

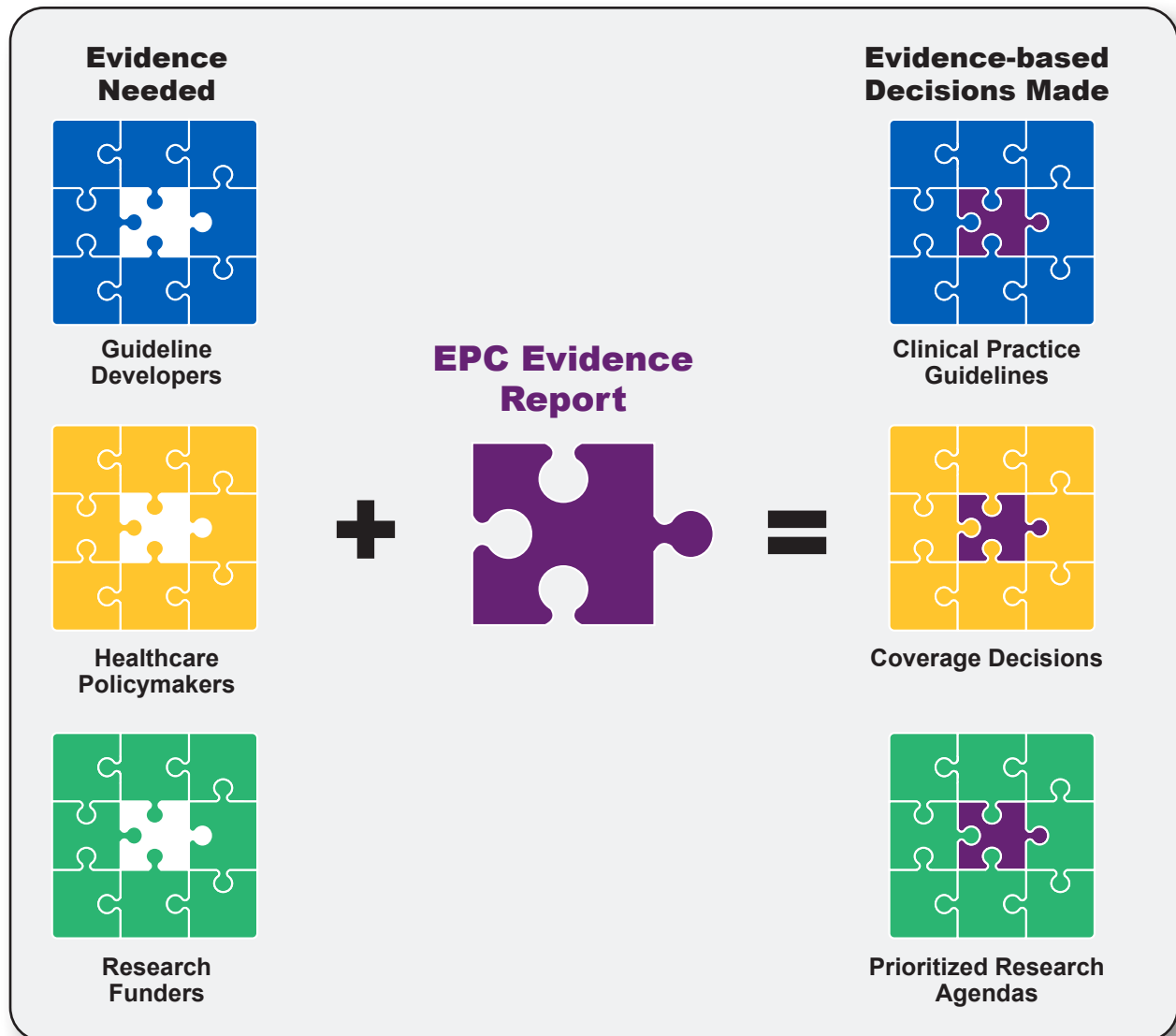
AHRQ's Evidence-based Practice Center Division

Annual Report 2022

Solving the Puzzle for Evidence-Based Decision Making



Solving the Puzzle for Evidence-Based Decision Making



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Executive Summary

The **vision** of the Evidence-based Practice Center (EPC) Program is that all healthcare decisions are based on the best available evidence, resulting in the best possible health outcomes; the mission is to transform healthcare by increasing the quality, availability, and use of evidence via scientifically rigorous and unbiased analysis of evidence. To accomplish this **mission**, the Program has **four goals**. Those goals and the related accomplishments for 2022 are outlined in **Figure E1**.

Figure E1. 2022 EPC Program Year in Review

Goal 1: Provide evidence reviews that are timely, unbiased, accessible, and readable and have actionable conclusions for healthcare decisions.		
Goal 2: Increase awareness of opportunities to provide input and partner with the EPC Program, and to be responsive to the evidence needs of stakeholders.		
Goal 3: Improve the explanatory power and efficiency of evidence synthesis by developing (and adhering to) guidance, tools, and novel methods for synthesizing, summarizing, and contextualizing evidence for healthcare decisions.		
Goal 4: Improve future evidence for healthcare decisions by accelerating the reduction of evidence gaps and improving evidence quality via promoting higher quality clinical trials and registries.		
<p>Goal 1: Advancing Healthcare</p> <p>Completed Research</p> <ul style="list-style-type: none"> • Reports: 21 • Manuscripts: 31 (25 from Contracts, 6 from Grants) • Presentations: 22 <p>New Research</p> <ul style="list-style-type: none"> • Reports Started: 14 • Grants Awarded: 2 <p>Use of EPC Reports</p> <ul style="list-style-type: none"> • Clinical Guidance: 10 • Research Prioritization: 2 	<p>Goal 2: Public & Stakeholder Involvement</p> <p>Partnerships</p> <ul style="list-style-type: none"> • 100% recommend EPC reports • Federal Partners: 12 • Non-Federal Partners: 11 <p>Public Interest</p> <ul style="list-style-type: none"> • Listserv Members: 162,246 • Topics Nominated: 75 	<p>Goal 3: Advancing Evidence Synthesis Methodology</p> <p>Methodology Research</p> <ul style="list-style-type: none"> • Reports: 3 • Manuscripts: 4 • Presentations: 11 • Challenge on Integrating Healthcare System Data With Review Findings <p>Goal 4: Improving Evidence Quality</p> <p>Evidence Gap Work</p> <ul style="list-style-type: none"> • Research Prioritization: 2 • Research Gap Summaries: Women’s Health and Primary Care <p>Repository Development Support</p> <ul style="list-style-type: none"> • Clinical Trials Database: PTSD-Repository • Systematic Review Data Repository (SRDR+)

