, 2008). This review included 67 papers evaluating four types of collaboration: epidemiological, research consortium, organizational-change, and patient-focused. Relevant to this project, the review showed that collaboration systematically implemented across the healthcare system may improve patient-focused disease management. One of the chronic disease management models recommends four key elements for implementation (Gilbert et al., 2008):
i. 8-week client centered intervention for clinicians of all professions to work together with patients towards achieving optimal health goals in physical and psychosocial domains;

ii. structured training and supervision to ensure that clinicians are competent and confident in delivering the model,

iii. organizational training to provide underpinning for support for implementation of the model;

iv. an evaluation component to help identify effectiveness and possible gaps in service delivery that could be addressed.

Recommendations to successfully transition to patient-focused disease management included addressing barriers to change, strong leadership, and Plan-Do-Study-Act (PDSA) cycles to spur and evaluate the change.

The third article is a review of literature from October 2008 to January 2009 in combination with expert opinion that provides recommendations for implementing self-management support in primary care (Battersby et al., 2010). Evidence associated with improved patient self-management were organized according to the Chronic Care Model. There are “twelve evidence-based principles to guide self-management support:

- brief targeted assessment,
- evidence-based information to guide shared-decision making,
- use of non judgmental approach,
- collaborative priority and goal setting,
- collaborative problem solving,
- self-management support by diverse providers,
- self-management support interventions delivered by diverse formats,
- patient self-efficacy,
- active follow up,
- guideline-based case management for selected patients,
- linkages to evidence-based community programs, and
- multifaceted interventions” (Battersby et al., 2010, p. 561)

Interventions to promote implementation of self-management support include provider and layperson education and follow-up to sustain self-management behaviors and improved health outcomes. This article supports evidence-based principals of self-management support into primary care for improved health outcomes.
**Level VI Evidence.** The use of a patient-centered care plans (PCCPs) as a tool to improve patient-focused care was evaluated for a socioeconomically challenged and complex patient population (Council et al., 2012). This qualitative study was conducted over the course of one year in an urban, resident-affiliated community hospital, group family practice. Patients were chosen for PCCPs during daily huddles based on need to obtain more information or multiple complex health conditions. A generalized case study was developed from qualitative data after interviewing nine staff members and five patients with care plans related to implementing PCCPs. The case study attempts to explain the purpose, the components, the results of implementing, and attitudes towards this PCCP practice transformation. PCCPs were implemented in this study using a specific template in an electronic medical record.

The relationship between Patient-Centered Decision Making (PCDM), specifically the formulation of a plan of care and improved health outcomes, was evaluated in an observational study of 774 patients with hidden records that were seen by 139 resident physicians in internal medicine clinics at two Veterans Health Administration facilities (Weiner et al., 2013). Half of the physicians in the study were randomly selected to attend four one-hour lectures on PCDM. Visits were screened by blinded coders for the patient’s contextual red flags or variables that could influence health outcomes using a 4 C method, (Content Coding for Contextualization of Care). Contextual red flags are variables that providers should address i.e. missed appointments, missed tests or studies, non adherence to agreed upon plans, declined recommended preventive care, urgent care visits, diabetes, hypertension, and emergency room visits. Physicians were scored based on their response or adaptation of the patient’s care plan.
based on the “contextual red flags” and resulting good or poor outcome measures as documenting in the patient’s’ record after nine months. There was a 71% improvement in health outcomes when physicians addressed contextual factors compared to only 46% improved in health outcomes when physicians did not address contextual red flags. The study supports patient-centered decision making to increase health outcomes. The 4 C method of coding the encounters for red flag variables is a way to evaluate provider performance, although it can be subjective. The contextual red flags may be important factors to address when doing personalized health planning, but they may not be what is important to the patient.

Personalized care plans (PCP) were implemented and evaluated for effectiveness in approximately 350 people with an increased risk for cardiovascular disease in 10 general practices in the Netherlands (Engels, Marjolein, & Boshuizen, 2012). The researchers evaluated 40 of 75 patient quantitative surveys that were returned, 8 patient qualitative interviews, provider quantitative surveys 22 of 45 that were returned, and 10 provider qualitative interviews from June 2010 to October 2011. Providers and their teams received PCP guidance and education through work conferences, supporting products, and monthly support phone calls or e-mails. Using the shared-decision making process, providers and their teams supported patients in creating PCPs for cardiovascular disease prevention using the booklet, Zorgplan Vitale Vaten (Healthy Vessels Plan). Each initial PCP visit consisted of a creating a list of the patient’s SMART (Specific Measurable Attainable Realistic and Time bound) objectives, a personalized plan for how they will achieve the objectives, agreements to support the plan, and scheduling a follow up appointment to address the progress on the plan. PCP information was documented in
the Healthy Vessels Plan booklet. The outcome of the study were not reported in this article. The article reported early results, indicating that self-management/shared decision-making is difficult to implement. The authors suggested regular team feedback and ongoing education on PCP.

A qualitative study gives insight and strategies into staff acceptance and implementation of Patient-Centered Medical Home (PCMH) (Bleser, Miller-Day, Naughton, Cronholm, & Gabbay, 2014). The PCMH model includes empowering patients with self-care support or personalized health planning. The researchers held structured interviews with 136 staff and an additional 48 staff from 7 focus groups. The study was conducted in 20 small to medium-sized practices in Pennsylvania two or three years after beginning PCMH. The study identified three lessons that facilitate practice acceptance of PCMH with 13 strategies for transformation (Table 4).
Table 4

Lessons and Strategies to Facilitate PCMH

<table>
<thead>
<tr>
<th>Lessons</th>
<th>Strategies</th>
</tr>
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</table>
| 1) Effective communication and internal campaigning | - Ensure clear and concise communication and support from accessible practice leadership  
- Educate about PCMH: not just what and how, but why  
- Provide concrete information and guidance on known or learned techniques that achieve PCMH-like medical practice  
- Use external and internal data to benchmark, reinforce benefits, highlight success  
- Leverage respect of PCMH champions to foster buy-in  
- Concentrate advocacy efforts on skeptical or hesitant members dispel misconceptions |
| 2) Effective resource utilization strategies that increase practice confidence and buy-in to PCMH | - Appropriately manage and organize staff for PCM  
- Secure sufficient funding to make PCMH changes  
- Participate in PCMH learning collaborative(s) |
| 3) Creation of a team environment and encouraging ownership, accountability, support, and confidence | - Have a work flow of defined, overlapping, and flexible roles and responsibilities within an incremental transformation plan  
- Create an open environment where everyone’s input is sought and respected  
- Foster a culture of creativity and innovation |

The study’s authors stress the need for champions of change to communicate clearly the change, encourage team mindset, and providing leadership support in putting PCMH values into practice.

**Level VII Evidence.** An expert opinion forum organized to analyze factors to manage personalized diabetes care (Raz et al., 2013). Thirteen diabetes experts described how diabetes type two management should be personalized and patient centered for improved diabetes outcomes. Pertinent to this project, in designing PCPs the authors reported the need for co-management with specialists for complicated diabetics and the
need for tools that will use current evidence based guidelines on therapeutic options and targets into practical clinical applications.

From the appraisal and synthesis of these twelve articles, there was sufficient evidence to support and strategies to implement PHP. A literature review table of these articles is located in Appendix D. Table 5 below quickly summarizes the evidence from the articles to aid in PHP implementation. An “x” indicates findings or strategies in the articles to implement PHPs. Articles with an “x” for team education and training used one or more of the listed strategies to implement PHP. After reviewing the available evidence, future research will need to be done to fill the gaps in knowledge and obtain higher level of evidence to support and implement PHPs and document long term effects related to personalized healthcare outcomes, disease prevention, control of chronic health conditions, and cost effectiveness.
Table 5
Appraisal and Synthesis of Evidence to Implement PHP

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<tr>
<th>Findings</th>
<th>Coulter</th>
<th>Churahil</th>
<th>Cotaer</th>
<th>Raskas</th>
<th>Cohen</th>
<th>Gilbert</th>
<th>Batterby</th>
<th>Council</th>
<th>Weiner</th>
<th>Eagles</th>
<th>Bisser</th>
<th>Raz</th>
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<td>PHP in electronic health record is highly visible to other clinicians in the facility</td>
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<td>Effective communication and internal campaigning</td>
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<td>Leverage respect of PCMH champion or champion of change to foster buy-in</td>
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<tr>
<th>Level of Evidence</th>
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<th>VII</th>
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</table>

Patient-centered care has many names but all articles recommend this transition in care to improve health outcomes. Implementing patient-centered care is not
standardized. There is not one easy straightforward algorithm to follow to implement PHP in primary care. The synthesis of evidence offers several strategies for implementing PHP. Most of these interventions to implement PHP were already in place in this midwestern primary care clinic. For example, emphasis was placed on PHP and team environment, education in PHP and SMART goals, access to evidence-based best practice guidelines and tools in UpToDate, a PHP template was available in the EHR, and a paper PHP tool was available. Strategies from table 5 to implement PHP that had not been tried were role playing, incentive pay, a clinical reminder in the EHR to complete PHP, PDSA cycles, leadership enforcement, having PHP highly visible in electronic health record, and a having a champion of change or change agent to support and clearly communicate the need for patient-centered care.

**Use of Change Agent Strategies**

An appraisal and synthesis of evidence was completed to find strategies of a change agent to use in an intervention to rapidly increase the documentation of personalized health planning (PHP). Literature in English was appraised from February 1, 2005 to February 1, 2015. A systematic search of CINAHL, Medline, and Cochrane Reviews were done using the words derived from the PICOT question: change agent, change coach, and practice change. Google Scholar was also searched. Literature was also systematically searched using the key words change agent, change coach, personalized, patient centered-care, patient-focused care, personalized health, shared decision making, PCMH, and goal without finding articles to support this project. Hundreds of articles were discovered using key words separately. Eight quality articles meeting the criteria were found, two expert opinion, one mixed review of literature and
expert opinion, and five studies. A literature review table (Appendix D) was constructed to compare the purpose, sample, setting, design, variables, instruments, results, quality, and implications of each article.

**Level of Evidence III.** A quantitative study by Chaboyer et al (2011) showed that a change agent may be helpful in a practice change. The study evaluated Intensive Care Unit (ICU) discharge times before and after interventions of a change agent and process improvement. The findings found the use of a change agent and practice change interventions to redesign the ICU nursing discharge process decreased the delay time in ICU discharges to one hour from 4.6 hours. The characteristics of the change agent were well known, respected, nursing leader, and actively engaged in the change process. Change agent strategies to facilitate process change included: staff education, poster, bedside card of the new process, and ongoing staff support.

**Level of Evidence IV.** How nurse champions or change agents influence evidence based practice recommendations was the focus of a mixed method study by Ploeg et al. (2010). The study used purposeful sampling of participants based on different job positions; front-line nurse, educator, versus administration in two phases to obtain varied perspectives. Phase I had qualitative interviews from 23 champions in two groups based on characteristics and role of champions, barriers and facilitators to champions, and on best practice guidelines implemented. Group A involved champions from Ontario, Canada that had two day workshop on best practice guidelines (BPG). Group B were champions from across Canada with a similar one-day workshop on BPG. Phase II consisted of a survey of 91 champions and 41 administrators. The study produced subjective findings of how champions or change agent influence evidence
based practice recommendations through acting in the role of a change agent role, promoting staff education and awareness of evidence based practice guidelines, acting as a resource and mentor, leading and participating in interdisciplinary teams, and monitoring desired practice changes.

**Level of Evidence VI.** A case study by Ruhe et al. (2005) concluded that having a motivated change agent was key in facilitating a practice change. Researchers did a retrospective case analysis of a previously studied family practice in Northeast Ohio. Successful change agent strategies also included linking the desired transformation to staff: values, needs, or feedback.

