Center of Excellence for CHSI Health Systems Improvement

QUALITY IMPROVEMENT TOOLS

Promoting Health Systems Improvement
for a Tobacco Free New York

A Project of CAI

QUALITY IMPROVEMENT TOOLS

The goal of this section is to build the capacity of quality improvement staff to implement proven strategies and techniques within their health care organization to support the integration of evidence-based tobacco dependence screening, counseling, and treatment into standard delivery of care.

The tools in this section are designed to support quality improvement efforts within health systems as well as the integration of evidence-based tobacco dependence screening and treatment into the standard delivery of care.

OVERVIEW

INTRODUCTION

Many factors within healthcare settings determine the quality of services that patients receive. Staff within healthcare settings can become aware of some of the factors that impact the quality of services delivered and work together to improve care provided.

The tools in this section are designed to support quality improvement efforts within health systems as well as the integration of evidence-based tobacco dependence screening and treatment into the standard delivery of care.

► Patient Flow Tools

Patient flow varies by healthcare delivery site. For this reason, efforts to integrate new screening and/or treatment protocol into the standard delivery of care must be tailored to each individual site. The Patient Flow Tools (pgs 148-153) provide a visual representation of the steps that patients go through during a typical medical visit, including the points at which they are screened, counseled, and connected to treatment for tobacco use dependence.

Mapping out these steps will support healthcare systems with identifying opportunities to screen for tobacco use, deliver tobacco cessation messages, and provide counseling and treatment to support a quit attempt. Worksheets are provided to assist with standardizing the provision of evidence-based tobacco dependence screening, counseling, and treatment, including identifying who is responsible for delivering the different elements of the 5 As intervention.

► Plan-Do-Study-Act (PDSA) Cycles Tool

Health systems can use the PDSA four-stage problem-solving framework to develop, test, and implement changes aimed to lead to improvements. By using PDSA cycles—representing the four stages of Plan, Do, Study, and Act — health care organizations are able to test whether an idea has an impact on performance on a smaller scale prior to implementing changes across the board.

Healthcare organizations also modify or "fine-tune" changes prior to organization-wide implementation. The PDSA Cycle Tool (pgs 154-160) can assist staff with defining each element in the PDSA process. Staff also can use this tool to assist with the integration of evidence-based tobacco dependence screening and treatment into standard delivery of care.

▶ Performance Feedback

Data is a powerful tool to measure provider-level and organizational-level performance. Health systems can use data not only to identify gaps and areas needing improvement, but also to provide feedback to individual providers and teams on their performance on core tobacco dependence treatment quality indicators. The ultimate goal is to facilitate change.

Provider performance feedback draws on data from chart audits, electronic health records, and computerized patient databases.

GOAL AND OBJECTIVES

Goal

The goal is to build the capacity of quality improvement staff to implement proven strategies and techniques within their healthcare organization in order to support the integration of evidence-based tobacco dependence screening, counseling, and treatment into standard delivery of care.

Objectives

As a result of this toolkit, participants will be able to:

1. Examine and tailor patient flow to integrate new screening and/or treatment protocols into standard care.

2. Use PDSA cycles to develop, test, and implement changes to an organization's tobacco dependence treatment.

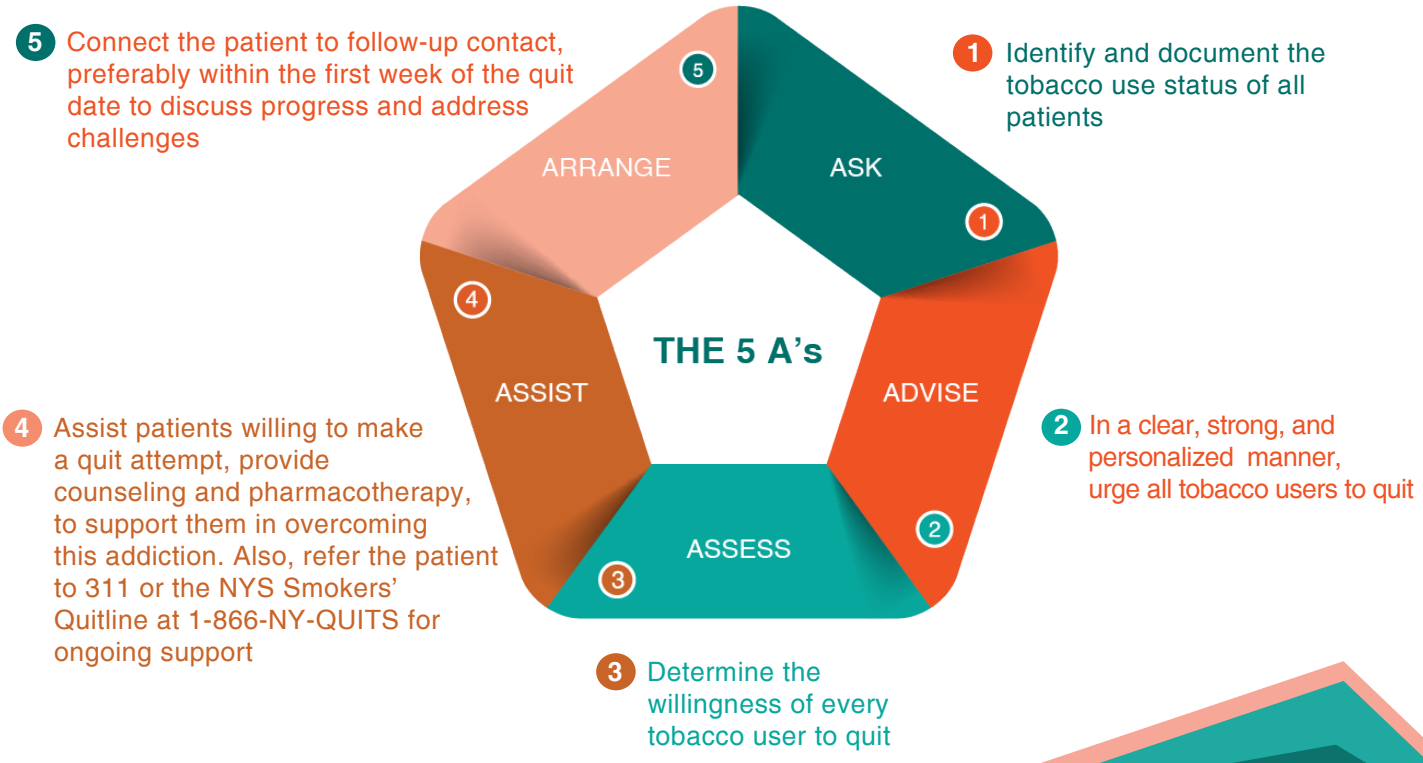
3. Explain how performance feedback can improve provider-level and organizational level performance.

PATIENT FLOW TOOLS

The patient flow at each healthcare delivery site is unique, and is determined by several factors, including the physical design and layout of the site, aesthetics of the waiting area, wait time, presence of an on-site pharmacy, staffing, patient and visit mix, and efficiency of all involved staff (e.g., frontline staff, counselors, prescribing clinicians). Regardless of where a health center is in its efforts to assure that every patient is assessed for tobacco use and provided with access to same-day tobacco dependence treatment, including pharmacology, it is important to understand how patients flow through your health center site.

Mapping out the steps a patient goes through at a health center delivery site will support the identification of opportunities for the healthcare team to screen for tobacco use, deliver tobacco cessation messages, and provide counseling and treatment to support a quit attempt.

As an Improvement Team examines the workflow of a typical medical visit, it is important to highlight how the steps—which make up the 5 As Intervention —are delivered by the care team:



Sample Patient Visit Flow

Below is an example of a patient workflow that highlights the different opportunities throughout a patient's visit where the healthcare team can screen for tobacco use and deliver support.

