QUERI

Challenges and Opportunities for Pay-for-Performance as Veteran Care Moves into the Community

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PREFACE

The VA Evidence-based Synthesis Program (ESP) was established in 2007 to provide timely and accurate syntheses of targeted healthcare topics of particular importance to clinicians, managers, and policymakers as they work to improve the health and healthcare of Veterans. QUERI provides funding for 4 ESP Centers, and each Center has an active University affiliation. Center Directors are recognized leaders in the field of evidence synthesis with close ties to the AHRQ Evidence-based Practice Centers. The ESP is governed by a Steering Committee comprised of participants from VHA Policy, Program, and Operations Offices, VISN leadership, field-based investigators, and others as designated appropriate by QUERI/HSR&D.

The ESP Centers generate evidence syntheses on important clinical practice topics. These reports help:

- Develop clinical policies informed by evidence;
- Implement effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures; and
- Set the direction for future research to address gaps in clinical knowledge.

The ESP disseminates these reports throughout VA and in the published literature; some evidence syntheses have informed the clinical guidelines of large professional organizations.

The ESP Coordinating Center (ESP CC), located in Portland, Oregon, was created in 2009 to expand the capacity of QUERI/HSR&D and is charged with oversight of national ESP program operations, program development and evaluation, and dissemination efforts. The ESP CC establishes standard operating procedures for the production of evidence synthesis reports; facilitates a national topic nomination, prioritization, and selection process; manages the research portfolio of each Center; facilitates editorial review processes; ensures methodological consistency and quality of products; produces “rapid response evidence briefs” at the request of VHA senior leadership; collaborates with HSR&D Center for Information Dissemination and Education Resources (CIDER) to develop a national dissemination strategy for all ESP products; and interfaces with stakeholders to effectively engage the program.

Comments on this evidence report are welcome and can be sent to Nicole Floyd, ESP CC Program Manager, at Nicole.Floyd@va.gov.

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EXECUTIVE SUMMARY

INTRODUCTION

Pay-for-performance (P4P) is commonly used in the Veterans Health Administration (VHA) system, and is expected to be an important strategy to incentivize quality and appropriate utilization as Veteran care moves into the community. The purpose of the current project is to 1) assess the effects of pay-for-performance programs on the quality of care and health of Veterans, 2) identify potential unintended consequences of pay-for-performance programs targeting Veteran health, 3) identify performance metrics that have been incentivized in published P4P literature, 4) identify the program design features and implementation factors that might modify the effectiveness of P4P targeting Veteran populations, both in VHA settings and in the community, and 5) identify novel P4P approaches in VHA settings and Veterans Affairs (VA)-funded research examining P4P or related program features or implementation factors.

METHODS

Data Sources and Searches

We identified studies from a previous ESP review on P4P, as well as from a targeted search of known VA P4P and quality improvement researchers. In addition, we conducted an update search of PubMed, PsycINFO©, and CINAHL© (January 2014 to March 2017). We used snowball sampling to identify additional studies and novel approaches currently being tested or implemented in the VHA.

We included English-language studies of P4P programs targeting healthcare providers at the individual, group, managerial, or institutional level in VHA or Veterans Choice Program (VCP) settings. To better understand factors that might contribute to successful P4P programs for Veterans both in VHA settings and in the community, we interviewed 17 key informants (KIs). KIs had extensive P4P research or administrative experience, and knowledge of the VHA health system. Using conventional content analysis to guide protocol development, we drafted a semi-structured interview that was informed by themes identified in our previous P4P review, which also allowed for new themes and concepts to emerge. Interviews averaged 60 minutes, were led by 2 investigators, and were conducted by phone.

We qualitatively synthesized and organized the results of included studies and key informant interviews according to an implementation framework that describes the relationship between the features of P4P programs, external factors, implementation factors, and provider cognitive/affective and behavioral responses on processes of care and patient outcomes (see Figure 1 in the main report).

RESULTS

Results of Literature Search

We included 68 articles representing 62 studies, from 1,031 titles and abstracts. We identified 23 relevant VA-funded projects, programs, and initiatives.

Summary of Results for Key Questions

Key Question 1. What are the effects of pay-for-performance programs on the quality of care and health of Veterans?

