

Quality Improvement Programs Relevant to Tobacco Dependence Treatment

Background – The Health Care Landscape

Many aspects of the current health care regulatory and policy environment in the United States mandate and/or incentivize clinicians and health care systems to identify, document, and treat patients who use tobacco. Chief among these initiatives is the 2009 Health Information Technology for Economic and Clinical Health (HITECH) Act, which calls for the provision of incentives to clinicians and hospitals that adopt and demonstrate the “meaningful use” of electronic health record (EHR) systems. Meaningful Use (MU), now called Promoting Interoperability (PI), was designed to change health care delivery based on quality performance measures to achieve better care, healthier patients, and reduced costs. This includes *documentation of and cessation intervention treatments for patients who use tobacco*. In addition, the 2010 Patient Protection and Affordable Care Act (ACA) requires non-grandfathered private health plans to cover without cost-sharing evidence-based preventive services, including tobacco cessation. In addition, in 2012, The Joint Commission (TJC) strengthened inpatient quality performance measures to identify and intervene with hospitalized patients who use tobacco. Finally, health care payment reform is driving change in the health care landscape with a shift from measuring the quantity of patients seen and services delivered to measuring and documenting the quality of care provided to patients (value vs. volume). One example of payment reform is Accountable Care Organizations (ACO), which involve physicians, hospitals, and clinicians working together to provide coordinated, high-quality care that is patient-centered. A list of tobacco-related provisions of the ACA can be found in Appendix 1.

Several examples of the policy and regulatory forces driving the adoption and utilization of EHRs to identify and document tobacco use in patients and to provide and document cessation treatment interventions include:

- Promoting Interoperability (PI). Formerly The Medicare and Medicaid Electronic Health Record Incentive Programs, commonly referred to as “Meaningful Use” (MU)
- The Quality Payment Program (QPP): Merit-based Incentive Payment System (MIPS), Advanced Payment Models (APMs)
- The Patient Protection and Affordable Care Act (ACA)
- The Joint Commission (TJC)
- The Inpatient Prospective Payment System (IPPS)
- The National Quality Forum (NQF)
- The United States Preventive Services Task Force (USPSTF)
- The National Committee for Quality Assurance (NCQA)

What follows are very brief summaries of the major components and goals of each of these complex policy and regulatory forces. While clinics and hospitals typically prioritize assessing and documenting tobacco use among patients, they often place a lower priority on the delivery and documentation of tobacco cessation interventions.

National and Federal Regulations and Policies That Include the Assessment of Tobacco Use and the Delivery of a Cessation Treatment Intervention

Please note the following acknowledged discrepancies within the Federal Regulations, Policies, and Performance Measurement Programs described in this section:

- Promoting Interoperability (formerly The Medicare and Medicaid Electronic Health Record Incentive Programs (Meaningful Use)) tobacco-related required core measure uses the term *smoking* and *13 years and older* for the required core measure of the programs. Concurrently, for the tobacco-related clinical quality measure the term *tobacco use* and *18 years and older* is used. Because the clinical quality measure includes medication treatment, *18 years and older* is used.
- In the other quality and performance programs described below the term *tobacco use* and *18 years and older* is used.

Medicare and Medicaid Promoting Interoperability Programs (<https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html>)

Formerly The Medicare and Medicaid Electronic Health Record Incentive Programs, commonly referred to as “Meaningful Use” (MU) (<https://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives>)

The Centers for Medicare & Medicaid Services (CMS) is dedicated to improving interoperability and patients’ access to health information. To better reflect this focus, CMS has renamed the EHR Incentive Programs to the Promoting Interoperability (PI) Programs. One goal of PI is to streamline the EHR Incentive Programs to reduce the time and cost required of providers to participate. To find out more on how this affects Medicare eligible clinicians participating in the Promoting Interoperability (formerly Advancing Care Information) performance category of the Merit-based Incentive Payment System (MIPS), visit the Quality Payment Program (QPP) website at <https://qpp.cms.gov/>.

The federally funded Meaningful Use (MU) EHR Incentive Program (now Promoting Interoperability (PI)) that began in 2011, has served as one of the most important drivers of health care system change in the United States. Through CY 2015, 87% of office-based physicians had adopted an EHR, up from 42% in 2008. In addition, as of 2016, over 60% of eligible physicians and more than 95% of eligible hospitals have achieved meaningful use of certified health information technology. Finally, through July 2018, nearly 650,000 eligible providers and hospitals have received over \$38 billion in MU/PI incentive payments through Medicare and Medicaid reimbursement for adopting certified EHR technology and for using EHRs to achieve specified performance and technology objectives. (<https://dashboard.healthit.gov/quickstats/quickstats.php>; https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Downloads/July2018_SummaryReport.pdf)

For each stage of MU, now Promoting Interoperability (PI), multiple performance measures must be met to achieve PI/MU. Asking about and documenting “smoking status for patients 13 years old or older” is a core, required measure in the PI/MU Program. PI/MU goes beyond tobacco use identification by including a recommended tobacco cessation Clinical Quality Measure (CQM). The PI/MU CQM for tobacco cessation was required in Stage 1, and is “recommended” for Stages 2 and 3. Eligible Providers (EPs) must report on 9 of 64 total CQMs and Hospitals must report on 9 of 16 total CQMs. One CQM that Eligible Providers and Hospitals can select to report is, “Tobacco Use Screening and Cessation Intervention.” Table 1 summarizes the required, core “Record Smoking Status” PI/MU measure as well as the recommended Tobacco Cessation Intervention CQM for stages 1, 2, and 3.

