Managing Urinary Incontinence for Women in Primary Care

Environmental Scan (Base Year)

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Urinary incontinence (UI) is a highly prevalent condition among women worldwide. Although many effective, evidence-based treatments exist, including pharmacological, behavioral, and physical therapy treatments, many women with the condition are never diagnosed because of a lack of information, stigma, and the absence of regular screening in primary care, and those who are diagnosed might not receive or adhere to treatment.

To address these gaps, the Agency for Healthcare Research and Quality (AHRQ) is sponsoring the *Managing Urinary Incontinence* initiative. Based on its EvidenceNOW model, the initiative is funding five cooperative agreement (U18) grantees to disseminate and implement evidence-based nonsurgical UI treatment for women—including screening, diagnosis, management, and specialty referral—within primary care practices in separate regions in the United States. As part of the *Managing Urinary Incontinence* initiative, AHRQ has contracted with the RAND Corporation, in partnership with AcademyHealth, to support the *Managing Urinary Incontinence* grantees and evaluate the initiative as a whole. This contract includes conducting an environmental scan on existing patient-centered outcomes research evidence and tools for disseminating and implementing nonsurgical UI treatment of women in primary care to help inform the work of the grantees. The scan will be updated annually for two years. This report summarizes and synthesizes the results of the initial scan.

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Summary

Issue

Urinary incontinence (UI) is a highly prevalent condition among women: Studies in the United States indicate that nearly 50 percent of women 40 years of age and older report symptoms that are consistent with UI. The prevalence of UI increases with age, although pregnancy and the postpartum period also are associated with a significant increase in UI.

UI has a significant impact on patients’ quality of life, morbidity, and mortality. Individuals with UI report lower quality of life scores and higher rates of depression. UI in women older than 65 is associated with greater sedentary behavior and increased risk for falls and fractures, which is a cause of significant morbidity, mortality, and high health care costs in this group. UI also can lead to poorer management of chronic medical conditions, such as heart failure and diabetes, because the medications used to treat these conditions can exacerbate untreated UI.

Despite the existence of screening tools and several evidence-based, effective, nonsurgical, potentially low-cost treatments for UI—including lifestyle changes, pelvic floor muscle training (PFMT), physical therapy, and medications—many women are not diagnosed or treated. Barriers to treatment include hesitancy among patients to discuss their symptoms with their healthcare providers, belief that UI is a normal part of aging, and lack of screening of higher-risk patients (i.e., women). Primary care clinicians are often best positioned to screen, diagnose, and initiate treatment for UI. However, primary care clinicians do not routinely ask patients about this problem, either because of a lack of knowledge and confidence in treating UI or the severe time constraints of the typical primary care visit.

The Agency for Healthcare Research and Quality’s (AHRQ) Managing Urinary Incontinence initiative builds on the success of the agency’s EvidenceNOW model to address these important gaps in nonsurgical UI care for women in the primary care setting. EvidenceNOW uses a health extension model (the use of practice coaches and other resources) to provide primary care practices with continued, relationship-based outreach and support for improving health care quality and implementing new evidence from patient-centered outcomes research into care delivery. As part of the Managing Urinary Incontinence initiative, AHRQ is funding five cooperative agreement (U18) grantees to develop primary care extension services to disseminate and implement improved nonsurgical treatment of UI for women—including screening, diagnosis, management, and specialty referral—within primary care practices in separate regions of the United States. The RAND Corporation, in partnership with Academy Health, has been contracted to support the Managing Urinary Incontinence grantees and evaluate the initiative. As part of this contract, RAND was asked to conduct an environmental scan of prior research on dissemination and implementation of evidence-based processes to improve screening, diagnosis, and management of UI for women in the primary care setting, to help inform the work of the grantees. This report describes the findings of that scan.
Approach

The methods for the environmental scan consisted of two approaches. First, we conducted a scoping review of English-language, peer-reviewed and grey literature covering 2012 through 2022 that assessed dissemination and implementation (D&I) approaches to improving UI care for women in primary care settings, including community and home settings in which treatment is managed by primary care professionals. Second, we manually scanned generic (i.e., non–UI-related) D&I tools and materials from other EvidenceNOW projects that were catalogued on AHRQ’s website that might be applicable to UI care improvement and the work of the Managing Urinary Incontinence grantees.

Key Findings

Descriptions of the Studies

Of the 1,328 publications identified in the literature searches, 30 publications that reported on 14 studies met the inclusion criteria. In addition, we identified 43 generic D&I tools and materials of potential relevance on the EvidenceNOW website.

Most of the studies were conducted in the United States or the Netherlands. Settings included primary care practices, community health centers, and patients’ homes, as well as virtual settings, which included telehealth, interactive websites, and phone apps. Studies reported little information on practice characteristics, such as the total numbers and types of practitioners, or on the total numbers of patients eligible for study enrollment. Patients ranged in age from 21 to 90, with a mean age of 60; most studies included patients with stress, urgency, mixed, other UI, or some combination thereof.

Most of the strategies used by the studies to improve UI care focused on implementation of specific care interventions rather than broader dissemination strategies (e.g., practice coaches, learning collaboratives) and implementation strategies (e.g., continuous quality improvement). Examples of these specific changes in care process included implementation of a screening tool, change in the screening process, use of nurse practitioners (NPs) to manage UI care, or deployment of such telehealth tools as phone apps. Only three studies described a dissemination intervention component: One involved provider or staff education and training, and two incorporated on-site coordination and other direct technical assistance. Nine studies described at least one implementation intervention component: All of these involved an electronic or other tool. One also employed a care team engagement approach.

Most studies addressed multiple levels of the primary care system. For example, most studies with interventions for patients also included interventions for primary care providers, and a small number included an intervention at the practice or health care–delivery system level.

The stages of care that were addressed by the studies (screening and diagnosis, management, and specialty referral) also varied. Nearly half of studies addressed screening or diagnosis, most studies addressed UI management, and none directly addressed referral to specialty care.
Four types of outcomes were assessed: care process outcomes, health outcomes, health system outcomes, and economic outcomes. Most studies assessed care process or health outcomes: UI outcomes were assessed via numerous validated tools.

**Patient Care and Health Outcomes**

**Process outcomes:** Various process changes aimed at increasing UI screening tended to improve screening rates, but the numbers of studies were too small to draw definitive conclusions. One large study that tested the use of a self-management app demonstrated positive effects and identified patient facilitators and barriers to using the app. No studies were designed to examine the effects of an intervention on referral to specialty care.

**Health outcomes:** All studies reported improvements in at least one indicator of UI symptoms and quality of life in groups of women who received an intervention that involved prescreening, NP involvement in treatment, or use of an app; some of these improvements lasted at least a year.

**System and Economic Outcomes**

**System outcomes:** System outcomes included provider behavior change, provider acceptance of the intervention, and integration of a process change into practices. Too few studies assessed these outcomes to enable any conclusions to be drawn.

**Economic outcomes:** Four studies that assessed economic impacts of practice changes in various ways reported positive impacts in terms of cost effectiveness compared with that of usual care. Two studies assessed quality-adjusted life years, one compared costs with those for usual care, and one considered the reduced need to refer to specialty care.

**Conclusions**

The environmental scan identified only a small number of studies. Most of these did not assess broader implementation or dissemination strategies. Too few studies assessed any particular type of implementation or dissemination strategy to enable us to draw any firm conclusions about what works and what does not. Furthermore, although this environmental scan describes the methodological rigor of the individual studies, the nature of the scan approach means that it is not designed to evaluate the strength of the literature.

The findings of the current scan review suggest that improving screening is a critical first step to better treatment of UI for women in primary care, but additional focus on management and referral strategies is also needed.
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Chapter 1. Introduction

Background

Urinary incontinence (UI) is a highly prevalent condition among women: Studies in the United States note that close to 50 percent of women 40 years of age and older report symptoms that are consistent with UI (Minassian et al., 2012). These estimates include all types of UI: stress UI, associated with effort or physical exertion, sneezing, or coughing; urgency UI, associated with a sudden compelling desire to void; and mixed UI, which includes symptoms of both stress and urgency (Aoki et al., 2017). The prevalence of UI increases with age, although pregnancy and the postpartum period are also associated with a significant increase in UI (Thom and Rortveit, 2010).

UI also has a significant impact on patients’ quality of life, morbidity, and mortality. Individuals with UI report lower quality of life scores and higher sexual dysfunction than those without UI (Coyne et al., 2008). UI is associated with high rates of depression (Hung, Awtrey, and Tsai, 2014). UI in older women (e.g., 60 years or older) is associated with greater sedentary behavior and increased risk for falls and fractures (Jerez-Roig et al., 2020), which is a cause of significant morbidity, mortality, and high health care costs in this group (Brown et al., 2000). UI also can lead to poorer management of chronic medical conditions, such as heart failure and diabetes, because the treatment of these conditions (e.g., diuretics and SGLT-2 inhibitors)\(^1\) can exacerbate untreated UI. Consequently, patients might choose to forgo treatment for other chronic conditions as a way of controlling their incontinence symptoms.

Managing UI is also an issue of health equity. Prevalence of overactive bladder (OAB) is higher in Black and Hispanic women than in White women. White, non-Hispanic women are much more likely to seek care for UI—particularly specialty care—than are Black women, Hispanic or Latinx women and Asian women (McKellar et al., 2019; Morrill et al., 2007), although evidence suggests more research is needed (Nelson et al., 2018).

Evidence-Based Nonsurgical Treatments for UI

This highly prevalent condition has several evidence-based, effective, nonsurgical, potentially low-cost treatments (Balk et al., 2018; Imamura et al., 2015). Lifestyle changes, such as reduction in the consumption of caffeinated beverages and other bladder irritants, can reduce the symptom burden of urgency UI in particular. Weight loss for women with obesity can reduce episodes of both stress and urgency incontinence. Pelvic floor muscle training (PFMT) is a highly effective treatment for both stress and urgency UI and can be done by a patient with no or limited equipment (Culbertson and Davis, 2017). For women with difficulty performing these

\(^1\) SGLT-2 (sodium glucose cotransporter 2) inhibitors are a class of drugs that treat type 2 diabetes; they lower blood sugar by preventing the kidneys from reabsorbing the sugar so it passes out of the body in urine.
exercises on their own or who do not improve with self-conducted exercises, pelvic floor physical therapy can be effective. Finally, several medications (including antimuscarinics and beta-3 agonists) can be used to treat urgency UI, although many of these medications might have side effects, making them less appropriate for certain populations (Culbertson and Davis, 2017).

**Barriers to UI Screening and Diagnosis**

Despite the availability of low-cost and effective noninvasive treatments, many women with UI do not receive appropriate treatment for this highly prevalent and burdensome condition. Women might not report symptoms of UI to their health care providers. This could be because of a belief that incontinence is a “normal” part of aging or a feeling of shame or embarrassment in speaking to their health care provider about such stigmatized symptoms (Hägglund et al., 2003). Women experiencing UI might also face barriers to care. For example, many women first develop UI in the postpartum period, yet most women in the United States do not receive postpartum care until six weeks after giving birth, and some 40 percent or more do not even attend a postpartum visit (Bennett et al., 2014). This results in a missed opportunity to address UI early on.

Several screening tools for UI have been validated, and the Women’s Preventive Services Initiative recommends that routine annual screening be implemented (Nelson et al., 2018; Women’s Preventive Services Initiative, 2017). However, evidence on the methods and effectiveness of routine screening of women for UI is lacking.

**The Role of Primary Care Providers in UI Treatment**

Primary care clinicians are often best positioned to screen, diagnose, and initiate treatment for UI. However, primary care clinicians do not routinely ask patients about this problem. One reason might be a lack of comfort with—or knowledge about—both assessing and treating UI (Mazloomdoost et al., 2017; Schüssler-Fiorenza Rose et al., 2015). Primary care providers might vary in their knowledge about UI and which questions to ask to differentiate and distinguish subtle differences between types of UI (e.g., stress versus urgency), which is important to determine treatment options and plans. Discussion of UI also can fall by the wayside in a primary care visit, during which providers typically must address preventive health and chronic disease management in a short timeframe (Yarnall et al., 2003). The coronavirus disease 2019 (COVID-19) pandemic has exacerbated these time constraints; primary care clinicians and patients have had to play “catch-up” on chronic disease management efforts that were deferred during the height of the pandemic (Findling, Blendon, and Benson, 2020).

Even for people with insurance, access to health care worsened during the pandemic, with patients reporting delaying care because of a lack of available appointments (Findling, Blendon, and Benson, 2020). In addition, primary care payment models might not provide adequate reimbursement for clinicians’ time to counsel on UI (Jabbarpour et al., 2019, pp. 1–8). Moreover, addressing UI often requires a multimodal approach, including counseling on lifestyle modification and adherence to treatment regimens. For some patients, managing UI also requires linkage to specialists, which can be especially difficult for patients in rural or underserved
settings. Primary care practices, particularly smaller ones, often have limited staffing, expertise, or other resources for quality improvement (QI) and practice change, and thus likely require external facilitation, support, and multi-level systems infrastructure to successfully develop and implement interventions to address the high burden of UI on their patient population (Damschroder et al., 2009; Mendel et al., 2018).

As the gatekeepers of medicine, primary care providers (PCPs) often are responsible for determining when patients with UI require referral to specialty care—i.e., care that exceeds the noninvasive management interventions that are provided in primary care settings. Although guidelines outline the conditions that should prompt referral, little evidence exists regarding the proportion of patients appropriately referred and the factors that might prevent necessary referral (e.g., age; cognitive functional status; such comorbidities as obesity, race, or ethnicity; or social determinants of health). A cohort study conducted in the United Kingdom identified some factors that seemed associated with lack of referral (e.g., age over 80 and obesity), but differences in the structures and payment models of the UK and U.S. health care systems might render these findings less applicable to U.S. primary care settings (Gurol-Urganci et al., 2020).

The EvidenceNOW Managing Urinary Incontinence Initiative

The Agency for Healthcare Research and Quality’s (AHRQ) Managing Urinary Incontinence initiative builds on the success of the agency’s EvidenceNOW model to address these important gaps in nonsurgical UI care for women in the primary care setting. EvidenceNOW uses the health extension concept that seeks to provide primary care practices with continued, relationship-based outreach and support for improving health care quality and implementing new evidence from patient-centered outcomes research into care delivery (AHRQ, 2019). As part of the Managing Urinary Incontinence initiative, AHRQ is funding five U18 grantees to develop primary care extension services to disseminate and implement improved nonsurgical treatment of UI for women—including screening, diagnosis, management, and specialty referral—within primary care practices in separate regions of the United States. Given experience from the prior EvidenceNOW initiative for Advancing Heart Health, the grantees are likely to face a variety of challenges, including large-scale recruitment of primary care practices; ensuring that extension partners possess sufficient expertise and workforce in practice facilitation and information technology (IT) support; and managing a diversity of practice settings (e.g., independent versus system-owned practices) and conflicting priorities and concerns among extension stakeholders (Kaufman et al., 2019; Ono et al., 2018).

AHRQ has contracted with the RAND Corporation, in partnership with AcademyHealth, to support the Managing Urinary Incontinence grantees and evaluate the initiative. This contract includes (1) convening a technical expert panel (TEP) to provide guidance over the course of the support and evaluation project, (2) facilitating a learning community and providing technical assistance to the grantees, and (3) conducting an environmental scan (described in this report) on current evidence and tools for disseminating and implementing nonsurgical UI treatment of women in primary care to help inform the work of the grantees.
Organization of This Report

In Chapter 2 of this report, we describe our approach to the environmental scan. In Chapter 3, we present the results of the literature scoping review and details of the studies that we identified within the scope of the scan. In Chapter 4, we briefly summarize dissemination and implementation (D&I) tools and materials from prior AHRQ EvidenceNOW projects that might be generalizable to UI care improvement. In Chapter 5, we conclude with a discussion on how to interpret our findings, their limitations, and gaps in the literature. Appendix A details the search queries for the literature scoping review; Appendix B provides the evidence tables from the literature scoping review; Appendix C lists the tools and materials identified in the scan of prior EvidenceNOW projects; and Appendix D contains the form used to abstract data from the relevant publications that were identified by the literature scoping review.
Chapter 2. Approach and Methods

The methods for the environmental scan consisted of two approaches. First, we conducted a scoping review of peer-reviewed and grey literature covering the past decade. Second, we manually scanned generic (i.e., non–UI-related) D&I tools and materials from AHRQ’s website of other EvidenceNOW projects that might be applicable to UI care improvement and the work of the Managing Urinary Incontinence grantees.

Scoping Review

The scan of the peer-reviewed and grey literature was conducted according to procedures for a scoping review, following the method of (Arksey and O’Malley, 2005) as refined by the Joanna Briggs Institute (Peters et al., 2020). The scan comprised the following steps:

1. Develop a conceptual framework and key question(s).
2. Develop a preliminary set of key terms for (peer-reviewed and grey) literature searches, identify databases, develop inclusion and exclusion criteria, execute preliminary searches, refine terms (and databases), and run full searches.
3. Screen the results of the searches (titles and study abstracts) to identify studies and other reports that meet inclusion criteria. Obtain full texts of included studies and rescreen to ensure that they meet the criteria.
4. Abstract information about the studies, including important study-level details and findings.
5. Present the study information in accessible evidence tables that include links to the studies and provide a (peer-reviewed) report that summarizes the state of the literature, gaps identified, and limitations.