We found insufficient evidence to draw firm conclusions about P4P's effectiveness in VHA settings. One RCT found that the combination of audit and feedback and physician-directed incentives resulted in a small, short-term positive effect on blood pressure control, but incentives directed at the practice or physician and practice were not associated with improved outcomes. 2 observational studies report evidence of positive effects on processes of care. However, it is possible that the findings of these studies may have been influenced by concomitant public reporting and denominator management. Table 2 in the main report provides study-level detail.

Key Question 2. In Veteran populations, what are the potential unintended consequences of pay-for-performance in healthcare?

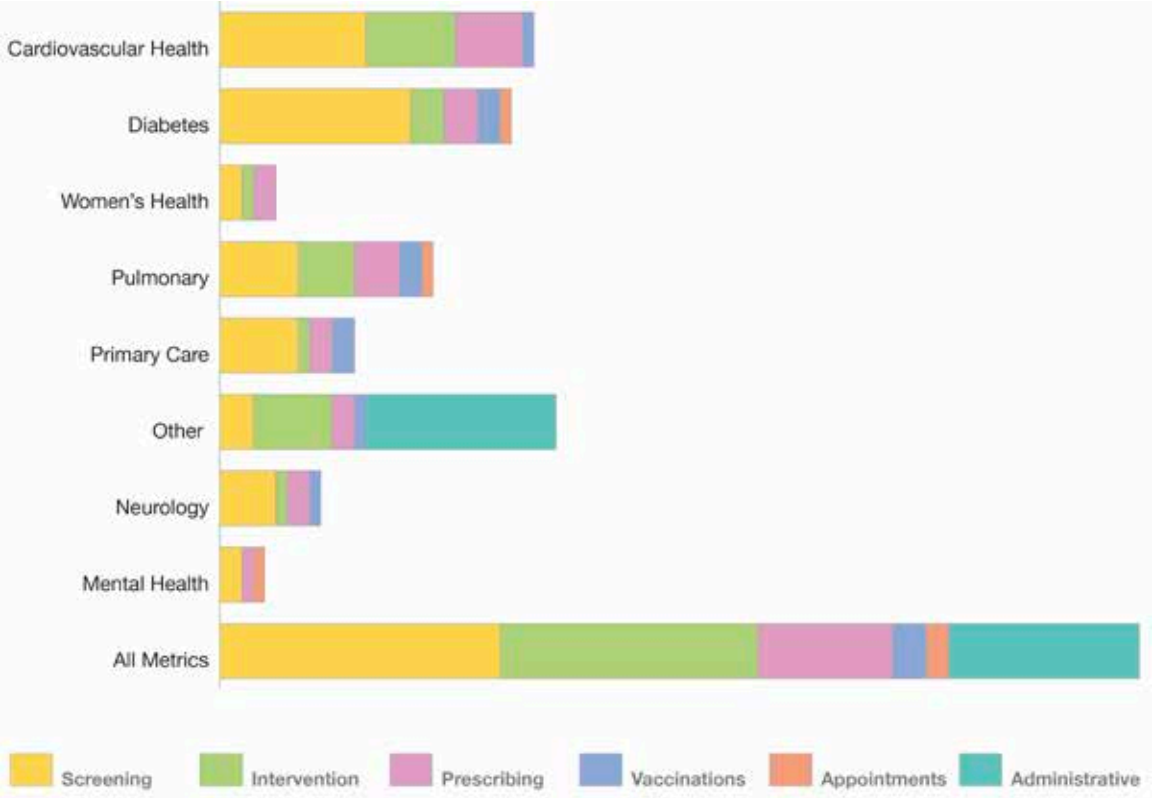
Thirteen articles from 11 studies examined potential unintended consequences associated with pay-for-performance in VHA settings. In general, studies using administrative data and qualitative studies of VHA providers and leaders support the potential for overtreatment associated with performance metrics. However, the sole RCT of P4P specifically found no association between P4P for hypertension and hypotension. Furthermore, a qualitative sub-study of the same RCT found that despite no evidence of hypotension, a number of study participants reported concern for potential overtreatment. Other studies found evidence of denominator management associated with a VISN Director-aimed incentive, and no evidence of risk selection. Qualitative studies explored provider perceptions of both negative and positive unintended consequences associated with performance metrics. Tables 3 and 4 in the main report provide study-level detail.