Table 1. Promoting Interoperability/Meaningful Use: Record Smoking Status and Tobacco Use Intervention Clinical Quality Measure for Eligible Professionals (EPs)/Hospitals

	Stage 1 Core Objective (required)	Stage 1 Core Measure	Stage 2 Core Objective (required)	Stage 2 Core Measure	Stage 3 Proposed and Pending
Meaningful Use of Electronic Health Records	Record smoking status for patients 13 years old or older	More than 50% of all unique patients 13 years or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data	Record smoking status for patients 13 years old or older	More than 80% of all unique patients 13 years or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data	Smoking status still required, but does not have to be reported for Meaningful Use attestation. New Clinical Quality Measure “Recommended” for Eligible Professionals - Closing the Referral Loop: Receipt of Specialist Report
	<p align="center">Clinical Quality Measures (All Stages of MU)</p> <p align="center">One of nine “Recommended” for Eligible Professionals (no tobacco intervention measure for Hospitals)</p> <p>Tobacco Use: Screening and Cessation Intervention. Percentage of patients 18 and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user OR who were documented as a tobacco non-user</p> <p align="center"><small>https://www.healthit.gov/providers-professionals/achieve-meaningful-use/core-measures-2/record-smoking-status</small></p>				

Note: To be certified, an EHR must enable a user to electronically record, modify, and retrieve the smoking status of a patient. Smoking status types include: current every day smoker; current some day smoker; former smoker; never smoker; smoker, current status unknown; and unknown if ever smoked.

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) (<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html>)

In October 2016, the U.S. Department of Health and Human Services (DHHS) issued its final rule implementing the **Quality Payment Program (QPP)** (<https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program.html>) that is part of the **Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)** (<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html>). The QPP began January 1, 2017 and reforms Medicare payments for more than 600,000 clinicians via two tracks: **Merit-based Incentive Payment System (MIPS)** or **Advanced Alternative Payment Models (APMs)**. For MIPS, you can participate if you bill more than \$90,000 to Medicare and provide care to more than 200 Medicare patients per year, and are a: Physician, Physician Assistant, Nurse Practitioner, Clinical Nurse Specialist, Certified Registered Nurse Anesthetist, Clinical Psychologist, Physical Therapists, Occupational Therapists, Qualified Speech-Language Pathologists, Qualified Audiologists, Registered Dietitians and Nutrition Professionals. To qualify for the up to 7% 5% APM incentive payment, clinicians must see more than 200 Medicare patients each year through an Advanced APM or bill more than \$90,000 to Medicare through an Advanced APM (<https://qpp.cms.gov/>). **Tobacco Use: Screening and Cessation Intervention (National Quality Forum Performance Measure 0028, CMS QPP ID 226, and CMS eMeasure ID CMS138)** is one of the QPP performance quality measures.

The Patient Protection and Affordable Care Act (ACA) (<http://www.hhs.gov/healthcare/about-the-law/read-the-law/>)

The landmark Affordable Care Act (ACA) was signed into law in 2010. With various components implemented from 2010 through 2016, the law seeks to substantially increase the number of Americans with health insurance, and requires major shifts in the way health care is practiced in the United States. Among these changes is a shift to reimbursing doctors and hospitals based on the quality of care that they provide and the outcomes of this care, as opposed to paying them a set fee for services provided. Importantly, the ACA mandates and incentivizes wide implementation of Information Technology (IT) infrastructure in health care. Finally, ACA requires non-grandfathered private health plans to cover evidence-based preventive services, including tobacco cessation (Appendix 1) (<http://www.lung.org/stop-smoking/tobacco-control-advocacy/reports-resources/2012/factsheet-tobacco-related-provisions-of-the-aca.pdf>).

Inpatient Prospective Payment System (IPPS) (<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/index.html>)

IPPS is an inpatient quality reporting mechanism by which CMS incentivizes compliance with key performance goals by withholding a proportion of federal Medicare reimbursement. CMS adopted (2016-2017) compliance with all **three Joint Commission tobacco performance measures** as part of IPPS for *Inpatient Psychiatric Facilities* (IPF). In CMS's 2018 Final Rule, TOB 1 was removed from mandatory reporting for the IPS Program and TOB 2 and TOB 3 were retained. CMS is considering adding compliance with **The Joint Commission tobacco performance measures** as part of IPPS for *General Hospitals*

The Joint Commission (TJC) (https://www.jointcommission.org/core_measure_sets.aspx)

On January 1, 2012, The Joint Commission (TJC) released updated tobacco cessation performance measures for hospitals.

- Performance Measure TOB 1: **Tobacco Use Screening of patients 18 years and over**
- Performance Measure TOB 2: **Tobacco Use Treatment, including Counseling & Medication during Hospitalization**
- Performance Measure TOB 3: **Tobacco Use Treatment Management Plan at Discharge**

These measures are the most powerful and comprehensive inpatient tobacco cessation clinical mandates to date, requiring identification and documentation of tobacco use status for all patients age 18 and older and provision of evidence-based cessation counseling and medication during hospitalization and again at discharge for all identified tobacco users, a plan or referral at discharge for evidence-based cessation (Appendix 2). As of the date of this document's publication, The Joint Commission tobacco cessation performance TOB 1 and TOB 2 measures are required for inpatient psychiatric facilities (IPF). The tobacco measures are still voluntary for general acute-care hospitals, which must select and report 4 of 14 available Joint Commission performance measures, of which the tobacco cessation measure set is one.