A case study by Reimers and Miller (2014) revealed the role a clinical nurse specialist (CNS) as a change agent in implementing a practice change to address intensive care unit delirium in ventilated patients. The CNS used Kurt Lewin’s change theory model to describe the steps in this practice change. In the study, the change agent designed and implemented a quality improvement initiative. The CNS completed training with an expert on practice change, had ongoing communication with staff, presented evidence to administration to support practice change, created learning experiences for nurses, maintained regular communication with staff, and promoted mandatory computerized documentation of practice change. This study was a retrospective review of the actions of the CNS and the chain of events that lead to a change in practice. It appears the actions of the CNS were a major contributor to the realization of the change but other factors were also helpful in the implementation, for example mandatory computerized records.
A descriptive study by Strickland and O’Leary-Kelley (2009) assessed the perceived barriers and facilitators of clinic nurse educators to research utilization (RU). A convenience sample of 122 of 300 returned surveys from hospital based clinic nurse educators in California ranked barriers and facilitators to change or RU using the BARRIERS scale. Greatest barriers to implementing evidence-based practice were characteristics of the organization or setting and lack of nursing authority to change, restricted time, and limited awareness and knowledge of research. Nurse educators with advanced degrees perceived the setting as less a barrier for RU. Pertinent to this project, the advanced practice nurse in the role of the educator or change agent understands barriers and facilitators to RU or change and may be in a position to develop programs to educate staff and implement EBP or a change in practice.

Level of Evidence VII. In a round table expert opinion article, a dedicated internal change agent was a critical factor to facilitate change (Bahamon, Dwyer, and Buxbaum, 2006). An internal change agent in a practice change improves health service delivery by these roles and actions:

- supports groups in understanding benefits of change
- active in change process
- has respect of peers and capable of influencing opinions
- ability to lead and promote practice change
- holds management answerable for assisting efforts for practice change
- role models change process
- communicates necessity for change
- assigns staff roles in fulfilling the change, provides long-term support for staff
- organizes effective change process by assessing barriers and facilitators to change

Along with utilization of an internal change agent to facilitate change, the authors also recommend four other critical factors to facilitate change: clear purpose, benefits and expected results, clear responsibilities assigned, long term support for staff, and an organizational environment open to change (Bahamon, Dwyer, and Buxbaum, 2006).
The evidence to identify the role, characteristics, skills, knowledge, interventions, and strategies of a change agent effective in promoting knowledge utilization were developed from a review of literature, 1997-2013 by McCormack et al. (2013). The review sought to answer three research questions: “1) How do the characteristics of change agent affect knowledge utilization? 2) How does the interaction between the change agent and the setting affect knowledge utilization? and 3) What is the overall effect of the change agent on knowledge utilization?” (McCormack et al., 2013, p. 3).

The review indicates a change agent should:

- have respect within target group,
- possess a positive attitude,
- act as a role model for championed practices,
- show leadership, solicit required resources from leadership,
- develop a supportive environment for the desired practice change.

The overall effectiveness of a change agent depends on knowledge of the evolving roles, actions, and being a good “fit” for practice change intervention.

An expert opinion article by Stefancyk, Hancock, and Meadows (2013) strived to transform nurse managers or leaders into change agents or change coaches. Change coaches are able “to effect change themselves and build the capacity to change others” (Stefancyk, Hancock, & Meadows, 2013). The article outlines three main coaching behaviors or strategies: guidance, facilitation, and inspiration. These behaviors are further broken down into ten characteristics of an effective change coach (Table 6).

Table 6

*Role of Change Agent*

<table>
<thead>
<tr>
<th>Roles Guide</th>
<th>Actions</th>
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</table>
| Guide       | • Support change in practice  
              • Support evidence based practice guidelines  
              • Educate staff on performance expectations |
• Monitor desired practice change

**Facilitate**
• Solicit required resources from leadership
• Develop a supportive environment
• Act as a sounding board increase facilitators and dispel barriers
• Use creative thinking to help new process: posters, reminder cards, emails, etc.
• Enable communication
• Act as a resource and a mentor
• Create learning experiences
• Participate in interdisciplinary teams

**Inspire**
• Positive and confident attitude
• Role model for change process
• Expert leadership
• Actively engaged in change process
• Motivate others by linking their values and needs to the desired change

The article also details principle and elements of a healthful workplace environment. The authors believe the nurse manager or leader applying the role of a change coach will be able to transform healthcare practices.

Table 7 below lists the eight articles and summarizes the evidence from the articles according to the roles of a change agent to guide, facilitate, or inspire with level of evidence.
Table 7

Synthesis of Evidence of Change Agent Roles and Strategies

<table>
<thead>
<tr>
<th>Change Agent Roles and Strategies:</th>
<th>Chaboyer</th>
<th>Plog</th>
<th>Rohe</th>
<th>Reimers</th>
<th>Strickland</th>
<th>Balanou</th>
<th>McCormack</th>
<th>Stefanyak</th>
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<tr>
<td><strong>Guide</strong></td>
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The literature search for strategies of a change agent to bring about a practice change did not identify high levels of evidence. However, the articles clearly support the actions of a
change agent to support a practice transformation. Appraisal and synthesis of these articles support the utilization of a change agent to facilitate the implementation of PHP.

**Synthesis of evidence**

The synthesis of evidence to implement PHP was placed next to synthesis of evidence of the roles and strategies of a change agent according to level of evidence listed at the bottom of Table 8.

**Table 8**

**Synthesis of Evidence**

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The synthesis of evidence of the combined reviews of literature emphasizes the direction of this process improvement project and strategies of a change agent to implement PHP. Everything breaks down to facilitators and barriers to a practice change. In this process improvement project the role of the change agent is to facilitate the removal of the barriers to PHP implementation.

The evidence supported utilization of the role of a change agent with strategies to design an intervention to promote a practice change, specifically personalized patient care and promote PHP. According to The Institute on Healthcare Improvement, all improvement will require change (2015). However, change is journey, not a simple step.

The following model (Figure 2) was created to help guide this practice improvement project and promote implementation of PHP.

**Figure 2. Intervention of change agent strategies to promote PHP**

The project utilized Lewin’s Change Theory (Kaminski, 2011) with three stages of change: unfreeze, change, and refreeze with the IHI’s Model for Improvement (MOI, 2015). The MOI consists of determining the project’s aim, measure, and ideas for change then using Plan Do Study Act (PDSA) cycles for testing changes. The MOI’s aim was implementation of PHP, the measure was 3 PHPs a week, and ideas were change agent
strategies. VHA tried nation-wide to get PACTs ready for PHP, or unfreeze, prior to this intervention with educational opportunities and PHP implementation expectations. This intervention was to aid PACTs in understanding why PHP implementation was necessary and to use evidence-based change agent roles and strategies get them ready for change. Lewin’s Change stage, represented through three PDSA Cycles, each one was conducted using selected change agent roles and strategies derived from the combined synthesis of evidence to guide, facilitate, and inspire the implementation of PHP. If the aim of 3 PHPs a week or 12 PHPs a PDSA Cycle was obtained, a refreezing of the process was to occur to reinforce the PHP process.

III. IMPLEMENTATION OF THE PROJECT

Project Setting/Population

The population of interest for this project was the primary care teams at a midwestern Veterans Health Administration medical center. Primary care in this facility consists of a main clinic attached to a hospital and four community outreach clinics. These five clinics are designated for the care of all eligible veterans in 20 counties. In the largest county where the main clinic is located, there are an estimated 46,115 veterans, of whom approximately 20,861 are over the age of 65 (U.S. Department of Veterans Affairs, 2014 c). The number of patient-aligned care teams (PACTs) fluctuate given available providers and the number of veterans eligible for care. For the purpose of stable and consistent PHP data analysis, only 29 PACTs were evaluated. Each PACT consists of a provider (physician, nurse practitioner, or physician assistant), a registered nurse (RN), a licensed practice nurse (LPN), a medical support assistant (MSA) and the veteran. There were 10 female and 11 male physicians, six female and 1 male nurse practitioners, and 1 female physician assistant. Most RNs, LPNs, and MSAs are female.
There were 16 PACTs in the main clinic and 13 PACTs in community outreach clinics. Individual PACTs had a panel of 600-1200 veterans. A large percentage of the veterans are older adults. Most of these veterans are male, but the percentage of women is growing per U.S. Department of Veterans Affairs, (2014 c).

**Implementation Plan**

The midwestern VA’s and Wright State University’s Research Compliance Officers determined that this was a process improvement project which did not need IRB approval because it was not research and did not involve identifiable private information. Permission was granted from the midwestern VA’s Primary Care Administration (Appendix E) for a process improvement project utilizing an intervention of a change agent (project director) to expedite implementation of PHP. The agency requested to not be identified, so the signature section is blocked from view.

**Key Stakeholders.** This process improvement project had multiple stakeholders. Nationally, the VHA is requiring PHP and the use of their template for initiation. The midwestern primary care service administrative staff is supportive of the practice change implementation and eager to comply with VHA requirements. The Health Promotion and Disease Prevention Coordinator is also supportive of this initiative and was a significant person in the implementation of this process improvement project.

**Forming the Team.** The PHP team was developed to include people critical to support the project: Primary Care Service’s Assistant Chief, a Health Promotion and Disease Prevention Coordinator, a Behavioral Health Coordinator, an Administrative Support Assistant, and the Doctor of Nursing Practice student. The Assistant Chief of the Primary Care Service is a physician with administrative responsibilities who provided
leadership and direction, was supportive of the practice change implementation and was responsible for ensuring PACT compliance with PHP. The Health Promotion and Disease Prevention Coordinator, a Family Nurse Practitioner prepared at the doctoral level with a Doctorate of Nursing Practice, was a key person in implementing the process improvement project. Putting PHP into practice falls under this person’s role and responsibilities, to coordinate strategic planning, program development and implementation, monitoring and evaluation of all primary care health prevention and disease prevention program. The Behavioral Health Coordinator, a clinical health psychologist, coordinated training and ongoing PACT staff education in patient-centered communication, health behavior counseling, self-management support and coordinates all-staff meetings. The Doctor of Nursing Practice student, a seven-year family nurse practitioner and a primary care provider in one of the PACTs, will from this point forward be referred to as the “project director/change agent”. This person was selected to be a change agent due to having a PACT with the highest number of implemented PHPs and an interest in health promotion. Throughout the process improvement intervention, the project director/change agent tried to adopt the roles of a change agent. The Primary Care Administrative Assistant’s role is to support PACTs with specific computerized chart information to improve veteran health outcomes. This person is a resource for understanding the regulation of the VHA’s PHP template and evaluating and acquiring PHP data.

**Setting Aims.** The VHA’s ultimate goal was to support patients to take control of their health and to decrease problems caused by chronic diseases. The VHA goal is for all veterans seen in primary care to have a PHP. The PHP team chose a desired aim of
three PHPs per PACT a week. This would represent approximately 6% of patients or 864 patients with a documented PHP seen in the five primary care clinics in three months.

**Establishing Measures.** The PHP Team chose to evaluate feedback from staff and PHP documentation data. Feedback to be evaluated included general feedback as well as structured interviews from PACTs with no PHPs initiated or the fewest PHPs and PACTs with the most PHPs. The facility has an electronic database to obtain PHP data without having to access individual patient information. The team decided to evaluate monthly documentation data on PHPs obtained for each of the three months prior to intervention and each of the three months during intervention. PACTs were assigned arbitrary numbers ranging from 1 to 29 to maintain confidentiality.

**Selecting Changes.** The PHP team discussed the article by Stefancyk et al. (2013) which identified that the role of the change agent was to guide, facilitate, and inspire. The team also reviewed specific approaches derived from evidence-based literature on the strategies of a change agent's role (Table 7) to influence a practice transformation to achieve their goal. The combined synthesis of evidence to implement PHP and change agent strategies (Table 8) was available to create an intervention to be tested in PDSA cycles to guide, facilitate, and inspire PHP promotion.