Conceptual Framework and Key Questions

The following four key questions guided the environmental scan:

1. What implementation or dissemination strategies (including resources and tools) have been used to promote nonsurgical clinical interventions for identifying and treating UI, on their own or in combination, in adult women in primary care settings?
2. What specific nonsurgical clinical interventions (pharmacologic and nonpharmacologic) were associated with each of the implementation or dissemination interventions?
3. What were the contexts (primary care settings and patient populations) in which the implementation strategies and clinical interventions were introduced?
4. What outcomes and evidence of effectiveness have been reported for the implementation or dissemination strategies? To what degree were the clinical interventions evidence-based?

Figure 2.1 presents our conceptual framework for addressing these questions in the environmental scan. We based this framework on the Standards for Reporting Implementation Studies (StaRI) guidelines, which distinguish between a clinical intervention (i.e., the health care or public health intervention that was implemented) and the implementation strategy, including
associated resources and tools (i.e., how the intervention was implemented) (Pinnock et al., 2017a; Pinnock et al., 2017b). Given that the primary purpose of this scan was to identify D&I strategies of possible use to the Managing Urinary Incontinence U18 grantees, we focused on outcomes and evidence of effectiveness of the D&I strategies. However, we note intervention outcomes for the studies identified within the scope of the scan and whether the studies reported any evidence base for the implementation strategy and the intervention.

**Figure 2.1. Conceptual Framework**

![Conceptual Framework Diagram]

**NOTE:** SDOH = social determinants of health.

As StaRI (Pinnock et al., 2017a) and other implementation study reporting guidelines and frameworks emphasize (e.g., the template for intervention description and replication [TIDieR] [Hoffman et al., 2014] and Promoting Action on Research Implementation in Health Services [PARIHS] [Bergström et al., 2020]), we also gathered information on the contexts in which the implementation strategies and clinical interventions were introduced to help gauge their relative generalizability to primary care settings of interest. The two main contexts that the scan focused on were characteristics of the practice setting and of the adult women who were being served in those settings and exhibiting symptoms of UI. Practice characteristics include practice type (e.g., general/family, community health center, women’s health); location (urban/rural, state/region); levels and mix of funding or reimbursement (e.g., commercial insurance, Medicaid, Medicare); staff size and composition; and whether and what type of system affiliation the practice might have (e.g., integrated health care system, medical group, accountable care organization). Relevant patient characteristics include UI type (stress, urgency, or mixed UI), age, race or ethnicity, comorbidities, and other SDOH.
Search Strategy, Databases, and Inclusion or Exclusion Criteria

Key Search Terms

Initial search terms were developed by Sydne Newberry, lead for the environmental scan, and Gena Dunivan, UI subject-matter expert for the project’s support tasks, in collaboration with a RAND research librarian, who also performed the literature searches. Initial sets of terms drew on those used in the 2018 AHRQ systematic review (Balk et al., 2018), in topical articles referenced in AHRQ’s request for application for the U18 cooperative agreements and the grantees’ project plan materials, and in articles from the focused search of EvidenceNOW materials, modified for the current scope.

Key concepts for the search strategy were as follows:

1. nonsurgical treatment (including screening, diagnosis, management, and specialty referral)
2. urinary incontinence (including stress, urgency, and mixed)
3. women (female adults, 18 years or older)
4. primary care (including family medicine, general internal medicine, and geriatrics)
5. dissemination, implementation, or both (including strategies, resources, and tools).

We used common synonyms and wildcard searches to capture variations in wording of the aforementioned concepts and subcomponents (e.g., for screening, diagnosis, management, and specialty referral as part of the more general concept of treatment).

We first conducted a search for literature that contained all of the first four concepts and then filtered those results for the fifth concept on dissemination, implementation, or both (and synonyms, such as uptake and adoption). A subset of titles and abstracts of articles from the search that did not appear after applying the filter were reviewed manually for dissemination content, implementation content, or both, in case the filter did not capture all relevant articles. Articles remaining after applying the filter and manual review for dissemination content, implementation content, or both were included in the scope of scan.

Databases

Our searches covered the following databases: PubMed, CINAHL, Cochrane Central Trials Registry, ClinicalTrials.gov, and Google Scholar (to identify grey literature).

Timeframe

We searched for literature that was published in the databases in the ten-year period prior to the start of the environmental scan (2012 to 2022) to ensure that clinical interventions reflect the most-current evidence-based practice and that D&I strategies are more relevant to the current primary care environment.

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria for UI studies are described in Table 2.1.
Table 2.1. Inclusion and Exclusion Criteria

<table>
<thead>
<tr>
<th>Category</th>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>Only women aged 18 and older who were screened for and/or diagnosed with UI, or studies that reported implementation or intervention outcomes separately for female versus male patients.(^a)</td>
<td>Male-only patients, female patients younger than 18 years of age</td>
</tr>
<tr>
<td>Implementation strategies</td>
<td>Studies that reported on dissemination or implementation strategies used to promote evidence-based practice in health care delivery.</td>
<td>Studies that only reported clinical intervention outcomes but not the outcomes of dissemination or implementation strategies used to promote them.</td>
</tr>
<tr>
<td>Clinical interventions</td>
<td>Practice-level, nonsurgical evidence-based interventions to screen, diagnose, or treat UI for women (including referral to specialty or community-based services).</td>
<td>Clinical trials or other studies that were designed to assess patient-level efficacy and/or harms of pharmacologic or nonpharmacologic treatments without attention to the dissemination or implementation of those treatments; surgical treatments for UI.</td>
</tr>
<tr>
<td>Setting</td>
<td>Outpatient primary care settings in the United States or 11 other OECD countries with comparably mature health care systems;(^b) community or home settings in which treatments are managed by primary care professionals.</td>
<td>Specialist settings; inpatient, long-term care, or skilled nursing facilities</td>
</tr>
<tr>
<td>Other</td>
<td>English-language publications and resources published or disseminated in 2012 or later.</td>
<td>Non-English language publications</td>
</tr>
</tbody>
</table>

\(^a\) Studies had to comprise only female participants or to report findings separately for females and males.  
\(^b\) Australia, Belgium, Canada, Denmark, Finland, Ireland, Israel, the Netherlands, New Zealand, Sweden, United Kingdom.  

NOTES: OECD = Organisation for Economic Co-operation and Development. These criteria are based on the PICOTSS (participant population, intervention, comparison group, outcomes, timing, setting, study design) framework. Other dimensions of the PICOTSS framework not included as inclusion or exclusion criteria in the table (e.g., comparators, outcomes, and study design) will be included as part of the information abstraction for each study.

**Literature Screening**

Following a brief training period to establish a common understanding of the inclusion criteria, titles and abstracts of peer-reviewed study publications were screened independently, in duplicate, against the inclusion criteria using the online review program, DistillerSR.\(^2\) Full-text publications or reports were obtained for those that met inclusion criteria. A subset consisting of 20 percent of the full-text publications and other resources and tools then were screened for final inclusion in duplicate with reconciliation of disagreements. The remaining 80 percent were screened by a single reviewer.

\(^2\) DistillerSR is an online systematic review software program for managing literature screening, data abstraction, analysis, and reporting.
Data Abstraction and Study Quality Assessment

Based on the StaRI and TIDieR implementation study reporting guidelines, we extracted the data elements listed in Table 2.2 from the studies that met our inclusion criteria using forms specially designed in DistillerSR. The key features of the clinical care intervention were adapted from typologies used in several clinical guidelines for UI care (Committee on Practice Bulletins, 2015; Lightner et al., 2019; Nambari et al., 2018; National Institute for Health and Care Excellence, 2019). Typologies from listings on AHRQ’s EvidenceNOW website were adapted for the key dissemination intervention components (AHRQ, 2020, 2022; Kahn et al., 2017) and key implementation intervention components coded for each study. See Appendix D for the Data Abstraction Form, which lists categories for all the fields coded during data abstraction.

Data were abstracted by a single reviewer and audited by a second reviewer with differences reconciled. The data fields were refined slightly for clarity and ease of abstraction.

Table 2.2. Data Abstraction Fields

<table>
<thead>
<tr>
<th>Data Domain</th>
<th>Dissemination and Implementation Intervention</th>
<th>Clinical Care Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual characteristics</td>
<td>Primary care practice characteristics:</td>
<td>Patients’ or intended patients’ characteristics:</td>
</tr>
<tr>
<td></td>
<td>• Practice type and location</td>
<td>• UI type</td>
</tr>
<tr>
<td></td>
<td>• Funding levels and mix</td>
<td>• Age</td>
</tr>
<tr>
<td></td>
<td>• Staff size, composition</td>
<td>• Race and ethnicity</td>
</tr>
<tr>
<td></td>
<td>• Ownership type</td>
<td>• Other SDOH</td>
</tr>
<tr>
<td></td>
<td>• System affiliation</td>
<td></td>
</tr>
<tr>
<td>Key intervention features</td>
<td>• Whether document describes a D&amp;I strategy, resource, tool, or some combination thereof</td>
<td>• Number and types of health care system levels included in the clinical intervention, resource, or tool</td>
</tr>
<tr>
<td></td>
<td>• Number and types of health care system levels included in the strategy, resource, or tool</td>
<td>• Components of the clinical intervention, resource, or tool</td>
</tr>
<tr>
<td></td>
<td>• Components of the strategy, resource, or tool</td>
<td>• Logic model/theory of action</td>
</tr>
<tr>
<td></td>
<td>• Logic model or theory of action</td>
<td>• Prior evidence of effectiveness</td>
</tr>
<tr>
<td></td>
<td>• Prior evidence of effectiveness</td>
<td></td>
</tr>
<tr>
<td>Study design</td>
<td>• Sample size of practices</td>
<td>• Sample size of care providers and patients</td>
</tr>
<tr>
<td></td>
<td>• Qualitative, quantitative, or mixed methods used</td>
<td>• Qualitative, quantitative, or mixed methods used</td>
</tr>
<tr>
<td></td>
<td>• Hybrid effectiveness and other implementation models</td>
<td>• Type or degree of randomization of patients</td>
</tr>
<tr>
<td></td>
<td>• Type or degree of randomization of practices or care providers</td>
<td>• Comparator or control patients (if any) receiving usual care or an alternate clinical intervention</td>
</tr>
<tr>
<td></td>
<td>• Comparator or control practices or providers (if any) not included in the target dissemination or implementation effort (or receiving an alternate strategy, resource, or tool)</td>
<td></td>
</tr>
</tbody>
</table>

Outcomes
Summaries of the study-level details and brief summaries of the authors’ findings are described in Chapter 3. In addition, for ease of access, this information is presented in evidence tables in Appendix B with links to the study publications. The studies also will be presented in a spreadsheet database that allows users to sort by data field of interest.
Although reporting standards for implementation studies are available, systematic guidelines on rating the quality of these studies do not exist yet (Pinnock et al., 2017a). However, examining study level details, such as the sample size of practices, care providers, and patients; use of randomization procedures and comparator groups; and fidelity to the implementation strategy or clinical intervention as planned allows assessing the general quality of individual studies. In Chapter 5, we also summarize the general reliability and precision of the results as well as identifying gaps in the evidence, limitations, and key implementable findings.

EvidenceNOW–Focused Scan

We also conducted a focused scan for generic D&I resources from the wider EvidenceNOW initiative, both to ensure that Managing Urinary Incontinence grantees do not duplicate effort reinventing D&I strategies, resources, and tools from other EvidenceNOW projects and to provide examples of relevant D&I approaches specifically utilized for primary care within the EvidenceNOW model. This was accompanied by a manual review of generic D&I resources from AHRQ’s websites for the EvidenceNOW initiative and other EvidenceNOW projects. Specifically, we searched two sets of webpages on the AHRQ site (AHRQ, undated; AHRQ, 2022).

In our manual review, we focused on resources related to primary care and D&I strategies that would be applicable for Managing Urinary Incontinence grantees. For example, items related to specific conditions or topics, such as “How to Implement Tobacco Cessation Guidelines into Electronic Health Records (EHRs),” were excluded because they were less generically relevant and too focused on one intervention. We sought to find relevant materials across the six EvidenceNOW key drivers of translating evidence into improved care. After our search, we categorized the resources by the types of services provided and the EvidenceNOW key drivers. These categories are not mutually exclusive, so resources could have been assigned to more than one category. Finally, we included only resources for which hyperlinks provided on the AHRQ webpage were active.

Updating of the Scan

One and two years after the release of this report, the scan will be updated. The TEP will be engaged to review and help update the search framework and terms from the previous year and to identify additional example studies. We also will incorporate agile feedback on the use of the scan by grantees that we will have collected over the previous year to identify new search terms, previous terms that were not useful, and other modifications to the search strategy. In addition, we will review materials that will be generated by the grantees in the previous year for items that are adequately developed and meet the inclusion criteria of the scan. The analysis of the update will focus on addressing changes to the body of evidence and the conceptual framework since the initial or prior scan.
In this chapter, we begin with an overview of the literature search and screening results, then summarize results of the data abstracted from studies in the scope of the scan, including the following:

- contexts in which study interventions were introduced
- participant characteristics
- D&I intervention components
- clinical care interventions that were disseminated and implemented
- study designs and outcomes.

At the end of the chapter, we also describe four standalone UI educational tools for use in primary care. These evidence-based tools were identified through our literature searches; although no publications assessed or reported on D&I and the tools did not fully meet the inclusion criteria of the scan, they represent potentially useful resources.

Literature Searches and Screening Results

The literature searches identified 1,328 publications. Of these, 30 publications that reported on 14 studies met our inclusion criteria (see Figure 3.1). As previously noted, four additional publications were identified that described educational tools for use by PCPs and patients. Figure 3.1 presents the literature screening flow diagram following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guide for scoping reviews (Tricco et al., 2018).
Contexts of Study Interventions

This section summarizes the contexts of the study interventions, including the study countries, settings, and practice characteristics. The information also is provided for each study in the evidence table in Appendix B.

**Study Countries and Settings**

As shown in Table 3.1, most of the studies were conducted in the United States or the Netherlands. Three of the five studies that contributed multiple articles to the scan were conducted in the Netherlands, and one each was conducted in Canada, France, and the United Kingdom (a multisite study) and in Sweden. All the U.S. studies contributed only one article apiece.
Table 3.1. Study Countries

<table>
<thead>
<tr>
<th>Study Country</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>5</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>5</td>
</tr>
<tr>
<td>Australia/New Zealand</td>
<td>2</td>
</tr>
<tr>
<td>Sweden</td>
<td>1</td>
</tr>
<tr>
<td>Canada/France/United Kingdom</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Table 3.2 summarizes study settings. Primary care practices were clinics (including retail clinics), offices, community health centers, and other similar settings. Community settings typically included patients’ homes. Virtual settings were telehealth, interactive websites, and phone apps. Other locations were a research center. Studies that employed an app or eHealth screening but were based in a primary care setting were counted twice.

Table 3.2. Study Settings

<table>
<thead>
<tr>
<th>Study Setting</th>
<th>Number of Studies*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care practices</td>
<td>7</td>
</tr>
<tr>
<td>Community</td>
<td>3</td>
</tr>
<tr>
<td>Virtual</td>
<td>4</td>
</tr>
<tr>
<td>Other locations</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

* Categories are not mutually exclusive.

Practice Characteristics

Most studies reported incomplete information on the characteristics of primary care practices. Here we summarize the limited information that was available. As shown in Table 3.3, out of the seven studies that reported the number of practices, the mean was 17 practice sites per study, ranging from one to 65. The number of practices was not reported for three studies and not applicable to four studies that were not set in primary care practices.

Only one study reported on rural (versus urban) location, and only two reported on health system affiliation (one study based in an academic medical center and one based in a public health system). No studies reported on practice ownership.
Participant Characteristics

Practitioner Characteristics

Most studies reported incomplete information on the number and characteristics of practitioners involved. As shown in Table 3.4, the number of providers per study, when reported, varied widely. Only a few reported on the types of medical providers who were involved in the study (all studies conducted in Europe or Canada reported that physicians were general practitioners [GPs]). Three studies involved types of practitioners not included in the table (i.e., nurses and nurse practitioners [NPs]) (Albers-Heitner et al., 2012; Beban, Newman, and Nolan, 2021; Teunissen et al., 2015).

Patient Characteristics

In this section, we report on the characteristics of the female adult patients involved in the studies. Table 3.5 shows the number and age of female adult patients per study. The number of patients involved per study also varied widely from three to 3,950, with a mean of 541. However, this number is skewed by the largest study (Chen et al., 2021), which was a retrospective chart audit. The median number was 262.

Patients ranged in age from 21 to 90 with a mean age of 60 across all studies. Two studies reported restricting their patient sample to older women (“older” or “55 and over”), while the remaining studies included women 18 years and older or did not report restricting the study to an age range.
### Table 3.5. Number and Age of Study Patients

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Mean</th>
<th>Range</th>
<th>Number of Studies Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of female adult patients per study</td>
<td>541</td>
<td>3–3,950</td>
<td>13</td>
</tr>
<tr>
<td>Age of female adult patients per study</td>
<td>60</td>
<td>21–90</td>
<td>13</td>
</tr>
</tbody>
</table>

The studies included patients with varied combinations of UI types, as shown in Table 3.6. Most studies included patients with stress, urgency, mixed, and/or other UI. Two studies included only one type of UI (one stress and one urgency). One did not specify the types of UI for the patients in the study.