National Quality Forum (NQF) (http://www.qualityforum.org/Measures_Reports_Tools.aspx; <http://www.qualityforum.org/QPS/QPSTool.aspx>)

The National Quality Forum (NQF) is a nonprofit, nonpartisan, public service organization that reviews, endorses, and recommends use of standardized health care performance measures. Performance measures, also called quality measures, are essential tools used to evaluate how well health care services are being delivered. NQF endorsement of national consensus standards for measuring and publicly reporting on health care performance is an important element of health care reform. The NQF-endorsed "Tobacco Use Screening and Cessation Intervention" (NQF Number 0028) performance measure is used in a number of quality measure programs, including Promoting Interoperability/Meaningful Use; the Medicare Shared Savings Program; CMS' Accountable Care Organization (ACO) Program; and the Physician Quality Reporting System (PQRS). (Appendix 3)

The United States Preventive Services Task Force (USPSTF)

<http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1?ds=1&s=tobacco>

Created in 1984, the U.S. Preventive Services Task Force is an independent, volunteer panel of non-Federal national experts in prevention and evidence-based medicine. The Task Force reviews the scientific evidence and makes evidence-based recommendations about clinical preventive services such as screenings, counseling services, and medications. Tobacco use identification and cessation intervention treatment received the USPSTF's highest recommendation, an "A", in 2015. The ACA requires that all non-grandfathered private insurance plans cover preventive services, without cost to the patient, that receive an 'A' or 'B' rating from the USPSTF. (Appendix 4)

National Committee for Quality Assurance (NCQA) (<http://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality/2015-table-of-contents/smoking-cessation>)

The National Committee for Quality Assurance is a private, 501(c)(3) not-for-profit organization dedicated to improving health care quality. The NCQA develops quality standards and performance measures for a broad range of health care entities. One NCQA tool is the Healthcare Effectiveness Data and Information Set (HEDIS), which is used by more than 90 percent of America's health plans to measure performance on delivery of care and services, including tobacco use and cessation. (Appendix 5)

Appendix 1: Affordable Care Act Tobacco-Related Provisions



Tobacco-Related Provisions of the Affordable Care Act

Employer-Sponsored Insurance

	Section & Page Number	Implementation Date	More Details
Preventive Services Coverage	Sec. 1001 (new section 2713 of the Public Health Services Act); pgs. 13-14 of H.R. 3590	September 23, 2010	<ul style="list-style-type: none"> Requires health insurance plans to cover preventive services at no cost to the patient Applies to all new plans created since March 2010 Required preventive services include all services given an 'A' or 'B' rating by the U.S. Preventive Services Task Force Tobacco cessation services are included, but HHS has not defined which medications and/or counseling are included in the requirement. Therefore insurance plans currently have a lot of flexibility in meeting this requirement

State Health Insurance Exchanges

	Section & Page Number	Implementation Date	More Details
Essential Health Benefit	Sec. 1302; pgs. 45-50 of H.R. 3590	January 1, 2014	<ul style="list-style-type: none"> Requires all individual and small group plans (inside and outside state health insurance exchanges) to cover an Essential Health Benefit, which is to be defined by the Secretary of Health and Human Services (HHS) Includes a list of ten categories of coverage required in the Essential Health Benefit – including prevention and wellness services and chronic disease management, which should include tobacco cessation treatments HHS has instructed each state to choose a benchmark plan to serve as its Essential Health Benefit. The benchmark plan must include coverage of 'A' and 'B' rated preventive services, which includes tobacco cessation – however, this requirement is undefined.

Insurance Premiums	Sec. 1201 (new section 2701 of the Public Health Service Act); pgs. 37-38 of H.R. 3590	January 1, 2014	<ul style="list-style-type: none"> • Lists four factors health insurance companies are allowed to vary premium costs based on. One of these factors is tobacco use • Health insurance companies will be able to charge a tobacco user up to 50 percent more in premiums than non-tobacco users. This could mean thousands of dollars in additional costs for tobacco users • In a proposed rule released November 26, 2012, HHS proposed that insurance companies varying premiums based on tobacco use must offer tobacco users the non-user rate if they participate in a wellness program and try to quit.
--------------------	--	-----------------	--

Medicaid

	Section & Page Number	Implementation Date	More Details
Essential Health Benefit	Sec. 2001; pgs. 153-161 of H.R. 3590	January 1, 2014	<ul style="list-style-type: none"> • All Medicaid recipients newly eligible to enroll under the Affordable Care Act must have coverage for an Essential Health Benefit • This Essential Health Benefit is to be defined by the Secretary of Health and Human Services (HHS) • In a letter to state Medicaid Directors released November 26, 2012, HHS indicated that states will choose their Medicaid benchmark plan, which will then become the Essential Health Benefit for new Medicaid enrollees.
Tobacco Cessation Medications Coverage	Sec. 2502; pg. 192 of H.R. 3590	January 1, 2014	<ul style="list-style-type: none"> • Medicaid programs will no longer be able to exclude tobacco cessation medications from their prescription drug coverage • Unclear as to whether this provision requires coverage of all seven tobacco cessation medications, or just some.
Tobacco Cessation Coverage for Pregnant Women	Sec. 4107; pgs. 442-443 of H.R. 3590	October 1, 2010	<ul style="list-style-type: none"> • Requires all state Medicaid programs cover a comprehensive tobacco cessation benefit for pregnant women at no cost to the patient

			<ul style="list-style-type: none"> The Centers for Medicare and Medicaid Services (CMS) provided guidance on implementing this provision in a June 2011 letter.
Incentive for Covering Preventive Services	Sec. 4106; pgs. 441-442 of H.R. 3590	January 1, 2013	<ul style="list-style-type: none"> States that cover all preventive services rated an 'A' or 'B' by the U.S. Preventive Services Task Force will receive a one percentage increase in its federal Medicaid matching funds Tobacco cessation services are included in the list of 'A' rated services
Pilot Projects on Preventing Chronic Disease	Sec. 4108; pgs. 443-446 of H.R. 3590	January 1, 2011	<ul style="list-style-type: none"> Establishes a grant program to explore ways to encourage Medicaid enrollees to participate in programs that prevent chronic disease. Such programs can include tobacco cessation programs. Grant recipients in California, Connecticut and Wisconsin are working on incentivizing the use of tobacco cessation treatments. Learn more here.