**Evaluation Plan to Test Changes.** Consistent with the MOI framework, the PHP team decided to do three one-month plan do study act (PDSA) cycles. Each PDSA cycle began prior to the monthly Primary Care all-staff meeting and ended the day prior to the next all-staff meeting. Each PSDA cycles used a set of change agent strategies chosen by the PHP team. The project director/change agent collected general feedback and staff comments about PHP or effects related to the intervention and requested PHPs
documentation data to be evaluated. To help guide the application of change agent strategies for the first PDSA cycle, the PHP team discussed information derived from a previous informal survey of PACT barriers to PHP: lack of time, low comfort level with writing PHPs, negative attitude towards PHP, or they did not feel motivated to make the practice change. The PHP team also developed a five question PHP Implementation Survey (Table 9) to interview and gain information from PACTs with the lowest and highest number of PHPs to aid in selecting change agent strategies for the second and third PDSA cycles. The project director/change agent interviewed the PACTs.

Table 9

*PHP Implementation Survey Questions*

1. Do you have any questions about PHP?
2. Have you documented any PHPs?
3. Yes-what has been beneficial for your PACT? or No-what barriers do you have in implementing PHP?
4. What would help your PACT in PHP implementation?
5. Any suggestions for the next PHP discussion at the Primary Care all-staff meeting?

The project director/change agent met with PACTs in person or on the phone to obtain answers to the survey. The idea was to link PACT values and needs with a change agent strategy to inspire or motivate PACTs to adopt the practice change. The PHP team met prior to each PDSA cycle to discuss responses from PHP Implementation Survey and to pick appropriate strategies for the intervention. Each of the three PDSA cycles would begin with planning prior to the meeting and PHP/PACT data would be obtained the day prior to the next all-staff meeting. Monthly the project director/change agent used chosen change agent strategies to promote PHP. Additionally, to inspire PACTs a five dollar McDonald’s gift card was given at the 2nd, 3rd, and 4th all-staff meetings to the members
of the with the most PHPs. The project director/change agent was to purchase the gift cards.

During PDSA Cycles One and Two, data was obtained one week prior to the all-staff meetings to select PACTs to interview with the lowest and highest number of PHPs. PHP documentation data was to be evaluated for:

- Total number of PHPs initiated in the 3 months prior to intervention
- Monthly number of PHPs initiated per PACT in 3 the months prior to the intervention against the aim—(Figure 3)
- PACTs that met the PHP aim any of the 3 months prior to the intervention
- Highest number of PHPs initiated per month prior to intervention
- Lowest number of PHPs initiated per month prior to intervention
- Number of PACTs that initiated PHPs 3 months prior to intervention
- Total number of PHP initiated per PDSA Cycle
- Number of PHPs per PACT initiated per PDSA Cycle against the aim line represented by a blue horizontal line at 12 PHPs
- PACTs that met the PHP aim per PDSA Cycle
- Number of PACTs initiating PHP per PDSA Cycle
- Highest number of PHPs initiated per PDSA Cycle
- Lowest number of PHPs initiated per PDSA Cycle
- Cumulative number of PHPs initiated per three PDSA Cycles against the aim
- Numbers of PACTs to meet PHP aim after the 3 PDSA Cycles

These evaluation measures were chosen to determine if the intervention, change agent strategies, could affect the desired aim of three PHPs initiated per PACT per week or 12 PHPs per PDSA Cycle. Evidence of the outcomes of this practice change intervention, feedback and PHPs documented were evaluated as part of each PDSA Cycle. In the following figures, a bolded blue line represents the aim of 12 PHPs.

**PDSA Cycle One.**

*Plan.* The first PDSA cycle was initiated January 2015 after PHP team reviewed information from an informal survey of PACTs about the PHP process. Based on this
information the PHP team chose change agent strategies to guide, facilitate, and inspire PHP:

- **Guide**- A skit was chosen to be developed to support practice change and clarify PACT performance expectations with PHP.
- **Facilitate**- The skit would also be a creative learning experience to show PACTs how to assign staff roles in implementing PHP.
- **Inspire**- The project director/change agent was to be a role model and project positively and confidently how PACTs could implement PHP. The project director/change agent was to further inspire PACTs by expressing confidence in their abilities and encouraging them to increase PHP documentation by offering a $5.00 gift card to members of the PACT with the most newly documented PHPs at the next all-staff meeting.

The project director/change agent with help from her PACT members and nurse practitioner (NP) student planned and presented a skit on one way to implement PHP. The NP student was being precepted for a clinical experience by the project director/change agent and she volunteered her time to help with the skit. Prior to the next PDSA Cycle, the project director/change agent acquired PHP data for the PACTs with the least and most PHPs to interview using the PHP Implementation Survey.

**Do.** Using principles of adult learning theory and role modeling, the skit was developed and rehearsed on how to implement PHP. At the all-staff meeting February 20, 2015 the project director/change agent in an enthusiastic manner (Inspire), verbalized that the Veteran Health Admiration is calling for a transformation in health care by adopting personalized health planning (Guide). The project director/change agent stated that there are several ways for PACTs to promote PHPs and explained that her PACT was going to present how their PACT initiates PHPs (Guide). Each PACT member and NP student who portrayed the patient were introduced. The project director/change
agent’s PACT and NP student performed a skit demonstrating the promotion of the PHP process (Facilitate and Guide).

The skit opened with the PACT in morning huddle. The MSA handed the provider a list of the day’s patients. The PACT discussed that it was going to be a busy day. The first patient of the day, Mrs. Jones (a pseudonym), is a routine follow up appointment. Whom appeared to appropriate for introducing PHP. Mrs. Jones was a 50 year old overweight white female veteran. The scene in the skit now transforms to a direct patient care situation. The pleasant and cheerful LPN introduced the idea of PHP to the patient, the PHP is developed by the patient with their PACT based on what is important in their life and how making good health decisions can help them reach their personal health and well-being goals (U.S. Department of Veterans Affairs, 2015a). Mrs. Jones agreed to create a PHP. The LPN handed Mrs. Jones a paper PHP Assessment Tool Sheet (Appendix B) and asked her to fill out the front page only. Mrs. Jones chose to develop a PHP goal of increasing physical activity. Next, the provider engaged the patient, Mrs. Jones, looked over her PHP assessment sheet and opened a PHP note template (Appendix A) on the big screen for the audience to view. The provider explained the elements of a SMART goal (Appendix F) that would be used to create PHP goal to Mrs. Jones and the audience. The provider demonstrated for the audience where the PHP note template was located in the computer and opened a new note. The provider shared with the audience that they type in the veteran’s response to the note’s questions. In the format of the PHP note, Mrs. Jones was questioned, “Is there anything special that we should know about you?” She replied, “I love to eat.” The provider typed this into the PHP note. Then she was asked the second question, “What really matters in your life?” She responded, “My
health and family”. The provider typed this in the notes section which was visible to the audience on the screen. The provider then posed the next question, “If you don’t do anything about your health today, where do you think you will be in ten years?” She replied, “Dead.” The provider typed this response. The project director/change agent reminded the audience of how to empower the veteran making goals (SMART Goals Guide, 2015) (Appendix F). Going through the SMART (specific, measurable, action or attainable, realistic, and time bound) Goal Guide and holding up signs for the audience for every step, the provider supported Mrs. Jones in creating the PHP goal, “I’m going to walk three times a week for 20 minutes each day for the next three months.” She was asked when and how (phone, email, or in person) she wanted a PHP goal follow up appointment. She requested a three month follow up of her PHP goal by the RN case manager by telephone. All of Mrs. Jones responses were documented on the computerized PHP note as well as handwritten on the paper PHP assessment tool handout (Appendix B). The paper PHP assessment tool handout was given back to the patient. The MSA was given a sheet to schedule a three month PHP telephone follow up with the RN.

The next part of the skit provided a simulated follow up appointment for Mrs. Jones with the RN. Mrs. Jones met with the RN and discussed her PHP goal. The RN asked her if she wanted to continue this goal, change this goal, or add another goal. Mrs. Jones decided to modify the goal to “Walk 4 times a week for 30 minutes each day with a three month follow up at her next provider appointment.” The RN then opened a PHP follow up note. The RN explained to the audience that this is a blank note entitled a “PHP
follow up.” The RN recorded Mrs. Jones’s new goal in the PHP follow up note for the audience to view.

To schedule the next PHP follow up visit, the RN wrote on the facility’s paper routing slip, for the MSA to schedule a PHP follow up visit in person with the provider in three months. This routing slip was given to the MSA. The RN explained to the audience that the MSA was given an appointment to schedule for the provider to follow up on Mrs. Jones’s PHP goal in three months.

After the skit, time was allowed for questions (Facilitate). The first question was where to find the templates for the PHP note and PHP follow up note in the computer. A fictitious computerized chart was opened on the overhead screen and project director/change agent demonstrated how to find these templates. The next question was if PHP notes need to be encountered or coded for billing? The audience was informed that PHP notes need to be encountered. A third question was are LPNs allowed to initiate a PHP assessment note? Yes, LPNs are allowed to complete PHPs. Next, the project director/change agent announced that a $5.00 McDonald gift certificate would be awarded to each member of the PACT with the highest numbers of PHPs created (Inspire). The project director/change agent thanked everyone for their support in implementing PHP and encouraged them to ask for assistance if needed (Inspire and Guide). The presentation took approximately 20 minutes.

The project director/change agent reviewed PHP documentation data and chose a PACT with the lowest and highest number of PHPs to survey.
Study. In this part of the PDSA cycle the PHP team studied general feedback, survey comments from PACTs with the lowest and highest number of documented PHPs, and PHP/PACT data after the change agent strategies.

General feedback. After the all-staff meeting a PACT provider approached the doctoral student/change agent and questioned about how to find the PHP note. The project director/change agent guided the provider through the steps of opening a PHP note and follow up note. Another PACT provider congratulated the change agent on clearly presenting PHP as it helped their understanding of how to implement PHP.

PACT interview-Lowest number of PHPs. March 6, 2015, (Project Day 25), the project director/change agent interviewed a PACT that according to the data had never done a PHP. During the interview, it was discovered the data was reported incorrectly. The PACT had actually done seven PHPs since the all staff meeting. The provider also shared that she did not understand why PHP needed to be addressed in a separate note when the veteran’s health goals were already documented in her routine note. The change agent provided guidance regarding performance expectations and how this was tied to the PHP note title. The provider felt time was a barrier to implementing PHP. The PACT all voiced they needed more tips on how to implement PHP.

PACT interview-Highest number of PHPs documented. March 6, 2015, (Project Day 25), the project director/change agent interviewed a PACT with the most PHPs, (total of 19). This PACT was interested in how to find veterans that had developed PHPs. In this team the RN or LPN developed PHPs with the patients to be reviewed by the provider. The PACT denied any barriers to completing PHPs. The PACT felt that they were completing an expected measure and that PHP is something that helps keep
them closer to the veteran and get to know them personally as a team. The LPN in this PACT stated that she started offering PHPs after talking to the project director/change agent about PHP at a Veteran Administration’s sponsored event called “Reuniting the Spirit”. The PACT indicated completing a PHP only takes 2 minutes. They shared how the RN on their PACT usually does the PHP note. They discuss veterans appropriate for PHP in huddle at end of each day and continue to monitor PHPs.

PHP documentation data. PHP implementation was encouraged at monthly all-staff meeting three months prior to the intervention. The PHP data for the 29 PACTs was evaluated for the three months prior to the intervention, November 12, 2014 to February 9, 2015, (Figure 3):

- Total number of PHPs initiated in the 3 months prior to intervention-134
- Monthly number of PHPs initiated per PACT in 3 the months prior to the intervention against the aim-see Figure 3, the aim line is represented by a blue horizontal line at 12 PHPs-ranged from 0-15
- PACTs that met the PHP aim any of the 3 months prior to the intervention- PACTs 5 and 15 met the aim once
- Highest number of PHPs initiated per month prior to intervention-19 by PACT 5
- Lowest number of PHPs initiated per month prior to intervention-0 by ten PACTs: 3, 6, 8, 13, 18, 19, 21, 28, 23, 26
- Number of PACTs that initiated PHPs 3 months prior to intervention-19
Figure 3. Monthly number of PHPs initiated per PACT in the 3 months prior to the intervention against the aim

Nineteen of twenty-nine PACTs, (66%) created at least 1 PHP in the three months prior to the intervention. Figure 4 below shows a cumulative chart of PHPs initiated per PACT 3 months prior to the intervention, November 12, 2014 to February 9, 2015. Not one PACT would have met the proposed aim of 36 PHPs for all three months prior to the intervention. PACT 15 and 5 initiated the most PHPs in the three months prior to the intervention. PACT 15’s PHPs were initiated by a LPN. PACT 5’s PHPs were initiated by a PACT physician that is also a PACT supervisor. Few PHPs were initiated November 12, 2014 to January 12, 2015, 34 PHPs total in two months. However, the month just prior to the intervention, January 13, 2015 to February 9, 2015, the number of PHP initiated significantly increased, 100 PHPs in one month. This increase maybe in part related to the Primary Care Chief of Staff sending an email to all providers stating the number of PHPs created by PACTs were “abysmal” and encouraging providers to implement PHP. The increase in PHP numbers may have also have been to the
encouraging of the Health Promotion and Disease Prevention Coordinator encouraging implementation of PHP in the all-staff meeting prior to the intervention.

