## Evidence-based Synthesis Program (ESP)

# Interventions to Improve Veterans' Access to Care

## A Systematic Review of the Evidence

**Shannon M. Kehle, PhD**
**Nancy Greer, PhD**
**Center for Chronic Disease Outcomes Research**
**Minneapolis VA Health Care System**

May 11, 2011

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## Acknowledgements

**Co-Authors/Collaborators**

- Indulis Rutks
- Timothy J. Wilt, MD, MPH

**Expert Panel/Reviewers**

- John Fortney, PhD
- Maurilio Garcia-Maldonado, MD
- Bonnie Wakefield, PhD, RN

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## Disclosure

This report is based on research conducted by the Evidence-based Synthesis Program (ESP) Center located at the Minneapolis VA Health Care System, Minneapolis, MN, funded by the Department of Veterans Affairs, Veterans Health Administration, Office of Research and Development, Health Services Research and Development. The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent the views of the Department of Veterans Affairs or the United States government. Therefore, no statement in this article should be construed as an official position of the Department of Veterans Affairs. No investigators have any affiliations or financial involvement (e.g., employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties) that conflict with material presented in the report.

# Evidence-based Synthesis Program (ESP)

## VA Evidence-based Synthesis (ESP) Program Overview

- **Sponsored by VA Office of R&D and HSR&D.**
- **Established to provide timely and accurate syntheses/reviews of healthcare topics identified by VA clinicians, managers and policy-makers, as they work to improve the health and healthcare of Veterans.**
- **Builds on staff and expertise already in place at the Evidence-based Practice Centers (EPC) designated by AHRQ. Four of these EPCs are also ESP Centers:**
  - Durham VA Medical Center; VA Greater Los Angeles Health Care System; Portland VA Medical Center; and Minneapolis VA Medical Center.

# Evidence-based Synthesis Program (ESP)

- **Provides evidence syntheses on important clinical practice topics relevant to Veterans, and these reports help:**
    - develop clinical policies informed by evidence,
    - the implementation of effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures, and
    - guide the direction for future research to address gaps in clinical knowledge.
- **Broad topic nomination process – e.g. VACO, VISNs, field – facilitated by ESP Coordinating Center (Portland) through online process:**

*http://www.hsrd.research.va.gov/publications/esp/TopicNomination.cfm*

# Evidence-based Synthesis Program (ESP)

- **Steering Committee representing research and operations (PCS, OQP, ONS, and VISN) provides oversight and guides program direction.**
- **Technical Advisory Panel (TAP)**
    - Recruited for each topic to provide content expertise.
    - Guides topic development; refines the key questions.
    - Reviews data/draft report.
- **External Peer Reviewers & Policy Partners**
    - Reviews and comments on draft report
- **Final reports posted on VA HSR&D website and disseminated widely through the VA.**

*http://www.hsrd.research.va.gov/publications/esp/reports.cfm*

# Evidence-based Synthesis Program (ESP)

## Current Report

## Interventions to Improve Veterans' Access to Care

## A Systematic Review of the Evidence

(January, 2011)

Full-length report available on ESP website:

*http://www.hsrd.research.va.gov/publications/esp/reports.cfm*

# Evidence-based Synthesis Program (ESP)

## Background

- **Access & Downstream Outcomes**
  - VA's new conceptualization of access distinguishes access from downstream outcomes (e.g. satisfaction, quality of care, and functioning).
  - It is important to examine the impact of improved access on these downstream outcomes.
- **Goal of the Review**
  - Review knowledge regarding the link between access to healthcare and system-level and patient-level outcomes
  - Given VA's commitment to improving access, examine the effect of interventions designed to improve access on access and downstream outcomes