Medicare

	Section & Page Number	Implementation Date	More Details
Annual Wellness Exam	Sec. 4103; pgs. 435-439 of H.R. 3590	January 1, 2011	<ul style="list-style-type: none"> Adds a free, annual wellness visit and personalized prevention plan to Medicare coverage. If applicable, this visit can include tobacco cessation counseling and prescription for a tobacco cessation medication

Miscellaneous

	Section & Page Number	Implementation Date	More Details
Prevention and Public Health Fund	Sec. 4002; pg. 423 of H.R. 3590	Fiscal Year 2010	<ul style="list-style-type: none"> Establishes a fund to provide for expanded and sustained national investment in prevention and public health programs Started at \$500 million in 2010, and gradually grows to \$2 billion in 2015 This fund has already funded several tobacco-related initiatives, including the Tips from Former Smokers

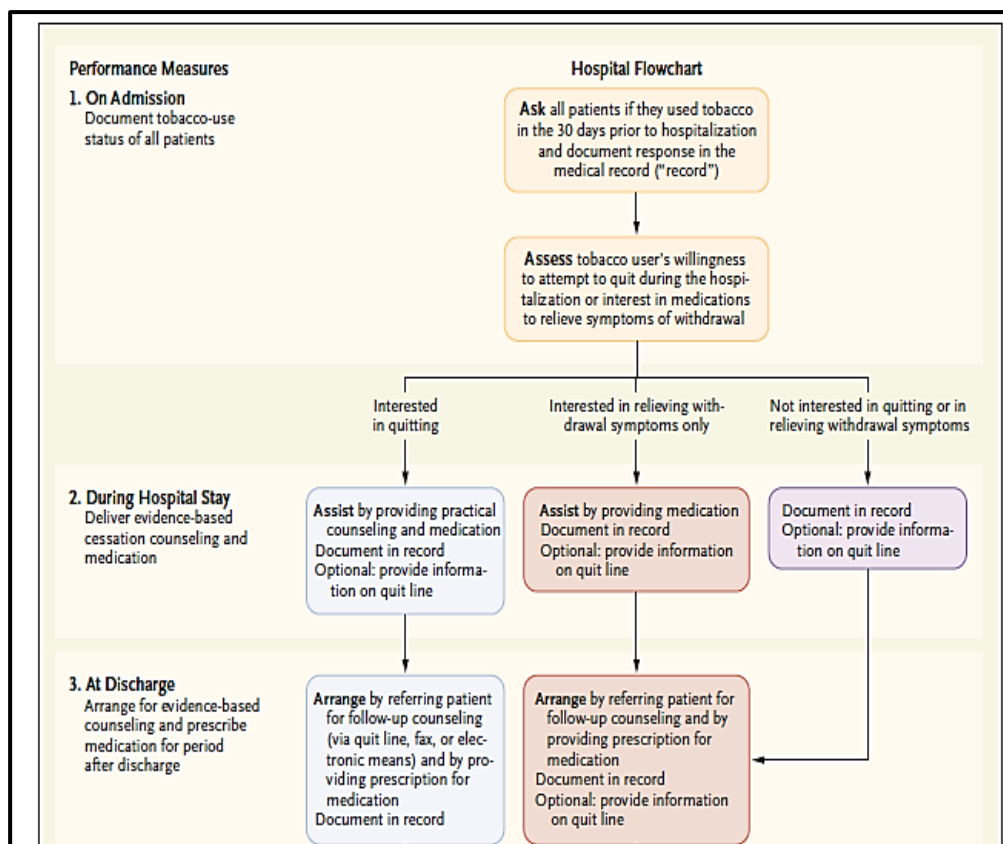
			campaign and grants to quitlines, as well as items below
Community Transformation Grants	Sec. 4201; pgs. 446-448 of H.R. 3590	2011	<ul style="list-style-type: none"> Establishes a grants program, to be administered by the Centers for Disease Control and Prevention (CDC) to design and implement community-level programs that prevent chronic disease Reducing tobacco use is one of the main project areas of these grants. Find more information here Funded by the Prevention and Public Health Fund
National Prevention, Health Promotion and Public Health Council	Sec. 4001; pgs. 420-423 of H.R. 3590	2010	<ul style="list-style-type: none"> Establishes a National Prevention, Health Promotion and Public Health Council, consisting of leaders in several federal government agencies, to provide coordination among all Federal departments and agencies for prevention, wellness and health promotion practices in the U.S. The Council published its National Prevention Strategy in June 2011, which includes tobacco-free living as one of seven priorities

Source: <http://www.lung.org/stop-smoking/tobacco-control-advocacy/reports-resources/2012/factsheet-tobacco-related-provisions-of-the-aca.pdf>

Appendix 2: The Joint Commission Hospital Tobacco Measures

On January 1, 2012, The Joint Commission (TJC) released the updated tobacco cessation performance measures for hospitals illustrated in the diagram below. These measures require the identification and documentation of tobacco use status in all patients age 18 and older and provision of evidence-based cessation counseling and medication during hospitalization, and again at discharge for all identified tobacco users. Beginning with fiscal years 2017 and 2018, The Joint Commission tobacco cessation performance measures are required for inpatient psychiatric facilities (IPF), but are still voluntary for general acute care hospitals. Hospitals must select and report on four of 14 available Joint Commission performance measure sets, of which the tobacco cessation measure set is one.