Key informants were concerned about potential overtreatment, as well as denominator management, risk selection/health disparities, teaching to the test/attention shift, and gaming (see Figure 3 in the main report).

Key Question 3. What metrics have been commonly incentivized in published literature examining P4P?

Across 39 studies, we identified 82 process of care or administrative metrics, and 10 patient outcome metrics (*ie*, intermediate and health outcomes). Tables 5, 6, and 7 in the main report provide a detailed tally of the measures. Metrics most commonly targeted cardiovascular health and diabetes, followed by pulmonary conditions and primary care. Screenings were the most common type of incentivized metric, followed by interventions/procedures, and prescribing. Metrics classified as "other" were predominantly administrative in nature (*eg*, trainings and EHR use). Very few patient outcome metrics were reported in published P4P research. The following figure illustrates the relative proportion of metric types examined in the P4P literature.

Figure. Incentivized Process of Care and Administrative Metrics Reported in Published Literature by Condition and Type



Key Question 4. In Veteran populations, what program features and implementation factors modify the effectiveness of pay-for-performance programs?

VHA Settings

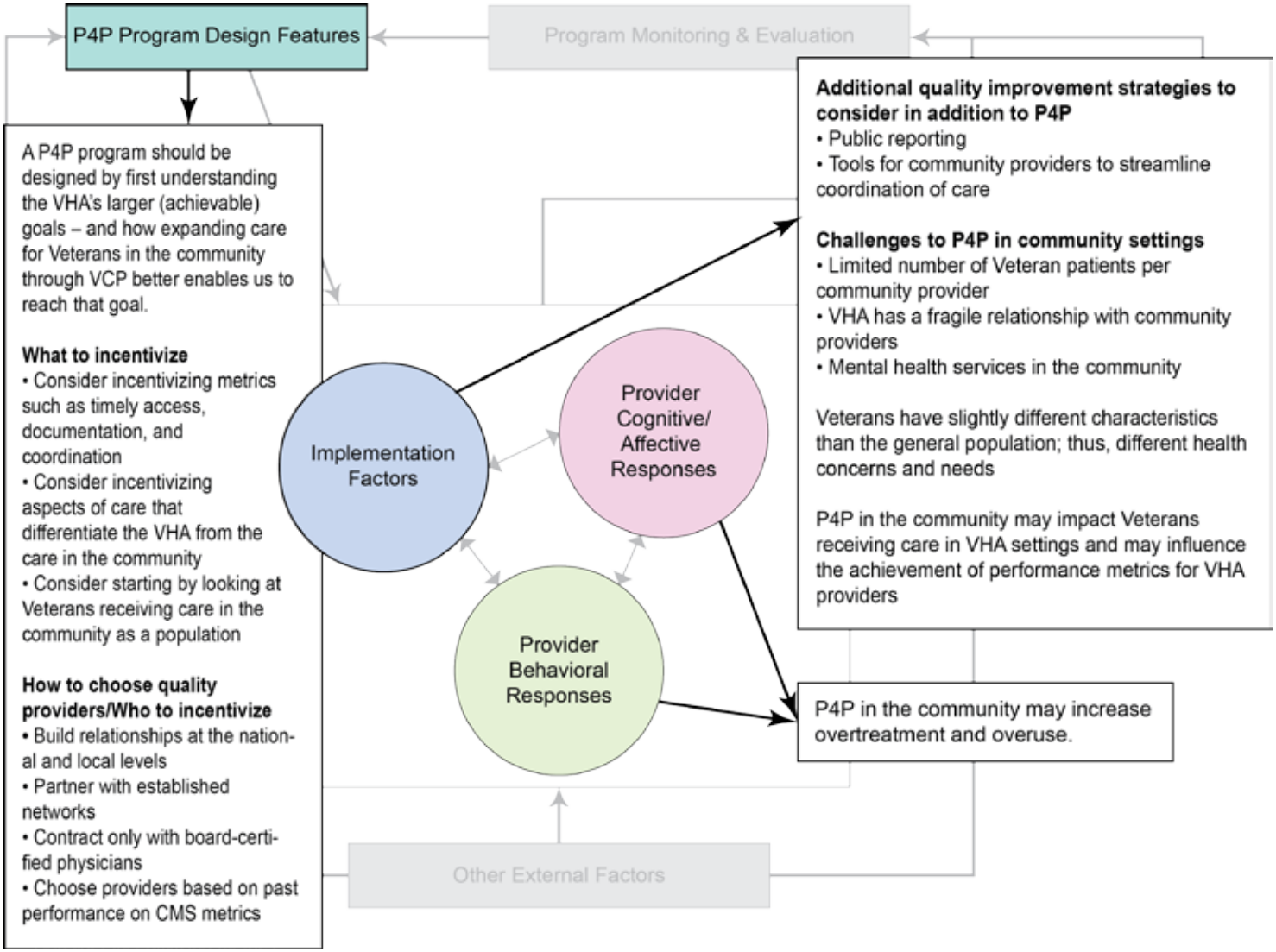
Sixteen articles from 13 studies provide data examining program factors or implementation factors of pay-for-performance programs in VHA settings. In general, studies examining program design features found physician-targeted incentives to be more effective than those targeting groups/practices, that the degree of agreement between EHR data and manual review varied by metric, that the relationship between access metrics and patient satisfaction varied by access metric and whether the patient was new or returning, and that the difficulty of achieving multi-tasked metrics was not directly related to the number of tasks involved. Studies examining implementation processes found no difference in the achievement of actively versus passively monitored metrics, provide mixed evidence related to the impact of the removal of incentives on performance, found a relationship between high-performing facilities and a timely individualized audit and feedback process, and suggest areas of improvement for implementing performance metrics at the local level. One study examined provider affective/cognitive responses, and found that P4P had no impact on goal commitment. Tables 8 and 9 in the main report provides study level detail.