### Table 3.6. Types of UI in Study Patients

<table>
<thead>
<tr>
<th>Type of Urinary Incontinence</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress UI only</td>
<td>1</td>
</tr>
<tr>
<td>Urgency UI only</td>
<td>1</td>
</tr>
<tr>
<td>Stress and urgency UI</td>
<td>1</td>
</tr>
<tr>
<td>Stress and mixed UI</td>
<td>1</td>
</tr>
<tr>
<td>Urge and mixed UI</td>
<td>1</td>
</tr>
<tr>
<td>Stress, urgency, and mixed UI</td>
<td>4</td>
</tr>
<tr>
<td>Stress, urgency, mixed, and other UI</td>
<td>2</td>
</tr>
<tr>
<td>Stress and other UI</td>
<td>1</td>
</tr>
<tr>
<td>Other UI</td>
<td>1</td>
</tr>
<tr>
<td>Not specified</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

As a whole, the studies reported little or incomplete information on other characteristics of patients. Patient race and ethnicity were specifically listed in only one study (Hunter et al., 2013). This study reported that participants were 70 percent White, 20 percent Black, 6 percent Asian/Pacific Islander, and 4 percent Latina, multiethnic, or other. A second study reported that its participants were predominantly White.

Four studies (Firet et al., 2021; Loohuis et al., 2018; Schüssler-Fiorenza Rose et al., 2015; Wadensten et al., 2021) described patient incomes and education, noting that both were higher than the population averages. Health insurance type or proportion of participants with coverage was not reported by any study.

**Intervention Design**

In this section, we summarize the strategies that have been used to promote nonsurgical clinical interventions for identifying and treating UI, on their own or in combination. We first
present summaries on the D&I intervention components followed by the clinical care interventions that were disseminated and/or implemented by the studies. Most of the studies that we identified reported on implementation of specific care interventions rather than the broader D&I strategies from the typologies on AHRQ’s EvidenceNOW website on which we based our categories (e.g., dissemination strategies using practice coaches or learning collaboratives, or implementation strategies such as continuous QI teams or change cycles). Examples of the specific care process changes in the studies we identified through the scan included implementation of a screening tool, change in the screening process, use of NPs to manage UI care, and deployment of telehealth tools such as phone apps.

At the end of this section, we summarize the levels of the primary care system and stages of care addressed by the study interventions.

**Dissemination Intervention Components**

Only three studies described a dissemination intervention component: two involved provider or staff education and training, and one incorporated on-site coordination and other direct technical assistance (Table 3.7).

<table>
<thead>
<tr>
<th>Dissemination Component</th>
<th>Intervention Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider and staff education and training</td>
<td>NPs attend a training program for management of UI patients (Teunissen et al., 2015).</td>
</tr>
<tr>
<td></td>
<td>A screening education program for NPs (Ngigi, 2017)</td>
</tr>
<tr>
<td>On-site coordination and other direct technical assistance</td>
<td>Research physician and research assistant team interview patients who meet enrollment criteria to encourage diagnosis and treatment (Visser et al., 2015).</td>
</tr>
</tbody>
</table>

**Implementation Intervention Components**

Nine studies described at least one implementation intervention component (Table 3.8). All nine used an electronic or other tool. One also employed a care team engagement approach.
Table 3.8. Implementation Intervention Components

<table>
<thead>
<tr>
<th>Implementation Component</th>
<th>Intervention Description</th>
</tr>
</thead>
</table>
| Electronic or other tool                 | Online prediction tool for women and their PCPs to assess the likelihood of pelvic floor dysfunction prior to a visit (Chen et al., 2021)  
Mailed questionnaire for pre-visit screening (Visser et al., 2015)  
Teleprompt app and NP-provided home training for caregivers (Davis et al., 2020)  
Self-management mobile apps (Firet et al., 2021; Loohuis et al., 2018; Wadensten et al., 2021)  
Developing and implementing a community-based education program (Tannenbaum et al., 2019)  
Tele-Continence Care Program involving the NP and physician team to improve follow-up visit rates and treatment adherence (Schlittenhardt, Smith, and Ward-Smith, 2016) |
| Electronic tool and care team engagement model | Assignment of patient to NP UI specialist (Teunissen et al., 2015) |
Levels of the Primary Care System Addressed by Study Interventions

Table 3.10 summarizes the different levels of the care system addressed by the study interventions. For example, eight studies included interventions for PCPs and staff, five included the practice, and four included the health care–delivery system. Most studies addressed multiple levels, with interventions targeted at providers also including interventions at the patient or health care–delivery system levels. Only two studies focused on just one level (PCPs, in one case, and families and caregivers in the other; not shown in figure).

Table 3.10. Levels of the Primary Care System Addressed by Study Interventions

<table>
<thead>
<tr>
<th>Level</th>
<th>Number of Studies*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payors</td>
<td>1</td>
</tr>
<tr>
<td>Community</td>
<td>3</td>
</tr>
<tr>
<td>Health care delivery systems</td>
<td>4</td>
</tr>
<tr>
<td>Primary care practices</td>
<td>5</td>
</tr>
<tr>
<td>Primary care clinicians, staff, or both</td>
<td>8</td>
</tr>
<tr>
<td>Families, caregivers, or both</td>
<td>1</td>
</tr>
<tr>
<td>Patients</td>
<td>10</td>
</tr>
</tbody>
</table>

* Categories are not mutually exclusive.

Stages of Care Addressed by Study Interventions

We categorized the studies by the principal stage of care on which their interventions focused, as shown in Table 3.11.
Table 3.11. Stages of Care Addressed by Study Interventions

<table>
<thead>
<tr>
<th>Care Stage</th>
<th>Number of Studies*</th>
<th>Intervention (description)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening and diagnosis</td>
<td>5</td>
<td>Online prediction and screening tools (Chen et al., 2021; Hess et al., 2013; Schüssler-Fiorenza Rose et al., 2015)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mailed paper questionnaire (Hess et al., 2013; Visser et al., 2015)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Educational program for PCPs on importance of screening (Ngigi, 2017)</td>
</tr>
<tr>
<td>Management</td>
<td>10</td>
<td>App for prompted voiding (Davis et al., 2020)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management apps (PFMT and lifestyle) (Firet et al., 2021; Loohuis et al., 2018; Wadensten et al., 2021)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of a pharmacologic agent (Hess et al., 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modifying care team structures or processes (Albers-Heitner et al., 2012; Beban, Newman, and Nolan, 2021; Hess et al., 2013; Schlittenhardt, Smith, and Ward-Smith, 2016; Schüssler-Fiorenza Rose et al., 2015; Teunissen et al., 2015)</td>
</tr>
<tr>
<td>Referral to specialty care</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

* Categories are not mutually exclusive.

Study Design

Seven studies were randomized controlled trials (RCTs) or single-arm trials, two studies used a pre-post assessment of outcomes, and the remainder were descriptive studies. Most studies used mixed methods (i.e., both quantitative and qualitative data and analysis).

Study Outcomes

Process Outcomes

Screening rates—Did more women get screened, diagnosed, or into treatment? Two studies measured the effect of an intervention on rates of screening. As secondary outcomes, one study compared the proportion of prescreened women who reported their PCP discussing UI with them during their visit and being offered treatment with that of women who were not prescreened (and noted significant improvements for the prescreened group) (Schüssler-Fiorenza Rose et al., 2015). Another study reported that use of a simple pencil-and-paper prescreener increased the proportion of patients who initiated treatment (Hess et al., 2013).

Referral rates—Did rates of referral to specialty care change? Four studies reported on the proportion of women referred for physical therapy or specialty care. The first did not compare these findings among groups (Visser et al., 2015). In the second study, no women in the app intervention or usual care groups were referred for specialty care (Loohuis et al., 2018). A third study assessed referral to specialty care (as noted in the chart) as one indicator of improved patient-provider discussion of UI in response to the use of a pre-visit screener but did not report rates (Schüssler-Fiorenza Rose et al., 2015). A fourth study reported referring 27 percent of
patients for specialty care from a group that received screening but did not report this number for
the control group (Beban, Newman, and Nolan, 2021).

**Patient facilitators and barriers to implementation of specific interventions:** One large
study of an app for PFMT conducted a smaller qualitative study of a subgroup of study
participants to identify facilitators and barriers to adoption of the app. The study identified
several facilitators, including preference for an easily accessible self-management intervention,
promotion of a sense of self-discipline, and having the ability to schedule the exercises routinely
on one’s own. Barriers that were identified to the adoption of the app were difficulty scheduling
time to perform the exercises, uncertainty about performing the exercises correctly without live
feedback, and therefore the need for sufficient self-efficacy to do the intervention independently
(Loohuis et al., 2018). Another potential barrier raised by some participants was that the app
sometimes resulted in focusing more on symptoms.

**Health Outcomes**

**Symptom improvement.** Most studies measured the effects of the study intervention on
improvement of UI symptoms. These studies used several quantitative measures, all self-
reported.

Quantitative measures included bladder or voiding diaries (Davis et al., 2020; Hess et al.,
2013); the International Continence Improvement Questionnaire—Short Form (ICIQ-UI SF)
(Schlittenhardt, Smith, and Ward-Smith, 2016), Vaginal Symptoms (ICIQ-VS) and Female
Lower Urinary Tract Symptoms (ICIQ-FLUTS) instruments (Beban, Newman, and Nolan,
2021); the severity of involuntary urine loss measured via the Sandvik score (quantity times
frequency) and symptom severity using the Patient Global Impression of Severity (Teunissen et
al., 2015); the ICIQ Overactive Bladder Questionnaire (ICIQ OAB-q); and for symptom impact,
the Patient Perception of Bladder Condition (PPBC), the Patient Perception of Urgency Scale,
the Overactive Bladder Satisfaction scale (Wadensten et al., 2021; Hess et al., 2013), the Patient
Global Impression of Improvement (Tannenbaum et al., 2019; Loohuis et al., 2018); and the
Incontinence Severity Index (Visser et al., 2015).

All studies reported improvements in at least one indicator of UI symptoms in groups that
received an intervention that involved prescreening, NP involvement in treatment, or use of an
app, with some improvements lasting at least a year.

**Quality of life.** Changes in quality of life were assessed using Activity of Daily Living
measures; the Incontinence Impact Questionnaire (Teunissen et al., 2015); the ICIQ-Lower
Urinary Tract Symptoms Quality of Life Module (Loohuis et al., 2018; Wadensten et al., 2021);
and the Short Form-12v2 (SF-12v2) and 6D (Tannenbaum et al., 2019).

All studies that assessed quality of life after uses of an app (Loohuis et al., 2018; Wadensten
et al., 2021) or NP involvement in treatment (Teunissen et al., 2015) reported improvements.

**System Outcomes**

**Provider behavior.** One study assessed whether a prescreening intervention in the primary
care setting affected GPs’ likelihood of discussing UI with women patients: This was assessed by
auditing patient charts for patient visit notes that indicated asking about UI (Schüssler-Fiorenza Rose et al., 2015). The study reported a significant improvement in physicians’ discussion of UI following prescreening, especially for women whose screening results suggested UI.

**Acceptance of intervention.** Several studies assessed provider acceptance of—or other attitudes toward—the intervention or the way it was implemented.

One study of a practice process change aimed at improving rural patients’ treatment follow-up implemented a three-item provider survey (Schlittenhardt, Smith, and Ward-Smith, 2016). This study reported good acceptance of the use of telehealth follow-up.

A study of a PFMT-focused app for treatment of stress UI (SUI) interviewed a subset of practice physicians about their attitudes toward PFMT, the app, and telehealth in general. Although the doctors supported PFMT for treatment of SUI and generally believed the app fit well into their practice routines and added value, they tended to express doubts about whether the app would be effective for older patients or could be used without significant support from providers and maintained that physician care remains essential (Firet et al., 2019).

**Integration of a process change into practices.** Only one study report described in detail how the medical practice integrated the process change into its patient care routine (Schüssler-Fiorenza Rose et al., 2015). The reason for this might have been that only a small number of the studies implemented an intervention that required this kind of change.

**Economic Outcomes**

Four studies assessed economic outcomes. One study, conducted from 2008 to 2010, assessed the effectiveness and cost-effectiveness of implementing trained nurse specialists in the care of adult patients with UI (Albers-Heitner et al., 2012). Using the EuroQol-5D tool to estimate changes in quality-adjusted life years (QALYs), the study estimated that the use of the nurse specialists was cost effective compared to that of usual care.

The URINO Trial, conducted from 2013 through 2015, assessed the cost-effectiveness of implementing a multicomponent intervention that included prescreening and developing individualized care plans. Estimating impact in terms of incontinence impact adjusted life years, the study reported a 91 percent likelihood that the intervention was cost-effective (Visser et al., 2015).

A study that developed and validated a screening tool noted that the tool would save health care costs by reducing the need for referral to specialty care, although the study did not assess cost effectiveness (Chen et al., 2021).

A study of a UI management app conducted in Sweden compared the cost effectiveness of the app with that of usual care and found the app to be comparatively cost effective (Asklund et al., 2017).

**Standalone Tools for UI in Primary Care**

Four publications identified in the scoping review presented tools for use in primary care but did not assess their dissemination or implementation in practice and thus did not fully meet the
inclusion criteria of the scan. All four were educational tools for PCPs or their patients, as described in Table 3.12.

<table>
<thead>
<tr>
<th>Tool Description</th>
<th>Tool Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational toolkit for physician communication with patients; patient-centered outcomes research was used to create the tool (Beder, Ashton, and Mishra, 2021)</td>
<td>Urology Care Foundation, 2020 Incontinence Patient Guide (Urology Care Foundation, 2020)</td>
</tr>
<tr>
<td>Educational monograph for doctors and patients on Stress Urinary Incontinence (Urology Care Foundation, 2020; Urology Care Foundation, 2013)</td>
<td>Spectrum of Health, Management of Incontinence and Pelvic Floor Disorders: educational toolkit for PCP teams (Spectrum of Health, 2014)</td>
</tr>
</tbody>
</table>
Our manual review of EvidenceNOW generic D&I tools and materials from AHRQ’s webpages resulted in a total of 43 resources. The number of resources by category are provided in Table 4.1.

**Table 4.1. EvidenceNOW Generic Dissemination and Implementation Resources by Type**

<table>
<thead>
<tr>
<th>Type</th>
<th>Category</th>
<th>Number of Resources*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination</td>
<td>Practice facilitation</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Recruitment of primary care practices</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Provide or adapt evidence-based resources</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Technical assistance</td>
<td>2</td>
</tr>
<tr>
<td>Implementation</td>
<td>1. Seek evidence</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2. Implement QI</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>3. Optimize health IT</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>4. Create care teams</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>5. Engage with patients and families</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>6. Nurture leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

* Categories are not mutually exclusive.

Twenty-three of the included resources were EvidenceNOW publications that were based on EvidenceNOW projects. The majority of these publications discuss the role of practice facilitation in disseminating and implementing evidence-based approaches to improve care. These publications cover the evaluation of different types or models of practice facilitation, learning from the implementation of specific tools or strategies, and identification of delays or barriers to practice facilitation.

The remaining 20 resources were tools and materials that focused on D&I approaches in primary care from various webpages within the AHRQ website. While we found resources across the EvidenceNOW six key drivers, the resources most frequently focused on implementing QI, engaging with patients and families, and optimizing health IT. Tools and publications related to implementing QI covered activities related to building external QI infrastructure, assessing the readiness and capacity for QI, developing QI plans, building QI teams, and implementing shared decisionmaking. Resources on engaging patients and families discussed how to integrate community resources, tailor interventions to different communities, establish self-assessment and self-management support, and incorporate patients in QI activities. Optimizing health IT resources involved reviewing steps to use health IT in supporting QI efforts and shared decisionmaking as well as lessons learned and barriers identified in using health IT to support practice changes.
Other resources provided tools and instructions for translating evidence into guidelines or informing care decisions, implementing care management teams, and detailing the role that leaders can play in implementing interventions.
Chapter 5. Discussion

The Evidence for Dissemination and Implementation Strategies for Screening, Diagnosing, and Treating Urinary Incontinence

In this section, we summarize the findings from the studies, the state of the literature, and the gaps.

Summary of Findings from the Studies and Limitations

Screening and diagnosing UI. Reflecting the evidence that most women with UI go untreated because they do not discuss their symptoms with their providers, many of the studies we identified aimed at developing, refining, and testing screening tools. These were delivered in a variety of media, including mailed paper forms, online tools, and face-to-face interviews with NPs. Some of these efforts combined educational outreach with screening.

Screening efforts tended to be well accepted and increased the likelihood that women would interact with their providers for treatment. However, recruited participants might have been more health literate or simply more willing to comply than typical primary care patients. This is a particular concern with studies that are not designed to assess D&I interventions in real life settings.

Managing UI. Several studies tested novel strategies for managing UI. These included apps that provide support and education for behavioral management (like PFMT training) and changes to practice routines (such as implementing follow-up calls with NPs).

These interventions tended to be well received by patients and were associated with improved clinical outcomes. One study compared the effectiveness of a management app with usual (evidence-based) care in real-life health care settings and found the app to be equally effective in improving symptoms and quality of life. The apps can be integrated into primary care practices relatively easily, but it will be important to ensure that multilingual versions are created and that all women who could benefit from them are ensured equal access and any training needed to use them.

Referral to specialty care. Only a small number of studies measured the rate of referral to specialty care, but this was not a primary focus of any intervention and no studies compared referral rates or appropriateness among treatment groups as a primary outcome.

Limitations of the Scan and the Research Base

Some of the studies that we identified addressed facilitators and barriers to implementation as well as limitations of their own research designs and findings. In addition, we identified several limitations and gaps in the literature. We synthesize and describe these in the following sections.
**Populations and Locations**

We aimed to ensure that we identified studies that address UI care and the needs of underserved women, particularly those with limited access to care. However, only one study specified the racial or ethnic makeup of the participants, and none reported on their care coverage. It is possible that most European studies simply take equitable health care coverage for granted. However, in the United States, even some women 65 and older might not have Medicare coverage (for example, undocumented persons) or might have other barriers to receiving adequate health care.