The Joint Commission Voluntary Inpatient Tobacco Cessation Performance Measure Set



Source: Fiore, MC, Goplerud, E, Schroeder, SA. The Joint Commission's New Tobacco-Cessation Measures — Will Hospitals Do the Right Thing? *N Engl J Med* 2012; 366:1172-1174 March 29, 2012 DOI: 10.1056/NEJMp1115176

Appendix 3: National Quality Forum (NQF)

National Quality Forum Tobacco Use Assessment Measure
Used in Multiple National/Federal Programs
March 2019

Measure Title	NQF#	Measure Description	Numerator Statement	Denominator Statement	Exclusions	National Quality Strategy Priorities	Use in Federal Program	Care Setting
Preventive Care and Screening: Tobacco Use: Screening & Cessation Intervention	0028	<p>Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received tobacco cessation intervention* if identified as a tobacco user</p> <p>*Tobacco cessation intervention includes brief counseling (3 minutes or less), and/or pharmacotherapy</p>	<p>Patients who were screened for tobacco use* at least once within 24 months</p> <p>Patients who received tobacco cessation intervention**</p> <p>Patients who were screened for tobacco use* at least once in 24 months AND who received tobacco cessation intervention** if identified as a tobacco user</p> <p>*Includes use of any type of tobacco</p> <p>**Tobacco cessation intervention includes brief counseling (3 minutes or less), and/or pharmacology</p>	<p>All patients aged 18 years and older seen for at least two visits or at least one preventive visit during the measurement period</p>	<p>Patients who were documented as non-tobacco users</p> <p>Documentation of medical reason(s) for not screening for tobacco use (eg., limited life expectancy)</p>	<p>Prevention and Treatment of Cardiovascular Disease</p>	<p>Centers for Medicare and Medicaid Services (CMS) Shared Savings Program</p> <p>CMS Quality Payment Program</p> <p>CMS Comprehensive Primary Care Plus Initiative</p> <p>Physician Quality Reporting System (PQRS)</p> <p>Physician Value-based Payment Modifier (VBM)</p>	<p>Ambulatory Care: Clinician/Clinic</p> <p>Behavioral Health: Inpatient, Outpatient</p>

Source: https://www.ncdr.com/WebNCDR/docs/default-source/pinnacle-public-documents/2018_measure_226_registry.pdf?sfvrsn=6

Appendix 4.
Tobacco Smoking Cessation in Adults, Including Pregnant Women: Behavioral and Pharmacotherapy Interventions, United States Preventive Services Task Force (USPSTF)
September 2015

Population	Tobacco Cessation Recommendation	Grade (Grade Definitions: http://www.uspreventiveservicestaskforce.org/Page/Name/grade-definitions#arec2)
Adults who are not pregnant	The USPSTF recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and U.S. Food and Drug Administration (FDA)–approved pharmacotherapy for cessation to adults who use tobacco.	A. The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
Pregnant women	The USPSTF recommends that clinicians ask all pregnant women about tobacco use, advise them to stop using tobacco, and provide behavioral interventions for cessation to pregnant women who use tobacco.	A. The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
Pregnant women	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of pharmacotherapy interventions for tobacco cessation in pregnant women.	I. The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

Population	Tobacco Cessation Recommendation	Grade (Grade Definitions: http://www.uspreventiveservicestaskforce.org/Page/Name/grade-definitions#arec2)
<p>All adults, including pregnant women</p>	<p>The USPSTF concludes that the current evidence is insufficient to recommend electronic nicotine delivery systems (ENDS) for tobacco cessation in adults, including pregnant women. The USPSTF recommends that clinicians direct patients who smoke tobacco to other cessation interventions with established effectiveness and safety.</p>	<p style="text-align: center;">I.</p> <p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</p>

Source: *Final Update Summary: Tobacco Smoking Cessation in Adults, Including Pregnant Women: Behavioral and Pharmacotherapy Interventions*. U.S. Preventive Services Task Force. September 2015.
<http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1>

[http://www.qualityforum.org/Qps/QpsTool.aspx -
gpsPageState=%7B%22TabType%22%3A1,%22TabContentType%22%3A1,%22SearchCriteriaForStandard%22%3A%7B%22TaxonomyIDs%22%3A%5B%5D,%22SelectedTypeAheadFilterOption%22%3A%7B%22ID%22%3A33400,%22FilterOptionLabel%22%3A%22smoking+and+tobacco+use+cessation%22,%22TypeO](http://www.qualityforum.org/Qps/QpsTool.aspx-gpsPageState=%7B%22TabType%22%3A1,%22TabContentType%22%3A1,%22SearchCriteriaForStandard%22%3A%7B%22TaxonomyIDs%22%3A%5B%5D,%22SelectedTypeAheadFilterOption%22%3A%7B%22ID%22%3A33400,%22FilterOptionLabel%22%3A%22smoking+and+tobacco+use+cessation%22,%22TypeO)

Appendix 5: National Committee for Quality Assurance (NCQA)

HEDIS MEASURES of CARE

The Healthcare Effectiveness Data and Information Set (HEDIS) is a tool used by most Health Maintenance Organizations (HMO) and Preferred Provider Organizations (PPO) to measure performance on important dimensions of care and service. By providing objective clinical performance data measures for a detailed set of measurement criteria, HEDIS helps purchasers and consumers compare health plans' performance. HEDIS measures address a broad range of important health issues, including smoking. HEDIS includes the Consumer Assessment of Healthcare Providers and Systems (CAHPS) 4.0 Survey, which measures members' experiences with their health care.

HEDIS Tobacco Use Measure Definition

This measure assesses provision of medical assistance with tobacco use cessation:

Advising Tobacco Users to Quit. The percentage of people 18 years of age and older who were current tobacco users, were seen by a health plan practitioner during the measurement year and received advice to quit smoking or using tobacco (see data below).

Discussing Cessation Strategies. The percentage of people 18 years of age and older who were current tobacco users, were seen by a practitioner during the measurement year and discussed or were recommended cessation methods or strategies (see data below).

