## Appendix 2. TMCP Description

**TMCP Rationale**

The Teachable Moment Communication Process (TMCP) is a communication strategy designed to engage patients in efficient discussions with their providers about quitting smoking. Grounded in primary care research and communication theory, the TMCP enables clinicians to attend to their patient's concerns while guiding the discussion to focus on assessing, and being responsive to, the patients' readiness to quit smoking. This strategy both identifies and refines the process through which teachable moments unfold naturally. The TMCP provides pragmatic, feasible methods for eliciting a patient's readiness to quit using tobacco, and for responding in a way that is appropriate and aligned with that readiness. TMCP enables clinicians to leverage patients' own concerns in a tailored, partnership-oriented, and efficient health behavior change discussion that is integrated into the flow of patient care.

**TMCP process**

TMCP has 5 main communication elements in which a clinician: 1) identifies a patient's salient concern, 2) links the concern to tobacco use, 3) provides brief cessation advice, 4) assesses the patient's readiness to quit, and 5) responds in alignment with the patient's readiness. In providing brief cessation advice, TMCP calls for clinicians to convey concern, express optimism and partnership, and recommend quitting tobacco. The goal of this approach is to improve the likelihood of positive patient behavior change while also maintaining the clinical relationship between provider and patient.

A central aspect of this teachable moment approach is eliciting an honest assessment of the level of readiness for cessation from the patient, and responding with assistance that is aligned with the patient's readiness. The approach draws on other health behavior change strategies including solutions focused therapy and motivational interviewing. The TMCP is distinct in that it is very brief and is designed for a context where discussing smoking is not the primary reason bringing the clinician and the patient together. Further, with the TMCP, the way in which the smoking talk is initiated is opportunistic and fits the flow of addressing multiple problems during a primary care visit.

**TMCP intervention**

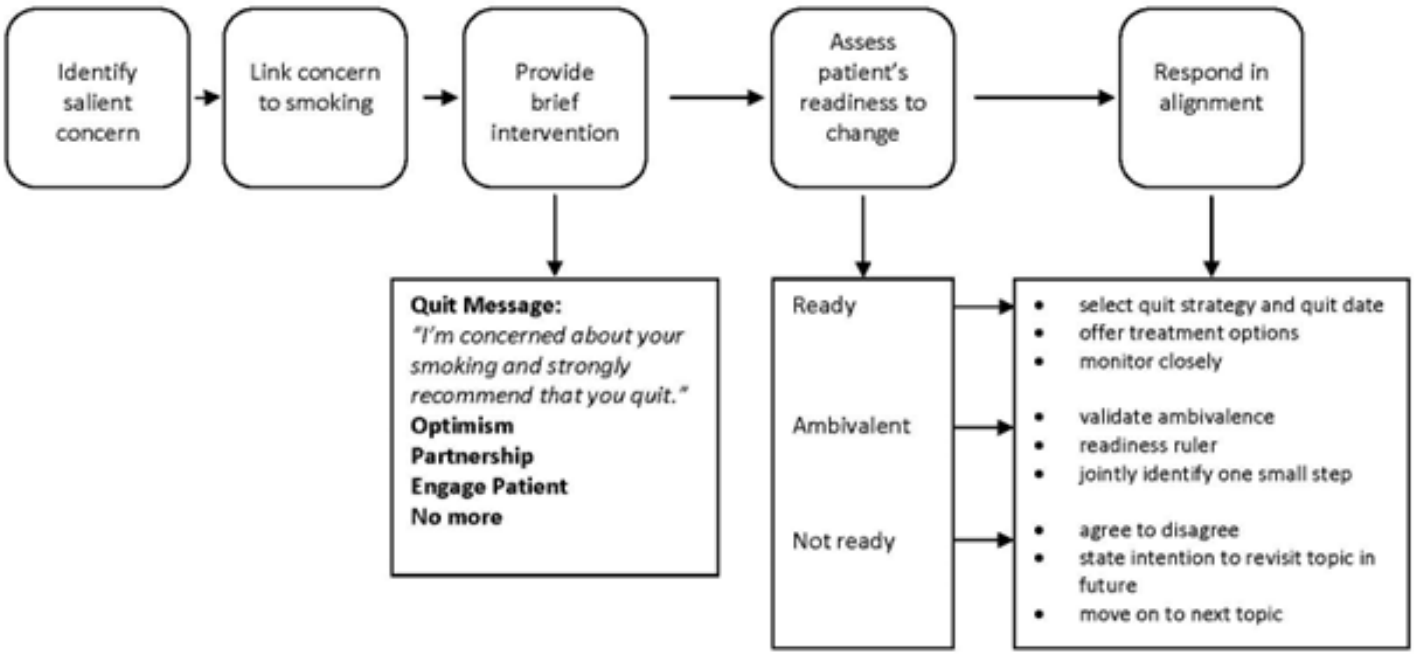
The TMCP intervention format consisted of a 50-minute web-based training module, which clinicians completed in their offices at computer terminals, followed by 90 minutes of skills practices with Standardized Patients (SPs), which took place in the practices' exam rooms.