![Cumulative PHPs initiated per PACT 3 months prior to intervention](image)

**Figure 4.** Cumulative of PHPs initiated per PACT 3 months prior to intervention

PHP data from 29 PACTs was analyzed at the end of PDSA Cycle One and after formal introduction of change agent intervention, February 10, 2015 to March 3, 2015 (Figure 5):

- Total number of PHP initiated per PDSA Cycle-One-100
- Number of PHPs per PACT initiated per PDSA Cycle One against the aim line represented by a blue horizontal line at 12 PHPs-range 0-21
- PACTs that met the PHP aim per PDSA Cycle One- three PACTs: 10,15, 28
- Number of PACTs initiating PHP per PDSA Cycle One-18
- Highest number of PHPs initiated per PDSA Cycle One-21
- Lowest number of PHPs initiated per PDSA Cycle One-0 PHPs by eleven PACTs: 1, 6, 7, 8, 12, 13, 18, 20, 21, 23, 26
PHP data outcomes did not meet the aim of 3 PHPs initiated by all PACTs per week or 348 PHPs over 4 weeks. All PACTS combined had documented a total of 100 PHPs or only 29% of desired outcomes of PHPs. Only three of twenty-nine PACTs, (PACTs 10, 15, and 28 in Figure 5) (10%), met the aim of a minimum of 12 PHPs over four weeks. The project director/change agent discovered PHPs in PACTs 10 and 28 were initiated by the provider and PHPs in PACT 15 were initiated by the LPN. Eleven (38%) PACTS did not create any PHP this cycle (PACTs 1, 6-8, 12-13, 18, 20-121, 23 and 26 in Figure 4). Four PACTs (14%) have yet to initiate a PHP. Twenty-five of twenty-nine PACTs (86%) have now created at least 1 PHP after this intervention (previously 79%). The highest number of PHP created by one PACT was 21.

Act. The PHP Team evaluated results of last PDSA cycle, what was learned, and discussed modifications to the plan for the next PDSA cycle. The outcomes did not meet the expected aim of at least 3 PHPs created per week, or 12 PHPs per PACT a month, but
at least most PACTs (86%) had initiated at least one PHPs. The four PACTs yet to initiate a PHP were all from one community outreach clinic. The PHP Team learned that despite the skit on how to do PHPs, the staff of this clinic still had questions about how to implement PHP and create SMART goals. PACTs wanted more explanation on the need for a separate PHP note versus charting PHP goals in regular visit note.

The results from the first PDSA cycle were reviewed. PACTs felt differently about time being a factor in creating PHPs. The one PACT successful in creating multiple PHP notes felt time was not a barrier. This PACT could initiate a PHP in a few minutes. This PACT was also verbally supportive of PHP. Other PACTS felt that time was a barrier to imitating PHP. Those PACTs felt they did not have enough time to complete everything they were required to document now even prior to the addition of the expectation related to PHPs. PACTs did not know how to find initiated PHPs for follow up. PACTs with the highest number of PHPs were initiated by an LPN. All PACTs do not feel compelled to create PHPs. PACTs need more education on how to implement PHPs. Getting the PACTs more involved in the skit could have helped with learner engagement. Based on the findings of the first PDSA Cycle, the PHP Team prepared a plan for the next PDSA cycle.

**PDSA Cycle Two**

*Plan.* Based on findings from PDSA Cycle One the PHP Team chose the following change agent strategies to guide, facilitate, and inspire PHP implementation in the next PDSA cycle.

- **Guide** - The project director/change agent is to reinforce PHP performance expectations of 3 PHPs a week, to report that PHPs are monitored, to update PACTs on current PHP performance, and to share how PACTs can find
created PHPs during the all-staff meeting. The project director/change agent is to reach out to PACTs that have not as yet initiated a PHP by contacting their nurse managers or a PACT member to set up a time to discuss PHP.

- **Facilitate** - The project director/change agent is to act as a resource and mentor. The project director/change agent is to dispel barriers and increase facilitators by obtaining the assistance of a high performing LPN to talk at the all-staff meeting on how her PACT process for PHP implementation. The project director/change agent is to facilitate the PHP process by creating a SMART goal handout (Appendix F), to encourage PACTs to try out new alternatives to creating PHPS and to act as a soundboard for PACT questions and concerns.

- **Inspire** - The project director/change agent is to continue to portray the attitude of a positive and confident role model implementing PHP and to motivate PACTs with obtaining gift cards to award members of the PACT with the highest number of PHPs.

The PHP Team also discussed the possibility of obtaining small personal notebooks with pens to facilitate PACTs to help veterans record and keep track of their goals for the third PDSA cycle. Prior to the next PDSA Cycle, the project director/change agent will acquire PHP data for the PACTs with the least and most PHPs to interview using the PHP Implementation Survey.

**Do.** At the all staff meeting March, 10,2015 the project director/change agent in an enthusiastic, positive, and confident manner addressed the audience at the all-staff meeting, (Inspire) (Project Day 29). The project director/change agent, in a cheerful fashion, advised PACTs that LPNs can complete PHPs (Guide). It was shared that the word “assessment” was removed from the PHP note title as the Ohio Revised Code (2015) prohibits LPNs from doing an initial assessment under their current scope of practice. However, LPNs are allowed to empower veterans to create PHPs.
The project director/change agent introduced the high achieving PHP PACT LPN to the audience (Facilitate). The LPN discussed how her PACTs promotes PHP. The LPN explained how she introduces the PHP concept to veterans while she is taking their vital signs and completing mandatory computerized clinical reminders about obesity, alcohol use, and tobacco use just prior to the provider visit. She explained to the audience, that while getting veterans ready for their visit with the provider, they share problems about their health and she offers them the option of creating a PHP. The LPN stated that the PACT’s RN also offers PHPs during follow up appointments for blood pressure, blood sugar, or tobacco follow up visits. The provider reviews and signs the PHP notes prior to the veteran visit. The LPN shared that PHPs can be done fast and easily in two minutes. She explained that initiating PHP helps her PACT get to know their veterans better and make a difference in their health.

The change agent passed out SMART goal handouts to aid PACTs in creating PHP goals (Facilitate) (Appendix G). The change agent explained the importance of creating a separate PHP notes (Guide). The PHP notes are the only documentation that the Veterans Health Administration counts to see if performance standards on the PHP process have been met. The change agent presented the gift cards to the PACT with the most PHPs (Inspire). The audience applauded the PACT with the most PHPs. The change agent thanked everyone for their support in the PHP process and encouraged them to ask for assistance if needed (Guide).

The project director/change agent reviewed PHP documentation data and chose a PACT with the lowest and highest number of PHPs to survey.
Study. In this part of the PDSA cycle the PHP team studied general feedback, survey comments from PACTs with the lowest and highest number of documented PHPs, and PHP/PACT data after the change agent strategies.

General feedback. Several days after the second all-staff meeting, the project director/change agent was approached individually by three providers and clinic coordinator to discuss the PHP process. They were happy to hear that LPNs could create PHPs and wanted to know more on how to implement PHP. One of two PACT supervisors requested that the project director/change agent come to a provider only meeting for eight PACTs to answer provider concerns about the PHP process. The project director/change agent on March 17, 2015, (Project Day 36), attended a provider meeting and discussed PHP implementation. The project director/change agent guided the providers through opening a PHP note on an overhead screen, typing in the patient responses in the PHP note template, and empowering patients to write SMART goals, and then documenting a follow up appointment.

After this meeting one provider approached the project director/change agent asking “are we doing PHPs for real or just to make our numbers look good.” The project director/change agent provided guidance related to PHP performance expectations and tried to inspire the provider by letting her know that the PHP process is not just about the numbers. The ultimate PHP goal is to increase the health and well-being of veterans.

Then the project director/change agent received email from a PHP Team member, exclaiming the change agent strategies were inspiring and increasing attention on PHP, as the Unit Practice Council (UPC) had also decided to promote PHP. The project director/change agent was invited to the UPC meeting to discuss the PHP process. The
UPC represents all staff in PACTs and they are empowered to improve primary care staff and patient satisfaction. The project director/change agent attended the UPC meeting April 7, 2015, (Project Day 57), and explained the PHP process to the group. The UPC informed the project director/change agent that Primary Care was in the process of interviewing health coaches to assist PACTs in doing PHPs. However, it would probably be several months before they would be ready. The project director/change agent, HPDP Coordinator, and the UPC members discussed the role of the PHP coaches and how PHP coaches from other VHA sites have little to no interaction with PACTs. PHP coaches are lay people that are educated on PHP, motivational interviewing, and how to empower veterans to create PHP goals. They are not healthcare professionals. The UPC discussed the need to improve the current PHP paper assessment tool. The UPC also discussed creating an informational PHP pamphlet for veterans that are waiting in the lobby for an appointment or that could be mailed prior to a scheduled visit. The project director/change agent helped to facilitate an improvement to the paper PHP health assessment tool by aligning the questions on the PHP paper tool to match the PHP template note. The UPC council members and HPDP Coordinator agreed to the improved paper PHP health assessment tool and the document was sent to be printed.

PACT Interview-Lowest number of PHPs. The project director/change agent contacted a community clinic to interview two PACTs that has not done any PHPs. The community clinic’s nurse manager explained they were not ready to complete or discuss PHPs at this time related to the clinic’s impending move.
The project director/change agent set up a meeting with another clinic manager to interview a PACT that had completed a few PHPs, but none in the past month. The morning of the scheduled meeting, it was canceled.

The project director/change agent April 3, 2015, (Project Day 53), interviewed another PACT who had yet to complete any PHPs using the PHP implantation Survey. The PACT provider was unavailable, but the RN and LPN had questions about how to complete the PHP process; who can start the PHP; if the intake person or MSA can start the paperwork in the waiting room; where the PHP notes are located; and when they are supposed to start PHP. The project director/change agent answered all their questions, they verbalized understanding of the PHP process. They also informed the project director/change agent that they did not have any paper PHP assessment forms.

PACT interview-High number of PHPs. The project director/change agent interviewed a provider of a different PACT, April, 3, 2015, (Project Day 53), using the PHP Implementation Survey: the rest of the team was unavailable. The provider wanted to know how many PHPs are expected on a daily basis. The provider also felt offering PHP to the first patient of the day was beneficial, unless the patient was an urgent care appointment or the patient was late for the appointment. The provider stated PHPs could be easily done if the LPN gets the patient ready at the scheduled appointment time and understood that not every patient is interested or appropriate for developing a PHP.