In calendar year 2022, the EPC Program started 14 new evidence reports and 2 grants and published 50 evidence reviews and manuscripts. This work supported the decision making by 23 unique Federal and non-Federal partners, 100 percent of which would recommend use of the EPC Program to others. In addition, the public remained highly engaged, nominating 75 topics, and over 40,000 new members joined the listserv in the past year. The Program remains dedicated to the advancement and innovation of the scientific methodology of evidence synthesis and dissemination, resulting in seven methodologic reports and manuscripts. Efforts were also directed at improving evidence quality (including supporting data repository efforts, identifying and prioritizing evidence gaps, and funding a [Challenge Grant to improve the integration of healthcare system data and systematic review findings](#)).

The five summaries that follow provide a snapshot of the Program's impact.

Impact Snapshots

Impact Snapshot 1: EPC evidence reviews inform the Centers for Disease Control and Prevention's 2022 opioid prescribing guideline update

Treatments for Chronic Pain (three reports), Treatments for Acute Pain, and Acute Treatment of Episodic Migraine

Why: Despite a lack of evidence of effectiveness and an abundance of data on opioid harms, opioid medications are often prescribed for many pain conditions. This has resulted in greater incidence of opioid use disorder and opioid-related overdose death.

Who: Chronic pain affects millions of adults in the United States. It is the leading cause of disability and significantly impacts physical and mental functioning and quality of life. Many acute pain conditions, if not managed effectively, can progress to chronic pain.

How: The EPC Program initially conducted five evidence reviews to assess the comparative effectiveness and harms of various (opioid, nonopioid drug, and nonpharmacological) treatments for chronic pain and acute pain in 2020. The findings were updated through 2022 using a living review approach.

What: The evidence reviews provided the scientific foundation for the Centers for Disease Control and Prevention's (CDC) update of the [Clinical Practice Guideline for Prescribing Opioids](#), released in November 2022. The CDC guidance continues to recommend non-opioid options as first line of treatment for pain. The intended audience is now expanded to include clinicians other than primary care physicians. In addition, the guidelines promote integrated pain management, emphasize joint decision making, and remove maximum dosage warnings for opioids.



Impact Snapshot 2: National Association of State EMS Officials report based on EPC evidence review – Prehospital Airway Management

Why: Airway management is one of the most important aspects of prehospital care. It is critical to patient survival, and it affects the potential for recovery from emergent illness or injury. However, there is wide variation among States, and even among counties within States, in the type of care providers at different levels are allowed to provide.



Who: The [2020 National Emergency Medical Services Assessment](#) reported a total of 1,030,760 licensed emergency medical services (EMS) professionals, from emergency medical responders to paramedics, and over 208,000 emergency medical technicians and paramedics in the United States.

How: The Pacific Northwest EPC published a systematic review on [Prehospital Airway Management](#), sponsored by the U.S. Department of Transportation National Highway Traffic Safety Administration (NHTSA). The review compared multiple outcomes for using bag valve mask, supraglottic airway, and endotracheal intubation for airway management. The evidence review found that no single airway management approach had superior effectiveness, suggesting that effectiveness alone cannot guide practice guidelines.

What: NHTSA funded a Cooperative Agreement to the National Association of State EMS Officials to develop and disseminate an evidence-based [guideline](#) based on the AHRQ EPC report for prehospital airway management by EMS, including protocols, operating procedures, educational materials, and performance measures to support implementation of the guidelines by States and local EMS systems.

Impact Snapshot 3: EPC report informed Centers for Medicare & Medicaid Services Medicare Evidence Development and Coverage Advisory Committee Meeting



Why: When there is insufficient evidence for the Centers for Medicare & Medicaid Services (CMS) to conclude whether an item or service is reasonable and necessary for the health of Medicare beneficiaries, CMS may issue a Coverage with Evidence Development (CED) decision, which provides coverage of medical items and services on the condition that clinical data is prospectively collected using specific study design requirements. (CMS uses the collected data to assess the appropriateness of an item or service and consider future changes in coverage of an item or service.) The AHRQ report was tasked with reviewing the study design criteria CMS has utilized in CED decisions and suggesting updates.

Who: Medicare patients are able to receive coverage of items and services while the items/services are being evaluated further by CMS.

How: The EPC authors generated revised study design requirements using the following process: they reviewed the literature and drafted revised requirements based on the literature review; they gathered input on the revised requirements from stakeholders and then revised accordingly; and finally, they presented the revised requirements to a CMS Medicare Evidence Development and Coverage Advisory Committee (MEDCAC) Panel for consideration.

What: An [EPC report](#) informed a CMS MEDCAC [Panel](#) regarding potential updates to the standard criteria for studies informing CED decisions.

Impact Snapshot 4: Journal article based on EPC cannabis evidence review is on Annals of Internal Medicine's "Best of 2022" list

Why: Cannabis products are being considered as an option to manage chronic pain. With States legalizing the use of medical or recreational cannabis, many are looking for resources to inform the discussion of the potential benefits and harms of using cannabis.

Who: Chronic pain affects millions of adults in the United States. It is the leading cause of disability and significantly impacts physical and mental functioning and quality of life.

How: The [evidence review](#) stratified the effectiveness and harms of various cannabis products by the relative ratio of constituent compounds (cannabidiol or CBD and tetrahydrocannabinol or THC). An accompanying data dashboard allowed interactive data visualization, and an [infographic](#) based on the findings was created to facilitate rapid communication of the main points.