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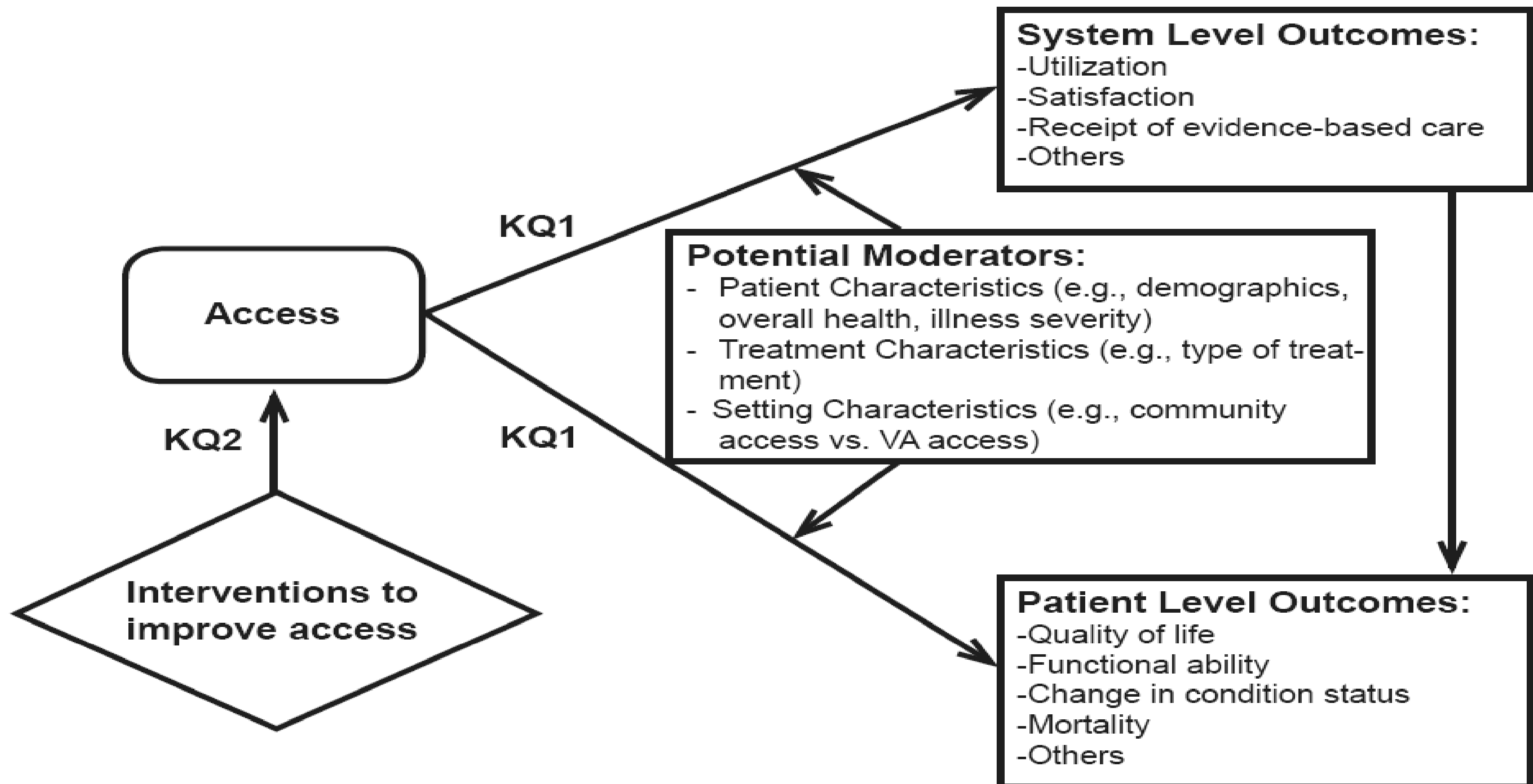
## Background – Conceptual Model



# Evidence-based Synthesis Program (ESP)

## Key Questions

- **Key Question 1**
  - What is the evidence that variation in veterans′ ability to obtain needed health care (i.e., access) contributes to variation in system level (e.g., utilization, satisfaction) or patient level (e.g., quality of life, functional ability, mortality) outcomes?
  - Does the effect of access on system and/or patient level outcomes differ by patient (e.g., demographics, overall health, illness severity), treatment (e.g., mental health, physical health), or setting (e.g., rural, urban, community, VA) characteristics?

# Evidence-based Synthesis Program (ESP)

## Key Questions

- **Key Question 2**
  - What is the evidence that variation in veterans′ ability to obtain : What interventions have been successful in improving access for patient populations with reduced health care access?
  - Have interventions that have improved health care access led to improvements in system level and patient level outcomes?