Themes from KI interviews focused on incentive structure, the validity and achievability of performance metrics, and creating an organizational culture that fosters learning and quality (see Figure 5 in the main report).

In Community Settings

Five studies examined P4P or related design features or implementation factors in Veteran populations in community settings. In general, studies found that a number of survey instruments examining cross-system access and coordination exist, and that Veterans, providers, and administrators expressed concern that VCP had resulted in fragmented care for patients, poor communication and coordination amongst providers, and that it placed an additional burden on VHA providers. Other concerns included barriers to sharing medical records, and differences between providers interested in VCP and those who are not. Table 10 in the main report provides study-level detail. The figure below illustrates themes related to P4P in community care, identified through key informant interviews.

Figure. Key Informant Interviews: Themes – P4P in Community Settings



Note. Implementation Factors include implementation processes; outer setting; inner setting; and provider characteristics. Abbreviations: CMS = Centers for Medicare and Medicaid Services; P4P = pay-for-performance; VCP = Veterans Choice Program; VHA = Veterans Health Administration.

Key Question 5. What novel approaches and/or current or recently closed research projects funded by VA examine the effectiveness, implementation factors, or unintended consequences associated with pay-for-performance in Veteran populations?

We identified no novel approaches to P4P being tested in clinical settings in the VHA. However, we did identify 23 current and recently closed (2016 – present) projects, initiatives, and programs funded by VA (see Table 11 in the main report). To our knowledge, only the Partnered Evidence-Based Policy Resource Center (PEPReC) is currently engaged in work directly related to P4P. Along with the Office of Community Care, they are developing performance standards for P4P in the community, and in addition, are performing a randomized evaluation of a P4P program to improve outcomes related to opioid use in Veterans in community care settings. All identified Quality Enhancement Research Initiative (QUERI) activities and one additional project relate to community care.

SUMMARY OF FINDINGS

We examined 68 articles and conducted interviews with 17 key informants to help inform the implementation of pay-for-performance programs for Veterans in the VHA and in community settings. While we found insufficient evidence to determine whether and how much P4P affects Veteran outcomes, we did find information in the literature and through KI interviews that may help guide the implementation of P4P and maximize potential benefits while minimizing negative unintended consequences.