What: A [journal article](#) and [video](#) derived from the EPC systematic review, published in Annals of Internal Medicine, has been selected as one of the ["Best of 2022."](#)



Impact Snapshot 5: Multiple EPC publications from 2021 receive recognition in 2022 for their outstanding contributions



The American Headache Society named “[Management of Primary Headaches During Pregnancy, Postpartum, and Breastfeeding: A Systematic Review](#)” the most impactful article published in the society’s journal in 2021. The article, based on an [EPC report](#), was one of the most widely read and highly cited papers published in *Headache: The Journal of Head and Face Pain* in 2021.



An [analysis](#) that included bibliometric examination, consensus panel review, and an expert opinion survey of the American Geriatric Society named as landmark manuscripts two publications based on an [EPC report](#). These manuscripts reviewed the use of antipsychotics for [preventing](#) and [treating](#) delirium in hospitalized adults.



The Journal of Addiction Medicine recognized as its most downloaded article of 2021 an [article](#) based on the EPC report [Retention Strategies for Medications for Addiction Treatment in Adults With Opioid Use Disorder](#).

Appendixes

Appendix A. Goal 1: Advancing Healthcare – Completed Healthcare Research Products

Appendix A1. 2022 Healthcare Research Reports

1. Analysis of Requirements for Coverage With Evidence Development (CED)
2. Antibody Response Following SARS-CoV-2 Infection and Implications for Immunity: A Living Rapid Review
3. Diagnostic Errors in the Emergency Department: A Systematic Review
4. Evaluation of Mental Health Mobile Applications
5. Improving Rural Health Through Telehealth-Guided Provider-to-Provider Communication
6. Infection Prevention and Control for the Emergency Medical Services and 911 Workforce
7. Living Systematic Review on Cannabis and Other Plant-Based Treatments for Chronic Pain: 2022 Update
8. Long-Term Health Outcomes in Obstructive Sleep Apnea: A Systematic Review of Comparative Studies Evaluating Positive Airway Pressure and the Validity of Breathing Measures as Surrogate Outcomes
9. Management of Infantile Epilepsies
10. Maternal and Child Outcomes Associated with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)
11. Models of Care That Include Primary Care for Adult Survivors of Childhood Cancer: A Realist Review
12. Noninvasive Nonpharmacological Treatment for Chronic Pain
13. Nonopioid Pharmacologic Treatments for Chronic Pain
14. Opioid Treatments for Chronic Pain
15. Pharmacologic and Nonpharmacologic Treatments for Posttraumatic Stress Disorder: An Update of the PTSD Repository Evidence Base
16. Research Gaps in Primary Care
17. Research Gaps in Women’s Health: 2022
18. Schedule of Visits and Televisits for Routine Antenatal Care
19. Telehealth for Women’s Preventive Services
20. Transitions of Care From Pediatric to Adult Services for Children With Special Healthcare Needs
21. Treatments for Acute Pain

Links to All Reports: [Covid-19 Resources](#), [Technology Assessment Program Reports](#), [Effective Healthcare Program Reports](#)

Appendix A2. 2022 Healthcare Research Manuscripts From EPC Reports

1. Aboumatar H, Pitts S, Sharma R, et al. Patient engagement strategies for adults with chronic conditions: an evidence map. *Syst Rev*. 2022 Mar 5;11(1):39. doi: 10.1186/s13643-021-01873-5. PMID: 35248149; PMCID: PMC8898416. <https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-021-01873-5>.
2. Balk EM, Adam GP, Bhuma MR, et al. Diagnostic imaging and medical management of acute left-sided colonic diverticulitis: a systematic review. *Ann Intern Med*. 2022 Mar;175(3):379-87. doi: 10.7326/M21-1645. Epub 2022 Jan 18. PMID: 35038271. <https://pubmed.ncbi.nlm.nih.gov/35038271/>.
3. Balk EM, Adam GP, Cao W, et al. Evaluation and management after acute left-sided colonic diverticulitis: a systematic review. *Ann Intern Med*. 2022 Mar;175(3):388-98. doi: 10.7326/M21-1646. Epub 2022 Jan 18. PMID: 35038269. <https://pubmed.ncbi.nlm.nih.gov/35038269/>.
4. Berkman ND, Chang E, Seibert J, et al. Characteristics of high-need, high-cost patients: a “best-fit” framework synthesis. *Ann Intern Med*. 2022 Dec;175(12):1728-41. doi: 10.7326/M21-4562. Epub 2022 Nov 8. PMID: 36343343. https://www.acpjournals.org/doi/full/10.7326/M21-4562?rfr_dat=cr_pub++0pubmed&url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org.
5. Broyles JM, Balk EM, Adam GP, et al. Implant-based versus autologous reconstruction after mastectomy for breast cancer: a systematic review and meta-analysis. *Plast Reconstr Surg Glob Open*. 2022 Mar 11;10(3):e4180. doi: 10.1097/GOX.0000000000004180. PMID: 35291333; PMCID: PMC8916208. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8916208/>.
6. Chang E, Ali R, Berkman ND. Unpacking complex interventions that manage care for high-need, high-cost patients: a realist review. *BMJ Open*. 2022 Jun 9;12(6):e058539. doi: 10.1136/bmjopen-2021-058539. PMID: 35680272; PMCID: PMC9185578. <https://bmjopen.bmj.com/content/12/6/e058539.long>.
7. Chang E, Ali R, Seibert J, et al. Interventions to improve outcomes for high-need, high-cost patients: a systematic review and meta-analysis. *J Gen Intern Med*. 2023 Jan;38(1):185-94. doi: 10.1007/s11606-022-07809-6. Epub 2022 Oct 11. PMID: 36220944; PMCID: PMC9849489. <https://link.springer.com/article/10.1007/s11606-022-07809-6>.
8. Chyr LC, DeGroot L, Waldfogel JM, et al. Implementation and effectiveness of integrating palliative care into ambulatory care of noncancer serious chronic illness: mixed methods review and meta-analysis. *Ann Fam Med*. 2022 Jan-Feb;20(1):77-83. doi: 10.1370/afm.2754. PMID: 35074772; PMCID: PMC8786411. <https://www.annfammed.org/content/20/1/77.long>.
9. Goulding AN, Metz TD, Middleton JC, et al. Pharmacologic treatment for perinatal mental health disorders. *Obstet Gynecol*. 2022 Feb 1;139(2):297-303. doi: 10.1097/AOG.0000000000004638. PMID: 34991119. https://journals.lww.com/greenjournal/Abstract/2022/02000/Pharmacologic_Treatment_for_Perinatal_Mental.17.aspx.
10. Gross SM, Lerman JL, Hurley KM, et al. Breastfeeding outcomes associated with the special supplemental nutrition program for women, infants, and children: a systematic review. *Acad Pediatr*. 2022 Oct 19:S1876-2859(22)00534-4. doi: 10.1016/j.acap.2022.10.008. Epub ahead of print. PMID: 36272723. [https://www.academicpedsjnl.net/article/S1876-2859\(22\)00534-4/fulltext](https://www.academicpedsjnl.net/article/S1876-2859(22)00534-4/fulltext).