PHP Documentation Data. PHP data for the 29 PACTs was evaluated for PDSA Cycle Two, March 10, 2015 to April 13, 2015 for the desired aim of 3 PHP per PACT a week after this cycle’s interventions (Figure 6):

- Total number of PHP initiated per PDSA Cycle Two-110
- Number of PHPs per PACT initiated per PDSA Cycle Two against the aim line represented by a blue horizontal line at 12 PHPs-range 0-16
- PACTs that met the PHP aim per PDSA Cycle Two- three PACTs: 5,16,28
- PACTs that met the PHP aim per PDSA Cycle Two- three PACTs: 5,16,28
- Number of PACTs initiating PHP per PDSA Cycle-16
- Highest number of PHPs initiated per PDSA Cycle-16
- Lowest number of PHPs initiated per PDSA Cycle-13 PACTs with 0 PHPs-PACTs: 1, 4, 6, 7, 9, 12, 13, 18, 20, 21, 23, 25, 26

![Figure 6](image.png)

**Figure 6.** PHPs initiated per PACT post intervention for PDSA Cycle Two

In PDSA Cycle Two, total PHP data again did not meet the aim of 3 PHPs initiated per PACT per week or total of 348 PHPs over 4 weeks. All PACTS combined created only 110 PHPs (32% of desired aim). Three of twenty-nine PACTs, (PACTs in Figure 6) (10%), met the goal of a minimum of 12 PHPs in over four weeks. This is important because prior to this PDSA cycle only two PACTs, in over a year, had initiated 12 or more PHPs in just one month. PACTs 5, 16, and 28 met the aim and a provider initiated their PHPs. Thirteen PACTS did not create a PHP this cycle (PACTs 1, 4, 6-7, 9, 12-13,
18, 20-21, 23, 25-26, in Figure 6). The same four PACTs (14%) have yet to initiate a PHP. Sixteen of twenty-nine PACTs (55%), created at least 1 PHP in this cycle. The highest number of PHPs created by two PACTs were 16, down from the previous PDSA Cycle (21 PHPs). Figure 7 compares PDSA Cycles One and Two. A total of 210 PHPs were initiated in PDSA Cycles One and Two.

**Figure 7** PHPs initiated by PACTs in PDSA Cycles One and Two

Figure 8 shows cumulative PHP data for PDSA Cycles One and Two. Two of the PACTs that previously initiated a PHP did not implement a PHP this cycle. One PACT that did not initiate a PHP last cycle implemented a PHP this cycle. PACTs 5, 15, and 28 met aim of 24 PHPs initiated at the end of two PDSA Cycles.
Figure 8. Cumulative data PHPs per PACT for PDSA Cycles One and Two

**Act.** The PHP Team discussed results of PDSA cycles and started planning the next PDSA cycle. The PHP Team learned: 1) PACTs with minimal or no PHPs need guidance in the PHP process, 2) some PACTs may not have access to PHP paper assessment tools, 3) PACTs like giving and receiving PHP tips, 4) it is good to have administrative support to encourage practice change, and 5) personalized notebooks with pens arrived for use in next PDSA cycle.
**PDSA Cycle Three**

*Plan.* Based on findings from PDSA Cycle Two the PHP Team chose change agent strategies to guide, facilitate, and inspire PHP implementation in the next PDSA cycle.

- **Guide** - The project director/change agent was to reach out to PACTs with minimal or no PHPs for education on the PHP process by calling providers and to update all PACTs on PHP performance expectations of 3 PHPs per week at all-staff.
- **Facilitate** - The project director/change agent was to announce a new PHP paper assessment tool, five new healthy living handouts, offer PHP tips, ask for PHP tips to share, and inform of new personal notebooks with pens for documenting PHP goal progress.
- **Inspire** - The project director/change agent was to act as a soundboard for PACT questions and concerns, to inspire PACTs by expressing confidence in their abilities and encouraging them to improve by continuing to obtain and offer a $5.00 gift card to the members of the PACT with the most PHPs.

*Do.* At the all staff meeting April 10, 2015, (Project Day 60), the project director/change agent provided further guidance in the PHP process by encouraging all PACTs especially those without PHPs to call her for assistance in the PHP process (Guide).

The project director/change agent informed PACTs of the new PHP paper assessment tool and five healthy living handouts entitled Limit Alcohol, Be Free of Tobacco, Activity and Energy, Stress & Rest/Sleep, and Food and Weight and where they could be obtained (Facilitate). The project director/change agent offered PHP tips on offering PHP to the first patient of the day if not an urgent care patient (Facilitate). The project director/change agent also asked PACTs to offer PHP during times when the day is not behind schedule or hectic (Guide and Facilitate). The project director/change agent asked for PHP tips to share and did not receive an audience response. The project
director/change agent informed PACTs on the availability of new personal note books with pens for documenting PHP goal progress (Facilitate). The project director/change agent again tried to facilitate the PHP process, by acting as a soundboard for PACT questions and concerns (Facilitate).

The project director/change agent reviewed and reminded PACTs to meet PHP performance expectations (Guide). The project director/change agent passed out $5.00 gift card to members of the PACT with most overall PHPs there was a tie (Inspire). The project director/change agent tried to inspire PACTs by expressing confidence in their abilities and encouraging them to improve PHP initiation (Inspire). The project director/change agent talked about how implementing PHP would improve the health and wellbeing of veterans and tried to link the staff’s values to the desired out aim (Guide). The project director/change agent again offered a $5.00 gift card to members of the PACT with the most PHPs at the next all-staff meeting (Inspire). The audience applauded the PACT team with the most PHPs. The change agent thanked PACTs for their support of the PHP process and encouraged them to call her for assistance (Guide).

Study. In this part of the PDSA cycle the PHP team studied general feedback and PHP/PACT data after the change agent strategies.

General Feedback. During this PDSA cycle, the nurse manager in the community outreach clinic reached out to the project director/change agent by email. She explained, the providers were settling into their new facility and she would be setting up time with the project director/change agent soon to present the PHP process. No other staff members approached the project director/change agent with PHP questions or concerns.
PHP Documentation Data. PHP data for 29 PACTs was evaluated for PDSA Cycle Three, April 14, 2015 to May 11, 2015 for the desired aim of 3 PHP per PACT a week after this cycle’s interventions (Figure 9):

- Total number of PHP initiated per PDSA Cycle Three - 88
- Number of PHPs per PACT initiated per PDSA Cycle Three against the aim line represented by a blue horizontal line at 12 PHPs-range 0-15
- PACTs that met the PHP aim per PDSA Cycle Three- four PACTS: 7, 15, 16, 17
- Number of PACTs initiating PHP per PDSA Cycle Three - 13
- Highest number of PHPs initiated per PDSA Cycle Three - 15 PHPs by PACT 7
- Lowest number of PHPs initiated per PDSA Cycle Three - 0 PHPs by 16 PACTs: 1, 2, 4, 6, 8, 9, 11, 12, 13, 14, 17, 21, 23, 25, 26, 29

In PDSA Cycle Three, PHP data again did not meet the aim of 3 PHPs initiated per PACT per week or 348 PHPs in over 4 weeks. All PACTS combined created 88 PHPs or 25% of desired aim, the lowest of all three cycles.

![PHPs initiated per PACT post intervention for PDSA Cycle Three](image.png)

**Figure 9.** PHPs initiated per PACT post intervention for PDSA Cycle Three

Four of the twenty-nine PACTs, PACTs 7, 15, 16, and 17 (Figure 9) (14%), met the goal of a minimum of 12 PHPs in four weeks, improved from previous cycles. PHPs three of the four PACTs were initiated by providers and in one PACTS the PHP was initiated by a LPN. Sixteen PACTS did not create a PHP this cycle (PACTs 1-2, 4, 6, 8-9, 11-14, 18,
21, 23, 25-26, 29, in Figure 8). Four PACTs (14%) have yet to initiate a PHP. Three of the PACTs that have yet to initiate a PHP are from the community outreach clinic that is moving. Thirteen of twenty-nine PACTs, created at least 1 PHP in this cycle (44%) down from the previous studies. The highest number of PHPs created by one PACT was 15, down from previous two PDSA Cycles (21 and 16 PHPs). Figure 10 compares PHP development for individual PACTs for PDSA Cycles One, Two, and Three. PACTs 5, 7, 10, 15, 16, 17 and 28 met the aim of 12 PHPs per PDSA Cycle at least once. PACTs 15 and 28 met the aim twice. None of the PACTs met the aim all three PDSA Cycles.

**Figure 10.** PHPs documented for PACTs for PDSA Cycles One, Two, & Three

Figure 11 shows cumulative PHP data for all three PDSA Cycles. Eight PACTs that previously initiated a PHPs in the previous two cycles did not implement a PHP in Cycle 3. Two PACTs that did not initiate a PHP the previous two cycles implemented a PHP this cycle. At the end of the three PDSA cycles PACTs 15, 16, and 28 initiated at least 36 PHPs.
At the completion of the three PDSA Cycles, the PHP Team discussed how the outcomes for the intervention to utilize a change agent to promote the PHP process did not meet expected outcomes, a total of 298 PHPs initiated versus a total of 1044 PHPs expected:

- Cumulative number of PHPs initiated per three PDSA Cycles against the aim—298 initiated—aim was 1044
- Numbers of PACTs to meet PHP aim after the 3 PDSA Cycles of 36 PHPs—Three met aim: 15, 16, 28

Eight PACTs did not initiate a PHP during the three PDSA Cycles. Four of the eight PACTs have never initiated a PHP. The four PACTs that have never initiated a PHP were from community outreach clinics. Three of 29 PACTs that did not initiate a PHP were from a community outreach clinic during a facility move. The next step in the MOI was to further evaluate the intervention for implementing or spreading changes, specifically the use of a change agent to promote PHP initiation.

Figure 11. PHP cumulative data for PDSA Cycles One, Two, & Three
IV Implementing or Spreading Changes

The PDSA Cycles were evaluated to see if the intervention, change agent strategies to implement PHP process resulted the desired aim or improvement. Evaluating the outcomes of the MOI consists of the answering the following three questions:

1) What are we trying to accomplish? The intervention sought to rapidly increase the number of PHPs created. The intervention while successful in accelerating the initiation of PHPs, did not achieve the aim. Prior to November 12, 2014 only 45 PHPs had been initiated by twenty-nine PACTs, 23 PHPs being initiated by the project director/change agent. The month prior to the intervention, the per PACT number of PHPs increased (Figure 12). The aim was for PACTs to initiate 3 PHPs a week or 12 PHPs a month, or 36 PHPs by the completion of the intervention. The aim was 1044 PHPs total initiated by the 29 PACTs. During the three PDSA Cycles, 298 PHPs were initiated, falling 71% short of the aim. Figure 12 shows the cumulative numbers PHPs initiated by all 29 PACTs from November 10, 2014 to May 11, 2015, compared to what was expected. Month 5 was the first PDSA Cycle.
Figure 12. Cumulative numbers of PHPs initiated: Actual versus and expected after implementation of change agent at month 5

2) How will we know that a change is an improvement? The PHP data showed an increase in PHPs created, but not at the desired outcome of 3 PHPs initiated per PACT per week. Over the three-month intervention, the aim of 12 PHPs initiated per PACT a month occurred ten times, 39% of the aim was met. The data shows improvement in the overall numbers initiated PHPs. However, this process improvement project does not assess if initiation of PHPs leads to improved health and well-being of veterans.

3) What change can we make that will result in improvement? The PHP team hoped that that the change agent strategies would promote PHP implementation. Figure 13 shows the cumulative number of PHPs per PACTS. No clear pattern is present other than some PACTs were actively initiating PHPs and some were not.
At times it appears as though the change agent strategies were successful to some degree, as the number of PHPs initiated (477) were significantly higher than the baseline number of 45 PHPs. Perplexing is that that the two PACTs that initiated PHPs with the baseline 45, never initiated another PHP. The number of PHPs initiated by the project director/change agent also went down after the baseline assessment of 45 PHPs. Some of this decrease was due to irregular staffing and increased case load. These PDSA Cycles occurred during a turbulent staffing period. A high number of PACT members were out for spring vacations and illness causing increase work load on all PACTs members and there was also some staff turnover. Literature shows that some confounding variables cannot be controlled and may make the results difficult to interpret (Cherry, 2015).

Many positive effects came from the project. An increased number of PACTs initiated a PHP. In addition, the paper PHP health assessment tool was modified to match the PHP note. A total of 7 PACTs met the aim of 12 PHPs a month during the
PDSA Cycles. Before the first PDSA Cycle only two PACT had met this aim. The intervention of a change agent did have some influence on increasing the number of PHPs and increasing the number of PACTs initiating PHPs.