Discussing Cessation Medications. The percentage of people 18 years of age and older who were current tobacco users, were seen by a practitioner during the measurement year and discussed or were recommended cessation medications (see data below).

ADVISING SMOKERS AND TOBACCO USERS TO QUIT					
	Commercial		Medicaid		Medicare
Year	HMO	PPO	HMO	HMO	PPO
2016	75.1	72.3	76.2	85.6	83.8
2015	75.9	72.1	75.9	—	—
2014	77.0	70.8	75.8	85.7	84.8
2013	77.3	70.9	75.8	84.6	82.4
2012	77.8	70.8	75.6	81.2	80.4
2011	77.6	72.4	74.6	81.5	79.3
2010	76.7	71.7	73.6	77.9	78.3
2009	—	—	—	77.9	75.2
2008	76.7	71.6	69.3	76.9	76.5
2007	75.8	71.0	69.4	75.8	75.4
2006	73.8	70.1	68.2	76.1	77.3
2005	71.2	66.9	65.6	75.5	77.3
2004	69.6	—	66.7	64.7	—
2003	68.6	—	65.8	62.9	—
2002	67.7	—	63.9	61.6	—
2001	65.7	—	63.9	60.9	—
2000	66.3	—	—	—	—

DISCUSSING CESSATION STRATEGIES					
	Commercial	Medicaid		Medicare	
Year	HMO	PPO	HMO	HMO	PPO
2016	42.9	40.4	44.1	—	—
2015	45.8	39.2	43.3	—	—
2014	47.0	37.6	42.5	—	—
2013	46.5	37.5	41.9	—	—
2012	47.9	37.3	41.1	—	—
2011	47.6	40.1	40.3	—	—
2010	45.0	39.0	38.5	—	—
2008	49.7	43.3	40.8	—	—
2007	48.0	44.2	39.2	—	—
2006	43.2	42.6	36.7	—	—
2005	38.9	35.1	33.9	—	—
2004	36.8	—	32.7	—	—
2003	36.0	—	32.3	—	—

DISCUSSING CESSATION MEDICATIONS					
	Commercial	Medicaid		Medicare	
Year	HMO	PPO	HMO	HMO	PPO
2016	48.1	44.6	49.5	—	—
2015	50.3	44.8	48.1	—	—
2014	51.8	43.7	46.8	—	—
2013	51.7	44.1	46.6	—	—
2012	52.9	44.6	45.8	—	—
2011	53.1	47.9	44.3	—	—
2010	52.4	47.2	42.7	—	—
2008	54.4	50.9	40.6	—	—
2007	50.9	49.6	38.7	—	—
2006	43.9	43.8	35.1	—	—
2005	39.4	36.7	31.8	—	—
2004	37.8	—	31.3	—	—
2003	37.6	—	31.5	—	—

Source: <https://www.ncqa.org/hedis/measures/medical-assistance-with-smoking-and-tobacco-use-cessation/>

Appendix 6: Glossary of Health Care Reform and Health Information Technology Terms

Accountable Care Organization (ACO)

An accountable care organization (ACO) is a type of payment and delivery reform model that ties provider reimbursements to quality metrics and reductions in the total cost of care for an assigned population of patients. An ACO is formed by a group of coordinated health care providers, and is accountable to patients and third-party payers for the quality, appropriateness, and efficiency of the health care provided. Although the model is designed to be flexible, three core principles have been defined for all ACOs: (1) ACOs are provider-led organizations with a strong base of primary care that are collectively accountable for quality and per capita costs across the full continuum of care; (2) ACO payments are linked to quality improvements that also reduce overall costs; and (3) ACOs have a reliable and progressive performance measurement system in place to support improvement and show that savings are achieved through improvements in care.

American Recovery and Reinvestment Act (ARRA)

Congress passed the American Recovery and Reinvestment Act on February 17, 2009. A direct response to the economic crisis of 2008, the Recovery Act had three immediate goals: to create new jobs and save existing ones, to spur economic activity and invest in long-term growth, and to foster more accountability and transparency in government spending. The law directed about billions of dollars in new funds to the health care industry, including funds for Medicaid, funds to subsidize private health insurance for people, funds for health information technology, and funds for the National Institutes of Health (NIH). The act also provided \$650 million to support prevention and wellness activities targeting obesity, smoking, and other risk factors for chronic diseases, as well as \$500 million for health professions training programs, including \$300 million to revitalize the National Health Service Corps (NHSC).

Clinical Decision Support (CDS)

Clinical decision support is a process for enhancing health-related decisions and actions with pertinent clinical knowledge and patient information to improve health and health care delivery. The information delivered can include general clinical knowledge and guidance, processed patient data, or both. Information delivery formats can be drawn from options that include data and order entry facilitators, filtered data displays, reference information, alerts, and more. Clinical decision support systems (CDSS) form a significant part of the field of clinical knowledge management technologies through their capacity to support the clinical process and the application of knowledge. These systems are typically designed to integrate a medical knowledge base, and patient data, to generate case-specific advice.

Cloud computing

“Cloud computing” refers to delivering hosted services over the Internet. The services tend to be divided into three categories: infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS). A cloud service has characteristics that differentiate it from traditional hosting. It is sold on-demand, is elastic (i.e., the user can have as much or as little of the service they want), and is fully managed by the provider. A cloud can be either public or private. Whether public or private, the goal of cloud computing is to provide scalable and easy-to-access computing resources and IT services.

Computerized Physician Order Entry (CPOE)

Computerized physician order entry is a system that allows direct entry of medical orders and instructions for the treatment of patients by a medical practitioner. The orders are communicated through a computer network to medical staff or other departments responsible for fulfilling an order,

including pharmacy, radiology, or laboratory. Used properly, CPOE decreases delay in order completion, reduces errors related to handwriting or transcriptions, allows order entry at point-of-care or offsite, provides error checking, and simplifies inventory and posting of charges.