11. Helfand M, Fiordalisi C, Wiedrick J, et al. Risk for reinfection after SARS-CoV-2: a living, rapid review for american college of physicians practice points on the role of the antibody response in conferring immunity following SARS-CoV-2 infection. *Ann Intern Med.* 2022 Apr;175(4):547-55. doi: 10.7326/M21-4245. Epub 2022 Jan 25. Update in: *Ann Intern Med.* 2022 Nov 29; PMID: 35073157; PMCID: PMC8791447. https://www.acpjournals.org/doi/full/10.7326/M21-4245?rfr_dat=cr_pub++0pubmed&url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org.
12. Konnyu KJ, Thoma LM, Cao W, et al. Prehabilitation for total knee or total hip arthroplasty: a systematic review. *Am J Phys Med Rehabil.* 2023 Jan 1;102(1):1-10. doi: 10.1097/PHM.0000000000002006. Epub 2022 Mar 12. PMID: 35302954; PMCID: PMC9464791. <https://pubmed.ncbi.nlm.nih.gov/35302954/>.
13. Konnyu KJ, Pinto D, Cao W, et al. Rehabilitation for total hip arthroplasty: a systematic review. *Am J Phys Med Rehabil.* 2023 Jan 1;102(1):11-18. doi: 10.1097/PHM.0000000000002007. Epub 2022 Mar 12. PMID: 35302955; PMCID: PMC9464790. https://journals.lww.com/ajpmr/Abstract/9900/Rehabilitation_for_Total_Knee_Arthroplasty__A.5.aspx.
14. McDonagh MS, Morasco BJ, Wagner J, et al. Cannabis-based products for chronic pain: a systematic review. *Ann Intern Med.* 2022 Aug;175(8):1143-53. doi: 10.7326/M21-4520. Epub 2022 Jun 7. PMID: 35667066. https://www.acpjournals.org/doi/full/10.7326/M21-4520?rfr_dat=cr_pub++0pubmed&url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org.
15. Rogers TS, Lampe B, Skelly S. Cervical ripening in the outpatient setting. *Am Fam Physician.* 2022 Feb 1;105(2):193-5. PMID: 35166490. <https://www.aafp.org/pubs/afp/issues/2022/0200/p193.html>.
16. Saldanha IJ, Broyles JM, Adam GP, et al. Autologous reconstruction after mastectomy for breast cancer. *Plast Reconstr Surg Glob Open.* 2022 Mar 14;10(3):e4181. doi: 10.1097/GOX.0000000000004181. Erratum in: *Plast Reconstr Surg Glob Open.* 2022 Mar 28;10(3):e4289. PMID: 35295877; PMCID: PMC8920301. https://journals.lww.com/prsgo/Fulltext/2022/03000/Autologous_Breast_Reconstruction_after_Mastectomy.24.aspx.
17. Saldanha IJ, Broyles JM, Adam GP, et al. Implant-based breast reconstruction after mastectomy for breast cancer: a systematic review and meta-analysis. *Plast Reconstr Surg Glob Open.* 2022 Mar 18;10(3):e4179. doi: 10.1097/GOX.0000000000004179. PMID: 35317462; PMCID: PMC8932484. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8932484/>.
18. Saldanha IJ, Cao W, Bhuma MR, et al. Systematic reviews can guide clinical practice and new research on primary headaches in pregnancy: an editorial on the 2022 American Headache Society Members' Choice Award paper. *Headache.* 2022 Jul;62(7):774-6. doi: 10.1111/head.14332. Epub 2022 May 31. PMID: 35638183. <https://headachejournal.onlinelibrary.wiley.com/doi/10.1111/head.14332>.
19. Saldanha IJ, Adam GP, Bañez LL, et al. Inclusion of nonrandomized studies of interventions in systematic reviews of interventions: updated guidance from the Agency for Healthcare Research and Quality Effective Health Care program. *J Clin Epidemiol.* 2022 Dec;152:300-6. Epub 2022 Sep 19. PMID: 36245131. doi: 10.1016/j.jclinepi.2022.08.015. [https://www.jclinepi.com/article/S0895-4356\(22\)00217-7/fulltext](https://www.jclinepi.com/article/S0895-4356(22)00217-7/fulltext).
20. Snyder C, Choi Y, Smith KC, et al. Realist review of care models that include primary care for adult childhood cancer survivors. *JNCI Cancer Spectr.* 2022 Mar 2;6(2):pkac012. doi: 10.1093/jncics/pkac012. PMID: 35603840; PMCID: PMC8946685. <https://academic.oup.com/jncics/article/6/2/pkac012/6525236>.

