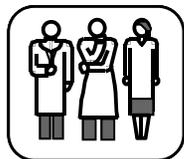


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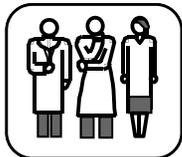


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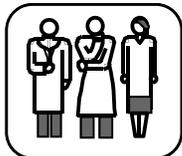
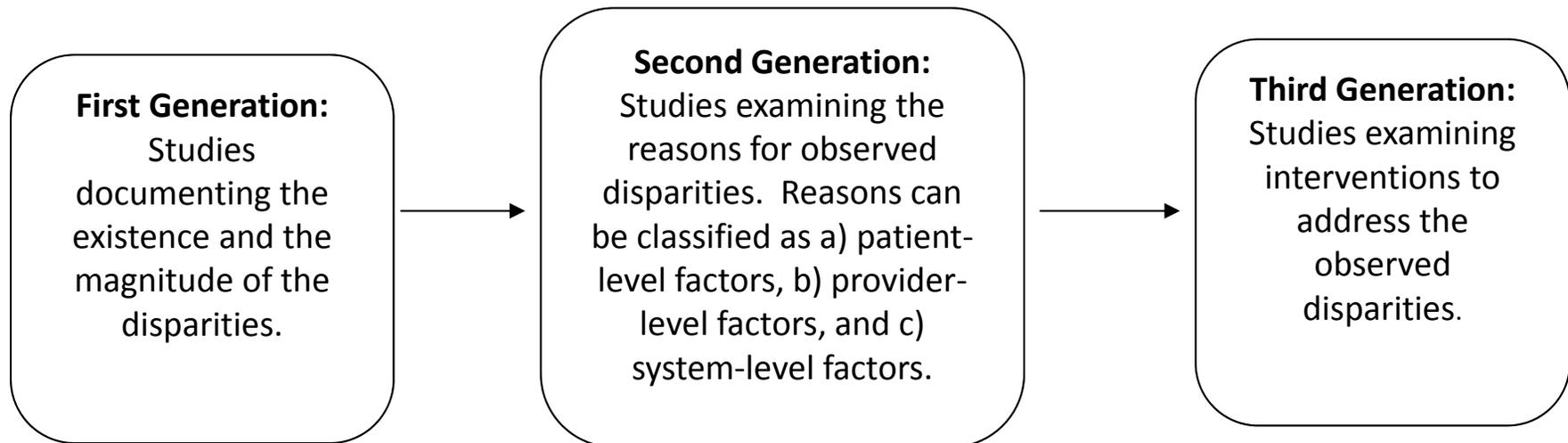
Background

- Osteoarthritis is a leading cause of disability in the US
- Total Joint Replacement (TJR) is the most effective surgical option for moderate to severe osteoarthritis
- Substantial evidence that disparities exist in TJR utilization in non-VA settings
- Reasons behind these disparities are complex and not fully known



Purpose

- To compare Total Joint Replacement (TJR) surgery in VA settings with Non-VA settings



Key Question #1

- What is the evidence about the existence and magnitude of disparities in joint replacement surgery in VA? How does this compare to published studies from non-VA US populations?

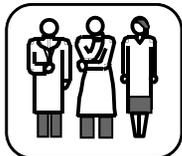


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Key Question #2

- What is the evidence about the patient level, provider level, and system level factors that contribute to disparities in joint replacement surgery in VA? How does this compare to published studies from non-VA populations?



Key Question #3

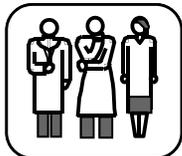
- What is the evidence regarding VA or non-VA interventions to reduce disparities in joint replacement surgery?



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Topic Development & Search

- PubMed search from 1966 through 2011 using standard search terms
- Data about study characteristics, patient characteristics, and outcomes were extracted by experienced reviewers



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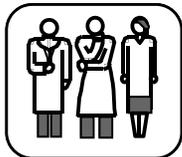
Methods: Study Selection

- Two reviewers assessed for relevance the abstracts of citations identified from literature searches
- We limited search inclusion criteria:
 - Peer reviewed articles involving human subjects
 - Articles published in the English language
 - Medline only
- Included articles were screened using a standardized screening form for data abstraction



Methods: Data Synthesis

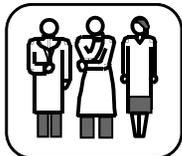
- Studies analyzed to compare characteristics, methods, and findings
- Summary of findings for each question based on qualitative synthesis