***Web-Module:*** The research team developed the script for the training and worked with a production company to create a video module consisting of didactic content, actor-portrayed examples of provider-patient interactions, and self-assessments of learning. The content of the module was based on previous research in which the TMCP intervention was implemented in person over two, 3-hour sessions. A standardized teaching guide had been developed to ensure fidelity over multiple interventions, and this guidebook provided the template for the training module content.

The TMCP consists of five elements. It begins with identifying a patient's salient concern, and then linking this concern to smoking behavior. Smoking is portrayed as germane to the patient's salient concern and as problematic. Next, the clinician provides a brief quit message that conveys concern for the patient: 'I'm concerned about your smoking and strongly recommend that you quit'. This is followed by OPEN, a mnemonic representing Optimism, Partnership, Engage, and No more (i.e., stop and listen to what the patient has to say). OPEN information is presented in a sentence or two that includes an expression of optimism that the patient is able to quit and offers the clinician's partnership towards this end. Engaging the patient involves asking an open-ended question about the patient's thoughts about quitting smoking, and encourages the patient to reveal their level of readiness in the patient's own words. Finally, responding in alignment with the patient's expressed readiness to change increases the likelihood that the clinician's response and proposed plan are acceptable to the patient, and reinforces a positive partnership. The goals of responding in alignment for someone who is ready to change included jointly identifying a quit strategy and a quit date, and monitoring closely through phone calls or office visits. For the patient who is ambivalent about change, the goals are to validate the ambivalence that the patient feels about changing behavior and jointly identify one next small step. For the patient who is not ready to quit, the goal is simply to maintain a relationship that facilitates future discussion about smoking. The overall approach

promotes a brief yet effective technique for discussing smoking cessation that both protects and takes strategic advantage of a positive clinician-patient relationship.

Schematic of the Teachable Moment Communication Process.




***Training standardized patients:*** The study team recruited and trained standardized patients (SPs), all of whom had prior SP experience. SP training involved an overview of the TMPC intervention objectives and format, and focused training on the concepts of a salient concern and levels of readiness to change. The bulk of instruction centered on enactment of patient scenario scripts where the SPs were required to convey a salient concern and a specific level of readiness to change. Scripts for the key elements of the cases were developed, read out loud, refined and then rehearsed using role play with a trainer.

***Development of cases:*** Scenarios were based on actual primary care cases from a previous study conducted by the primary investigator. Scenarios were designed to highlight a reason for the visit, a salient concern (which could be different from the main reason for the visit), and a

level of readiness to change smoking. More than 25 cases were developed and 14 were ultimately selected and used for the intervention.

**TMCP implementation**

***The web module*** taught clinicians: (1) the skills necessary to recognize and foster teachable moments in clinical encounters, (2) strategies to effectively elicit the patients' perspective on health behavior change, and express their alignment with that perspective, and (3) the ability to respond to the patient in a non-confrontational manner while providing brief advice appropriate to the patient's expressed level of readiness to change.

***Skills Practice:*** Following the completion of the web-module, the providers re-grouped with the research team to 1) debrief about the training module 2) introduce the skills practices. Skill practices were included in the intervention as a way to learn behavioral enactment of each skill. Skill practices took place in the exam rooms at the intervention clinic, and involved the provider, a training coach, and an SP working together. The SP had been trained to present a specific, realistic scenario to the participant that highlighted each TMCP component in order of presentation. The participant was provided information about the SP's character, such as age, sex, and smoking history. Both participant and SP were instructed as to the objective of the reenactment. The training coach's role was to observe, keep the task was on track, and provide feedback to the participants. Trainers used a checklist of TMCP skills as a guide for providing additional insight. After each skill practice, the training coach and SP rotated to the next room to work with the next clinician. This process repeated, rotating through 6-8 new scenarios.

***EHR with Test Patients:*** As part of the skills practices, in an effort to create a more realistic experience, 'test patients' were created within the EMR for each SP visit.