21. Salinas R Jr, Saguil A. Physical Activity and the Health of Wheelchair Users. *Am Fam Physician*. 2022 May 1;105(5):534-537. PMID: 35559632. <https://www.aafp.org/pubs/afp/issues/2022/0500/p534.html>.
22. Seehusen DA, Kehoe K. Cannabis for Treatment of Chronic Pain. *Am Fam Physician*. 2022 Aug;106(2):202-204. PMID: 35977124. <https://www.aafp.org/pubs/afp/issues/2022/0800/ahrq-cannabis-chronic-pain.html>.
23. Totten AM, Womack DM, Griffin JC, et al. Telehealth-guided provider-to-provider communication to improve rural health: a systematic review. *J Telemed Telecare*. 2022 Dec 25;1357633X221139892. doi: 10.1177/1357633X221139892. Epub ahead of print. PMID: 36567431. <https://journals.sagepub.com/doi/10.1177/1357633X221139892>.
24. Treadwell JR, Kessler SK, Wu M, et al. Pharmacologic and dietary treatments for epilepsies in children aged 1-36 months: a systematic review. *Neurology*. 2022 Oct. <https://n.neurology.org/content/early/2022/10/21/WNL.0000000000201026.long>.
25. Tsou AY, Kessler SK, Wu M, et al. Surgical treatments for epilepsies in children aged 1-36 months: a systematic review. *Neurology*. 2022 Oct 21;10.1212/WNL.0000000000201012. doi: 10.1212/WNL.0000000000201012. Epub ahead of print. PMID: 36270898. <https://n.neurology.org/content/early/2022/10/21/WNL.0000000000201012.long>.

Appendix A3. 2022 Healthcare Research Manuscripts From Grants

1. Assimon MM, Pun PH, Al-Khatib SM, et al. The modifying effect of the serum-to-dialysate potassium gradient on the cardiovascular safety of SSRIs in the hemodialysis population: a pharmacoepidemiologic study. *Nephrol Dial Transplant*. 2022 Oct 19;37(11):2241-52. doi: 10.1093/ndt/gfac214. PMID: 35793567; PMCID: PMC9585464. <https://academic.oup.com/ndt/article-abstract/37/11/2241/6632991?redirectedFrom=fulltext&login=true>.
2. De B, Pasalic D, Barocas DA, et al. Patient-reported outcomes after external beam radiotherapy with low dose rate brachytherapy boost vs radical prostatectomy for localized prostate cancer: five-year results from a prospective comparative effectiveness study. *J Urol*. 2022 Dec;208(6):1226-39. doi: 10.1097/JU.0000000000002902. Epub 2022 Aug 25. Erratum in: *J Urol*. 2023 Feb;209(2):450. PMID: 36006050. <https://www.auajournals.org/doi/10.1097/JU.0000000000002902>.
3. Ho M, Tadrous M, Iacono A, et al. Outpatient purchasing patterns of hydroxychloroquine and ivermectin in the USA and Canada during the COVID-19 pandemic: an interrupted time series analysis from 2016 to 2021. *J Antimicrob Chemother*. 2022 Dec 23;78(1):242-51. doi: 10.1093/jac/dkac382. PMID: 36374569. <https://academic.oup.com/jac/article/78/1/242/6827322?login=false>.
4. Joyce DD, Wallis CJD, Huang LC, et al. The association between financial toxicity and treatment regret in men with localized prostate cancer. *JNCI Cancer Spectr*. 2022 Nov 1;6(6):pkac071. doi: 10.1093/jncics/pkac071. PMID: 36255249; PMCID: PMC9731205. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9731205/>.
5. Luckenbaugh AN, Wallis CJD, Huang LC, et al. Association between treatment for localized prostate cancer and mental health outcomes. *J Urol*. 2022 May;207(5):1029-37. doi: 10.1097/JU.0000000000002370. Epub 2022 Mar 3. PMID: 34978488. <https://www.auajournals.org/doi/10.1097/JU.0000000000002370>.
6. Mitchell JM, Gresenz CR. The influence of practice structure on urologists' treatment of men with low-risk prostate cancer. *Med Care*. 2022 Sep 1;60(9):665-72. doi: 10.1097/MLR.0000000000001746. Epub 2022 Jul 26. PMID: 35880758; PMCID: PMC9378464. https://journals.lww.com/lww-medicalcare/Abstract/2022/09000/The_Influence_of_Practice_Structure_on_Urologists_4.aspx.

Appendix A4. 2022 Healthcare Research Presentations

1. Agarwal S, Umscheid C. Frameworks for the Evaluation of Mental Health Mobile Applications. Evidence-based Benefit Design Committee of the National Business Group on Health. Oral Presentation. September 2022.
2. Agarwal S. Framework to Assist Stakeholders in Technology Evaluation for Recovery (FASTER) to Mental Health and Wellness. Evidence-based Benefit Design Committee of the National Business Group on Health. Oral Presentation. September 2022.
3. Agarwal S. Framework to Assist Stakeholders in Technology Evaluation for Recovery (FASTER). Connected Health Initiative, Digital Health Community. Oral Presentation. July 2022.
4. Bañez LL. AHRQ Initiatives on Rural Provider-to-Provider Telehealth. Federal Partners Meeting of the National Institutes of Health Pathways to Prevention Workshop. Oral Presentation. July 2022.
5. Bierman A, Burstin H, Hernandez-Boussard T, et al. The Impact of Algorithms on Racial and Ethnic Disparities in Healthcare. AMIA 2022 Annual Symposium. Panel Presentation. November 2022.
6. Chang C. Health Leadership Council Health Equity Workgroup Meeting. Oral Presentation. March 2022.
7. Chang C and Niebuhr D. AHRQ Rapid Review Papers on COVID Process Knowledge. Mercy St. Rita's Psychology and Family Medicine Residency. Oral Presentation. March 2022.
8. Dymek C, Chang C, Hsiao J. Overview of AHRQ's Digital Healthcare Research Portfolio and Discussion of Medicaid's Related Research Needs. Medicaid Medical Directors Learning Network. April 2022.
9. Earla JR, Hutton GJ, Aparasu RR. Comparative Adherence Trajectories across Oral Disease-Modifying Agents in Multiple Sclerosis. ISPOR 27th Annual International Meeting Research Abstracts. Poster Presentation. May 2022.
10. Earla JR, Hutton GJ, Aparasu RR. Factors Associated with Prescribing of Teriflunomide and Dimethyl Fumarate Versus Fingolimod in Multiple Sclerosis. ISPOR 27th Annual International Meeting Research Abstracts, Value in Health. Poster Presentation. May 2022.
11. Iyer S, Umscheid C. Cannabis and Other Plant-Based Treatments for Chronic Pain. Office of the Assistant Secretary of Health Briefing. Oral Presentation. January 2022.
12. Jain A, Rojas J. Towards the Equitable Use of Machine Learning and Algorithms in Healthcare. Scottsdale Institute Webinar Series. Oral Presentation. July 2022.
13. Matteo R, O'Neil ME, Hamblen J, Sloan D, Schnurr P, Nixon R. Looking Beyond PTSD Severity: Exploring Categorical Measures of Treatment Response. ISTSS Annual Meeting. Panel Presentation. November 2022.
14. Niebuhr D, Chang C. AHRQ Evidence-based Practice Centers Asthma Systematic Reviews and the NAEPP 2020 Asthma Guideline Update. Mercy St. Rita's Psychology and Family Medicine Residency. Oral Presentation. March 2022.
15. Niebuhr D. National Institutes of Health and Agency for Healthcare Research and Quality Perspectives on Wound Care Research, Data, and Grant Funding. Alliance of Wound Care Stakeholders Evidence Summit. Oral Presentation. 2022.