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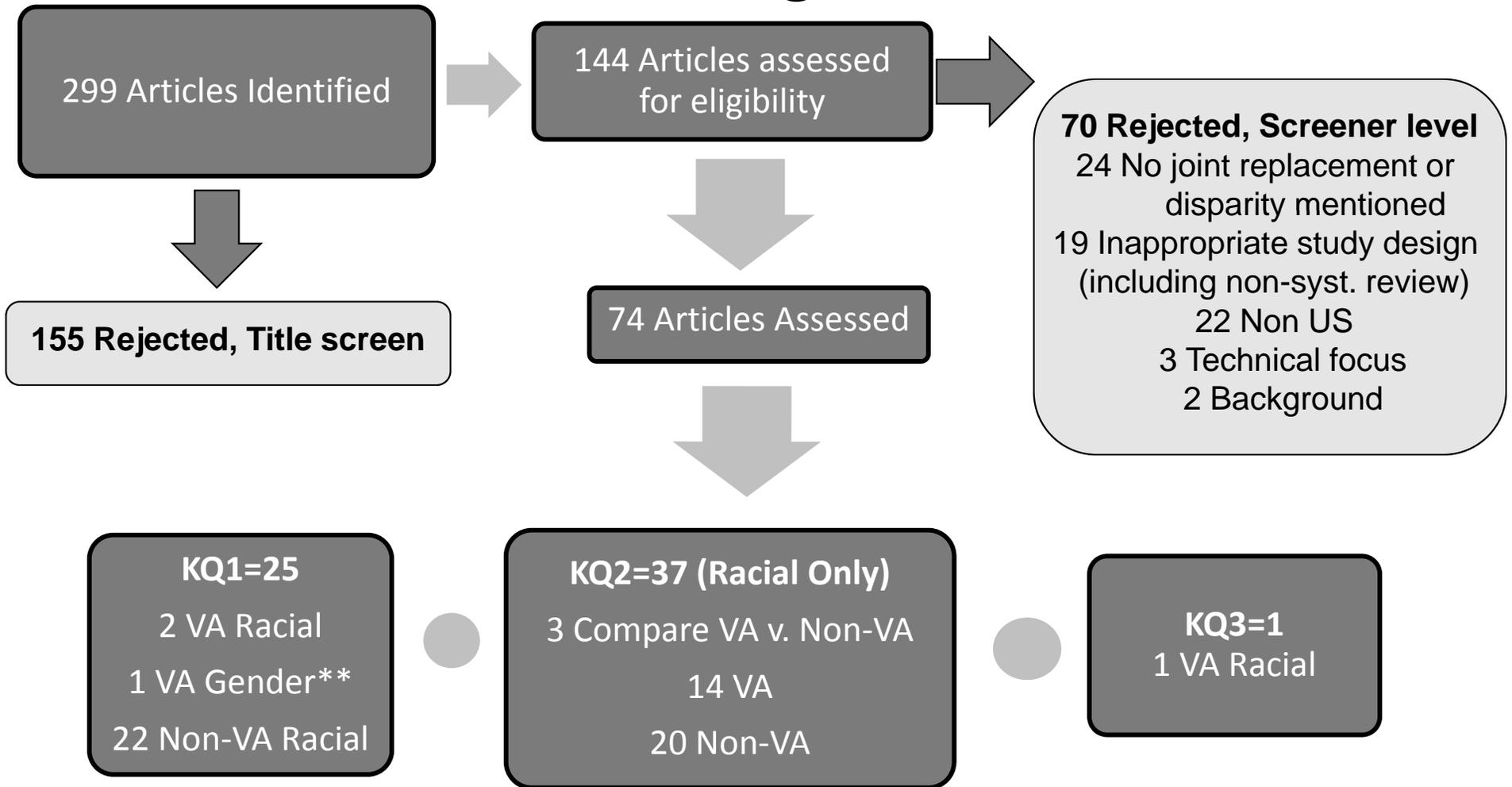
Methods: Peer Review

- Draft version of report was reviewed by:
 - Several technical experts
 - VA clinical leadership
- Reviewer comments were addressed and responses incorporated in the final report



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Results: Flow Diagram of Articles



*Key question categories were not mutually exclusive, meaning some of the 22 “KQ1” studies were also part of the 35 “KQ2” category.