Direct Project

The Direct Project is managed by the Department of Health and Human Services Office of the National Coordinator for Health Information Technology's Office of Standards and Interoperability. The purpose is to develop specifications for a secure, scalable, standards-based approach to establishing universal transport to send encrypted health information directly to known, trusted recipients over the Internet. The Direct Project does not directly operate health information exchange services. Federal agencies and health care organizations are already using the Nationwide Health Information Network, which is a set of standards, services, and policies that enable secure health information exchange over the Internet, to exchange information among themselves. The Direct Project expands the standards and service descriptions available to address the key requirements for each stage of Meaningful Use and provides an easy "on-ramp" to Meaningful Use adoption and secure data exchange for a wide variety of providers and health care organizations.

Electronic Health Record (EHR)

An electronic health record is a collection of patient health information generated by one or more visits in any health care delivery setting. An EHR typically includes patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data, and radiology reports. EHRs are intended to streamline clinicians' workflow, and have the ability to generate a complete record of a clinical patient encounter. EHRs focus on the total health of the patient. They go beyond standard clinical data collected in the provider's office and offer a broader view of the patient's care. EHRs are designed to reach beyond the health organization that originally collected the data to share information with other providers. EHRs are also designed to allow secure sharing of data, which, in turn, potentially encourages more open communication and more involvement on the patient's part.

E-Prescribing

E-prescribing is the ability to electronically send an accurate, error-free, understandable prescription directly from a clinic/health care setting to a pharmacy. Included in the Medicare Modernization Act of 2003, e-prescribing represents an important means to improve the quality of patient care. The July 2006 Institute of Medicine report on the role of e-prescribing in reducing medication errors helped spread awareness of its benefits and contributed to its growing popularity. The adoption of standards to facilitate e-prescribing is one of the key action items in plans to expedite adoption of EMRs. The benefits of e-prescribing include reducing illegibility; providing warning and alert systems, which reduce medication errors; and offering access to patients' medical histories. E-prescribing also reduces or eliminates phone calls and call-backs to pharmacies, reduces or eliminates faxes to pharmacies, streamlines refill requests and authorization processes, and increases patient compliance.

Health Information Exchange (HIE)

Health information exchange is the transmission of health care-related data among facilities, health information organizations, and government agencies in line with national standards for interoperability, security, and confidentiality. HIE is an important part of the health information technology (HIT) infrastructure under development in the U.S. and of the associated National Health Information Network (NHIN). Development of HIE initiatives continues to grow. The HIE implementation challenge will be to create a standardized interoperable model that is patient-centric, trusted, longitudinal, scalable, reliable, and financially sustainable.

Health Information Technology for Economic and Clinical Health Act (HITECH)

The Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009, was signed into law in February 2009. It promotes the adoption and meaningful use of health information technology. Subtitle D of the HITECH Act addresses the privacy and security concerns associated with the electronic transmission of health information, in part through several provisions that strengthen the civil and criminal enforcement of Health Insurance Portability and Accountability Act (HIPAA) rules. The Act stipulates that, as of 2011, health care providers will be offered financial incentives for demonstrating meaningful use of electronic health records (EHRs). Incentives will be offered until 2015. After that point, financial penalties may be charged for failing to demonstrate such use. The act also established grants for training centers for the personnel required to support health IT infrastructure.

Health Information Technology Policy Committee

The Health Information Technology (IT) Policy Committee is a federal board created as part of the American Recovery and Reinvestment Act of 2009. The committee advises the National Coordinator for Health IT on the creation of a nationwide health IT infrastructure. The committee comprises 20 experts in both the medical and technical professions. The experts were appointed by the Secretary of Health and Human Services, the Acting Comptroller General of the United States, the Majority and Minority Leaders of the Senate, and the Speaker and Minority Leader of the House of Representatives. A number of work groups have been formed as sub-committees focusing on topics such as meaningful use, certification and adoption, and information exchange, among others.

Health Information Technology Standards Committee

The Health Information Technology (IT) Standards Committee makes recommendations to the National Coordinator for Health IT on standards, implementation specifications, and certain criteria for the electronic exchange and use of health information. Four HIT Standards Committee workgroups have been formed as sub-committees. These workgroups meet periodically to discuss the topics they have been assigned, present their findings at HIT Standards Committee meetings, and make recommendations to the HIT Standards Committee. They include workgroups focused on clinical operations, clinical quality, privacy and security, implementation, and a vocabulary task force.

Health Insurance Portability and Accountability Act (HIPAA)

The Health Insurance Portability and Accountability Act (HIPAA) was passed by Congress in 1996. HIPAA does the following:

- Provides the ability to transfer and continue health insurance coverage for millions of American workers and their families when they change or lose their jobs;
- Reduces health care fraud and abuse;
- Mandates industry-wide standards for health care information on electronic billing and other processes; and
- Requires the protection and confidential handling of protected health information

Health Level 7 International (HL7)

Health Level-7 (HL7) refers to a set of international standards for transfer of clinical and administrative data between software applications used by various healthcare providers (see interoperability). These standards focus on the application layer. The HL7 standards are produced by the Health Level Seven International, an international standards organization, and are adopted by other standards issuing bodies such as American National Standards Institute and International Organization for Standardization.

Hospitals and other healthcare provider organizations typically have many different computer systems used for everything from billing records to patient tracking. All of these systems should communicate

with each other (interface) when they receive new information, or when they wish to retrieve information. HL7 International specifies a number of flexible standards, guidelines, and methodologies by which various healthcare systems can communicate with each other. Such guidelines or data standards are a set of rules that allow information to be shared and processed in a uniform and consistent manner. These data standards are meant to allow healthcare organizations to easily share clinical information. The standards address message and data exchange, decision support, rules syntax, visual integration of applications, insurance claims, clinical documents such as discharge summaries, product labels for prescription medication, electronic health records, and personal health records.