Three months after the project PACTs still came to the project director/change agent with PHP concerns. This shows that the project director/change agent was successful in establishing the assumed role. The PACTs not yet to have initiated a PHP were from community outreach clinics, the furthest away from the main primary care facility, three from the same facility. This was possibly related to a number of barriers: the distance from the main facility, poor quality of all-staff meetings via teleconference, or lack of priority due to the move. It is important to understand what prevented these PACTs from creating PHPs to facilitate this practice change.

The intervention had some negative trends. By PDSA Cycle Three, fewer PACTs were initiating PHPs. Also in PDSA Cycle Three, the total number of PHPs decreased to 88, compared to previous cycles with total PHP numbers of 100 and 110. This may have been also related to barriers specific to that month as previously mentioned with understaffing.

Implementing a change in practice as big as PHP requires multiple facilitators of change. The appraisal and synthesis of evidence to implement PHP revealed multiple strategies to facilitate a practice change. One of the main features to a successful practice improvement relies on strong leadership skills to guide, facilitate, and inspire others toward change.

V. Future Recommendations

The review of literature on implementing practice changes such as personalized care planning, patient-centered medical home, or electronic health record based PHP
offered multiple recommendations including a change agent to include 1) effective communication and internal campaigning, 2) effective resource utilization strategies that increase confidence and buy-in, and 3) creation of a team environment and encouraging ownership, accountability, support, and confidence. Another recommendation is to get the patient’s perspective on the current PHP process. Some veterans did not want to initiate a PHP. To aid in future promotion of patient-centered care, it would be good to know why veterans decided for or against creating a PHP.

**Effective communication and internal campaigning.**

A different change agent could have facilitated the PHP process. The project director/change agent was well known to the staff as a person without administrative power, this may have reduced the effectiveness of the intervention. The project director/change agent struggled with making time to interact with PACTs on the PHP process. A dedicated change agent without a heavy patient load and extra free time to assist PACTs with PHP implementation and provide constructive feedback on the PHP process could be more effective. The employment of PHP coaches, dedicated solely to working with PACTs and veterans initiating PHPs, may be key in implementing PHP. Other VHA facilities have been successful in implementing PHP with the use of change coaches. The only function of the change coach is to work with veterans on initiating PHP with limited communication to PACTs. Change coaches are not trained medical professionals. In question is the safety or usefulness of a PHP that is not developed with a healthcare professional or with a PACT. The central concept to the PCMH is a team-based health care delivery system to provide comprehensive medical care. A key strategy
to effectively using change coaches to implement PHP maybe having them actively participating in PACTs.

The current process for PHP is time consuming. The PACTs in the community outreach clinic already stressed for time given their impending facility move did not engage in PHP promotion. Further support will need to be given to this clinic once they are settled into their new building. Currently PACTS are hand writing the veterans responses on the back of the paper PHP assessment tool. The PHP could be smoother if the PHP was built into the template of the routine visit note or a mandatory clinical reminder. Once the PACT documents the PHP information from the veteran there should be a function to print this information in a handout similar to the paper PHP assessment tool.

Effective resource utilization strategies.

PACT as the name implies has a team focus, with multiple members to deliver effective resource utilization strategies. PHP does not have to be initiated by a provider, or the traditional leader of the team. In today’s busy healthcare practices it is unrealistic for the provider to recognize all aspects of the patient’s healthcare needs (American Nurses Association, 2011). In the Patient-Centered Medical Home, the role of the nurse has expanded in care coordination. RNs or LPNs can work with patients to initiate PHPs and lead to increased effectiveness of chronic illness management and promotion of preventive health measures (McAllen, 2014). MSAs could initiate the paper PHP assessment tool in the lobby prior to the appointment or this tool could be mailed out prior to the appointment with an explanatory letter. Once PHP coaches become available this may also increase implementation of PHP. The VHA system also has electronic
health portals or MyHealtheVet. This could be another place where veterans could initiate a PHP to share with their PACT.

The number of documented PHPs does not tell the whole story behind promoting PHP. According to the Health Belief Model (Callaghan, Bieda, & Centopanti, 2013), people need to be able to perceive the threat of disease in order to understand the need to take preventative action. Despite the best intentions of healthcare professionals to explain the threat of disease and benefits of recommended preventative health actions many people are not interested in taking preventive health actions or initiating a PHP. The PHP template could be modified to allow PACTs to annotate that a veteran has been offered PHP but refused. This would provide better PACT visibility of the veteran’s wishes and that PACTs were not negligent in offering PHP.

**Creation of a PACT environment.**

A strong PACT has developed a shared vision, ownership, accountability, support, and confidence (McSherry, 2008). Leadership needs to ensure that PACTs have the tools needed to implement PHP: working computers, information to implement PHP, handouts for veterans, educational, clinical and administrative support. Listening to the needs and desires of the PACT is may also be beneficial. PACTs will feel appreciated and empowered if their needs are satisfied. PACT members need to be encouraged to ask for help. Leaders of effective PACTs need to share their methods to success with other PACTs, specifically PACTs 15, 16, and 28. How did they achieve the highest number of PHPs? A mentorship program could be developed for strong PACTs to help new or weaker PACTs.
With this process improvement project, the project director/change agent expected to promote implementation of PHP. However, change is not easy. Lewin’s Change Theory can also be used to help identify future recommendations (Kaminski, 2011).

**Unfreeze.** PACTs need to let go of “the ways things have always been done” to accept this new practice change. This will require further examination of the barriers that PACTs have to implementing PHPs. This could be done through administration scheduling specific time for PHPs or creating group appointments to initiate PHPs.

**Change.** Change agents cannot mandate value changes. Understanding what motivates PACTs could influence that way they think and behave towards implementation of PHP (Scholl, 2002). Change could also come in the form of adjusting the current PHP practice to make it fun or new and exciting, intrinsic process motivation. Patient visits in a small cubicle with no windows or change in the daily flow can become uninspiring. Bring PACTs out of their cold offices to a light filled comfortable and inviting location where they can work with patients on initiating PHPs. There could also be administrative leader of the PACT recognition or additional administrative time for teams with the most PHPs.

**Refreeze.** PHP implementation is mandatory, but lacks consequences if not done. However, PACT will require continued support in promoting PHP. The change or acceptance of PHP has not sustained. More changes need to be made for PHP to be more fully embraced and implemented. The community outreach clinic that moved will need further support in their new location. The hope is that the UPC and new PHP coaches will also provide continued support and promotion of PHPs. For PHP to be maintained at
a certain level there may need to be a decrease in barriers, increase in facilitators, incentives, or punitive actions.

**Patient’s Perspective**

In this transformation, the patient goes from being a listener to an active participant in their healthcare. As a stockholder in this practice change the patient should be given an opportunity to evaluate the current PHP process. This exchange of ideas may give some clues to how to improve the PHP process and show the patient that we as healthcare providers are interested in their care.

**VI. Implications and Conclusion**

The transition to patient-centered healthcare and PHP has been slow. PHPs have the potential to improve healthcare. The Doctor of Nursing Practice essentials strive to ensure that doctoral education for advanced practice nurses is up to the challenge of developing nursing leaders that are capable of fully implementing patient-centered care with PHP (American Association of Colleges of Nursing, 2014). The implementation of PHP has implications for nursing practice, administration, and research.

**Nursing practice.** The advanced nurse practitioner in direct practice needs to be aware of barriers and facilitators to patient centered care to guide, facilitate and inspire healthy outcomes. The barriers to the PHP process are numerous. There may be a resistance to change from patients and healthcare providers. Patients may avoid healthcare promotion activities related to fear of consequences, time, support systems, environment, and knowledge (Rasinaho, Hirvensalo, Leinonen, Lintunen, & Rantenen, 2006). A study by McKenna, Ashton, & Sinead (2004), showed that primary care providers have multiple barriers to implementing -based practice changes due to
frequently changing practice recommendation, lack of ability to search for evidence-based information, poor computer capabilities, and low patient compliance. Healthcare providers also need to be aware of their personal attitude and role in healthcare promotion. Using a patient-focused approach and having the knowledge of evidence based health and well-being recommendations, advanced practice nurses can address the barriers to personalized health planning.

**Nursing administration.** The nurse administrator is responsible for the management of nursing staff and in collaboration with the agency. Administrators ensure adequate resources for provision of safe and quality care. The actual financial cost of this project was minimal, the project director/change agent paid $60.00 to purchase McDonald gift cards. However, hundreds of unpaid hours over a year were spent finding articles to support this intervention, figuring out how to implement this intervention, implementing the intervention, and finally writing implications from the intervention. Time well spent considering the cost to benefit ratio to promote PHP. According to Barack Obama, “change will not come if we wait for some other person, or if we wait for some other time. We are the ones we’ve been waiting for. We are the change that we seek” (2015).

In order to implement patient centered care the nurse administrator needs to be able to skillfully lead and steer the healthcare facility. Some PACTs did not understand the need to document PHP goals in a separate note when they were already documenting the patient’s goals in their visit note. The advanced practice nurse provides leadership in interacting with peers and colleagues to apply practice standards and participate in peer
review. The nurse administrator could guide PACTs to implementing PHPs related to performance expectation.

**Nursing research.** The nurse researcher strives to fill in the blanks about what is not known about patient centered care and implementing PHPs. The nurse researcher carries out the studies to support that patient-centered care and PHP actually work. More qualitative and quantitative studies need to be done to fully implement patient-centered care with PHPs. Further study could also help identify the role of philosophy and values of team members in empowering veterans to create PHPs. As previously mentioned, it is unknown if PHP implementation will have long term affects on the health and well-being of all veterans.

**Conclusion**

This process improvement project focused on the utilization of a change agent to facilitate implementation of personalized health plans. The intervention influenced PACTs to promote PHPs but not to the extent desired. There are identified data gaps based on the analysis and synthesis of evidence to implement PHP. More research is needed on the best way to implement PHP. More work needs to be done on refining PACT member roles in initiating PHPs. The focus of patient-centered care is the veteran.

One veteran’s PHP experience was most memorable. He started off not wanting to create a PHP because he had too much troubling him with his wife’s serious health problems. Then he started thinking about what was the most important thing in his life, what he wanted and was able to change. Then he decided to create a SMART goal. His goal was to stop smoking to help them out financially, make his wife happy, and improve
his health too. He needed to take care of himself, personalized health planning, so that he could take care of her.

Hopefully, this process improvement project positively influenced the long term acceptance of this practice change towards implementation of PHPs, helped PACTs in understanding and initiating PHPs with veterans. Moreover, may this project inspire future research to validate PHP and its relationship to improving health and well-being.
References


Institute of Medicine 2001 Crossing the quality Chasm: New Health System for the 21st century, Committee on Health care in America, National Academy Press, Washington, D.C. Retrieved from
http://www.nap.edu/openbook.php?record_id=10027&page=R1


Appendix A
Veterans Health Administration’s Personal Health Plan Template

MEDICAL RECORD
Progress Notes

NOTE DATED: (date and time automatically populated)
LOCAL TITLE: PHP HEALTH AND WELL-BEING ASSESSMENT
VISIT: (date and time automatically populated)

PERSONALIZED HEALTH PLAN

PATIENT PREFERENCES
Personal Information- (Anything special we should know about you?)

PERSONAL HEALTH PLAN
1. What really matters to you?
2. If you don’t change anything about your health today, where do you think you’ll be in 10 years?

PATIENT HEALTH GOALS

1.
a. Patient Timeline:
2.
a. Patient Timeline:

Health Coaching Support:

PACT RN Care Manager:
Appendix B
Personal Health Plan Assessment Tool Sheet

<table>
<thead>
<tr>
<th>HEALTH CHECK</th>
</tr>
</thead>
</table>

**How would you rate your health today?** (circle one): Great – Doing Well – OK – Needs Work

**How would you rate the following areas of your life?**

<table>
<thead>
<tr>
<th>Area</th>
<th>Rating Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity &amp; Energy</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Tobacco Free</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Food &amp; Weight</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Screening Tests &amp; Immunizations</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Relationships &amp; Communication</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Personal Growth &amp; Spiritual Life</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Stress &amp; Rest/Sleep</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
<tr>
<td>Surroundings Safety/Finances</td>
<td>Doing Well, Needs Work, Request Education</td>
</tr>
</tbody>
</table>

**Your Choice**

**Think about what is most important in your life. If you don’t change anything, what do you think your life and health will be like in 5 years? In 10 years?**

*Personalized Health Plan March 2014*
Appendix B CONTINUED

Is there anything about your health that you want to change? How will you go about making the changes?