** The 28 articles addressing gender disparities in non-VA populations were not included in the tables or report.



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Results

Key Question #1: VA

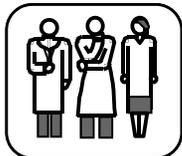
- Data supporting existence of disparities in rates of joint replacement surgery in VA are not very robust
 - Two studies of racial disparities (only one is national), one study of gender
- The magnitude of the disparities in VA as documented in these studies is about the same as magnitude based on more extensive data from non-VA populations (about 1.5-3 fold)



Results

Key Question #1: Non-VA

- Racial disparity literature in TJR outside the VA is more robust than within the VA
- Studies of non-VA US populations consistently found that:
 - Black patients receive fewer TKR (Total Knee Replacement) operations than whites
 - Men receive fewer TKR operations than women
- Studies assessing differences in utilization based on clinical appropriateness or need are fewer in number



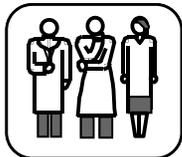
Key Question #1: Summary & Quality of Evidence

- There are few studies that examine whether differences in TKR rates represent true disparities based in clinical need
- Scant data on racial disparities in total hip replacement
- Evidence in non-VA is robust and evidence within VA is not

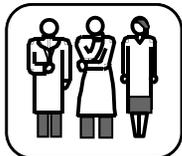
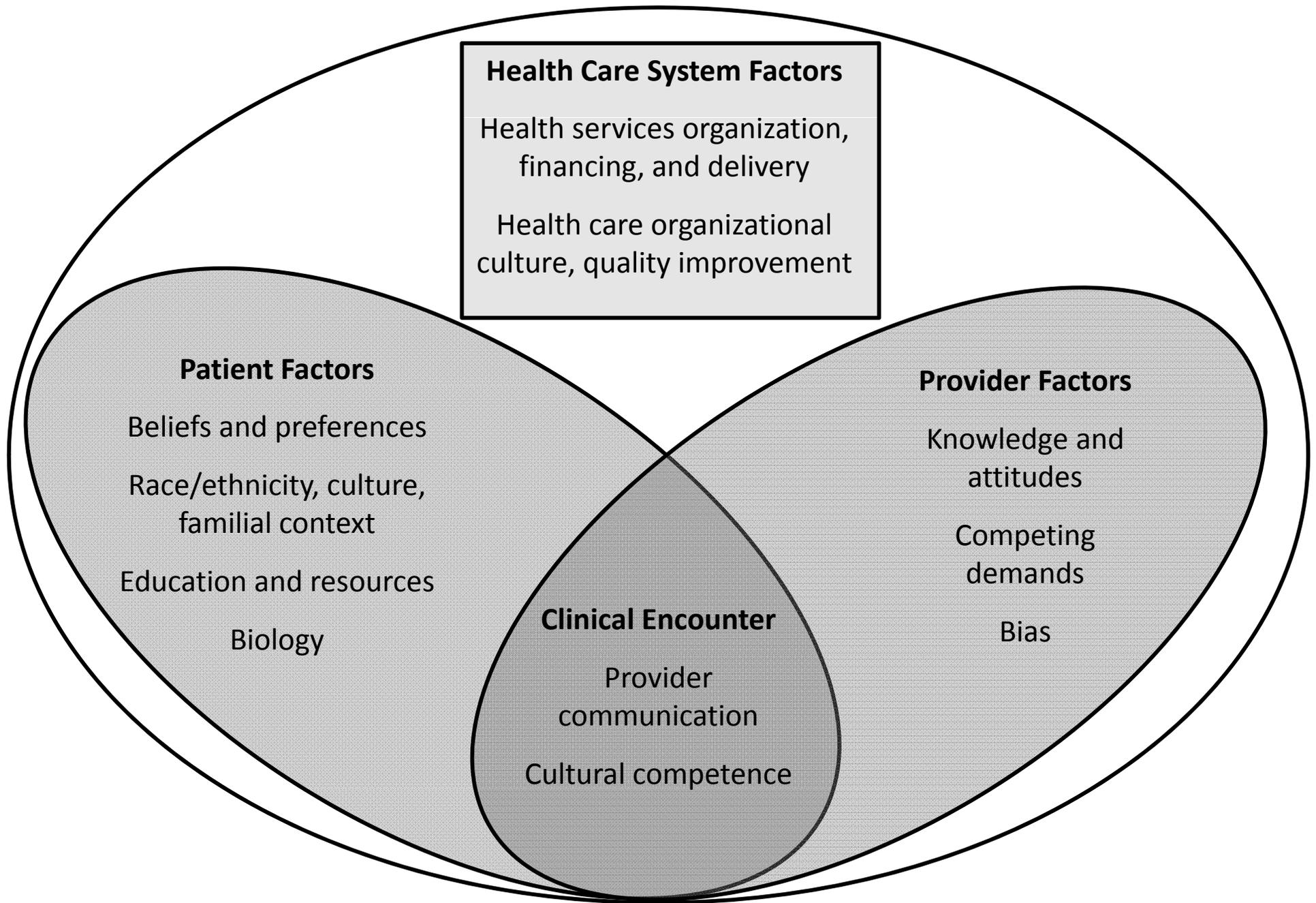