Most studies did not identify the income or education level of participants. The small number that did found that participants tended to be more educated and had a higher-than-average income. This gap is especially critical because a number of the studies implemented phone apps or other electronic health functions. Women with less education and lower reading comprehension levels are less likely to be able or willing to adopt these technologies.

With the exception of one study that assessed the effect of a practice change aimed at improving access to care for women in rural areas, no studies were conducted in underserved areas or in safety net settings, such as community health centers or federally qualified health centers (FQHCs).

The utility and generalizability of D&I studies in real-life primary care settings, including community or home settings in which treatments are managed by primary care professionals, depend on the degree to which their participants are representative of populations served and that barriers to care are typical of those settings. Also, primary care practices are universally recognized as the gatekeepers of health care provision, and the treatment of UI is no exception. Thus, the small number of D&I studies based in primary care settings represents a major gap.

Finally, most studies were very small, both in numbers of participants and numbers of study sites, and dropout rates for some studies were relatively high. This has the following three implications:

- Studies might not have had the statistical power to assess important questions.
- Study findings might not represent what would be found in whole populations or even larger practices or health care systems.
- It would be important to study reasons for dropping out to understand barriers to adoption of UI care improvements at the patient or practice level.

**Interventions**

To ensure relevance, we limited inclusion to pragmatic studies (under realistic conditions) of evidence-based interventions that were conducted in primary care settings. Still, most of the trials identified in the searches were clinical efficacy trials intended to establish the evidence base for the effectiveness of clinical interventions without attention to implementation or dissemination strategies to promote these interventions’ introduction and use for patient care.

Given the time and resource constraints of the scan task, we were able to search some sources of grey (non–peer-reviewed) studies, but we could not search all (for example, we did not search abstracts that were presented at research meetings). To supplement our searches, we
asked members of the TEP and the project’s UI subject-matter experts to help identify relevant interventions and resources that we might have missed, but they did not identify additional studies conducted in primary care settings.

Even with the small number of studies that we included in this scan, most did not substantially address key D&I issues, focusing instead on the effectiveness of the tool or practice change being implemented rather than on such outcomes as facilitators of and barriers to implementation and scaleup.

The reading level of resources and tools intended for patients is an important consideration for their appropriateness and use. None of the studies assessed the reading level of apps or other educational materials.

**Settings**

As noted in the StaRI and TIDieR standards and other implementation science guidance, it is essential to understand the context in which interventions are implemented to examine possible sources of barriers and facilitators to their introduction and assess their generalizability to other settings. To gather as much information as we could about implementation context, we abstracted all relevant study-level details available in the retrieved documents, including study protocols. However, most of the implementation studies did not adequately describe the implementation context.

**Outcomes**

Most outcomes assessed in the studies concerned the clinical effectiveness of the interventions rather than the effectiveness of the D&I efforts. Although a few studies assessed patient or provider uptake and perceptions of UI care interventions, no studies specifically assessed outcomes related to reach of the care interventions among the targeted practice or patient population.

Studies on developing screening tools need to assess their impact in terms of the numbers of patients offered treatment and the effect of earlier treatment initiation on clinical, quality of life, economic, and other outcomes.

For the clinical outcomes, most studies tended to use validated tools. But none of the studies evaluated whether the magnitudes of clinical improvement met thresholds for being clinically important either at the patient level or population-wide.

**Study Quality and Applicability**

As an environmental scan, assessing study quality was not within scope. However, several overall comments can be made about the quality of the studies.

Several of the studies were large, well designed within the limitations of this kind of research, and implemented features of good quality, such as calculating the number of participants needed to observe differences between treatment groups, using valid methods of randomization, assessing retention, and using intention to treat analysis (that is, including all participants who enrolled in the study—not just those who completed all treatments—in the
calculation of study findings). However, by necessity, no study was able to fully blind participants or their PCPs to their treatment assignment, and nearly all outcomes were self-reported. Also, several of the studies had low retention rates.

As discussed previously, although many of the studies were conducted in primary care settings providing treatment in real-life settings of care, several factors make the applicability of the studies that we identified somewhat challenging. Only about one-third were conducted in the United States. Most lacked information on the practice context or size relative to the numbers of study participants. Few studies reported race, ethnicity, socioeconomic status, health care coverage, comorbidities, education, or other SDOH of participants, and when this information was reported, it suggested that the average study participant was more likely to be White and highly educated than average patients.

Conclusions

The environmental scan identified only a small number of studies. Many did not address key dissemination or implementation issues. Too few studies assessed any particular type of implementation or dissemination strategy to enable us to draw any firm conclusions about what types of strategies work and do not work, especially in particular settings. Furthermore, although this environmental scan described the methodological rigor of the individual studies, the nature of the scan approach was not designed to evaluate the strength of the literature.

A seminal 2009 study of a multicomponent intervention in the primary care setting found that the intervention tripled identification of patients with UI and moderately improved care for these patients (Wenger et al., 2009). This and the findings of the current review suggest that screening is a critical first step to better treatment of UI for women in primary care, but additional focus on management and referral strategies is needed. Two studies in tertiary care settings that were identified by a member of the TEP developed educational tools that could help fill these gaps (Diokno et al., 2018; Sampselle et al., 2017). The follow-up review will examine and attempt to identify more of these kinds of studies to assess the appropriateness of such interventions for primary care settings.
Appendix A. Search Strategies

PubMed
English; 2012–Date of search
Search executed March 23, 2022
AND
Women[mh] OR Female[mh] OR women*[tiab] OR woman*[tiab] OR female*[tiab]
Results: 1,195

CINAHL Plus (via EBSCO)
English; 2012–Date of search
Search executed March 23, 2022
TI("overactive bladder” OR enuresis OR nocturia OR incontinen* OR “detrusor instabilit*” OR “continence care”) OR AB("overactive bladder” OR enuresis OR nocturia OR incontinen* OR “detrusor instabilit*” OR “continence care”) OR (TI(bladder* OR urine OR urina*) AND TI(overactive OR “over active” OR urgent OR urgency OR frequent OR frequency OR detrusor OR leak* OR dysfunction* OR urge*)) OR (TI(bladder* OR urine OR urina*) AND AB(overactive OR “over active” OR urgent OR urgency OR frequent OR frequency OR detrusor OR leak* OR dysfunction* OR urge*)) OR (AB(bladder* OR urine OR urina*) AND TI(overactive OR “over active” OR urgent OR urgency OR frequent OR frequency OR detrusor OR leak* OR dysfunction* OR urge*)) OR (AB(bladder* OR urine OR urina*) AND AB(overactive OR “over active” OR urgent OR urgency OR frequent OR frequency OR detrusor OR leak* OR dysfunction* OR urge*)) OR (TI(bladder) AND TI(neurogen* OR neurologic*)) OR (TI(bladder) AND AB(neurogen* OR neurologic*)) OR (AB(bladder) AND TI(neurogen* OR neurologic*)) OR (AB(bladder) AND AB(neurogen* OR neurologic*)) OR (MH “Urinary Incontinence”) OR (MH “Stress Incontinence”) OR (MH “Urge Incontinence”) OR (MH “Overactive Bladder”) OR (MH “Enuresis”) OR (MH “Enuresis, Nocturnal”)
AND
TI("primary care” OR “primary doctor” OR “primary provider” OR “primary clinic” OR “ambulatory care” OR “general practitioner” OR GP OR “general practice physician” OR internist OR “family medicine” OR “family practice” OR “family doctor” OR “internal medicine” OR “geriatric medicine” OR geriatric OR “community health center” OR “federally qualified health center” OR FQHC OR CBOC OR “community based”) OR AB("primary care” OR “primary doctor” OR “primary provider” OR “primary clinic” OR “ambulatory care” OR “general practitioner” OR GP OR “general practice
physician*" OR internist* OR “family medicine” OR “family practice” OR “family doctor*” OR “internal medicine” OR “geriatric medicine” OR geriatric* OR “community health center*” OR “federally qualified health center*” OR FQHC* OR CBOC* OR “community based”) OR (MH “Primary Health Care”) OR (MH “Physicians, Family”) OR (MH “Internal Medicine”) OR (MH “Family Practice”) OR (MH “Geriatrics”) AND (MH “Women+”) OR (MH “Female”) OR TI(women*) OR AB(women*) OR KW(women*) OR TI(woman*) OR AB(Woman*) OR KW(Woman*) OR TI(female*) OR AB(female*) OR KW(female*)

Results: 196 – internal duplicates/duplicates with PubMed = 94

Web of Science
Conference Proceedings Citation Index—Science (CPCI-S)
English; 2021–Date of search
Search executed March 23, 2022

TS=(“overactive bladder” OR enuresis OR nocturia OR incontinen* OR “detrusor instabilit*” OR “continence care*”) OR (TS=(bladder* OR urine OR urina*) AND TS=(overactive OR “over active” OR urgent OR urgency OR frequent OR frequency OR detrusor OR leak* OR dysfunction* OR urge*)) OR (TS=(bladder) AND TS=(neurogen* OR neurologic*)) AND

TS=(“primary care” OR “primary doctor” OR “primary provider*” OR “primary clinic” OR “ambulatory care” OR “general practitioner*” OR GP OR “general practice physician*” OR internist* OR “family medicine” OR “family practice” OR “family doctor*” OR “internal medicine” OR “geriatric medicine” OR geriatric* OR “community health center*” OR “federally qualified health center*” OR FQHC* OR CBOC* OR “community based”)

Results: 2 – 1 focusing on male incontinence = 1
TOTAL for PubMed, CINAHL, and WoS (conference): 1,288

Grey Literature Searches
These searches were executed using the Google Advanced Interface and the results scanned for relevant hits. The searches run and the number links included in the Excel workbook are noted in the chart below.

Google Advanced Searching
executed March 23, 2022

<table>
<thead>
<tr>
<th>Search Terms</th>
<th># Pulled</th>
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</thead>
<tbody>
<tr>
<td>incontinence women OR woman OR female &quot;primary care&quot; site:.org filetype:pdf</td>
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</tr>
<tr>
<td>overactive bladder women OR woman OR female &quot;primary care&quot; site:.org filetype:pdf</td>
<td>3</td>
</tr>
<tr>
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<td>1</td>
</tr>
<tr>
<td>incontinence women OR woman OR female &quot;primary care&quot; site:.com filetype:pdf</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19</td>
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</tbody>
</table>
Appendix B. Scoping Review Evidence Table

Table B.1 presents each study on a separate row. All relevant publications associated with the study are cited in the left-hand column.

Abbreviations are defined at the end of the table.
Table B.1. Scoping Review Evidence Table

<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Related Studies</th>
<th>Study Design</th>
<th>Country</th>
<th>Locale</th>
<th>Study Settings</th>
<th>Practice Type(s)</th>
<th>Number of Women in the Study</th>
<th>Mean Age of Women in Study</th>
<th>Particular Type of Women</th>
<th>UI Type(s)</th>
<th>Features of Care Intervention Stages Addressed by Care Intervention</th>
<th>Features of Dissemination Approach</th>
<th>Features of Implementation Approach</th>
<th>Control Randomization Process</th>
<th>Analytic Methods</th>
<th>Process Outcomes</th>
<th>Impact Outcomes</th>
<th>Brief Description of Intervention</th>
<th>Authors’ Study Limitations</th>
<th>Study Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albers-Heitner et al., 2012</td>
<td>Study design: RCT</td>
<td>Country: The Netherlands</td>
<td>Locale: Four Dutch regions (Maastrict, Nijmegen, Helmond, The Hague)</td>
<td>Setting: Primary care practices</td>
<td>Practice type: Not reported</td>
<td>Number of PCPs by category: Physicians (MDs or DOs): number involved in the study: 109; Nurses: number involved in the study: 6</td>
<td>Types of physician practice: Other: General practice</td>
<td>Number of women of all ages served by study practices: 384 (186 intervention; 198 care as usual)</td>
<td>Mean (SD) age of all women in the study: 65</td>
<td>Particular type of women: No</td>
<td>UI Type(s): Stress UI, urge UI, mixed UI</td>
<td>Features of care intervention: Community-based multidisciplinary teams</td>
<td>Stages addressed by care intervention: Management (treatment)</td>
<td>Features of dissemination approach: On-site intervention resource/practice coordinator, Provider/staff education; training</td>
<td>Features of implementation approach: Seek evidence, implement QI</td>
<td>Levels of primary care system involved: Primary care clinicians and/or staff, Patients</td>
<td>Control: Yes: Care-as-usual by GP</td>
<td>Randomization process: Yes: computer-generated, with allocation concealment by sealed envelopes.</td>
<td>Analytic methods: Quantitative (e.g., clinical measures, patient surveys): portal questionnaires at baseline, three, six, nine, and 12 months</td>
<td>Process outcomes: Exposure/engagement of providers or other staff to the intervention, Feasibility of implementing or using the intervention, Patient experience or satisfaction</td>
</tr>
<tr>
<td>Author, Year</td>
<td>Related Studies</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
<td>Practice Type(s)</td>
<td>Number of PCPs Involved in the Study</td>
<td>Number of Women in the Study</td>
<td>Mean Age of Women in Study</td>
<td>Particular Type of Women</td>
<td>UI Type(s)</td>
<td>Features of Care Intervention</td>
<td>Stages Addressed by Care Intervention</td>
<td>Features of Dissemination Approach</td>
<td>Features of Implementation Approach</td>
<td>Levels of Primary Care System</td>
<td>Control</td>
<td>Randomization Process</td>
<td>Analytic Methods</td>
<td>Process Outcomes</td>
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</tbody>
</table>
| Beban, Newman, and Nolan, 2021 | Pre/post assessment | New Zealand | Napier, Aotearoa, Hawke’s Bay region | Primary care practices | Practice type: Other: pilot, publicly funded clinic for women for pelvic organ prolapsePOP and incontinence | Number of PCPs by category: Physicians (MDs or DOs): number involved in the study: 1; GP, Other(s), if the specific focus of the study number involved in the study, Others: 1 physiotherapist, 1 health assistant | Types of physician practice: Other: General Practice | Number of women of all ages in the study: 36 | Mean (SD) age of all women in the study: 64 | Number of women involved in study: 36 | Stress UI, Other: mentioned incontinence broadly | Features of care intervention: Community-based multidisciplinary teams, Clinical Interventions: Containment products (e.g., absorbent pads, external collection devices, intravaginal devices, pessaries), Lifestyle Interventions: Physical exercise, Behavioral and Physical Therapies: PFMT, Behavioral and Physical Therapies: Psychological interventions | Stages addressed by care intervention: Management (treatment), Specialty referral | Features of dissemination approach: On-site intervention resource/practice coordinator, Other dissemination strategies: dedicated pilot clinic | Features of implementation approach: Seek evidence: efficacy of biopsychosocial approach, implement QI | Levels of primary care system involved: Community, Primary care practices, Patients | Control: No | Randomization Process: No | Analytic methods: Qualitative (e.g., interviews, focus groups): semistructured interviews, Quantitative (e.g., clinical measures, patient surveys): pre- and post-surveys | Process outcomes: Feasibility of implementing or using the intervention | Impact outcomes: Health outcomes (change in UI symptoms, health functioning, and/or quality of life of patients) | Brief description of intervention: Initial 60-min consultation with GP or physiotherapist, healthcare asst with experience in sexual health assessment to offer support and ensure patient flow, GP perform examination; physiotherapist assessed bodily structure, muscles, and movement, individual tx pathway designed (e.g., modifying behavioral risk factors, psychotherapy, pessary use, referral); lifestyle and nutrition advice; provided written info; follow-up appointments based on need (most had two or three appointments) | Study limitations: Small sample, no control group, quantitative data did not include long-term effects of treatment nor various treatment pathways that continued beyond clinic | Study findings: Participants reported significant reduction in clinical symptoms. Interviews found improvements in related conditions (e.g., constipation and pelvic pain). Psychosocial improvements included significant decrease in bother associated with urinary and vaginal symptoms, and fewer
<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Study design</th>
<th>Practice type(s)</th>
<th>Number of Women in the Study</th>
<th>Mean Age of Women in Study</th>
<th>Features of Care Intervention</th>
<th>Control</th>
<th>Randomization Process</th>
<th>Analytic Methods</th>
<th>Process Outcomes</th>
<th>Brief Description of Intervention</th>
</tr>
</thead>
</table>
| Chen et al., 2021 | Retrospective validation of screening tool for online use | Private practice, Other: gyn, urogyn | Number of PCPs involved in the study: N/A | Number of Women of all ages served by study practices: Not reported | Number of Women of all ages in the study: 3,950 | Mean (SD) age of all women in the study: Not reported | Mean (SD) age of all women in the study: 3,950 | Features of care intervention: Other: development of an online prediction tool | Stages addressed by care intervention: Screening, Diagnosis | Features of dissemination approach: Implementation not yet addressed but would involve targeting appropriate patients for treatment | Features of implementation approach: Other dissemination strategies: not applicable | Control: Yes | Randomization Process: Yes: historical cohorts of asymptomatic community women | Analytic methods: Quantitative (e.g., clinical measures, patient surveys) | Process outcomes: Other key process outcomes | Impact outcomes: Economic outcomes (resource use, costs, or economic outcomes of the implementation strategy or intervention for practices, care providers, patients, or system stakeholders). System outcomes (change in capacity of primary care practices to implement evidence-based care or health care systems in disseminating evidence-based care) | Brief description of intervention: Develop then internally and externally validate a diagnostic prediction model (tool) based on the Australian Pelvic Floor Questionnaire and patient demographics to determine the presence of PFD and compare it with the orthodox method of diagnosis of common PFDs including history, examination, and investigations by gynaecologists. The aim is to allow women to complete the form prior to their PCP visit to facilitate communication. Study limitations: This study involved no actual patient or provider contact or D&I intervention and retrospectively validated a tool. Study findings: Model was validated internally and externally and provides an accurate online tool for patient self-assessment of PFDs.
<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Practice Type(s)</th>
<th>Number of Women in the Study</th>
<th>Mean Age of Women in Study</th>
<th>Features of Care Intervention</th>
<th>Control</th>
<th>Randomization Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davis et al., 2020</td>
<td>N/A</td>
<td>Number of women of all ages in the study: 3</td>
<td>Mean (SD) age of all women in the study: not reported</td>
<td>Behavioral and Physical Therapies: Prompted voiding</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Study design:</td>
<td>Number of PCPs by category: Other(s), if the specific focus of the study number involved in the study, Others: 3 family caregivers Types of physician practice: N/A (community study)</td>
<td>Mean (SD) age of all women in the study: not reported</td>
<td>Stages addressed by care intervention: Management (treatment)</td>
<td>Features of dissemination approach: Other dissemination strategies: Caregiver education</td>
<td>Qualitative (e.g., interviews, focus groups): Three-day bladder diaries, caregiver perceptions and satisfaction questionnaire, Quantitative (e.g., clinical measures, patient surveys): caregivers complete surveys at baseline, three weeks, and six weeks with perceived competence scale, perceived ease of use subscale, adapted incontinence impact questionnaire, urinary knowledge scale, depression scale, Lawton instrument of daily living scale, physical self-management scales; module viewing logs; telephone visit logs; caregiver perceptions and satisfaction questionnaire</td>
<td>None</td>
</tr>
<tr>
<td>Study design: Pre/post assessment</td>
<td>Practice type: N/A</td>
<td>Number of women of all ages in the study: 3</td>
<td>Mean (SD) age of all women in the study: not reported</td>
<td>Features of care intervention: Behavioral and Physical Therapies: Prompted voiding</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Country: United States</td>
<td>Types of physician practice: N/A (community study)</td>
<td>Mean (SD) age of all women in the study: not reported</td>
<td>Stages addressed by care intervention: Management (treatment)</td>
<td>Features of dissemination approach: Other dissemination strategies: Caregiver education</td>
<td>Qualitative (e.g., interviews, focus groups): Three-day bladder diaries, caregiver perceptions and satisfaction questionnaire, Quantitative (e.g., clinical measures, patient surveys): caregivers complete surveys at baseline, three weeks, and six weeks with perceived competence scale, perceived ease of use subscale, adapted incontinence impact questionnaire, urinary knowledge scale, depression scale, Lawton instrument of daily living scale, physical self-management scales; module viewing logs; telephone visit logs; caregiver perceptions and satisfaction questionnaire</td>
<td>None</td>
</tr>
<tr>
<td>Locale: Metropolitan area in southeastern United States</td>
<td>Practice type: N/A</td>
<td>Number of women of all ages in the study: 3</td>
<td>Mean (SD) age of all women in the study: not reported</td>
<td>Features of care intervention: Behavioral and Physical Therapies: Prompted voiding</td>
<td>No</td>
<td>None</td>
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<tr>
<td>Setting: Community</td>
<td>Types of physician practice: N/A (community study)</td>
<td>Number of women of all ages in the study: 3</td>
<td>Mean (SD) age of all women in the study: not reported</td>
<td>Features of care intervention: Behavioral and Physical Therapies: Prompted voiding</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