Healthcare Information and Management Systems Society (HIMSS)

The Healthcare Information and Management System (HIMSS) is a nonprofit organization focused on providing global leadership for the optimal use of information technology and management systems for the betterment of health care. Founded in 1961, HIMSS represents more than 38,000 individual members, of which more than two thirds work in health care, governmental, and not-for-profit organizations. HIMSS also includes more than 540 corporate members and more than 120 nonprofit organizations that share the same mission. The organization frames and leads health care practices and public policy through its content expertise, professional development, and research initiatives, which are designed to promote contributions of information and management systems to improving the quality, safety, access, and cost-effectiveness of patient care.

Interoperability

Interoperability is a system's or product's ability to work with other systems or products. The term is often used either in a technical system engineering sense or in a broader sense, such as when it is used to refer to social, political and organizational factors that impact system-to-system performance. Products achieve interoperability by either adhering to published interface standards or by making use of a "broker" of services that instantaneously converts one product's interface into another product's interface. With regard to health care, interoperability is looked upon as the ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of health care for individuals and communities. A more expansive notion of interoperability includes the uniform movement of health care data, the uniform presentation of data, uniform user controls, uniform approaches to data security and integrity, and uniform protection of patient confidentiality.

Meaningful Use (of certified electronic health record technology) – renamed Promoting Interoperability in 2017

Meaningful Use is using certified electronic health record (EHR) technology to:

- Improve quality, safety, efficiency, and reduce health disparities
- Engage patients and family
- Improve care coordination, and population and public health
- Maintain privacy and security of patient health information

Ultimately, meaningful use compliance will result in:

- Better clinical outcomes
- Improved population health outcomes
- Increased transparency and efficiency
- Empowered individuals
- More robust research data on health systems

Meaningful use sets specific objectives that eligible professionals (EPs) and hospitals must achieve to qualify for Centers for Medicare & Medicaid Services (CMS) Incentive Programs. Stage 1 (2011-2013) criteria and objectives focus on electronic data capture and information sharing. Stage 2 (2014-2016) focus on advancing clinical processes, and Stage 3 (pending) will concentrate on improved health outcomes.

Nationwide Health Information Network (NHIN)

The Nationwide Health Information Network is a set of standards, services, and policies that enable secure health information exchange over the Internet. The Network provides a foundation for the exchange of health information across diverse entities, within communities, and across the country, helping to achieve the goals of the HITECH Act. The Network is comprised of a diverse set of federal agencies and non-federal organizations that have come together to securely exchange electronic health information. NHIN is considered a critical part of the national health IT agenda, and enables health information to follow the consumer, be available for clinical decision making, and support the appropriate use of health care information beyond direct patient care to improve population health.

National eHealth Collaborative (NeHC)

The National eHealth Collaborative is a public-private partnership that aims to enable secure and interoperable nationwide health information exchange through education and stakeholder engagement. NeHC was established through a grant from the Office of the National Coordinator for Health IT to build on the achievements of the American Health Information Community, a federal advisory committee to the U.S. Department of Health and Human Services. With a mission to promote the successful deployment of health IT and health information exchange nationwide, the Collaborative offers a variety of programs for stakeholders and consumers, such as the HIE Learning Network, its Consumer Consortium on eHealth stakeholder engagement program, and the NeHC University, a Web-based education program designed to provide stakeholders with timely and relevant information on health information technology and health information exchange in the United States.

National Quality Forum (NQF)

Established in 1999, the National Quality Forum is a nonprofit organization based in Washington, D.C. The NQF reviews and recommends the use of standardized health care performance measures at the federal, state, and private-sector levels and promotes initiatives to enhance the value of health care services. NQF members include purchasers, physicians, nurses, hospitals, and other quality improvement organizations.

The Office of the National Coordinator for Health Information Technology (ONC)

The Office of the National Coordinator for Health Information Technology (ONC) is a staff division within the U.S. Department of Health and Human Services that seeks to support the implementation of an interoperable, private, and secure nationwide health information system and to support the widespread meaningful use of technology. ONC was created in 2004 through an executive order issued by President George W. Bush, and was legislatively mandated in the Health Information Technology for Economic and Clinical Health Act (HITECH Act) of 2009.

SNOMED CT (Systematized Nomenclature of Medicine--Clinical Terms)

A comprehensive clinical terminology and one of a suite of standards for the electronic exchange of clinical health information designated for use in U.S. Federal Government systems. SNOMED is also a required standard in the interoperability specifications of the U.S. Healthcare Information Technology Standards Panel. SNOMED's standard terminology enables the use of health information across borders, facilitates public health surveillance, and supports evidence-based research.

Telehealth

Telehealth refers to any remote telecommunications used by health care providers to interact with and manage patients. It can range from teleconferencing between patient and provider (or provider to provider) to advanced "high-quality online voice and video interactions" with a patient's EHR, enabling providers and patients to interact with each other remotely. Properly implemented, telehealth can expand access to health care while reducing health care costs. For example, patients with mobile

devices can monitor and report on their own vital signs and manage treatment, eliminating the need for a trip to the doctor's office. This process can save time and money for both the patient and the health care provider.

Appendix 8 Sources: <https://www.healthit.gov/policy-researchers-implementers/glossary>;
[https://www.healthit.gov/playbook/pdf-files/Payment Reform Glossary.pdf](https://www.healthit.gov/playbook/pdf-files/Payment_Reform_Glossary.pdf); <https://www.healthit.gov/policy-researchers-implementers/acronyms>; <https://www.healthit.gov/policy-researchers-implementers/glossary>