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## Method

- The topic was nominated by the Planning Committee for the 2010 VA HSR&D Access SOTA Conference
- TEP members collaborated to identify and refine the key questions
- Searched MEDLINE (OVID), CINAHL, and PsycINFO for studies published from 1990 to June, 2010
- MEDLINE search terms: Health Services Accessibility, access, Veterans, United States Department of Veteran Affairs, and Hospitals, Veterans
- Also searched the reference lists of articles identified for inclusion

# Method

- Exclusion Criteria: Not English language
  1. Not United States veteran population
  2. Not published from 1990 to June 2010
  3. Not about access to health care
  4. Not about outcomes of interest
  5. Not peer-reviewed (including meeting abstracts and presentations)

- Constructed evidence tables with patient characteristics, outcomes, and study quality for each study included
- Pooled analyses were not feasible due to heterogeneity in study design and outcomes

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## Method

- RCTs and cohort studies were assigned a rating of good, fair, or poor using the United States Preventive Services Task Force criteria
- Observational studies were rated in the domains of:
  - participant selection (appropriate recruitment of subjects, response rate, representativeness)
  - outcomes assessment (valid and reliable measures, no differential or overall high loss to follow-up)
  - analysis (potential confounders equally distributed or adjusted for in analysis).
- If all three were rated as adequate, the study received an overall rating of fair. All other observational studies were rated as poor.
- Draft report reviewed by TEP and peer reviewers

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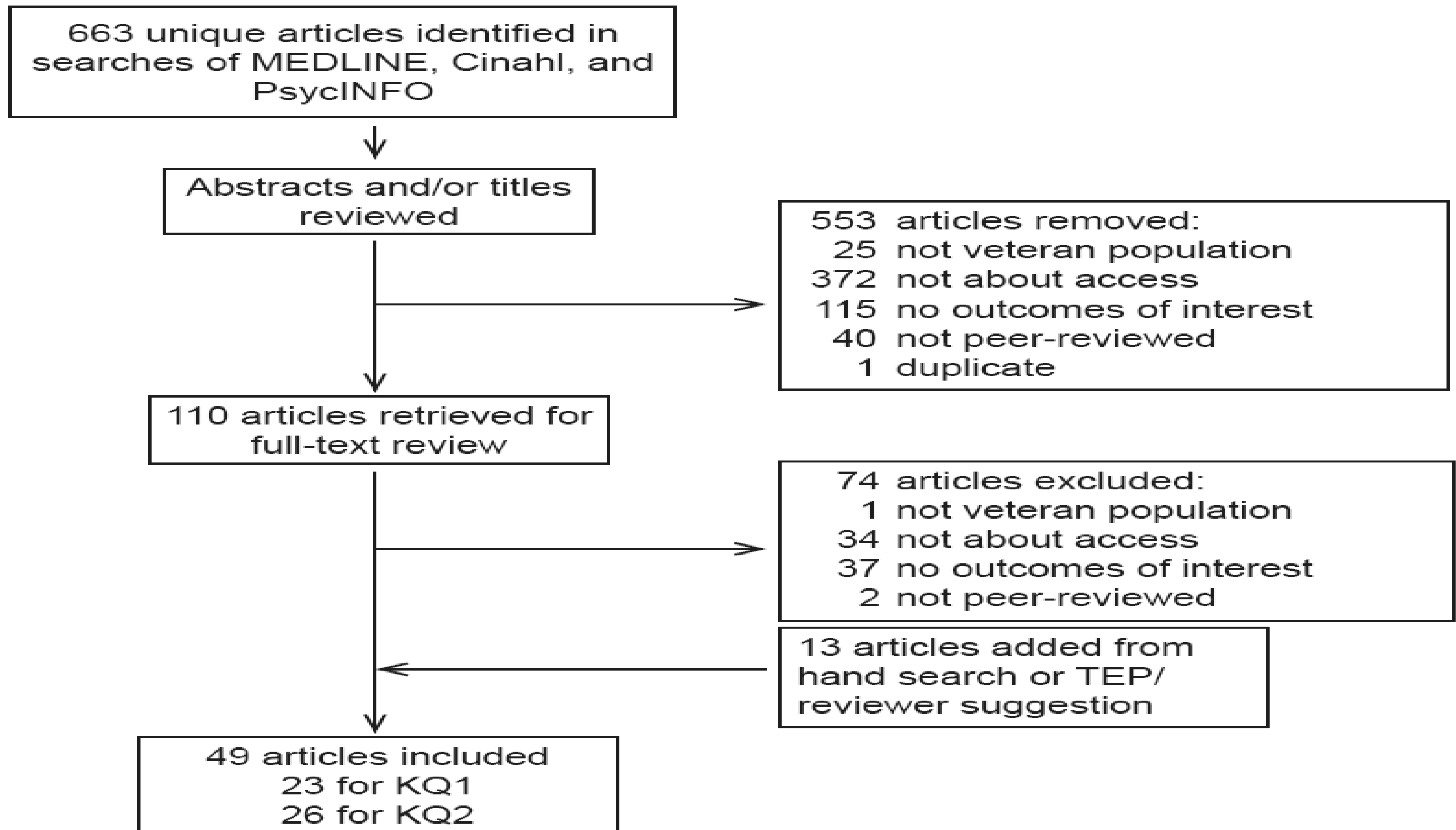