**Brief Description of Intervention:**
Six-week multi-component behavioral intervention delivered via telehealth targeting three domains (informal caregiver education, skill enhancement in effective toileting strategies, and social support); includes individual, weekly telehealth visits with NP expert in UI care.

**Study limitations:**
Only three caregiver/patient dyads agreed to participate.

**Study findings:**
Most caregivers found the overall intervention acceptable; adherence to prompted voiding was inconsistent, but symptoms improved. Results suggest that the tablet-facilitated intervention was feasible and acceptable to informal caregivers and showed promise for improving caregiver and patient outcomes.
<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Practice Type(s)</th>
<th>Number of Women in the Study</th>
<th>Features of Care Intervention Stages Addressed by Care Intervention</th>
<th>Control Randomization Process</th>
<th>Analytic Methods</th>
<th>Process Outcomes</th>
<th>Impact Outcomes</th>
<th>Brief Description of Intervention</th>
<th>Study Limitations</th>
<th>Authors’ Study Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firet et al., 2019, 2021</td>
<td>Practice type: Not reported</td>
<td>Number of Women of all ages in the study: 20</td>
<td>Features of care intervention: Clinical Interventions: Treatment of underlying disease/cognitive impairment, Behavioral and Physical Therapies: PFMT</td>
<td>Control: No Randomization Process: No</td>
<td>Analytic methods: Qualitative (e.g., interviews, focus groups): semistructured interviews among subset of 15–20 women; training reports, Quantitative (e.g., clinical measures, patient surveys): surveys at baseline, three weeks, and three and six months after baseline; training reports; website usage data</td>
<td>Process outcomes: Feasibility of implementing or using the intervention, Compatibility of the intervention to practices/care routines, Barriers to disseminating/implementing the intervention, Facilitators to disseminating or implementing the intervention, Patient adherence to treatment</td>
<td>Impact outcomes: Other key impact outcomes</td>
<td>Brief description of intervention: Three-month eHealth intervention on PFMT (text, audio fragments, images) with four different exercises in eight escalating modules; information about UI and lifestyle advice also provided; each module contains background info, training program, and test exercise to ensure women gained the correct skills; women recommended to train for 2–3 times a day for 2 to 12 minutes</td>
<td>Study limitations: GP interviews: limited sample and not generalizable, response bias due to questioning GP on conceptual eHealth intervention; Women study: not all data fall into FITT framework, recall bias, highly educated sample may have been predisposed toward all forms of health care and information provision via electronic means, limited qualitative sample</td>
<td>Study Findings: Facilitators to adoption of e-Health intervention for SUI include preference for self-management, strong sense of self-discipline and ability to schedule routine exercises. Barriers were personal circumstances restricting time for exercises and lacking skills to perform exercises correctly. Some</td>
</tr>
<tr>
<td>Author, Year</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
<td>Practice Type(s)</td>
<td>Number of PCPs Involved in the Study</td>
<td>Types of Physician Practice</td>
<td>Number of Women in the Study</td>
<td>Mean Age of Women in Study</td>
<td>Particular Type of Women</td>
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<tr>
<td>Hess et al., 2013</td>
<td>RCT, Single arm trial</td>
<td>United States</td>
<td>Recruited from the general communities surrounding 13 clinical sites</td>
<td>Community</td>
<td>Practice type: Not reported</td>
<td>Number of PCPs by category: Physicians (MDs or DOs) - number involved in the study: not reported</td>
<td>Types of physician practice: Not reported</td>
<td>Number of Women of all ages in the study: 567 completed RCT, 454 completed open-label study</td>
<td>Mean (SD) age of all women in the study: 56.9 (SD 13.8, range 21–90)</td>
<td>Particular type of women: Yes: ambulatory, community-dwelling women aged 18 years and older with self-reported UI</td>
</tr>
<tr>
<td>Author, Year</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
<td>Practice Type(s)</td>
<td>Number of PCPs Involved in the Study</td>
<td>Mean Age of Women in Study</td>
<td>Study Settings</td>
<td>Practice Type(s)</td>
<td>Types of Physician Practice</td>
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<tr>
<td>Loohuis et al., 2018; Loohuis et al., 2021a; van der Worp et al., 2020; Wessels et al., 2020; Wessels et al., 2021</td>
<td>RCT, Descriptive (qualitative or quantitative)</td>
<td>The Netherlands</td>
<td>northern</td>
<td>Primary care practices, Other: Some participants recruited through social and print media; those assigned to the usual care group were told to see their own PCP</td>
<td>Practice type: Not reported</td>
<td>Number of PCPs by category: Physicians (MDs or DOs) - number involved in the study: 88</td>
<td>262</td>
<td>Types of physician practice: Other: general practice</td>
<td>Number of Women of all ages in the study: 262</td>
<td>Mean (SD) age of all women in the study: 53 (NR)</td>
</tr>
<tr>
<td>Author, Year</td>
<td>Practice Type(s)</td>
<td>Number of PCPs Involved in the Study</td>
<td>Number of Women in the Study</td>
<td>Study Settings</td>
<td>Features of Care Intervention Stages Addressed by Care Intervention</td>
<td>Features of Dissemination Approach</td>
<td>Features of Implementation Approach</td>
<td>Control Randomization Process</td>
<td>Analytic Methods</td>
<td>Process Outcomes</td>
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<tr>
<td>Ngigi, 2017</td>
<td>Other: Retail clinic</td>
<td>Number of PCPs by category: Advanced practice professionals (NPs or PAs); number involved in the study: 153</td>
<td>Number of Women of all ages served by study practices: not applicable</td>
<td>Primary care practices</td>
<td>Features of care intervention: Other: screening education</td>
<td>Stages addressed by care intervention: Screening, Diagnosis</td>
<td>Features of dissemination approach: Provider/staff education; training</td>
<td>Features of implementation approach: Implement QI: adopted QI approach, engaged care team via education and training, Nurture leadership (e.g.,</td>
<td>Control: Yes; baseline Randomization Process: No</td>
<td>Analytic methods: Quantitative (e.g., clinical measures, patient surveys)</td>
</tr>
</tbody>
</table>

- Care providers, patients, or system stakeholders,
- Health outcomes (change in UI symptoms, health functioning, and/or quality of life of patients),
- Sustainability outcomes (continued dissemination or implementation of the intervention, use of the intervention by practices or providers, and/or improvement in patient care and health outcomes),
- Unintended consequences (unintended negative, positive, or spillover effects of the dissemination or implementation of the intervention on practice setting, providers, or patients)
<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Practice Type(s)</th>
<th>Number of Women in the Study</th>
<th>Mean Age of Women in Study</th>
<th>Study Design</th>
<th>Related Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schlittenhardt, Smith, and Ward-Smith, 2016</td>
<td>Not reported</td>
<td>Number of PCPs by category: Physicians (MDs or DOs): not reported, Physicians (MDs or DOs) - number involved in the study: 3 (1 PCP, 2 gynecologists), Advanced practice professionals (NPs or PAs)- number involved in the study: 2, Nurses - number involved in the study: 2, Other(s), 1 telehealth nurse, 1 telehealth coordinator</td>
<td>41</td>
<td>Descriptive (qualitative or quantitative), Other: participation by invitation</td>
<td></td>
</tr>
<tr>
<td>Country: United States</td>
<td>Locale: Not specified</td>
<td>Setting: Primary care practice, Virtual</td>
<td></td>
<td>Study design:</td>
<td></td>
</tr>
<tr>
<td>Practice type: Stress UI, urge UI, mixed UI, Other: incomplete bladder emptying, frequency</td>
<td>Features of care intervention: Other: not described</td>
<td></td>
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<tr>
<td></td>
<td>Stages addressed by care intervention: Management (treatment)</td>
<td></td>
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<tr>
<td></td>
<td>Features of dissemination approach: Other dissemination strategies: no dissemination strategy</td>
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<tr>
<td></td>
<td>Features of implementation approach: Create Care Teams: Target appropriate patients, engage with patients and families (involve patients in integrating evidence), link to community resources, support patient engagement in care: support patient engagement in care</td>
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<td></td>
<td>Control: Yes: historical comparison</td>
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<td></td>
<td>Randomization Process: No</td>
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<td></td>
<td>Analytic methods: Quantitative (e.g., clinical measures, patient surveys)</td>
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<td></td>
<td>Process outcomes: Patient adherence to treatment, Patient experience or satisfaction, Other key process outcomes</td>
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<td></td>
<td>Impact outcomes: Other key impact outcomes</td>
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<tr>
<td>Brief description of intervention:</td>
<td>Study limitations: Study involved only one small clinic, and patients were selected to participate</td>
<td></td>
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<tr>
<td>Study findings: Telehealth program resulted in improved follow-up rates, treatment plan effectiveness, patient satisfaction, and healthcare team support.</td>
<td>Authors’ Study Findings:</td>
<td></td>
<td></td>
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<tr>
<td>Author, Year</td>
<td>Related Studies</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
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<tr>
<td>Schüssler-Fiorenza Rose et al., 2015</td>
<td>Study design: Other: randomized parallel group study in single outpatient clinic</td>
<td>Country: United States</td>
<td>Locale: Wisconsin</td>
<td>Setting: Other: academically affiliated women's health internal medicine clinic</td>
<td>Practice type: Other: academically affiliated clinic</td>
</tr>
<tr>
<td>Author, Year Related Studies</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
<td>Practice Type(s)</td>
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<tr>
<td>Agnew, van den Heuvel, and Tannenbaum, 2013; Fritel et al., 2021; Tannenbaum et al., 2015, 2019</td>
<td>Study design: RCT</td>
<td>Country: Canada, France, United Kingdom</td>
<td>Locale: Not specified Setting: Community, Other: CACTUS-D Trial</td>
<td>Practice type: N/A Number of PCPs by category: Others: research assistant facilitators Types of physician practice: N/A</td>
<td>Number of women of all ages in the study: 909 Mean (SD) age of all women in the study: Intervention: 77.4 (7.8) Control: 78.6 (7.9)</td>
</tr>
<tr>
<td>Author, Year</td>
<td>Related Studies</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
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<tr>
<td>Teunissen et al., 2015</td>
<td></td>
<td>Single arm trial</td>
<td>The Netherlands</td>
<td>Eastern section</td>
<td>Primary care practices</td>
</tr>
<tr>
<td><strong>Study design:</strong></td>
<td></td>
<td><strong>Control:</strong> Yes: unclear whether comparison was baseline or a group not assigned to NPs, No Randomization Process</td>
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<tr>
<td><strong>Country:</strong> The Netherlands</td>
<td></td>
<td><strong>Analytic methods:</strong> Quantitative (e.g., clinical measures, patient surveys)</td>
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<tr>
<td><strong>Locale:</strong> Eastern section</td>
<td></td>
<td><strong>Process outcomes:</strong> Patient adherence to treatment, Patient experience or satisfaction</td>
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<tr>
<td><strong>Setting:</strong> Primary care practices</td>
<td></td>
<td><strong>Impact outcomes:</strong> Health outcomes (change in UI symptoms, health functioning, and/or quality of life of patients)</td>
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<tr>
<td><strong>Practice type:</strong> Not reported</td>
<td></td>
<td><strong>Brief description of intervention:</strong> women seen by GPs for UI were assigned to trained NP for followup and management, and outcomes were measured at three months</td>
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<tr>
<td><strong>Number of PCPs by category:</strong> Physicians (MDs or DOs) - number involved in the study: 16, Advanced practice professionals (NPs or PAs) - number involved in the study: 16, Nurses - number involved in the study: Not reported</td>
<td></td>
<td><strong>Study limitations:</strong> small number of clinics and patients; no random assignment or comparison with an untreated group</td>
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<tr>
<td><strong>Types of physician practice:</strong> Family medicine</td>
<td></td>
<td><strong>Study findings:</strong> Treatment by a trained NP had a beneficial effect on UI symptom severity and QoL compared with women who did not undergo or complete treatment.</td>
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<tr>
<td>Author, Year</td>
<td>Related Studies</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
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<tr>
<td>Barentsen et al., 2012; Visser et al., 2012, 2013, 2014, and 2015; Vermeulen et al., 2016 (The URINO Trial)</td>
<td></td>
<td>Study design: RCT</td>
<td>Country: The Netherlands</td>
<td>Locale: Northern part of the country</td>
<td>Setting: Primary care practices</td>
</tr>
<tr>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
<td>Practice Type(s)</td>
<td>Number of Women in the Study</td>
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<tr>
<td>RCT</td>
<td>Sweden</td>
<td>Locale not specified</td>
<td>Virtual</td>
<td>N/A</td>
<td>123</td>
</tr>
<tr>
<td>Author, Year</td>
<td>Related Studies</td>
<td>Study Design</td>
<td>Country</td>
<td>Locale</td>
<td>Study Settings</td>
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NOTE: BRIDGES (trial) = Bringing Simple Urge Incontinence Diagnosis & Treatment to Providers; CACTUS-D = Continence Across Continents To Upend Stigma and Dependency; DO = doctor of osteopathy; FITT = Fit between Individuals, Task, and Technology; FTF = face to face; MD = medical doctor; NL = The Netherlands; NR = standard deviation not reported; OAB-q = OAB questionnaire; PA = physician assistant; PFD = pelvic floor disorder; PPUS = Patient Perception of Urgency Scale; SD = standard deviation; UI = urinary incontinence; UUI = urge urinary incontinence; 3IQ = 3 Incontinence Questions.
Appendix C. EvidenceNOW–Focused Scan: Generic Dissemination and Implementation Tools and Materials

Table C.1 lists the generic (i.e., non–condition specific) D&I tools, materials, and publications that were summarized in Chapter 4 from prior EvidenceNOW projects on AHRQ’s public website. The entries are listed in alphabetical order by first author’s last name.

