Closing Evidence Gaps in Clinical Prevention

The United States Preventive Services Task Force (USPSTF) was commissioned to improve the health of people nationwide by making evidence-based recommendations about clinical preventive services, including screenings, behavioral counseling, and preventive medication. With scientific and technical support from the Agency for Healthcare Research and Quality (AHRQ), USPSTF has published clinical practice guidelines for more than 30 years, grading preventive services by assessing the certainty and magnitude of their net benefit. Grades do not only reflect the strength of the evidence base but also indicate if a preventive service should be offered in a clinical setting. Some preventive services receive an I statement, indicating the evidence base is insufficient for USPSTF to issue a recommendation. In both recommendations and I statements, USPSTF identifies evidence gaps and suggestions for future research.

An ad hoc committee of the National Academies of Sciences, Engineering, and Medicine was convened to evaluate evidence gaps described by USPSTF and other clinical practice guideline developers and to create a taxonomy of evidence gaps for their use in future recommendations and I statements. The committee was charged with developing a report that would improve the coordination of efforts to describe and communicate priority evidence gaps among funders and researchers. The committee was also charged with proposing new opportunities for collaboration among researchers, funders, and guideline developers to accelerate research that could close evidence gaps.

USING THE TAXONOMY

The committee approached the taxonomy and recommendations as an important component of a much larger effort for AHRQ, the National Institutes of Health’s (NIH’s) Office of Disease Prevention (ODP), and USPSTF partners and other stakeholders to improve clinical prevention research and thereby practice. Part of this approach involved developing a workflow to guide users through the evidence gaps taxonomy (see Figure 1).

The taxonomy provides a systematic way of describing evidence gaps with a clear list of categories and a controlled vocabulary for consistency across evidence reviews. By offering a list of the different classes of evidence gaps that may play a role in analyzing a preventive service, the taxonomy and accompanying workflow offer a roadmap for researchers and funders.

The taxonomy encompasses terms to identify evidence gaps and to outline a subsequent research agenda. There are three facets of evidence gaps: foundational issues, clinical and epidemiologic evidence that address the USPSTF
analytic framework, and dissemination and implementation. The committee further provides two facets of terms—prioritization and study specifications—related to the process for developing a research agenda to fill important evidence gaps. Each facet of the taxonomy was developed to be flexible and promote research, not to be overly prescriptive or limiting.

**Recommendations:**

1. For each of its recommendation statements, USPSTF should use the Clinical Prevention Research Taxonomy to identify and describe evidence gaps.

2. For each recommendation and I statement, USPSTF should indicate high-priority evidence gaps. Staff from AHRQ and ODP should broadly outline research that could address those priority gaps and be available to help funders, whether NIH or others, develop a research agenda to address them. USPSTF and staff from AHRQ and ODP should consult partner organizations and stakeholders as needed.

3. NIH and AHRQ should make the taxonomy accessible on their websites and integrate the taxonomy terms and phrases in their relevant publications, including but not limited to USPSTF recommendation statements, funding announcements, and grant and contract awards.

**FOSTERING CLINICAL PREVENTION RESEARCH**

The committee was asked to propose ways for prevention research funders and recommendation statement developers to enhance their partnership to accelerate research to close important gaps in prevention. A robust and relevant clinical prevention research agenda requires funding, funding requests that are clear and clearly linked to USPSTF research needs, and appropriate mechanisms for and oversight of funded research. As such, the committee provides recommendations regarding the funding and commissioning of clinical prevention research.

**Recommendations:**

4. Funders, particularly NIH and the Patient-Centered Outcomes Research Institute (PCORI), should set aside funding to address high-priority evidence gaps identified by USPSTF.

5. NIH staff developing funding announcements for research related to high-priority evidence gaps should consult AHRQ and ODP to ensure appropriateness of support mechanisms and fidelity to research specifications and should include a link to the research needs document on the USPSTF website.

6. NIH and other funders addressing high-priority evidence gaps should use funding mechanisms and processes that can ensure research is conducted expediently, efficiently, and with fidelity to specified research needs, rather than waiting for such research needs to be addressed predominantly through investigator-initiated grant mechanisms.
ADVANCING THE WORK OF USPSTF

The committee makes recommendations intended to enhance and advance the work of USPSTF in order for it to provide as many definitive recommendations for practice as possible and to ensure that the recommendations lead to improved health of the target population.

Recommendations:

7. AHRQ should fund research in how guideline developers assess evidence and issue clinical practice guidelines, including how the decision of “insufficient evidence” is made and how a committee decides which research gaps are the key.

8. AHRQ should work with relevant government agencies and key stakeholders to evaluate how effectively USPSTF recommendations are implemented in real-world settings and identify and address gaps in achieving the intended benefits.