16. Parsons H. Nutrition as Prevention for Improved Cancer Health Outcomes. National Institutes of Health Pathways to Prevention Workshop. Oral Presentation. July 2022.
17. Sadeh Y, Wright S, De Haan A, Hei D, O'Neil ME. Integrating Data Across Studies to Understand and Improve Child and Adult Trauma Interventions: Methods and Results from Four Innovative Projects. ISTSS Annual Meeting. Panel Presentation. November 2022.
18. Umscheid C. Harnessing Digital Solutions to Address Mental Health Demand. America's Health Insurance Plans' Annual Consumer Experience and Digital Health Forum. Oral Presentation. 2022.
19. Wittenberg K. AHRQ's Efforts on Alzheimer's Disease. Assistant Secretary for Planning and Evaluation Advisory Council on Alzheimer's Research, Care, and Services Meeting. Oral Presentation. 2022.
20. Wittenberg K, Umscheid C. Dialogue Series on the Advancement of Allergy Care in the USA. Danish Embassy. Oral Presentation. May 2022.
21. Umscheid C. AHRQ Evidence-based Practice Center (EPC) Review: Examining the Impact of Algorithms on Racial Inequities in Healthcare. Office of the National Coordinator for Health Information Technology (ONC) Artificial Intelligence Showcase. Oral Presentation. January 2022.
22. Umscheid C. Real World Data at the Point-of-Care. Scottsdale Institute Annual Conference. Panel Presentation. Apr 2022.

Appendix B. Goal 1: Advancing Healthcare – New Healthcare Research Products Started

Appendix B1. Healthcare Research Reports Started in 2022

1. Pharmacotherapy for Adults With Alcohol-Use Disorders in Outpatient Settings: Systematic Review Update
2. Behavioral Interventions for Migraine Prevention
3. Cervical Degenerative Disease Treatment
4. Health Benefits of Breastfeeding in Infants and Children
5. Healthcare System Level Strategies to Address Racial/Ethnic and Related Disparities in Health and Healthcare
6. Genitourinary Symptoms of Menopause
7. Patient Safety Practices To Address Harms Resulting From Patient-Clinician Real-Time Clinical Encounters Using Telehealth: A Rapid Evidence Review
8. Measuring Healthcare Organization Characteristics in Cancer Care Delivery Research
9. Patient Safety Practices To Address Harms Resulting From Patient-Clinician Real-Time Clinical Encounters Using Telehealth: A Rapid Evidence Review
10. Patient and Provider Level Strategies To Address Racial/Ethnic Disparities in Health and Healthcare
11. Psychosocial and Pharmacologic Interventions for Disruptive Behavior in Children and Adolescents
12. Radiation Therapy for Bone Metastases
13. Respectful Maternity Care: Dissemination and Implementation of Perinatal Safety Culture To Improve Equitable Maternal Healthcare Delivery and Outcomes
14. Strategies for Integrating Behavioral Health and Primary Care

Appendix B2. Healthcare Research Grants Awarded in 2022

Table C-2. Healthcare Research Grants Awarded in 2022

Grant Number	Title
1. U18 HS028742-01	Empowering Women and Providers for Improved Care of Urinary Incontinence: EMPOWER Study
2. U18 HS028736-01	Improving Primary Care Understanding of Resources and Screening for Urinary Incontinence to Enhance Treatment (PURSUIT)

Appendix C. Goal 1: Advancing Healthcare – Use of EPC Reports To Support Evidence-Based Healthcare Decision Making

Appendix C1. 2022 Clinical Guidance

Table C-1. 2022 Clinical Guidance

Clinical Guidelines Published in 2022	Associated Systematic Review (Year Published)
CDC Clinical Practice Guideline for Prescribing Opioids – United States	Noninvasive Nonpharmacological Treatment for Chronic Pain, Nonopioid Pharmacologic Treatments for Chronic Pain, Opioid Treatments for Chronic Pain, Treatments for Acute Pain, Acute Treatments for Episodic Migraine (2022)
Clinically Localized Prostate Cancer: AUA/ ASTRO Guideline	Therapies for Clinically Localized Prostate Cancer (2020)
Colonoscopy for Diagnostic Evaluation and Interventions to Prevent Recurrence After Acute Left-Sided Colonic Diverticulitis: A Clinical Guideline From the American College of Physicians	Management of Colonic Diverticulitis (2020)
Diagnosis and Management of Acute Left-Sided Colonic Diverticulitis: A Clinical Guideline from the American College of Physicians	Management of Colonic Diverticulitis (2020)
Evidence-Based Guidelines for Prehospital Pain Management: Recommendations	Comparative Effectiveness of Analgesics To Reduce Acute Pain in the Prehospital Setting: A Systematic Review (2019)
Headaches in Pregnancy and Postpartum	Management of Primary Headaches in Pregnancy (2020)
National Guideline for the Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage	Glasgow Coma Scale for Field Triage of Trauma: A Systematic Review (2017)
National Model EMS Clinical Guidelines (AAFP)	Prehospital Airway Management (2021)
Radiation Therapy for Brain Metastases: An ASTRO Clinical Practice Guideline	Radiation Therapy for Brain Metastases (2021)
What Is the Antibody Response and Role in Conferring Natural Immunity After SARS-CoV-2 Infection? Rapid, Living Practice Points From the American College of Physicians (Version 2)	Antibody Response Following SARS-CoV-2 Infection and Implications for Immunity: Final Update of a Rapid, Living Review (2022)