# Evidence-based Synthesis Program (ESP)

## Key Questions

- **Key Question 1.** What is the evidence that variation in veterans' ability to obtain needed health care (i.e., access) contributes to variation in system-level (e.g., utilization, satisfaction) or patient-level (e.g., quality of life, functional ability, mortality) outcomes?

## Key Question 1

- 23 studies (22 datasets)
- 9 cohort, 14 cross-sectional
- 4 good quality, 13 fair quality, 6 poor quality
- Sample sizes: 109 to >3 million

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## Key Question 1 - System-level Outcomes

**Outpatient services:**

- Decreased use as distance increased
- Other factors: age, comorbid conditions/ health status, cost, VA financial support, social support

# Evidence-based Synthesis Program (ESP)

## Key Question 1 – System-level Outcomes

**Inpatient services:**

- Increased admission and readmission with increased distance and comorbidity
- Increased admission for ACSCs if longer facility wait time
- VA or non-VA care choice associated with distance and health condition

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## Key Question 1 – Patient-level Outcomes

- Mortality – associated with distance from admitting hospital, age, and comorbid conditions
- Quality of life, self-reported health – limited information

## Key Question 1 - Conclusions

- The majority of studies focused on distance from a VA facility and utilization of VA services
- Few studies included patient-level outcomes
- Future research should include other elements of access to care and other outcome measures

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## Key Question 2

- What interventions have been successful in improving access for patient populations with reduced health care access?
- Have interventions that have improved health care access led to improvements in system level and patient level outcomes?

# Evidence-based Synthesis Program (ESP)

## Key Question 2

- We identified 26 articles (24 unique studies); 5 RCTs
- During abstraction, we found that the articles reported on five distinct types of interventions
  - Community Based Outpatient Clinic (CBOCs)
  - Primary Care Mental Health (PCMH) Integration
  - Intensive Case Management
  - Telemedicine
  - Copayments
  - Others

## Key Question 2 - CBOCS

- Opening of satellite primary care clinics
- 6 articles (5 unique studies); no RCTs, but four pre- to post-implementation articles
- 3 fair quality; two poor quality
- Sample sizes large – one study VA-wide
- Access Outcomes
  - All six articles showed CBOCS were associated with improved access
  - Four articles showed improvements in objective measures (e.g. more veterans in care, decreased travel time, decreased wait time).
  - Two showed Veterans were satisfied with access

## Key Question 2 - CBOCS

- System-Level Outcomes
  - Five studies reported system-level outcomes
  - More primary care visits
  - Better satisfaction with care / fewer problems
  - Mixed findings regarding specialty care utilization

- No studies reported patient-level outcomes

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## Key Question 2 – PCMH Integration

- Colocation of primary care and mental health services
- 6 articles (5 unique studies); two RCTs
- One good quality; two fair quality; two poor quality
- Two studies examined the integration of PC into MH clinics; two examined the integration of MH into PC clinics; and one study (two articles) examined the integration of MH, PC, and homeless services
- Access Outcomes
  - All studies showed improved access (e.g. shorter wait times, better satisfaction, more veterans seen)

# Key Question 2 – PCMH Integration

- System-Level Outcomes
  - All studies reported system-level outcomes
  - More likely to receive "optimal care" for depression
  - More primary care visits
  - More preventative care
  - Fewer ER visits

- Patient-level outcomes
  - Three studies report patient-level outcomes
  - Findings mixed
    - Two found no differences
    - One found better SF-36 physical component scores

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## Key Question 2 – Intensive Case Management

- High intensity care coordination to increase access to services for veterans with high levels of health care needs
- 2 articles; one RCT
- One good quality; one poor quality

- Access Outcomes
  - One study found that over 56% of veterans got a referral
  - One study reported shortened time between hospital discharge and primary care visit & better satisfaction

# Evidence-based Synthesis Program (ESP)

## Key Question 2 – Intensive Case Management

- System-Level Outcomes
  - One study reported system-level outcomes
  - More likely to have at least one GMC visit and more GMC visits over six months
  - More likely to have hospital readmissions and spent more days inpatient