Table C.1. Generic Dissemination and Implementation Tools and Materials

<table>
<thead>
<tr>
<th>Citation (from EvidenceNOW–Focused Scan)</th>
<th>Dissemination Type</th>
<th>AHRQ Implementation Category</th>
<th>Description*</th>
<th>AHRQ EvidenceNOW Webpage (References)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abramsohn, Emily, Megan DePumpo, Kelly Boyd, Tiffany Brown, Milton F. Garrett, III, Abel Kho, Chenab Navalkha, Kelsey Paradise, and Stacy Tessler Lindau, “Implementation of Community-Based Resource Referrals for Cardiovascular Disease Self-Management,” <em>Annals of Family Medicine</em>, Vol. 18, No. 6, November 2020, pp. 486–495.</td>
<td>Practice facilitation: Community resource referral system</td>
<td>(4) Create care teams (5) Engage family and patients</td>
<td>The Midwest Cooperative describes how primary care practices implemented CommunityRx-H3, a community resource referral system that used practice facilitators to support cardiovascular disease (CVD) prevention QI. Findings revealed that staff members felt largely positive connecting patients to community resources. Factors that facilitated CommunityRx-H3 implementation included clinician “champions,” engaged practice managers, and a practice culture that valued community resources. Factors that made implementation more difficult included practices not willing to integrate the intervention into existing workflows, limited staff capacity to complete the resource inventory, and unavailability or cost of materials needed to print the resource referral list.</td>
<td>AHRQ, 2022d.</td>
</tr>
<tr>
<td>AHRQ, “Health Assessments in Primary Care,” webpage, last reviewed September 2013.</td>
<td>n/a</td>
<td>(2) Implement QI</td>
<td>Framework and evidence-based guidance for implementing health assessments in primary care: Obtaining periodic health assessments on patients provides an opportunity for primary care teams to get a snapshot on the health status and the health risks of empanelled patients. Health assessment is a process involving systematic collection and analysis of health-related information on patients for use by patients, clinicians, and health care teams to identify and support beneficial health behaviors and mutually work to direct changes in potentially harmful health behaviors. Health assessments are not intended to be diagnostic tools and they are not complete health histories; instead, they aim to be one method</td>
<td>AHRQ, undated.</td>
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</tbody>
</table>
AHRQ, "Building Quality Improvement Capacity in Primary Care," webpage, last reviewed August 2018a.

AHRQ, "A Team Approach to Documenting Electronic Health Records (EHRs)," webpage, last reviewed November 2018b.

<table>
<thead>
<tr>
<th>Citation (from EvidenceNOW–Focused Scan)</th>
<th>Dissemination Type</th>
<th>AHRQ Implementation Category</th>
<th>Description*</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHRQ, &quot;Building Quality Improvement Capacity in Primary Care,&quot; webpage, last reviewed August 2018a.</td>
<td>n/a</td>
<td>n/a</td>
<td>to engage patients in their own health, leading to better health choices and improved health behaviors in the long term.</td>
</tr>
<tr>
<td>AHRQ, &quot;A Team Approach to Documenting Electronic Health Records (EHRs),&quot; webpage, last reviewed November 2018b.</td>
<td>n/a</td>
<td>(3) Optimize health IT</td>
<td>Clinicians often report that they are overwhelmed by documenting the care they provide. This online continuing medical education (CME) module explains how to implement a team-based approach to documentation. Team documentation allows multiple staff members to complete different parts of the electronic health record to distribute work more efficiently, supporting Key Driver 3: Optimize health information systems to extract data and support use of evidence in practice and Key Driver 4: Create and support high functioning teams to deliver high-quality evidence-based care.</td>
</tr>
</tbody>
</table>

*Description provided for educational and reference purposes. For detailed information, please visit the respective AHRQ EvidenceNOW Webpages.
<table>
<thead>
<tr>
<th>Citation (from EvidenceNOW–Focused Scan)</th>
<th>Dissemination Type</th>
<th>AHRQ Implementation Category</th>
<th>Description*</th>
<th>AHRQ EvidenceNOW Webpage (References)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHRQ, “Creating Quality Improvement (QI) Teams and Plans in Primary Care,” webpage, last reviewed November 2018c.</td>
<td>n/a</td>
<td>(2) Implement QI</td>
<td>Part of an AHRQ curriculum used to train practice facilitators, this resource explains the fundamentals of building and working with quality improvement (QI) teams in primary care practices. In alignment with Key Driver 2: Implement a data-driven quality improvement process to integrate evidence into practice procedures, it discusses who should be included on a QI team (including patient and family representation), how to create a QI plan, and how Key Drivers can help with the QI process. It also includes a blank Key Driver template and QI Plan Generator that practices can use to design their own QI project. Although addressed to practice facilitators, this resource contains valuable information for practices working to improve quality on their own as well.</td>
<td>AHRQ, undated.</td>
</tr>
<tr>
<td>AHRQ, “How to Adapt Guidelines to Practice Settings,” webpage, last reviewed November 2018d.</td>
<td>n/a</td>
<td>(1) Seek evidence</td>
<td>Developed by an international committee of experts, this resource outlines a systematic approach to adapting practice guidelines produced for one setting to the needs or situation at another organization or setting. The three-phased ADAPTE approach emphasizes involving stakeholders in identifying, evaluating, adapting, and getting feedback on guidelines. Although ADAPTE's rigorous process may be better suited to large systems, smaller practices are likely to find elements of the toolkit valuable in customizing evidence to their practice's population and context, a part of Key Driver 1: Seek, select, and customize the best evidence for use by the practice.</td>
<td>AHRQ, undated.</td>
</tr>
<tr>
<td>AHRQ, “Introduction to Evidence-Based Medicine-Online Tutorial,” webpage, last reviewed November 2018e.</td>
<td>n/a</td>
<td>(1) Seek evidence (6) Nurture leadership, create culture of continuous learning</td>
<td>This online tutorial introduces health care professionals and others to the principles of evidence-based practice that uses the current best evidence combined with clinical expertise and patient values and preferences to guide care decisions. The tutorial consists of five major units and includes case studies and worksheets. This resource can help practices find and evaluate evidence related to specific clinical problems, part of Key Driver 1: Seek, select, and customize the best evidence for use by the practice. It also is a useful resource for practice leaders that are encouraging learning about evidence, a change strategy under Key Driver 6: Nurture leadership and create a culture of continuous learning and evidence-based practice.</td>
<td>AHRQ, undated.</td>
</tr>
<tr>
<td>Citation (from EvidenceNOW–Focused Scan)</td>
<td>Dissemination Type</td>
<td>AHRQ Implementation Category</td>
<td>Description*</td>
<td>AHRQ EvidenceNOW Webpage (References)</td>
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</tbody>
</table>
| AHRQ, “Primary Care Guide to Using Patient and Family Advisors,” webpage, last reviewed November 2018f. | n/a               | (5) Engage with patients and families | This practical guide shows practices how to involve patients and families in the work of primary care improvement, in support of Key Driver 5: Engage with patients and families in evidence-based care and quality improvement. By calling out the distinctive role practice leaders play in supporting and sustaining patient and family partnerships, the guide also support Key Driver 6: Nurture leadership and create a culture of continuous learning and evidence-based practice. The guide describes the:  
• Rationale for a patient- and family-centered approach to care and its core concepts.  
• 14 steps primary care practices can take to begin to create partnerships with patients and families.  
• Role of leaders and related action steps to build the infrastructure to support and sustain effective partnerships.  
• Recruitment, selection, preparation, and support of patient and family advisors (PFAs).  
Hands-on tools include:  
• Practice self-assessment  
• Worksheet to support progress  
• Sample application form for PFA  
• Suggested interview questions for selecting PFAs. | AHRQ, undated. |
<p>| AHRQ, “Tools for Forming Quality Improvement (QI) Teams That Include Patients,” webpage, last reviewed November 2018g. | n/a               | (2) Implement QI (5) Engage patients and families | This toolkit, based on the experiences of a multi-site health system, helps clinics establish multidisciplinary quality improvement (QI) teams that include patient representation. It includes information on how to identify and recruit patient partners, build a cohesive team, and test and spread successful innovations to other teams and sites. It includes step-by-step implementation guidance and practical tools, such as a sample letter to invite patients to participate on the QI team, an example of a Patient Partnership Agreement, and a Practice Improvement Team Recruitment Action Chart. | AHRQ, undated. |</p>
<table>
<thead>
<tr>
<th>Citation (from EvidenceNOW—Focused Scan)</th>
<th>Dissemination Type</th>
<th>AHRQ Implementation Category</th>
<th>Description*</th>
<th>AHRQ EvidenceNOW Webpage (References)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHRQ, &quot;Workflow Analysis for Quality Improvement (QI) in Primary Care,&quot; webpage, last reviewed November 2018h.</td>
<td>n/a</td>
<td>(2) Implement QI</td>
<td>This presentation explains how primary care practices can use workflow analysis for quality improvement in all office systems—such as scheduling, patient flow, and billing. It provides step-by-step guidance and a systems assessment tool. Practices can use these tools to involve staff in identifying processes that need improvement and for planning changes.</td>
<td>AHRQ, undated.</td>
</tr>
<tr>
<td>AHRQ, &quot;Find, Evaluate, and Use Research Evidence in Care Decisions,&quot; webpage, last reviewed June 2019a.</td>
<td>n/a</td>
<td>(1) Seek evidence</td>
<td>This resource provides step-by-step instructions for finding, evaluating, and using research evidence to make informed decisions in health care. It describes six steps to consider when gathering evidence to make a well-informed decision. This resource is included here as a possible framework for selecting and customizing evidence for practice-wide implementation.</td>
<td>AHRQ, undated.</td>
</tr>
</tbody>
</table>
| AHRQ, "Toolkit for Clinical Quality Metric Extraction," webpage, last reviewed September 2019b. | n/a | (2) Implement QI | This toolkit guides practice facilitators and primary care clinic staff in using health IT to support quality improvement. It includes the following topics:  
  - Understanding clinical quality metric basics.  
  - Choosing a data-extraction approach.  
  - Self-assessing a practice’s ability to report.  
  - Validating aggregate-level data.  
  - Creating data visualizations.  
  - Getting buy-in to use health IT.  
The toolkit instructs on how to extract data from electronic and paper information systems, validate the data, and present data graphically to show progress. | AHRQ, undated. |
| AHRQ, "Care Management—An Implementation Guide for Primary Care Practices," webpage, last reviewed November 2019c. | n/a | (4) Create care teams | This guide, based upon research on successful strategies used in practices with documented outcomes, helps primary care practices implement care management. It also helps new care managers become acquainted with the potential roles they can play on the care team. The guide includes the following chapters:  
  - What Is Care Management and Why Would My Practice Want It?  
  - Selecting the Right Care Manager and Clarifying the Care Manager Role  
  - Training the Care Manager and Practice Team | AHRQ, undated. |
<table>
<thead>
<tr>
<th>Citation (from EvidenceNOW–Focused Scan)</th>
<th>Dissemination Type</th>
<th>AHRQ Implementation Category</th>
<th>Description*</th>
<th>AHRQ EvidenceNOW Webpage (References)</th>
</tr>
</thead>
</table>
| AHRQ, “AHRQ Health Literacy Universal Precautions Toolkit,” webpage, last reviewed September 2020b. | n/a               | (4) Create care teams and patients | Help primary care practices reduce the complexity of health care, increase patient understanding of health information, and enhance support for patients of all health literacy levels. Health literacy universal precautions are the steps that practices take when they assume that all patients may have difficulty comprehending health information and accessing health services. Health literacy universal precautions are aimed at—  
- Simplifying communication with and confirming comprehension for all patients, so that the risk of miscommunication is minimized.  
- Making the office environment and health care system easier to navigate.  
- Supporting patients’ efforts to improve their health. | AHRQ, undated. |
| AHRQ, “The SHARE Approach,” webpage, last reviewed October 2020c. | n/a               | (5) Engage patients and families and (6) Nurture leadership | Collection of references, guides, posters and other resources all designed to support implementation of AHRQ’s SHARE Approach.  
- Tool 1: Essential Steps of Shared Decisionmaking: Quick Reference Guide  
- Tool 2: Essential Steps of Shared Decisionmaking: Expanded Reference Guide with Sample Conversation Starters  
- Tool 4: Health Literacy and Shared Decisionmaking: A Reference Guide for Health Care Providers  
- Tool 5: Communicating Numbers to Your Patients: A Reference Guide for Health Care Providers  
- Tool 6: Using the Teach-Back Technique: A Reference Guide for Health Care Providers  
- Tool 7: Taking Steps Toward Cultural Competence: A Fact Sheet  
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<th>Citation (from EvidenceNOW–Focused Scan)</th>
<th>Dissemination Type</th>
<th>AHRQ Implementation Category</th>
<th>Description*</th>
<th>AHRQ EvidenceNOW Webpage (References)</th>
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| AHRQ, “Will It Work Here? A Decisionmaker’s Guide to Adopting Innovations,” webpage, last reviewed February 2021. | n/a                | (1) Seek evidence (2) Implement QI | The guide helps users determine whether an innovation would be a good fit—or an appropriate stretch—for their health care organization by asking a series of questions. It links users to actionable Web-based tools and presents case studies that illustrate how other organizations have addressed these questions. Users will be able to answer the four overarching questions the Guide poses:  
• Does this innovation fit?  
• Should we do it here?  
• Can we do it here?  
• How can we do it here? | AHRQ, undated. |
| AHRQ, “Using Health Information Technology (IT) for Primary Care Quality Improvement (QI),” webpage, last reviewed April 2022a. | n/a                | (2) Implement QI (3) Optimize health IT | In this White paper, after providing background and describing our methods, we:  
• Identify specific health IT tools that can be used to support continuous QI  
• Describe factors that promote primary care practices’ use of health IT to support QI  
• Present case studies from exemplary primary care organizations to guide and assist others seeking successful use of health IT to support QI  
• Provide cross-cutting lessons learned and recommendations for primary care practices, health IT developers, and decisionmakers to alleviate barriers faced by practices seeking to use health IT to support QI. | AHRQ, undated. |
<p>| AHRQ, “Recruitment and Retention of Primary Care Practices in Quality Improvement Initiatives: A Toolkit,” webpage, last reviewed May 2022c. | Recruitment of primary care practices | (2) Implement QI | This toolkit provides guidance, tips, and examples to help support future efforts to engage practices in QI initiatives. It is our hope that groups can use the insights and tips included here (customizing them for their own needs) to make their recruitment efforts as effective and efficient as possible. These materials were developed based on work conducted for AHRQ’s EvidenceNOW: Advancing Hearth Health initiative. This initiative included seven regional cooperatives that provided QI support services to small- and medium-sized primary care practices, a national evaluation team (ESCALATES), and a technical assistance center (TAC). | AHRQ, undated. |</p>
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| American Medical Association (AMA), *Physicians’ Guide: Patient Screening, Intervention and Motivation Tools and Techniques*, 2008. | n/a | (5) Engage family and patients | After completing this activity, participants should be able to:  
• Utilize references about healthy lifestyles and behavior changes that impact patients’ lives  
• Implement strategies to assess patients’ readiness to change poor lifestyle behaviors  
• Counsel patients on lifestyle changes and provide action plans when appropriate | AHRQ, 2020a. |

Baker, Neil, Ann Lefebvre, and Cory Sevin, “A Framework to Guide Practice Facilitators in Building Capacity,” *Journal of Family Medicine and Community Health*, Vol. 4, No. 6, August 2017, 1126. | Practice facilitation: Information dissemination | n/a | A discussion from the North Carolina Cooperative of a new framework for practice facilitators to apply the most appropriate mechanism for providing information to primary care practices, with a goal of building practices’ capacity to sustain improvement in their care delivery. | AHRQ, 2022d. |

Bodenheimer, Tom, and Sharone Abramowitz, *Helping Patients Help Themselves: How to Implement Self-Management Support*, Oakland, Calif.: California HealthCare Foundation, December 2010. | n/a | (5) Engage with patients and families | This paper from the California HealthCare Foundation defines self-management support (SMS), provides case studies of primary care practices that have implemented SMS, and discusses the business case for SMS. Case studies include settings, such as primary care practices, behavioral health programs, and telephone consultations. Case studies feature SMS models that rely on the actions of nurses, medical assistants, community health workers (promotoras), and health coach volunteers. | AHRQ, 2020a. |

