



# Effective Health Care Interventions to Improve Prescription Medication Adherence Nomination Summary Document

## Results of Topic Selection Process & Next Steps

- Interventions to improve prescription medication adherence will be considered for refinement as an umbrella review of systematic reviews to outline current evidence gaps, limitations of the existing literature, and future research needs.

## Topic Description

**Nominators:** 1 individual, 1 anonymous individual

**Nomination Summary:** This topic represents nominations from two individuals. Both nominators question what evidence there is to support interventions to increase prescription medication adherence by low-income and vulnerable populations. The first nominator specifically questions behavioral factors in addition to reducing access barriers (transportation, costs, etc.). She states that African Americans with hypertension are a population of particular interest. The second nominator specifically names interventions including technological approaches (pill holders, phone calls), care management strategies, delivery system strategies, and financial strategies (incentives, reimbursement for care coordination, etc.). The nominator mentions that the elderly are a population of interest, particularly patients with early or mid-stage dementia.

### Staff-Generated PICO

**Population(s):** Patients requiring prescription medications for chronic conditions, particularly in low-income and underserved patients (including the uninsured, minority groups, and the elderly); subgroups of interest include patients with early or mid-stage dementia and African American patients with hypertension

**Intervention(s):** Interventions to increase medication adherence including behavioral interventions (e.g., peer educators), technological approaches (e.g., pill holders, automated phone calls), care management strategies (e.g., phone calls, visits to the provider's office, written records kept by patient), delivery system strategies, and financial strategies (e.g., incentives, reimbursement for care coordination)

**Comparator(s):** Usual care

**Outcome(s):** Increased medication adherence leading to improved health outcomes, decreased office visits, and fewer phone calls

**Key Questions from Nominator:** From nominator 1 (individual)  
1. What evidence exists to support interventions to increase prescription medication adherence by low-income and vulnerable populations?  
From nominator 2 (anonymous individual)

1. What evidence exists for programs to increase patient adherence to prescription medications?
2. Which programs/approaches are most effective at increasing adherence for which populations and conditions?
3. If little or no evidence exists, can new research be designed to address the gap?
4. Are there any adverse effects associated with adherence or increased adherence for any approach?

## Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Prescription medication adherence is a significant barrier to improving patient outcomes in many diseases, particularly chronic conditions. Even in carefully controlled clinical trials, it is difficult to ensure that every patient takes all of their medications as prescribed, and adherence rates are much lower in ordinary clinical practice settings. While there are many causes of nonadherence, they fall into two overlapping categories: intentional and unintentional. Unintentional nonadherence is related to limitations in the patient's capacity and resources affecting their ability to implement their intention to adhere. Intentional nonadherence occurs when the person decides not to follow the treatment recommendations.
- Recent high-quality systematic reviews have been completed on this topic, including a review from the Cochrane group and guidelines issued by the National Institute for Health and Clinical Excellence (NICE).
  - Haynes RB, Ackloo E, Sahota N, McDonald HP, Yao X. Interventions for enhancing medication adherence. *Cochrane Database of Systematic Reviews* 2008, Issue 2. Art. No.: CD000011.
  - Nunes V, Neilson J, O'Flynn N, Calvert N, Kuntze S, Smithson H, Benson J, Blair J, Bowser A, Clyne W, Crome P, Haddad P, Hemingway S, Horne R, Johnson S, Kelly S, Packham B, Patel M, Steel J (2009). *Clinical Guidelines and Evidence Review for Medicines Adherence: involving patients in decisions about prescribed medicines and supporting adherence*. London: National Collaborating Centre for Primary Care and Royal College of General Practitioners.
- The previous reviews conducted by NICE and Cochrane did not identify any interventions that appear practical to implement into current clinical practice. The NICE guidelines conclude that although adherence can be improved, no specific intervention can be recommended for all patients, and interventions need to be tailored to the specific difficulties with adherence the patient is experiencing.
- Because of the importance of this topic, the current state of the literature, and the large amount of study heterogeneity, the most useful product for this topic at this time is likely to be an umbrella review of systematic reviews that will outline the evidence gaps, limitations of existing literature, and future research needs in this area.