Are you interested in setting a GOAL for your health today?

My goal for the next week is: (Be specific: what, where, when, how much, how often. Example: I will walk at least 3 times this week for 15 minutes each time, every evening after dinner.)

Things that might get in my way: (Examples: weather, pain, time)

What I can do to overcome these things: (Examples: exercise indoors, walk with a friend)

I believe that I can reach my goal: (Circle the number that matches how confident you feel.)

1 2 3 4 5 6 7 8 9 10
Not at all sure Somewhat Sure Very Sure

Follow-Up:

Follow-Up method: ☐Phone ☐In person ☐Secure Messaging

PERSONALIZED HEALTH PLAN (PHP)

Me + Self Care + Healthcare = Whole Health Care

Personalized Health Plan March 2014
## Appendix C

### Literature Review Table to Support and Implement PHP

<table>
<thead>
<tr>
<th>Author/year/Title/Source</th>
<th>Purpose</th>
<th>Sample/Setting</th>
<th>Design/Framework</th>
<th>Quality Review Score</th>
<th>Level of confidence</th>
<th>Variables/Instruments</th>
<th>Results</th>
<th>Interventions to put PHP in practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coulter, A., Entwistle, V. A., Eccles, A., Ryan, S., Shepperd, S., &amp; Perera, R. (2015). Personalised care planning for adults with chronic or long-term health conditions. The Cochrane Database Of Systematic Reviews, 3CD010523.</td>
<td>To evaluate if personalized care planning for adults with chronic health conditions compared to usual care leads to improved health outcomes.</td>
<td>19 studies published before 7/2013, in 16 in primary care or community setting, 3 in hospital clinics</td>
<td>N/A</td>
<td>I</td>
<td>Studies with intervention collaborative goal setting and action planning.</td>
<td>Personalized care planning associated with decrease in HA1C and systolic blood pressure in diabetes, improved lung function and asthma control, improved depression, no adverse effects due to personalized health planning, no significance towards diastolic blood pressure, cholesterol, body mass index, or quality of life.</td>
<td>Training in shared-decision making, guidelines and feedback emphasizing the needs to elicit patient’s preferences when care planning, algorithms embedded in electronic medical records to aid care plan, brief care-planning tools to guide process, electronic or printed template for care plan</td>
<td></td>
</tr>
<tr>
<td>Chunchu, K., Mauksch L., Charles, C., Ross, V., &amp; Pauwels, J. (2012). A</td>
<td>To evaluate if a team approach to using an EHR based Pt centered</td>
<td>Control group 7 physicians and MA with 30 pts/ Experiment</td>
<td>Experimental</td>
<td>.75</td>
<td>III</td>
<td>PCCP into EHR-also had a paper version of PCCP Providers with experimental</td>
<td>Experimental patients had more documented behavior change elements than the control patients (p&lt;.001). Feedback</td>
<td>Experimental providers and medical assistant were trained in the principals of patient-focused care and use of the patient-centered care</td>
</tr>
</tbody>
</table>

82
| Corser, W., Holmes-Rovner, M., Lein, C., & Gossain, V. (2007). A shared decision-making primary care intervention for type 2 diabetes. | Examined the practicality of a brief shared decision-making goal-setting intervention for type two DM | Convenienced sample 58 patients from Michigan State University Internal Medicine Clinic over 15 months | .75 | III | 28 page patient-decision support workbook for patients, audiotaped 2-hour education sessions with each patient followed by a | Increased diabetes management goal setting with 75.9% of patients having at least one diabetes | Resident physicians attended two 2-hour lectures on recent diabetes practice guidelines, the study design, and principals of SDM, and role playing, nurses and medical |
 Nurses in 2004-2005 received encouragement to identify at least one diabetes management goal to discuss with their physician, brief provider education. Variables included HbA1C, weight, blood pressure, and patient diabetes goals, perceived patient empowerment, self-management, diabetes knowledge, co-morbidities, diabetes severity, diabetes attitudes, and diabetes empowerment. Management goal (p=.001) and increased patient knowledge of diabetes management (p<.001) assistants received similar education.

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The Diabetes Educator, 33(4), 700-708.
| Raskas, R., et al., (2012). Early Results Show WellPoint's Patient-Centered Medical Home Pilots Have Met Some Goals For Costs, Utilization, And Quality. Health Affairs, 31, 9,2002-2031 | To show early results of patient-centered medical home pilots. | Three of ten patient-centered medical home pilots -31,032 medical home patients vs 350,015 not medical home control patients | .25 | IV | Care coordination, quality improvement measures, ie acute inpatient admissions, emergency room visits, measures of diabetes care, and inappropriate antibiotic use | Colorado 18% per 1000 decrease in acute care admissions compared to 15% increase in the control patients, 15% per 1000 decrease in Emergency Room visits compared to 4% increase in control patients, and 0% increase in specialty visits compared to 10% increase in control group. New Hampshire 5% increase in cost for patients in PCMH model versus 15% increase in cost for patients in traditional practice models New York -lower utilization rate, lower costs, and better compliance with evidence-based healthcare guidelines | Incentive pay for care coordination and quality improvement on top of traditional fee-for-service pay or enhanced pay related to quality measures. |
| Literature to support practice interventions to decrease cardiovascular disease | 20 qual/quan research studies and 2 literature reviews between 1995-2008 | N/A | V | Increased cardiovascular risk reduction with “patient-provider goal setting and decision support, self-management techniques, and personalized printed communication.” | - Improve provider adherence by reminders and emphasis placed on desired change - Provider education and awareness - Provider feedback |


- PCMH versus traditional model resulted in increase rates of hemoglobin A1C testing 82.1% versus 77.7% and a decrease in inappropriate pediatric antibiotic use, 27.5% versus 35.4%.
| Gilbert, M., Staley, C., Lydall-Smith, S., & Castle, D. (2008). Use of collaboration to improve outcomes in chronic disease: an overview. Disease Management & Health Outcomes, 16(6), 381-390. | Explore how different types of collaboration, including patient-focused management can improve outcomes in chronic disease. | 67 papers-4 types collaboration: epidemiological, research consortiums, organizational-change, and patient-focused. | N/A | V | Epidemiologic, research consortiums, organizational-change, and patient-focused. | Need collaborative process to improve healthcare delivery system, Patient-focused disease management-improve treatment adherence, reduce healthcare costs with high quality care-EB strategies, empowering patients their healthcare (action plans, goal setting, and follow up), and high quality data management. | Need to address barriers to practice change, the Institute for Healthcare Improvement uses collaborative groups to enhance combined learning and intra-organizational improvement, Plan-Do-Study-Act (PDSA) cycles can also spur change, strong leadership. To improve clinical practice chronic disease management models need to be systematically implemented across the healthcare system, one model uses four key elements “(i)8-week client centered intervention for clinicians of all professions to work together with patients towards achieving optimal health goals in physical and psychosocial domains; |
(ii) structured training and supervision to ensure that clinicians are competent and confident in delivering the model, (iii) organizational training to provide underpinning for support for implementation of the model; and (iv) an evaluation component to help identify effectiveness and possible gaps in service delivery that could be addressed”
| Battersby, M., et al., (2010). Twelve evidence-based principles for implementing self-management support | To provide recommendations for implementing self-management support in primary care | Review of literature 10/2008-1/2009 to identify interventions to guide principals of self-management support | N/A | V | Evidence associated with improved patient self-management were organized according to framework of the Chronic Care Model. 12 E-B principals to guide self-management support includes: “brief targeted assessment, evidence-based information to guide shared-decision making, use of nonjudgmental approach, collaborative priority and goal setting, collaborative problem solving, self-management support by diverse providers, self-management support interventions delivered by diverse formats, patient self-efficacy, active follow up, guideline-based case management for selected patients, linkages to evidence-based community programs, and multifaceted interventions”. | “Diverse professionals and laypersons can effectively deliver SMS interventions if they have clearly defined tasks and roles and are trained to use evidence based interventions”. Providers and patients need follow up to sustain self-management behaviors and improved outcomes. |

To evaluate use of a patient-centered care plan (PCCP) for complex patients and enhanced patient-primary care provider team relationship.

Study was done in one resident-affiliated community hospital, group family practice, over one year, qualitative data was obtained from 9 in-depth team member interviews and 5 in-depth patient interviews

.25

VI

Patient-centered care plan

Results are vague-enhanced team communication, enhanced team care, enhanced patient centeredness, and increased continuity

The Patient-centered care plan (PCCP) was documented in detail in an electronic medical record and highly visible to other healthcare clinicians in the facility.
| Weiner, S., Schwartz, A., Sharma, G., Binns-Calvey, A., Asley, N. et al. (2013). Patient-centered decision making and health care outcomes, 158, 573-579. | To evaluate if patient-centered decision making improves health outcomes in 9 months. | 774 patients with hidden recorders and 139 resident physicians Internal medicine clinics at 2 VA facilities | .75 | VI | Prospectively determined physician performance based on the chart and audio-recorded patient encounters—using the 4 C method. Contextual red flags, variables, that providers should address i.e. missed appointments, missed tests or studies, nonadherence to agreed upon plans, declined recommended preventive care, urgent care visits, diabetes, hypertension, and emergency room visits. | Improved health outcomes 71% when physicians addressed contextual factors 71% compared to only 46% improved health outcomes when physicians did not address contextual red flags | Physicians were given 4 one-hour seminars on patient-centered decision making |
| Engels, Marjolein, R., & Boshuizen, D., (2012). A personalized care plan in chronic care: implementation and evaluation. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617761/pdf/iijc2012-2012145.pdf | To evaluate the implementation of a personalized care plan in chronic care. | 40 of 75 patients returned surveys and 8 patient interviews, 22 of 45 care providers quantitative surveys, 10 provider interviews /June 2010-October 2011 in the Netherlands | 0 | Surveys/interviews/study data with unknown variables | Preliminary results - Self-management/shared decision making is difficult to implement-suggest regular feedback and joint learning-agreements are better when written down | Implementation strategies for PCP - Suggest regular team feedback, guidance, and PCP education through work conferences, supporting products and monthly support phone calls or e-mails - Education on creating and documenting PCP using shared-decision making about cardiovascular disease-based on chronic care model: SMART objectives, plan for achieving objectives, agreements, and follow up plan |

<table>
<thead>
<tr>
<th>Strategies for achieving staff acceptance of patient-centered care.</th>
<th>Semi structured interviews at the end of the second or third year of PCMH implementation with 136 individuals and 48 individuals of 7 focus groups from 20 small-midsized medical practice in Pennsylvania during initial implementation of PCMH.</th>
<th>.75</th>
<th>Interviews were a script of open ended questions, 2 researchers created a code list of key concepts that emerged across data (buy in, vision, and agreement)</th>
<th>The study found 3 lessons that facilitate practice acceptance of PCMH with 13 strategies for transformation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative study/guided by Solberg's conceptual framework for practice improvement.</td>
<td></td>
<td>VI</td>
<td></td>
<td>3 lessons: “1) Effective communication and internal campaigning -Ensure clear and concise communication and support from accessible practice leadership -educate about PCMH: not just what and how, but why -Provide concrete information and guidance on known or learned techniques that achieve PCMH-like medical practice -use external and internal data to benchmark, reinforce benefits, highlight success -Leverage respect of PCMH champions to foster buy-in -Concentrate advocacy efforts on skeptical or hesitant members dispel misconceptions</td>
</tr>
</tbody>
</table>
2) Effective resource utilization strategies that increase practice confidence and buy-in to PCMH
- Appropriately manage and organize staff for PCM
- Secure sufficient funding to make PCMH changes
- Participate in PCMH learning collaborative(s)

