



Measure Fact Sheet – The AHRQ-CMS Pediatric Quality Measures Program (PQMP)

Measure: Tobacco Use and Help with Quitting Among Adolescents

Measure Developer: National Collaborative for Innovation in Quality Measurement (NCINQ) at the National Committee for Quality Assurance

Numerator	Denominator	Exclusions	Data Source(s)
<p>Adolescent patients with documentation that the adolescent is not a tobacco user, or the adolescent is a tobacco user and any of the following:</p> <ul style="list-style-type: none"> – Advice given to quit smoking or tobacco use. – Counseling on the benefits of quitting smoking/tobacco use. – Referral to external smoking/tobacco cessation support programs. – Current enrollment in smoking or tobacco use cessation program. 	<p>Adolescents who turn 12 through 20 years of age during the measurement year.</p>	<p>Numerator: None. Denominator: None.</p>	<p>Paper or electronic medical record.</p>

Measure Importance

- More than 2.6 million adolescents 18 years of age and younger currently use tobacco, with nearly one-fifth of all adolescents becoming smokers before finishing high school.^{1,2}
- Early tobacco use (primarily smoking) often continues into adulthood, leading to serious and costly diseases such as lung cancer, heart disease, and emphysema.
- Tobacco use can also lead to immediate health concerns in otherwise healthy adolescents, including increased heart rate, higher blood pressure, and shortness of breath.³
- Clinicians' asking about smoking and giving advice to quit can be an important motivator in helping adolescents quit smoking. Current clinical guidelines from the U.S. Public Health Service and an expert consensus statement from Bright Futures⁵ recommend that providers ask child and adolescent patients about



tobacco use and, if a patient is positively identified as a smoker/tobacco user, provide anticipatory guidance to both patients and family members/caregivers on cessation.

- Screening or counseling is not routinely offered during primary care visits.^{4,6}

Advantages of the Measure

- Complements adolescent well-care measures in the Child Core Set.⁷
- Complements clinical practice guidelines.
- Is specified for use in electronic health records (EHRs).

Levels of Aggregation Applicable to the Measure⁸

- This measure is intended for aggregation at the practice site, health care provider, health plan, and State levels.

Reliability and Validity of the Measure

- Inter-rater reliability between manual reviewers of medical records was high for most data elements, including documentation of smoking status; however, missing data prevented calculating Kappa scores for all elements relevant to this measure.
- In a comparison of manual EHR review versus automated EHR data extracts for the same sample of adolescents, the Kappa score was moderate (Kappa = 0.52) for the proposed measure.
- The measure has face validity.
- Known-groups validity varied by site.

Selected Results from Tests of the Measure

- Based on manual review of the EHR, the overall performance rate on this measure was 61.6 percent, with a range of 44.5 to 85.3 percent across three sites.
- Rates of tobacco use and help with quitting varied by race/ethnicity and insurance type, but those differences appear to be attributable to differences across sites in measure performance.
- Tobacco use and help with quitting were similar among adolescents with one or more chronic conditions (63.5 percent) and those without chronic conditions (61.1 percent).

Issues to Consider

For this measure, potential issues include the following:

- Concerns with confidentiality – Adolescents may be unwilling to share information about this topic in the presence of a parent/caregiver.

- Limited treatment options for adolescents – Most tobacco cessation medications are indicated for adults only.
- Lack of standardization among EHR data elements.

More Information

- AHRQ: CHIPRAqualitymeasures@ahrq.hhs.gov
- NCINQ: Sarah Scholle, Scholle@ncqa.org
- Coming soon: Link to measure details on the AHRQ Web site.

For more information about the PQMP, visit www.ahrq.gov/chipra.

References

¹National Survey on Drug Use and Health (NSDUH). 2010 National Survey on Drug Use and Health data. <http://oas.samhsa.gov/NSDUH/2k10NSDUH/tabs/Sect2peTabs17to21.pdf>

²University of Michigan, Monitoring the Future Study, 2011. <http://www.monitoringthefuture.org/data/11data/pr11cig1.pdf>

³Campaign for Tobacco-Free Kids. 2011. Health Harms from Smoking and Other Tobacco Use. <http://www.tobaccofreekids.org/research/factsheets/pdf/0194.pdf>

⁴Fiore, MC., Jaén, CR, Baker TB, et al. Treating tobacco use and dependence: 2008 update. Clinical practice guideline. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service; 2008. Available at <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat2.chapter.28163>.

⁵Hagan JF, Shaw JS, Duncan PM, eds. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, Third Ed. Elk Grove, IL: American Academy of Pediatrics; 2008.

⁶Ending the tobacco problem: resources for local action. Health care providers discouraging smoking. Washington, DC: Institute of Medicine; 2012. http://sites.nationalacademies.org/Tobacco/Smoking/Cessation/Tobacco_051285

⁷Centers for Medicare & Medicaid Services. CHIPRA Initial Core Set of Children’s Health Care Quality Measures. <http://www.medicare.gov/Medicare-CHIP-Program-Information/By-Topics/Quality-of-Care/CHIPRA-Initial-Core-Set-of-Childrens-Health-Care-Quality-Measures.html>

⁸The Children’s Health Insurance Program Reauthorization Act required measures developed under this program to “permit comparison of quality and data at a State, plan, and provider level.” The measure developer identified the intended levels of aggregation and comparison as reported here.

The Children’s Health Insurance Program Reauthorization Act (CHIPRA) called for establishment of a Pediatric Quality Measures Program (PQMP) as a followup to identifying the initial core set of children’s healthcare quality measures. This measure fact sheet was produced by the Agency for Healthcare Research and Quality based on information provided by the AHRQ-CMS CHIPRA National Collaborative for Innovation in Quality Measurement (NCINQ) at the National Committee for Quality Assurance, which was funded by an AHRQ-CMS award. A listing of all submitted CHIPRA Centers of Excellence measures can be found at www.ahrq.gov/chipra. All CHIPRA COE-developed measures are publicly available for noncommercial use.



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