Chou, Ann F., Juell B. Homco, Zsolt Nagykaldi, James W. Mold, F. Daniel Duffy, Steven Crawford, and Julie A. Stoner, “Disseminating, Implementing, and Evaluating Patient-Centered Outcomes to Improve Cardiovascular Care Using a Stepped-Wedge Design: Healthy Hearts for Oklahoma,” *BMC Practice Facilitation - Continuous Support* (2) Implement QI | A stepped-wedge design was used to evaluate D&I of QI support. Changes in ABCS measures will be estimated as a function of various components of the QI support and capacity and readiness of PCPs to change. Notes from academic detailing and practice facilitation sessions will be analyzed to help interpret findings on ABCS performance. Lessons learned from this project will guide future strategies for D&I of evidence-based practices in PCPs. The authors conclude that trained practice facilitators will continue to serve as critical resource to assist small, rural PCPs in adapting to the ever-changing health environment and continue to deliver quality care to their communities. | AHRQ, 2022d. |
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<th>Citation (from EvidenceNOW–Focused Scan)</th>
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<td>Health Services Research, Vol. 18, No. 1, June 4, 2018, 404.</td>
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<td>Cykert, Samuel, Thomas C. Keyserling, Michael Pignone, Darren DeWalt, Bryan J. Weiner, Justin G. Trogdon, Thomas Wroth, Jacqueline Halladay, Monique Mackey, Jason Fine, Jung In Kim, and Crystal Cene, “A Controlled Trial of Dissemination and Implementation of a Cardiovascular Risk Reduction Strategy in Small Primary Care Practices,” Health Services Research, Vol. 55, No. 6, December 2020, pp. 944–953.</td>
<td>Practice facilitation - population management (PM) dashboard</td>
<td>(3) Optimize health IT</td>
<td>A risk-stratified, PM dashboard combined with practice facilitation led to substantial reductions of 10-year atherosclerotic CVD risk for patients at high risk. The NC Cooperative was the only one that used risk stratification and targeting of patients at higher risk as a key component of the intervention. While facilitation helped practices, leverage key changes including data base implementation, team-based protocols, EHR templates, decision support, and PM techniques, the dashboard provided risk stratification, run charts, and reports to overcome barriers of their nascent EHRs.</td>
<td>AHRQ, 2022d.</td>
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<tr>
<td>Dickinson, W. Perry, Donald E. Nease, Robert L. Rhyne, Kyle E. Knierim, Douglas H. Fernald, Dionisia R. de la Cerda, and L. Miriam Dickinson, “Practice Transformation Support and Patient Engagement to Improve Cardiovascular Care: From EvidenceNOW Southwest (ENSW),” Journal of the American Board of Family Medicine, Vol. 33, No. 5, September 2020, pp. 675–686.</td>
<td>Practice facilitation - evaluation</td>
<td>(4) Create care teams (5) Engage family and patients</td>
<td>The Southwest Cooperative examined how primary care practices can improve cardiovascular care through adoption of evidence-based guidelines. The Cooperative compared two practice transformation support interventions: standard practice support and standard support plus patient engagement support. These interventions were compared to an external group of practices that received no support. Results revealed no difference between the two interventions. However, participating practices saw greater improvement compared to the external comparison group, including improvement in team-based care, patient-team partnership, and PM in the enhanced intervention group. The authors concluded that practice transformation support can assist practices with improving quality of care, and patient engagement can further enhance practices’ implementation of new models of care.</td>
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<td>Dorr, David A., Deborah J. Cohen, and Julia Adler-Milstein, “Data-Driven Diffusion of Innovations: Successes and Challenges in 3 Large-Scale Innovative Delivery Models,” <em>Health Affairs</em>, Vol. 37, No. 2, February 2018, pp. 257–265.</td>
<td>Practice facilitation; technical assistance</td>
<td>(3) Optimize health IT</td>
<td>A paper by the Northwest Cooperative exploring barriers and solutions for diffusing data-driven innovations in primary care. The authors found that many health care organizations are using technologies necessary for health care innovation, such as electronic health records. However, for a variety of reasons, organizations encounter challenges with using data from those sources to drive innovations in care. Proposed solutions to these challenges include facilitating peer-to-peer technical assistance, providing data feedback reports to clinicians, and working with practice facilitators who are skilled in using data technology for quality improvement.</td>
<td>AHRQ, 2022d.</td>
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<tr>
<td>Goldberg, Debora Goetz, Sahar Haghighat, Sneha Kavalloor, and Len M. Nichols, “A Qualitative Analysis of Implementing EvidenceNOW to Improve Cardiovascular Care,” <em>Journal of the American Board of Family Medicine</em>, Vol. 32, No. 5, September–October 2019, pp. 705–714.</td>
<td>Practice facilitation - evaluation</td>
<td>(2) Implement QI</td>
<td>Using in-depth interviews, the Virginia Cooperative found that strengths of EvidenceNOW implementation in the region included diverse team member skills and areas of expertise, a well-received kick-off event, and a comprehensive set of practice improvement resources. Implementation challenges included recruiting primary care practices, varying types and capabilities of electronic health records, and working with practices at different transformation stages. The authors concluded that future large-scale primary care practice improvement efforts may benefit from a narrower focus on either clinical intervention or practice transformation and/or required organizational structures and processes before clinical intervention efforts start.</td>
<td>AHRQ, 2022d.</td>
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<td>Hemler, Jennifer R., Jennifer D. Hall, Raja A. Cholan, Benjamin F. Crabtree, Laura J. Damschroder, Leif I. Solberg, Sarah S. Ono, and Deborah J. Cohen, “Practice Facilitator Strategies for Addressing Electronic Health Record Data Challenges for Quality Improvement: EvidenceNOW,” <em>Journal of the American Board of Family Medicine</em>, Vol. 31, No. 3, May–June 2018, pp. 398–409.</td>
<td>Practice facilitation</td>
<td>(2) Implement QI (3) Optimize health IT</td>
<td>They found that facilitators faced practice-level EHR data challenges, such as a lack of clinical performance data, partial or incomplete clinical performance data, and inaccurate clinical performance data. Facilitators responded to these challenges, respectively, by using other data sources or tools to fill in for missing data, approximating performance reports and generating patient lists, and teaching practices how to document care and confirm performance measures. In addition, facilitators helped practices communicate with EHR vendors or health systems in requesting data they needed. Overall, facilitators tailored strategies to fit the individual practice and helped build data skills and trust. The authors conclude that support is necessary to help practices, particularly those with EHR data challenges, build their capacity for conducting data-driven QI, which is required to participate in practice transformation and performance-based payment programs.</td>
<td>AHRQ, 2022d.</td>
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<td>Institute for Healthcare Improvement and Robert Wood Johnson Foundation, <em>Partnering in Self-Management Support: A Toolkit for Clinicians</em>, Cambridge, Mass., May 2009.</td>
<td>n/a</td>
<td>(4) Create care teams (5) Engage with patients and families</td>
<td>The concepts and tools in this toolkit are intended to give busy clinical practices an introduction to a set of activities and changes that support patients and families in the day-to-day management of chronic conditions. More than a dozen tools and resources are available for experienced teams and practices that are just beginning to reorganize for patient-centered care. The toolkit combines information on how to create a continuous SMS cycle in a clinical practice. It outlines the steps for creating a practice that provides SMS to patients before, during, and after each visit. For each step, the toolkit offers tips on communicating with patients and lists numerous links to related resources.</td>
<td>AHRQ, undated.</td>
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<tr>
<td>Islam, Nadia, Erin S. Rogers, Antoinette Schoenthaler, Lorna E. Thorpe, and Donna Shelley, “A Cross-Cutting Workforce Solution for Implementing Community-Clinical Linkage Models,” <em>American Journal of Public Health</em>, Vol. 110, Supp. 2, July 2020, pp. S191–S193.</td>
<td>Practice facilitation</td>
<td>(4) Create care teams (5) Engage family and patients</td>
<td>This editorial proposes that small, independently owned practices should strategically employ practice facilitators to integrate community health workers (CHWs) into their primary care teams to support the effective implementation of community–clinical linkage models. The authors concluded that the strong evidence that CHWs are effective and practice facilitation can optimize implementation of evidence-based care models should inform decisions about future funding of practice facilitation to support CHW integration in small, independently owned practices.</td>
<td>AHRQ, 2022d.</td>
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<td>Citation (from EvidenceNOW–Focused Scan)</td>
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<td>Makelarski, Jennifer A., Megan DePumpo, Kelly Boyd, Tiffany Brown, Abel Kho, Chenab Navalika, and Stacy T. Lindau, “Implementation of Systematic Community Resource Referrals at Small Primary Care Practices to Promote Cardiovascular Disease Self-Management,” <em>Journal for Healthcare Quality</em>, Vol. 42, No. 5, September–October 2020, pp. 278–286.</td>
<td>Practice facilitation - community resources referral system</td>
<td>(5) Engage family and patients</td>
<td>The Midwest Cooperative describes the implementation of a community resource referral system in small clinical practices to reduce CVD risk. Practices completed an inventory of local CVD-related resources, which was then used to create a list of printed resources for patients. Half of the participating practices completed the inventory. The cooperative found that it was feasible to create practice-specific resources, but digital distribution was not feasible due to inconsistent use of electronic health records (EHR) systems, workflow variation, and lacking data-sharing infrastructure. The researchers concluded that successful implementation of quality improvement strategies to systematize community resource referral solutions is feasible at small practices, but more research is needed to understand what motivates small practices to participate in implementation of these solutions.</td>
<td>AHRQ, 2022d.</td>
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<td>Nguyen, Ann M., Allison Cuthel, Deborah K. Padgett, Paulomi Niles, Erin Rogers, Hang Pham-Singer, Diane Ferran, Sue A. Kaplan, Carolyn Berry, and Donna Shelley, “How Practice Facilitation Strategies Differ by Practice Context,” <em>Journal of General Internal Medicine</em>, Vol. 35, No. 3, March 2020a, pp. 824–831.</td>
<td>Practice facilitation - evaluation</td>
<td>n/a</td>
<td>The New York City Cooperative looked at how practice facilitation strategies are tailored to different primary care contexts, using interviews with practice facilitators working in small independent practices (SIPs) or FQHCs. Interviews revealed four facilitation strategies used: (1) Remain flexible to align with practice and organizational priorities, (2) Build relationships, (3) Provide value through IT expertise, and (4) Build capacity and create efficiencies. Facilitators in SIPs and FQHCs described using the same strategies, often in combination, but tailored to their specific practice environments. The authors concluded that facilitators require multidisciplinary skills to support sustainable practice improvement in different healthcare delivery settings.</td>
<td>AHRQ, 2022d.</td>
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<tr>
<td>Nguyen, Ann M., Allison M. Cuthel, Erin S. Rogers, Nancy Van Devanter, Hang Pham-Singer, Sarah Shih, Carolyn A. Berry, and Donna R. Shelley, “Attributes of High-Performing Small Practices in a Guideline Implementation: A Multiple-Case Study,” <em>Journal of Primary Care and Community Health</em>, Vol. 11, December 2020b.</td>
<td>Practice Facilitation - tools to assess readiness; assessment of practice readiness/capacity</td>
<td>n/a</td>
<td>The New York City Cooperative identified characteristics of small practices that indicated they would perform well in practice facilitation–led quality improvement interventions. The authors found three characteristics that resulted in high performance: advanced use of electronic health records, dedicated resources and commitment to quality improvement, and an actively engaged lead clinician and office manager. The authors concluded that tools to assess readiness to change, specifically for small primary care practices, may help practice facilitators better translate quality improvement intervention implementation to practices’ context.</td>
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<td>Parchman, Michael L., Melissa L. Anderson, David A. Dorr, Lyle J. Fagnan, Ellen S. O’Meara, Leah Tuzzio, Robert B. Penfold, Andrea J. Cook, Jeffrey Hummel, Cullen Conway, Raja Cholan, and Laura-Mae Baldwin, “A Randomized Trial of External Practice Support to Improve Cardiovascular Risk Factors in Primary Care,” <em>Annals of Family Medicine</em>, Vol. 17, Supp. 1, August 2019, pp. S40–S49.</td>
<td>Practice facilitation - evaluation</td>
<td>In this randomized trial, practices received either practice facilitation (PF) alone or enhanced practice support that included: PF with shared learning opportunities, PF with educational outreach visits, or PF with both shared learning opportunities and educational outreach visits. The researchers found no significant differences in clinical quality measure improvements between practices receiving only PF and those receiving enhanced support. However, they found that practices that received both shared learning opportunities and educational outreach were two times more likely to achieve a blood pressure performance goal of 70 percent compared to those receiving PF alone.</td>
<td>AHRQ, 2022d.</td>
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<td>Perry, Cynthia K., Laura J. Damschroder, Jennifer R. Hemler, Tanisha T. Woodson, Sarah S. Ono, and Deborah J. Cohen, “Specifying and Comparing Implementation Strategies Across Seven Large Implementation Interventions: A Practical Application of Theory,” <em>Implementation Science</em>, Vol. 14, 2019, article 32.</td>
<td>n/a</td>
<td>(1) Seek evidence The researchers used Expert Recommendations for Implementing Change (ERIC) to identify the implementation strategies of the seven cooperatives involved in the initiative, and specified the actor, action, target, dose, temporality, justification, and expected outcome for each. They then grouped implementation strategies by outcomes and justifications. Thirty-three ERIC strategies were used by cooperatives. The researchers identified a range of revisions to the ERIC taxonomy to improve the practical application of these strategies. They also organized ERIC implementation strategies into four functional groupings based on the way they observed how they were applied in practice. The findings suggest revisions to the ERIC implementation strategies to reflect their use in real-work dissemination and implementation efforts. The researchers conclude that the functional groupings of the ERIC implementation strategies that emerged from on-the-ground implementers will help guide others in choosing among and linking multiple implementation strategies when planning small- and large-scale implementation efforts.</td>
<td>AHRQ, 2022d.</td>
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<td>Persell, Stephen D., David T. Liss, Theresa L. Walunas, Jody D. Ciolino, Faraz S. Ahmad, Tiffany Brown, Dustin D. French, Randy Hountz, Karen Iversen, Stacy T. Lindau, Dawid Lipiszko, Jennifer A. Makeriarski, Kathryn Mazurek, Linda Murakami, Yaw Peprah, Jennifer Potempa, Luke</td>
<td>Practice facilitation - evaluation</td>
<td>(2) Implement QI The Healthy Hearts in the Heartland Cooperative compared practice facilitation implementing point-of-care (POC) quality improvement (QI) strategies alone versus facilitation implementing point-of-care plus PM (POC+PM) strategies on preventive cardiovascular care. The authors randomized 226 small and mid-sized primary care practices who worked with facilitators on QI for 12 months to implement POC or POC+PM strategies. The authors conclude that facilitator-led QI promoting PM approaches plus</td>
<td>AHRQ, 2022d.</td>
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V. Rasmussen, Andrew Wang, Jesi Wang, Chen Yeh, and Abel N. Kho, “Effects of 2 Forms of Practice Facilitation on Cardiovascular Prevention in Primary Care,” Medical Care, Vol. 58, No. 4, April 2020, pp. 344–351.


**Citation (from EvidenceNOW–Focused Scan) | Dissemination Type | AHRQ Implementation Category | Description**
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V. Rasmussen, Andrew Wang, Jesi Wang, Chen Yeh, and Abel N. Kho, “Effects of 2 Forms of Practice Facilitation on Cardiovascular Prevention in Primary Care,” Medical Care, Vol. 58, No. 4, April 2020, pp. 344–351. | Practice facilitation - data management | (3) Optimize health IT | POC improvement strategies was not clearly superior to POC strategies alone.

Pham-Singer, Hang, Marie Onakomaiya, Allison Cuthel, Samantha De Leon, Sarah Shih, Su Chow, and Donna Shelley, “Using a Customer Relationship Management System to Manage a Quality Improvement Intervention,” American Journal of Medical Quality, Vol. 36, No. 4, July–August 2021, pp. 247–254. | Practice facilitation - data management | (3) Optimize health IT | HealthyHearts New York City (HHNYC) evaluated the impact of practice facilitation on implementation of the Million Hearts guidelines for CVD prevention and treatment. Tracking the intervention required a system to facilitate process data collection that was also user-friendly and flexible. Coupled with protocols and training, a strategically planned and customizable customer relationship management system (CRMS) was implemented to support the quality improvement intervention with 257 small independent practices. Features of the CRMS and implementation protocols were customized to optimize program management, practice facilitation tracking and supervision, and data collection for performance feedback to practices and research. The CRMS was a valuable tool for tracking and managing the intervention systematically. Successful implementation of the HHNYC protocol also required an articulated implementation plan and adoption process.

Phillips, Robert L., Jr., Deborah J. Cohen, Arthur Kaufman, W. Perry Dickinson, and Samuel Cykert, “Facilitating Practice Transformation in Frontline Health Care,” Annals of Family Medicine, Vol. 17, Supp. 1, August 12, 2019, pp. S2–S5. | Practice facilitation - extension model | n/a | AHRQ has developed a similar extension model using practice facilitators and other consultants and resources to transform primary care, which is described in several supplement articles by EvidenceNOW researchers in this supplement.

Rogers, Erin S., Allison M. Cuthel, Carolyn A. Berry, Sue A. Kaplan, and Donna R. Shelley, “Clinician Perspectives on the Benefits of Practice Facilitation for Small Primary Care Practices,” Annals of Family Medicine. | Practice facilitation - teaching and hands-on support | (2) Implement QI | The Healthy Hearts New York City Cooperative interviewed 19 small SIPs about how the benefits of PF differed based on the availability of internal staff for quality improvement. Providers perceived three central PF benefits: creating awareness of quality gaps; connecting practices to information, resources, and strategies to improve care; and optimizing the EHR for quality improvement goals. SIPs with more than three office staff felt PF...
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<td><em>Shelley, Donna R., Thomas Gepts, Nina Siman, Ann M. Nguyen, Charles Cleeland, Allison M. Cuthel, Erin S. Rogers, Olugbenga Ogedegbe, Hang Pham-Singer, Winfred Wu, and Carolyn A. Berry, “CVD Guideline Adherence: An RCT Using Practice Facilitation,” American Journal of Preventive Medicine, Vol. 58, No. 5, May 2020, pp. 683–690.</em></td>
<td>Practice facilitation - evaluation</td>
<td>n/a</td>
<td>The intervention consisted of practice facilitators conducting at least 13 practice visits over 1 year, focused on capacity building and implementing system and workflow changes to meet the CVD care guidelines. The researchers conclude that increasing the impact of PF programs that target multiple risk factors may require a longer, more intense intervention and greater attention to external policy and practice contextual factors that may hinder the facilitation process and practice improvement goals.</td>
<td>AHRQ, 2022d.</td>
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<td><em>Sweeney, Shannon M., Jennifer R. Hemler, Andrea N. Baron, Tanisha T. Woodson, Sarah S. Ono, Leah Gordon, Benjamin F. Crabtree, and Deborah J. Cohen, “Dedicated Workforce Required to Support Large-Scale Practice Improvement,” Journal of the American Board of Family Medicine.</em></td>
<td>Practice facilitation</td>
<td>(4) Create care teams</td>
<td>Quality assurance strategies by cooperatives included establishing initial and ongoing training, processes to support facilitators, and monitoring to assure consistency and quality. Cooperatives developed facilitator toolkits, implemented initiative-specific training, and developed processes for peer-to-peer learning and support. The evaluation team found that supporting a large-scale facilitation workforce requires creating an infrastructure, including initial training, and ongoing support and monitoring, often borrowing from other ongoing initiatives. Few regions have facilitation organizations at this scale. The researchers conclude</td>
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<td><em>Medicine</em>, Vol. 33, No. 2, March–April 2020, pp. 230–239.</td>
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<td>that a dedicated workforce is required to support large-scale practice improvement and would be more efficient and effective than this fragmented approach to quality improvement.</td>
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<td>Ye, Jiancheng, Renwen Zhang, Jennifer E. Bannon, Ann A. Wang, Theresa L. Walunas, Abel N. Kho, and Nicholas D. Soulakis, “Identifying Practice Facilitation Delays and Barriers in Primary Care Quality Improvement,” <em>Journal of the American Board of Family Medicine</em>, Vol. 33, No. 5, September–October 2020, pp. 655–664.</td>
<td>Practice facilitation - delay/barrier identification</td>
<td>(2) Implement QI Practice facilitation is an effective approach to implementing quality improvement (QI) interventions in practice-based research networks (PBRNs). Regular facilitator-practice interactions are necessary for successful facilitation, and missed engagements may hinder the process of practice improvement. This study employs a mixed-methods approach to characterize the dynamics of practice facilitation and examine facilitation delays and barriers, as well as their association with the achievement of QI program goals in a PBRN initiative. While most facilitation activities occurred at regular, practice-specific tempos, nearly all practices experienced at least 1 delay. Practices with more delays had lower QI intervention completion rates. Practices with more delays were more likely to have encountered barriers, such as lack of time and staff, lack of staff engagement, technical issues, and staff turnover. This study is the first to quantify irregular intervals between facilitation activities and demonstrate their negative association with project completion. The analytic method can be applied to identify at-risk practices and accelerate timely interventions in future studies. Our delay detection algorithm could inform the design of a decision support system that notifies facilitators which practices may benefit from timely attention and resources.</td>
<td>AHRQ, 2022d.</td>
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*a Unless otherwise indicated in brackets, the text in this column is drawn verbatim from the cited webpage.*
Appendix D. Data Abstraction Form

The form reproduced here was revised and reformatted for use in the DistillerSR literature review software program.