Several themes related to general issues with P4P in VHA emerged from key informant interviews that are consistent with the findings from published literature (see Table 12 in the main report):

- *Regardless of whether performance metrics are incentivized, they should be valid, achievable, and within a provider's control.*
- *Potential overtreatment and overuse may be an unintended consequence of performance metrics, and de-intensification metrics should be considered.*
- *Consider re-evaluation of the size (monetary), frequency, and target (provider vs team) of performance pay in the VHA.*
- *Use a transparent, bottom-up approach for selecting and implementing metrics, and secure provider and staff buy-in.*
- *Foster overall and local-level cultures that encourage learning and value quality improvement.*
- *Gaming will likely be mitigated by providing the resources support necessary for achievement.*

A number of themes related to the design and implementation of P4P in community settings also emerged (see Table 13 in the main report).

- *Initially target areas in need of improvement such as documentation and coordination (eg, receipt of records from community providers).*
- *Develop relationships with providers and health systems with records of strong performance on commonly used, well-validated, and well-established metrics.*
- *The likely small number of Veteran patients per community provider may pose a challenge, both in terms of accurately assessing quality and the potential for an incentive to influence behavior. Consider beginning with alternate approaches, such population-based incentives.*
- *Use strategies such as public reporting to complement P4P.*
- *Developing tools and resources to streamline the data-sharing and coordination necessary to inform a cross-system P4P program.*
- *Consider how funding expanded care in the community might affect funding for Veterans receiving care in VHA settings.*
- *Consider how performance by community providers might impact measured performance for VHA providers.*
- *Be vigilant for overtreatment and for differences in standards of care (eg, opioid prescriptions).*

Conclusions

The effectiveness of pay-for-performance in the VHA settings has been largely understudied, but we highlight a number of key lessons learned from the implementation of programs that may help guide future P4P program improvements in the VHA. In P4P programs targeting Veteran health in community settings, care should be taken to establish relationships with providers with track records of quality; consideration should be given to the impact of the small number of Veterans per community provider; efforts should be made to develop resources and tools to better enable coordination of care, data-sharing, and record transfer; and special attention should be paid to mitigate the potential for overtreatment and ensure quality care for all Veterans.

ABBREVIATIONS TABLE

AA	African American
ACEI	Angiotensin converting enzyme inhibitor
ACG	Adjusted Clinical Group
ACS	Acute Coronary Syndrome
AMI	Acute Myocardial Infarction
AP-EHR	Automatic processing electronic health record
ARB	Angiotensin II receptor blockers
BMI	Body mass index
BP	Blood pressure
CFIR	Consolidated Framework for Implementation Research
CKD	Chronic Kidney Disease
CMS	Centers for Medicare and Medicaid Services
CoC	Community of Care
COPD	Chronic Obstructive Pulmonary Disease
DCG	Diagnostic Cost Group
ED	Emergency Department
EHR	Electronic health record
FOBT	Fecal Occult Blood Test
FY	Fiscal year
HbA1C	Hemoglobin A1C
HDL	High-density lipoprotein
HCV	Hepatitis C Virus
HF	Heart Failure
HSR&D	Health Services Research and Development
HWR	Hospital wide readmission
KI	Key informant
KQ	Key question
LARC	Long acting reversible contraception
LDL	Low-density lipoprotein
LTC	Long term care
MACRA	Medicare Access and CHIP Reauthorization Act of 2015
MDD	Major Depressive Disorder
MIPS	Merit-Based Incentive Payment System
NA	Not applicable
NR	Not reported
NRCT	Non-randomized controlled trial
ORD	VA Office of Research Development
P4P	Pay-for-performance

PACT	Patient Aligned Care Team
PCI	Percutaneous coronary intervention
PM	Performance metric
PC3	Patient-Centered Community Care
PEPReC	Partnered Evidence-Based Policy Resource Center
ProMES	Productivity Measurement and Enhancement System
QUERI	Quality Enhancement Research Initiative
RCT	Randomized controlled trial
SES	Socioeconomic status
SHEP	Survey of Healthcare Experiences of Patients
SGOT	Serum glutamic-oxaloacetic transaminase
SUD	Substance Use Disorder
TB	Tuberculosis
TEP	Technical Expert Panel
VA	Veterans Administration
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Networks