- Patient-level outcomes
  - One study report patient-level outcomes
  - No difference between groups

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## Key Question 2 – Telemedicine

- Conducting encounters via telephone or interactive video conferencing
- 4 articles; one RCT
- Two fair quality; two poor quality
- Two studies examined using telemedicine to help patients to communicate with existing providers; two studies examined the use of telemedicine to consult with off-site specialists
- Access Outcomes
  - Three studies reported veterans were satisfied with telemed
  - One study found telemedicine resulted in more care-coordinator initiated primary care visits

## Key Question 2 – Telemedicine

- System-Level Outcomes
  - All four studies reported system-level outcomes
  - Two studies reported veterans were satisfied with care / telemed process
  - Two found no differences between groups
- Patient-level outcomes
  - One study report patient-level outcomes
  - Reported better mental health component summary score on the Health Related Quality of Life scale

## Key Question 2 – Copayments

- Change in medication copayments
- 4 articles; no RCTs, all cohort studies
- Four fair quality
- All large samples, including two VA-wide studies

- Access Outcomes
    - All four studies found that higher copayments resulted in less access to medications (e.g. worse adherence, lower refill rates)

## Key Question 2 – Copayments

- System-Level Outcomes
  - One study reported system-level outcomes
  - Among Veterans with schizophrenia, the group with copayments were more likely to have a psychiatric admission

- No studies reported patient-level outcomes

## Key Question 2 – Other Interventions

- Four studies reported on other interventions (one study each)
  - Outreach (providing information on how to access care); poor quality RCT
  - Presence of a specialized rehabilitation unit with a hospital; poor quality
  - Implementation of a health liver program with a substance use clinic; poor quality
  - Implementation of a mobile care clinic; poor quality

## Key Question 2 – Conclusions

- Access to healthcare can be improved through structural / organizational interventions

- Evidence was strongest (4 fair studies) for interventions regarding medication copayments
  - Increasing medication copayments negatively impacted adherence
  - Copayment increase led to increased levels of psychiatric hospitalization
  - Unclear whether decreasing copayments would improve adherence / increase access.

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## Key Question 2 – Conclusions

- The implementation of CBOCs and PCMH integration are also promising strategies

- Five studies found a positive association between the opening of CBOCs and access to primary care
    - While none of the CBOC articles were RCTs, four were fair quality, cohort designs with large sample
    - Downstream outcomes, other than primary care utilization, are less clear

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## Key Question 2 – Conclusions

- Five studies found a positive association between PCMH integration and access.
  - One fair quality, one good quality RCT
  - Improved access & improved preventative care
  - Some evidence of improved patient-level outcomes
  - Less intensive models of PCMH implemented within CBOCs also had a significant positive impact on access
  - PCMH integration show promise, however, more research on each of the models of integration is needed

## Key Question 2 – Conclusions

- 19 of the 24 unique studies reported system-level outcomes.
- Two most frequently reported system-level outcomes were satisfaction with care and number of primary care visits.
  - Large majority of studies found veterans were satisfied with care following the intervention
  - All but one of the studies that reported utilization found the intervention was associated with increased primary care utilization.
  - Findings regarding the use of specialty care and hospitalization were mixed.

## Key Question 2 – Conclusions

- Only six of the 24 unique studies reported patient-level outcomes.
  - Three reported no significant impact of access on outcomes
  - Two reported improved functioning (physical and mental health)
  - One had mixed findings
- No conclusions can be made regarding patient-level outcomes

## Key Question 2 – Limitations

- We identified a number of well designed studies that examined access interventions that were not included because they did not include data regarding access outcomes
- Given the small number of high quality studies and the relatively small number of studies in support of a specific intervention, all findings require further validation

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## Key Question 2 – Future Research

- When studying interventions hypothesized to improve access, measures of access need to be collected and compared across groups
- Examine whether a decrease in copayments would increase access to needed medications; compare cost to other interventions
- Examine the quality of care that comes with increased access; Are Veterans getting access to high quality, evidence-based care?
- Go beyond utilization as an outcome

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## Discussion & Questions

**If you have further questions, feel free to contact:**

**Shannon Kehle, PhD**
612-467-1564
Shannon.Kehle@va.gov

The full report and cyberseminar presentation is available on the ESP website:

*http://www.hsrd.research.va.gov/publications/esp/*