Key Question #2

- The conceptual framework of Kilbourne and colleagues was used to organize the assessed reasons for disparities



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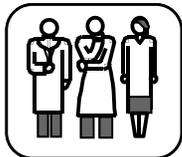
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Kilbourne, A. M., et al., Advancing health disparities research within the health care system: a conceptual framework. *Am J Public Health*, 2006. 96(12): p. 2113-21.

Results

Key Question #2: Direct Comparison

- Studies that directly compared VA and non-VA County hospital patients found no difference in clinical appropriateness of TJR between patients at a County hospital and patients at a nearby VA



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Results

Key Question #2: VA Data

- Evidence about patient-, provider-, and system- level factors that contribute to disparities in joint replacement surgery in the VA comes from a series of small studies recruiting patients from one or two VA medical centers



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Results

Key Question #2: VA Data

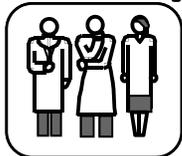
- In general, compared with whites, black patients have:
 - Lower expectations about the effectiveness of joint replacement
 - Less familiarity with the procedure
 - More likely to view prayer and other techniques as useful for managing arthritis pain
- Blacks may be less likely to be referred to specialists for joint replacement or to have TJR recommended by a specialist
 - Some of these differences may be explained by patient preferences
- One study examining communication between patients and orthopedic surgeons in the VA found little difference by race



Results

Key Question #2: Non-VA Data

- Evidence in non-VA settings suggests that minority patients (African American most studied) may have:
 - Less knowledge about joint replacement surgery
 - Perceive fewer health benefits
 - Greater fear about the surgery
 - Less likely to be referred to a surgeon
 - Less likely to consider surgery
- Minority patients are less likely to be treated in high volume centers or by high volume providers, which is a system-level factor that has not been studied within VA

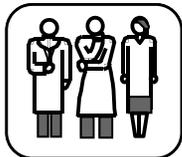


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Key Question #2: Summary and Quality of Evidence

- Scant data on reasons for disparities for other races (Hispanic, Asian)
- Although the individual studies are of high quality, the overall quality of evidence for the conclusions is low because the studies were small and limited to a few sites



Results

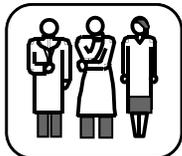
Key Question #3

- We identified only one study of an intervention designed to reduce joint disparities in VA
- That study tested an intervention designed to improve expectations and examined only total knee replacement
- Other potential causes of disparities have not been the subjects of interventions, and no study has yet assessed changes in the actual delivery of joint replacement surgery



Limitations

- Publication bias
- Study quality
- The age of data
- Generalizability
- Types of disparities represented in the literature
- Focus has been on smaller disparity studies up to this point



Future Recommendations

- More recent data on national rates of racial and gender disparities in TJR (both knee and hip) are needed
- Need to measure disparities in the context of clinical need
- With the increasing number of women and Hispanic veterans, planning now to better understand barriers for receiving treatment as well as the potential need for TJR in the future is warranted
- Based on the results, VA should test more interventions to diminish disparities, addressing the need for third generation work, and implement those found effective nationally



Synthesis Team

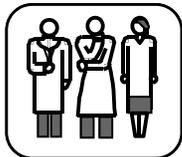
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Thank you

- VA Greater Los Angeles
 - Evidence Synthesis Program & Southern California/RAND Evidence-based Practice Center
 - Center for Surgical Outcomes and Quality
- VA Pittsburgh Center for Health Equity Research and Promotion
- VA Health Services Research & Development Service



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