Study Reference:
[Study ID] Author, Year
Additional (multiple) publications: [Study ID] Author, Year

Contextual Characteristics:
1. Country_________________
2. Locale (city, state, or region) _________________
3. Study settings: mark all that apply
   □ Primary care practices (includes clinics, offices, etc.)
   □ Community (e.g., patient homes, social services, senior centers, etc.)
   □ Virtual (e.g., telehealth, phone, etc.)
   □ Other (Describe)______________

Practice Characteristics
4. Number of primary care practices included in study _______
5. Practice types: mark all that apply
   □ Private practice
   □ Safety-net (FQHC, community health center)
   □ Other (Describe)______________
   □ Not reported
6. Practice ownership: mark all that apply
   □ For-profit
   □ Non-profit
   □ Government-state or local
   □ Government-federal (e.g., military, VA)
   □ Other (Describe)______________
   □ Not reported
7. Practice system affiliation: mark all that apply
   □ Medical group
   □ Integrated health care or hospital system
   □ Academic medical center (medical school-affiliated)
   □ VA system
   □ Other (Describe)______________
   □ Not reported
Provider Characteristics

8. Number of PCPs (leave cells blank if not reported): __

<table>
<thead>
<tr>
<th>Primary care professionals</th>
<th>Total number employed by practices in the study</th>
<th>Number involved in the intervention(s) studied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians (MDs, DOs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced practice professionals (NPs, PAs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (if specifically a focus of the study)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If Others, describe: __________

9. Types of primary care providers (i.e., physicians and advance practice professionals): *mark all that apply*
   - Family medicine
   - General internal medicine
   - Women’s health specialty
   - Geriatric medicine
   - Other (Describe) ____________
   - Not reported

Patient Characteristics

10. Total number of patients served by practices in the study: ______

11. Insurance/health plan coverage: *mark all that apply*
   - Medicare (including Medicare Advantage)
   - Medicaid
   - Private/commercial insurance (individual or group)
   - Uninsured/self-pay
   - Non-US public insurance (if study is in an OECD country)
   - Non-US private coverage (if study is in an OECD country)
   - Other (Describe) ____________
   - Not reported

12. Number of adult women patients (leave cells blank if not reported):

<table>
<thead>
<tr>
<th>Adult women patients</th>
<th>Total number served by practices in the study</th>
<th>Number involved in the intervention(s) studied</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (of all ages)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard deviation (of all ages)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If multiple settings or intervention groups, describe number per each: ________________
13. Does this study focus on any particular type of woman (e.g. post-partum, post-menopausal)?
   - Yes (Describe)________________
   - No

14. Race of adult women in the interventions(s) studied: mark all that apply
   - White
   - Black/African American
   - American Indian/Alaskan native
   - Asian
   - Hawaiian or other Pacific Islander
   - Other (Describe)______________
   - Not reported

15. Ethnicity of adult women in the intervention(s) studied: mark all that apply
   - Hispanic
   - Non-Hispanic
   - Not reported

16. Other social determinants of health (SDOH) of adult women in the intervention(s) studied:
   (Describe)___________________

17. UI types of adult women in the intervention(s) studied: mark all that apply
   - Stress UI
   - Urge UI
   - Mixed UI
   - Other (e.g. overflow, insensible) (Describe)______________
   - Not reported

**Intervention Design:**

*Notes: Intervention design includes both (a) care intervention and (b) dissemination and implementation (D&I) approach.*

The term “intervention” may refer to a care process and D&I approach, even if not implemented by the researchers/authors of the study.

**Clinical Care Intervention Components**

18. What features are included in the clinical care intervention?* mark all that apply
   - Community-based multidisciplinary teams
   - Clinical screening and treatment
     - Screening for UI
     - Treatment of underlying disease/cognitive impairment
     - Review and adjust non-incontinence medication associated with development or worsening of UI
     - Treat constipation
     - Containment products (e.g., absorbent pads, external collection devices, intravaginal devices, pessaries)
     - Urinary catheters
     - Posterior tibial nerve stimulation (PTNS)
   - Lifestyle Interventions
- Diet-Caffeine reduction
- Diet-Fluid intake
- Diet-Other
- Physical exercise
- Obesity and weight loss
- Smoking cessation

- Behavioral and Physical Therapies
  - Prompted voiding
  - Bladder Training
  - Pelvic floor muscle training (PFMT)
  - Psychological interventions

- Conservative therapy in mixed urinary incontinence

- Pharmacological management
  - Antimuscarinic/anticholinergic drugs
  - Mirabegron (beta3 agonist)
  - Drugs for stress urinary incontinence (Duloxetine)
  - Oestrogen
  - Desmopressin

- Other (Describe)________________

* Adapted from EAU Guidelines on UI, 2020; AUA/SUFU Guideline for Overactive Bladder; NICE Guidelines; AUGS Guidance.

19. What stage(s) of care does the care intervention address? *mark all that apply*
- Screening
- Diagnosis
- Management (treatment)
- Specialty referral

D&I Approach Components

20. What features are included in the dissemination approach? **mark all that apply**
- Practice facilitation/coaching (including academic detailing)
- Assessment of practice readiness/capacity for change
- On-site intervention resource/practice coordinator
- Provider/staff education & training
- Other direct technical assistance (Describe)________________
- Learning communities/collaboratives
- Other peer-to-peer learning strategies (Describe)_______________
- Accountability-Policy, program and/or contractual requirements
- Accountability-Transparency, public reporting
- Funding, payment, and/or reimbursement incentives
- Other dissemination strategies (Describe)_________________

** Adapted from the AHRQ EvidenceNOW Publications website, and Kahn et al. 2017.
21. What features are included in the implementation approach?*** mark all that apply

- Seek Evidence
  - Develop a Process to Seek New Evidence
  - Select and Customize Evidence
  - Embed in Clinical Info Systems (electronic or paper; e.g., CDS, checklists)
  - Inform Patients that Practice is Evidence-Based

- Implement QI
  - Adopt QI Approach
  - Develop QI Team
  - Engage Care Team (e.g., provider/staff education & training)
  - Select QI Measures

- Optimize Health IT
  - Create a QI Dashboard
  - Focus on Data Quality
  - Identify Data Coordinator
  - Involve Care Teams
  - Link Patients and Teams in Info System
  - Maximize EHRs
  - Use Registries and More

- Create Care Teams
  - Assign Patients to Care Teams
  - Empower Team Members
  - Engage with Evidence
  - Establish Care Teams
  - Optimize Communication
  - Participate in QI

- Engage with Patients and Families
  - Involve Patients in Integrating Evidence
  - Link to Community Resources
  - Support Patient Engagement in Care (e.g., shared decision-making)
  - Target Appropriate Patients

- Nurture Leadership
  - Create a QI Culture
  - Encourage Learning
  - Forge a Vision
  - Identify Champions
  - Review Measures
  - Support Evidence-based Practice

- Other implementation strategies (Describe)

*** Adapted from AHRQ EvidenceNOW Key Drivers and Change Strategies. For definitions, see https://www.ahrq.gov/evidencenow/tools/keydrivers/description.html?tca=Uh7at9YNy2Ex6Py8EEfBJNitZgd39c3s5co-A31x2KQ
22. Briefly describe the overall intervention (care intervention and D&I approach):
____________________________________________________________________

23. Does the study provide or reference any specific intervention tools or resources (e.g., patient or provider education materials, implementation toolkits, templates, websites, etc.)?
☐ Yes (Describe)________________
☐ No

24. Which levels of the primary care system does the overall intervention address? mark all that apply
☐ Payors
☐ Community
☐ Health care delivery system (i.e., other delivery organizations beyond primary care)
☐ Primary care practices
☐ Primary care clinicians and/or staff
☐ Families or caregivers
☐ Patients

25. What evidence base does the study give for the care intervention or D&I approach? (include key cites)
____________________________________________________________________

Study Design:

26. What was the design of the study?
☐ Randomized controlled trial (RCT)
☐ Single arm trial
☐ Prospective cohort trial (comparison but no randomization)
☐ Pre/post assessment
☐ Descriptive (qualitative or quantitative)
☐ Other (Describe)________________

27. Did the study include control or comparison condition(s)?
☐ Yes (Describe)________________
☐ No

28. Did the study include randomization (by practice, provider, and/or patients, etc.)?
☐ Yes (Describe)________________
☐ No

29. What types of methods did the study use?
☐ Qualitative (e.g., interviews, focus groups) (Describe)________________
☐ Quantitative (e.g., clinical measures, patient surveys) (Describe)________________

Outcomes:
Reach outcomes

30. What reach outcomes did the study measure or report on? mark all that apply

☐ Proportion of primary care practices in the targeted/sampled health care systems or locales that were involved in the study/demonstration of the intervention

☐ Proportion of primary care providers in the study/demonstration’s primary care practices that were involved in the intervention ****

☐ Proportion of adult women patients in the study/demonstration’s primary care practices that were involved the intervention ******

☐ Other key reach outcome(s)

☐ Not reported

**** Mark this response if, in Q8, the study reported both the total number of primary care providers (physicians and/or advanced practice professionals) employed by the practices in the study and the number of those providers involved in the intervention (even if the study did not report the proportion).

****** Mark this response if, in Q12, the study reported both the total number of adult women patients (All ages) served by the practices in the study and the number of those patients involved in the intervention (even if the study did not report the proportion).

31. Summarize the key reach outcomes for all checked above:

____________________________________________________________________

Process outcomes

32. What process outcomes did the study measure or report on? mark all that apply

Note: “intervention” refers to the care intervention and/or D&I approach, unless otherwise specified.

☐ Exposure/engagement of practices to the intervention

☐ Exposure/engagement of providers or other staff to the intervention

☐ Extent the intervention was adopted/used in practice

☐ Fidelity of intervention implementation or use to what was intended

☐ Adaptations to the intervention (before or during implementation)

☐ Feasibility of implementing or using the intervention

☐ Compatibility of the intervention to practices/care routines

☐ Barriers to disseminating/implementing the intervention

☐ Facilitators to disseminating/implementing the intervention

☐ Proportion of patients receiving specialty referrals

☐ Proportion of patients following through on specialty referrals

☐ Patient adherence to treatment

☐ Patient experience or satisfaction

☐ Other key process outcomes

33. Summarize the key process outcomes for all checked above:

____________________________________________________________________
Impact outcomes

34. What impact outcomes did the study measure or report on? **mark all that apply**

- □ **Economic outcomes** (resource use, costs, or economic outcomes of the implementation strategy or intervention for practices, care providers, patients, or system stakeholders)
- □ **Health outcomes** (change in UI symptoms, health functioning, and/or quality of life of patients)
- □ **System outcomes** (change in capacity of primary care practices to implement evidence-based care or health care systems in disseminating evidence-based care)
- □ **Sustainability outcomes** (continued dissemination or implementation of the intervention, use of the intervention by practices or providers, and/or improvement in patient care and health outcomes)
- □ **Unintended consequences** (unintended negative, positive, or spillover effects of the dissemination or implementation of the intervention on practice setting, providers, or patients)
- □ **Subgroup/equity outcomes** (differences in economic, health, system, sustainability or unintended consequences for types of practices, providers, or patients in under-resourced or marginalized populations or communities)
- □ Other key impact outcomes

35. Summarize the key impact outcomes for all checked above:

____________________________________________________________________

36. Summarize the study limitations.

____________________________________________________________________

37. Summarize the key findings.

____________________________________________________________________
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>3IQ</td>
<td>3 Incontinence Questions</td>
</tr>
<tr>
<td>AHRQ</td>
<td>Agency for Healthcare Research and Quality</td>
</tr>
<tr>
<td>CACTUS-D</td>
<td>Continence Across Continents to Upend Stigma and Dependency</td>
</tr>
<tr>
<td>CHW</td>
<td>community health worker</td>
</tr>
<tr>
<td>COVID-19</td>
<td>coronavirus disease 2019</td>
</tr>
<tr>
<td>CRMS</td>
<td>customer relationship management system</td>
</tr>
<tr>
<td>CVD</td>
<td>cardiovascular disease</td>
</tr>
<tr>
<td>D&amp;I</td>
<td>dissemination and implementation</td>
</tr>
<tr>
<td>DO</td>
<td>doctor of osteopathy</td>
</tr>
<tr>
<td>ePAQ-PF</td>
<td>electronic pelvic floor questionnaire</td>
</tr>
<tr>
<td>FQHC</td>
<td>federally qualified health center</td>
</tr>
<tr>
<td>GP</td>
<td>general practice/practitioner</td>
</tr>
<tr>
<td>HHHNYC</td>
<td>HealthyHearts New York City</td>
</tr>
<tr>
<td>ICIQ-UI SF</td>
<td>International Continence Improvement Questionnaire—Short Form</td>
</tr>
<tr>
<td>IT</td>
<td>information technology</td>
</tr>
<tr>
<td>MD</td>
<td>medical doctor</td>
</tr>
<tr>
<td>NP</td>
<td>nurse practitioner</td>
</tr>
<tr>
<td>OAB</td>
<td>overactive bladder</td>
</tr>
<tr>
<td>OAB-q</td>
<td>OAB questionnaire</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PA</td>
<td>physician assistant</td>
</tr>
<tr>
<td>PARIHS</td>
<td>Promoting Action on Research Implementation in Health Services</td>
</tr>
<tr>
<td>PBRN</td>
<td>practice-based research network</td>
</tr>
<tr>
<td>PCP</td>
<td>primary care provider</td>
</tr>
<tr>
<td>PF</td>
<td>practice facilitation</td>
</tr>
<tr>
<td>PFA</td>
<td>patient and family advisor</td>
</tr>
<tr>
<td>PFD</td>
<td>pelvic floor disorder</td>
</tr>
<tr>
<td>PFMT</td>
<td>pelvic floor muscle training</td>
</tr>
<tr>
<td>PM</td>
<td>population management</td>
</tr>
<tr>
<td>POC</td>
<td>point of care</td>
</tr>
<tr>
<td>PPBC</td>
<td>Patient Perception of Bladder Condition</td>
</tr>
<tr>
<td>PRISMA</td>
<td>Preferred Reporting Items for Systematic Reviews and Meta-Analyses</td>
</tr>
<tr>
<td>QI</td>
<td>quality improvement</td>
</tr>
<tr>
<td>QALY</td>
<td>quality-adjusted life year</td>
</tr>
<tr>
<td>RCT</td>
<td>randomized controlled trial</td>
</tr>
<tr>
<td>SD</td>
<td>standard deviation</td>
</tr>
<tr>
<td>SDOH</td>
<td>social determinants of health</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>SGLT-2</td>
<td>sodium glucose cotransporter 2</td>
</tr>
<tr>
<td>SIP</td>
<td>small independent practice</td>
</tr>
<tr>
<td>SMS</td>
<td>self-management support</td>
</tr>
<tr>
<td>StaRI</td>
<td>Standards for Reporting Implementation Studies</td>
</tr>
<tr>
<td>SUI</td>
<td>stress urinary incontinence</td>
</tr>
<tr>
<td>TAC</td>
<td>technical assistance center</td>
</tr>
<tr>
<td>TEP</td>
<td>technical expert panel</td>
</tr>
<tr>
<td>TIDieR</td>
<td>template for intervention description and replication</td>
</tr>
<tr>
<td>UI</td>
<td>urinary incontinence</td>
</tr>
<tr>
<td>UUI</td>
<td>urge urinary incontinence</td>
</tr>
</tbody>
</table>
References

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AHRQ—See Agency for Healthcare Research and Quality.