Appendix C2. 2022 Research Prioritization

Table C-2. 2022 Research Prioritization

Research Priority or Funding Opportunity (Date)	AHRQ EPC Report (Date)
1. Malnutrition in Clinical Settings: Research Gaps and Opportunities Workshop (July 2022)	Malnutrition in Hospitalized Adults (2021)
2. A Report from the Federal Partners Meeting of the National Institutes of Health Pathways to Prevention Workshop: Improving Rural Health Through Telehealth-Guided Provider-to-Provider Communication (June 2022)	Improving Rural Health Through Telehealth-Guided Provider-to-Provider Communication (2022)

Appendix D. Goal 2: Public & Stakeholder Involvement

Appendix D1. Federal Partnerships in 2022

1. Agency for Healthcare Research and Quality (AHRQ) – Center for Quality Improvement and Patient Safety (CQuIPS)
2. Centers for Disease Control and Prevention (CDC)
3. Centers for Medicare & Medicaid Services (CMS)
4. Department of Energy (DOE)
5. Department of Health and Human Services (HHS) Office of the Assistant Secretary of Planning and Evaluation (ASPE)
6. HHS Office of the Assistant Secretary of Health (OASH)
7. National Institutes of Health (NIH) National Cancer Institute (NCI)
8. NIH National Institute of Mental Health (NIMH)
9. NIH Office of Disease Prevention (ODP)
10. U.S. Department of Agriculture (USDA)
11. U.S. Department of Transportation (DOT)
12. U.S. Department Veterans Affairs (VA)

Appendix D2. Non-Federal Partnerships in 2022

1. American Academy of Pediatrics (AAP)
2. American College of Obstetricians and Gynecologists (ACOG)
3. American College of Physicians (ACP)
4. American Headache Society (AHS)
5. American Psychological Association (APA)
6. American Society for Radiation Oncology (ASTRO)
7. American Urological Society (AUA)
8. Congress of Neurological Surgeons (CNS)
9. Denver Health
10. Intermountain Health
11. Patient-Centered Outcomes Research Institute (PCORI)

Appendix E. Goal 3: Advancing Evidence Synthesis Methodology

Appendix E1. 2022 Evidence Synthesis Methodology Reports

1. Health System Panel To Inform and Encourage Use of Evidence Reports – Findings From the Implementation and Evaluation of Two Evidence-Based Tools <https://effectivehealthcare.ahrq.gov/products/health-system-panel-encourage-evidence-reports/methods-report>
2. Inclusion of Nonrandomized Studies of Interventions in Systematic Reviews of Intervention Effectiveness: An Update <https://effectivehealthcare.ahrq.gov/products/nonrandomized-studies/methods>
3. Living Systematic Reviews: Practical Considerations for the Agency for Healthcare Research and Quality Evidence-based Practice Center Program <https://effectivehealthcare.ahrq.gov/products/practical-considerations>

Link to All Reports:

[Methods Reports](#)

Appendix E2. 2022 Evidence Synthesis Methodology Manuscripts

From EPC Contracts:

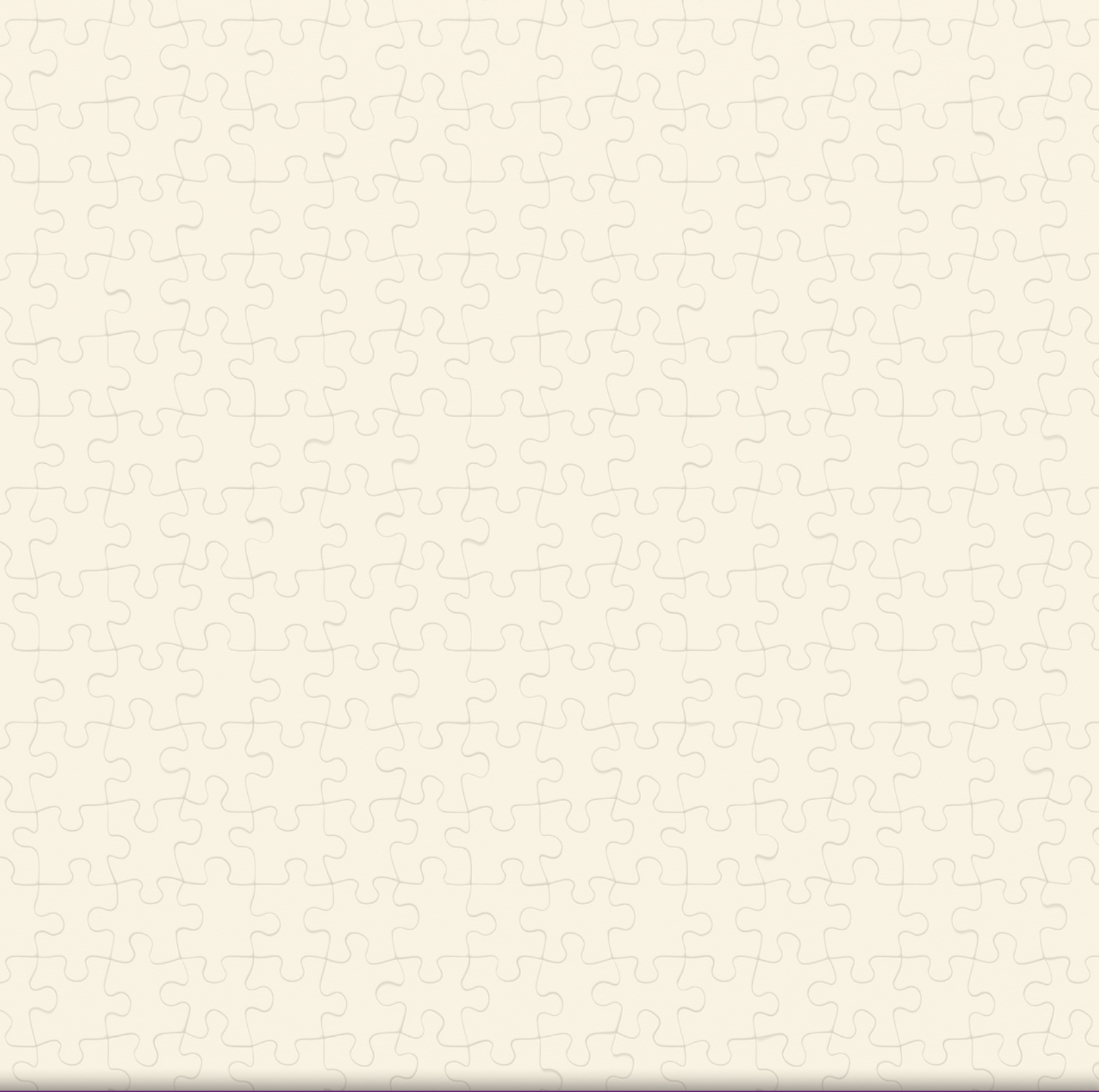
1. Saldanha IJ, Adam GP, Bañez LL, et al. Inclusion of nonrandomized studies of interventions in systematic reviews of interventions: updated guidance from the Agency for Healthcare Research and Quality Effective Health Care Program. *J Clin Epidemiol.* 2022 Dec;152:300-6. Epub 2022 Sep 19. PMID: 36245131. doi: 10.1016/j.jclinepi.2022.08.015. [https://www.jclinepi.com/article/S0895-4356\(22\)00217-7/fulltext](https://www.jclinepi.com/article/S0895-4356(22)00217-7/fulltext).