3) Creation of a team environment and encouraging ownership, accountability, support, and confidence
- Have a work flow of defined, overlapping, and flexible roles and responsibilities within an incremental transformation plan
- Create an open environment where everyone’s input is sought and respected
- Foster a culture of creativity and innovation’
| Address factors to personalize diabetes care |
| 13 Diabetes experts forum June 2013 |
| Expert opinion |
| N/A |
| VII |
| N/A |
| Patient-centered approach to personalize A1C targets to manage diabetes. |
| Providers need evidence based tools to aid in personalizing healthcare. Multidisciplinary approach to personalizing care for patients with complicated health conditions. |
### Appendix D
- Literature Review Table – Change agent

<table>
<thead>
<tr>
<th>Author/year/Title/Source</th>
<th>Purpose</th>
<th>Sample/Setting</th>
<th>Design/Frame work/Quality Review Score/Level of confidence</th>
<th>Variables/Instruments</th>
<th>Results</th>
<th>Implications-Evidence based literature to identify strategies of a change agent to produce a change in practice.</th>
</tr>
</thead>
</table>
| Stefancyk, A., Hancock, B., & Meadows, M.T., (2013) The nurse manager: Change agent, change coach? | How to transform a nurse manager to a change coach to guide, facilitate, and inspire change. | N/A | Expert opinion/N/A/Level of evidence VII | N/A | The article defines a change agent, lists 3 coaching behaviors, guidance, facilitation, and inspiration, and outlines principles and elements of a healthful practice or work environment. | Guidance  
Support change in practice  
Support evidence based practice guidelines  
Educate staff on performance expectations  
Monitor desired practice change  
Guidance-  
Support change in practice  
Support evidence based practice guidelines  
Educate staff on performance expectations  
Monitor desired practice change  
Facilitate-  
Solicit required resources from leadership  
Develop a supportive environment  
Act as a sounding board increase facilitators and dispel barriers  
Use creative thinking to help new process: posters, reminder cards, emails, etc.  
Enable communication |
| Strickland, R. & O’Leary-Kelley, C. (2009) - Clinical nurse educators’ perceptions of research utilization: Barriers and facilitators to change | Identify perceived barriers and facilitators to research utilization (RU) by clinical nurse educators facilitators and to evaluate the relationship between clinical nurse educator characteristics compared to reported barriers | Convenien ce sample method - 122 of 300 returned surveys from hospital based clinic nurse educators in California | Descriptive study Level of evidence VI/ Quality review 1 | Demographic s: Education Institution type Funding Magnet status Barrier Factors: Setting (organization) Nurse (adopter) Presentation (communicati on) | Barriers in ranked order: 1.setting 2.nurse, 3 presentation, and then 4 research- however, when regrouped with demographics- nurses educators (change agents) with advanced degrees-

The advanced practice nurse in the role of the educator or change agent understands barriers and facilitators to RU or change and may be in a position to develop programs to educate staff and implement EBP or a change in practice. | Act as a resource and a mentor Create learning experiences Participate in interdisciplinary teams Inspire- Positive and confident attitude Role model for change process Expert leadership Actively engaged in change process Motivate others by linking their values and needs to the desired change |
<table>
<thead>
<tr>
<th>Research (Utilization) Instrument-BARRIERS scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>perceived setting as less a barrier for RU Nurse educator as change agent perceptions to barriers and facilitators?</td>
</tr>
</tbody>
</table>


Revealed the role a clinical nurse specialist (CNS) as a change agent in implementing a practice change to address IC delirium in ventilated patients.

20 bed community hospital in Maryland

Case study that was implemented by CNS or change agent / Lewin’s Change theory Model/.75/V1 13 question Likert survey to assess unit’s readiness to support a practice change 12 question multiple choice posttest to follow up knowledge of delirium in ICU Competency skills check list-ability to perform CAM ICU assessment.

Change in practice-CNS use of CAM-ICU assessment tool in ABCDE Bundle-designed to assess ICU delirium in ventilated patients

Change agent designed and implemented quality improvement The CNS: -trained with a delirium expert at another hospital -had ongoing communication with staff -presented evidence to support practice change to administration -created learning course for nurses - had good communication skills -promoted mandatory computerized documentation of ABCDE bundle
| McCormack, B., Rycroft-Malone, J., DeCorby, K., Hutchinson, A. M., Wilson, V. (2013). A realistic review of interventions and strategies to promote evidence-informed healthcare: focus on change agency | To identify role, characteristics, skills, knowledge, interventions, and strategies of a change agent effective in promoting evidence-informed healthcare or knowledge utilization. | ROL 1997-2007 | ROL/VII | 3 major themes from ROL research questions: “1) What impact do the characteristics of change agent have on knowledge utilization? 2) what is the interaction between the change agent’s skills and knowledge with contextual factors?, and 3) What is the interaction between the change agent and the context?” “1) Accessible, younger, role model, possesses competency-related characteristics, positive, respected, self-confident, responsible and accountable, culturally compatible, reflective 2) expert knowledge: local knowledge, practice knowledge, experience, & academic knowledge Sills: communication, leaderships, evaluation skills, clinical expertise, | -The change agent should have respect within target group, possess a positive attitude, act as a role model for championed practices, show leadership,, solicit required resources from leadership, and develop a supportive environment for the desired practice change. |
critical thinking skills, facilitation skills: learner and teacher
3) Practice environment, organizationally driven initiative, leadership: resources from leadership and leadership influence, assigned and recognized role, culture: culture of success, interplay between role and culture, & learning organization, support: supportive culture, local support, & supportive environment,
<p>| Chaboyer, W., Lin, F., Foster, M., Retallick, L., Panuwatanich, K., &amp; Richards, B. | An improvement project to decreased ICU discharge delays. | Australian general ICU, 1,787 total discharges | Quantitative design study/.5/ Level III | Intervention-Change agent and redesigned | Decreased delay time in ICU discharge from 4.6 hours to 1 hours, a | Role and strategies of a change agent may have been helpful in practice change. |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Title</th>
<th>Methodology</th>
<th>Results</th>
<th>Data</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Bahamon, C., Dwyer, J., &amp; Buxbaum, A.</td>
<td>Redesigning the ICU Nursing discharge process: A quality improvement study. <em>Worldviews on Evidence-Based Nursing</em></td>
<td>-1001 prior to intervention and 786 after discharge process</td>
<td>Savings of 3.2 hours</td>
<td>N/A</td>
<td>Explains the role of an internal change agent in a practice change to improve health service delivery.</td>
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<td>2006</td>
<td>Bahamon, C., Dwyer, J., &amp; Buxbaum, A.</td>
<td>Round Table: Leading a change process to improve health service delivery. <em>Bulletin of the World Health Organization</em>, 84, 658-661.</td>
<td>Explains the role of an internal change agent in a practice change to improve health service delivery.</td>
<td>Health service Report of expert committee/not a study/VII</td>
<td>N/A</td>
<td>Explains the change agent’s role in change process: Change agent: help people understand benefits of change, committed, respected by peers and able to influence opinions, able to lead groups and advocate for practice change, hold management accountable for facilitating efforts towards practice change, able to communicate with words and actions with staff and administration need for change, able to assign staff roles in implementing the change, long-term support for staff, and review barriers and facilitators to change.</td>
</tr>
<tr>
<td>2005</td>
<td>Ruhe, M.C., Weyer, s.M., Zronek, S., Wilkinson, A., Wilkinson, P. S., &amp; Stange, K.C.</td>
<td>Facilitating To better understand the processes that can facilitate a practice change.</td>
<td>Case study of one of 39 family practices in Northeast</td>
<td>Case study/Level of evidence VI</td>
<td>N/A</td>
<td>A list of lessons to facilitate practice change-Change agents are key</td>
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**Ruhe, M.C., Weyer, s.M., Zronek, S., Wilkinson, A., Wilkinson, P. S., & Stange, K.C.** (2005). *Facilitating To better understand the processes that can facilitate a practice change. Case study of one of 39 family practices in Northeast*. *Case study/Level of evidence VI* N/A A list of lessons to facilitate practice change: Change agents are key. Strategies: motivated change agent-increase motivation by linking to: values, other needs, feedback identified needs, needs identified in assessment, and successful current process.
| Ploeg, J., Skelly, J., Rowan, M., Edwards, N., Davies, B., Grinspun, D., Bajnok, I., & Downey, A. (2010). The role of nursing best practice champions in diffusing practice guidelines: A mixed methods study | How nurse champions or change agents influence evidence based practice recommendation or practice change. | Purposeful sampling based on different job positions: front-line nurse, educator, vs administration. 2 phases 1) qualitative interviews 23 champions from 2 groups A-champions from | Mixed method study- sequential triangulation design with qualitative and quantitative data / .75/ level of evidence IV | Champion vs Administrator | Champions influence change | Champion or change agent strategies  Staff education and awareness of evidence based practice guidelines, acting as a resource and mentor, leading and participating in interdisciplinary teams, and monitoring desired practice change. |
| Ontario, Canada that had 2 day workshop and B-champions across Canada with 1 day workshop 2) survey-191 champions and 41 administrators |   |   |   |
Appendix E
Agency Permission

Wright State University-Miami Valley
College of Nursing and Health

AGENCY PERMISSION FOR CONDUCTING STUDY

THE ________________________________

GRANTS TO ____________ Colleen K. Miranda ________________

a student enrolled in a program of nursing leading to a Doctorate in Nursing at Wright State University, the

privilege of using its facilities in order to study the following problem:

_______ Will the utilization of a change agent facilitate personalized health plans?

The conditions mutually agreed upon are as follows:
1. The agency (may) [may not] be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) [may not] be identified
in the final report.
3. The agency [wants] (does not want) a conference with the student when the report is completed.
4. Other: Project is related to educating staff only, not research

Date: 5/8/15

Signature of Agency Personnel/Title

Signature of Student Signature of Faculty Director
Appendix F
SMART Goal Handout

Personalized Health Planning

Behavioral counseling techniques

TEACH for Success

T  Tune in to the Patient
E  Explore the Patient's Concerns, Preferences, Needs
A  Assist the Patient with Behavior Changes
C  Communicate Effectively
H  Honor the Patient as a Partner

•  Patient centered-approach or listen to the older adult's needs and readiness centered approach, when advising on physical activity.

S.M.A.R.T. Goals

S-Specific    I want to be active (walk, bike, swim, yoga, Zumba) 7 days a week.
M-Measurable I want to be able to walk 2 miles daily.
A-Action-based (Attainable-Behavior that will result in change) I will walk 3x week.
R-Realistic   I will walk (around the block or 10 minutes) 3x a week and slowly increase distance.
T-Time bound  Short term-10 min this 3x week, 15 min, 4x next week.

SMART Goals

Specific-reduce sedentary behaviors (TV, video games, computer time, & sitting) strength training, improve symptoms of arthritis, do my own vacuuming, improve balance, brisk walk, take the stairs, golf, bike, swim, yoga, kick boxing, Zumba, line dancing

Walk 20 minutes before work Monday Wednesday and Friday.
Use 3# weights with 10 repetitions upper arm exercises Tuesday, Thursday, and Saturday.

Measurable-

2 or 3 times a week and increase
Each exercise with 3# weights then increase
Use a physical activity tracker or calendar to monitor progress.
Appendix F Continued

PHP Smart Goal Handout continued

**Attainable**-

Obtain a gym membership, good walking shoes, buy weights or equipment, invite a friend or relative for support, block time in schedule

Relevant- improve health, bone density, muscle mass, activities of daily living

**Time-based**-

Start __________ in 2-3 days or weeks.

Within 3 months…

I will only watch TV while riding on the recumbent bike 30 minutes each day for one week.

I will take the stairs at least once every day for 2 or fewer flights of stairs to climb the 1st week.

I will park my care in the furthest parking spot every days that it is not raining or snowing.

I will take water Zumba for 45 minutes twice a week.