From Grants:

1. Adam GP, Pappas D, Papageorgiou H, et al. A novel tool that allows interactive screening of PubMed citations showed promise for the semi-automation of identification of Biomedical Literature. *J Clin Epidemiol.* 2022 Oct;150:63-71. doi: 10.1016/j.jclinepi.2022.06.007. Epub 2022 Jun 20. PMID: 35738306. [https://www.jclinepi.com/article/S0895-4356\(22\)00153-6/fulltext](https://www.jclinepi.com/article/S0895-4356(22)00153-6/fulltext).
2. Wang Y, Lin L, Thompson CG, et al. A penalization approach to random-effects meta-analysis. *Stat Med.* 2022 Feb 10;41(3):500-16. doi: 10.1002/sim.9261. Epub 2021 Nov 18. PMID: 34796539; PMCID: PMC8792303. <https://www.ncbi.nlm.nih.gov/pubmed/34796539>.
3. Kahwati LC, Kelly BJ, Johnson M, et al. End-user understanding of qualitative comparative analysis used within evidence synthesis: A mixed-methods study. *Res Synth Methods.* 2022 Sep 29. [Epub ahead of print.] doi: 10.1002/jrsm.1602. PMID: 36175386. <https://onlinelibrary.wiley.com/doi/full/10.1002/jrsm.1602>.

Appendix E3. 2022 Evidence Synthesis Methodology Presentations

1. Carr A, Chang C, Fan T, et al. The Role of the Agency for Healthcare Research and Quality (AHRQ) in Facilitating the Development of Evidence to Support Equitable Clinical Practice Guidelines. Annual Conference Guidelines International Network. Poster Presentation. September 2022.
2. Iyer S. Living Systematic Review: Reflections on our Recent Experience. INAHTA annual meeting. Panel Discussion. June 2022.
3. Iyer S, Umscheid CA. Living Systematic Reviews: Practical Considerations for the Agency for Healthcare Research and Quality Evidence-based Practice Center Program. Annual Conference Guidelines International Network. Poster Presentation. September 2022.
4. Li T. Assessing Bias in Randomized and Non-Randomized Studies. University of Colorado Anschutz Medical Campus, Aurora, CO. Workshop. July 2022.
5. Umscheid CA. Invited speaker, “AHRQ Evidence-based Practice Center (EPC): Digital Health,” International Network of Agencies of Health Technology Assessment (INAHTA) Congress Webinar, March 2022.
6. Umscheid CA. Invited panelist, Real World Data at the Point-of-Care. Scottsdale Institute Annual Conference, Scottsdale, AZ. April 2022.
7. Umscheid CA. Plenary, “Supporting Evidence-based Healthcare in the United States: AHRQ’s Evidence-based Practice Center Program,” 13th Workshop on Evidence-Based Clinical Practice, Rio de Janeiro, Brazil, October 2022.
8. Umscheid CA. Invited chair, “Innovations in Dissemination and Implementation (D&I) Research from the Veterans Health Administration (VHA),” 15th Annual AcademyHealth Conference on the Science of Dissemination and Implementation in Health, Washington, DC, December 12, 2022.
9. Umscheid CA. Invited speaker, “Minimizing Bias in AHRQ Evidence-based Practice Center Program Systematic Reviews”, NASEM Workshop titled “Sponsor Influences on the Quality and Independence of Health Research,” December 16, 2022.
10. Umscheid CA, Chang C, Bañez LL, Helfand MH. Invited panelists. AHRQ Evidence-based Practice Center Program: Enabling the Dissemination and Implementation of Evidence Through 25 Years of Methods Innovations. 15th Annual Conference on the Science of Dissemination and Implementation in Health, Washington, DC, December 2022.
11. Umscheid CA, Dymek C. Supporting the Development of Responsible AI at the Agency for Healthcare Research and Quality. ONC Artificial Intelligence Showcase – Seizing the Opportunities and Managing the Risks of Use of AI in Health IT. Oral Presentation. January 2022.



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