1
- Patient checks-in at reception

2
- Patient completes health assessment forms in waiting room
- **Ask** and document extent of tobacco use

3
- Patient submits health assessment forms; waits in waiting room
- Patients who indicate tobacco use are flagged in the electronic health record

4
- Patient taken to exam room by medical assistant
- Staff asks for permission from the patient to talk about their tobacco use
- Staff person **Advises** patient to quit

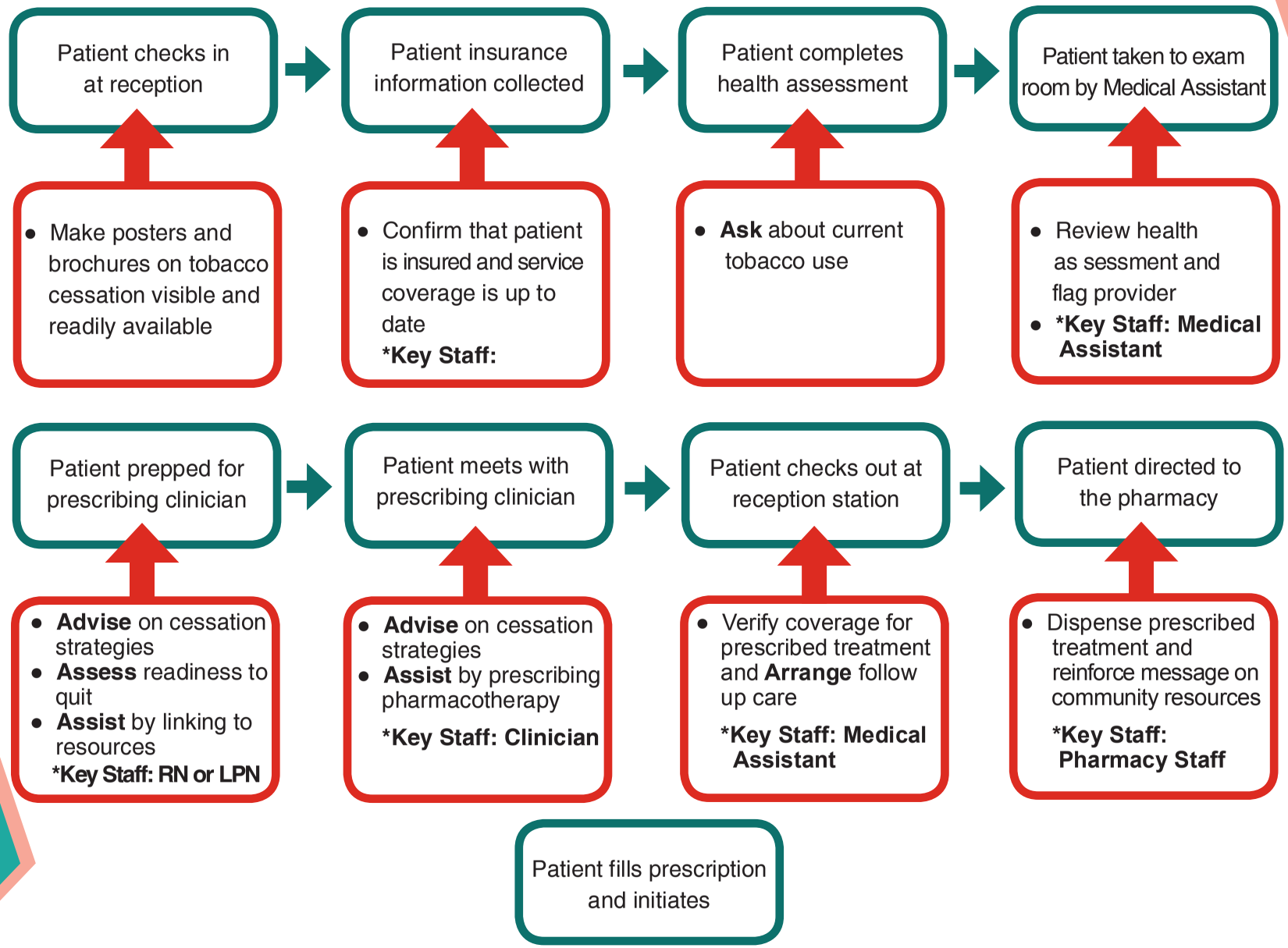
5
- Patient vitals taken by counselor (RN or LPN)
- Counselor **Advises, Assesses** readiness to quit, and **Assists** by providing counselling
- Counselor documents outcomes in electronic health record

6
- Patient meets with prescribing clinician (MD, PA, or NP)
- Clinician **Advises** and **Assists** with on-site pharmacotherpy by sending an order to the pharmacy

7
- Patient checks-out with medical assistant at reception station
- Staff verifies insurance coverage for prescribed pharmacotherpy (if applicable) and **Arranges** follow up treatment and support within one week of care

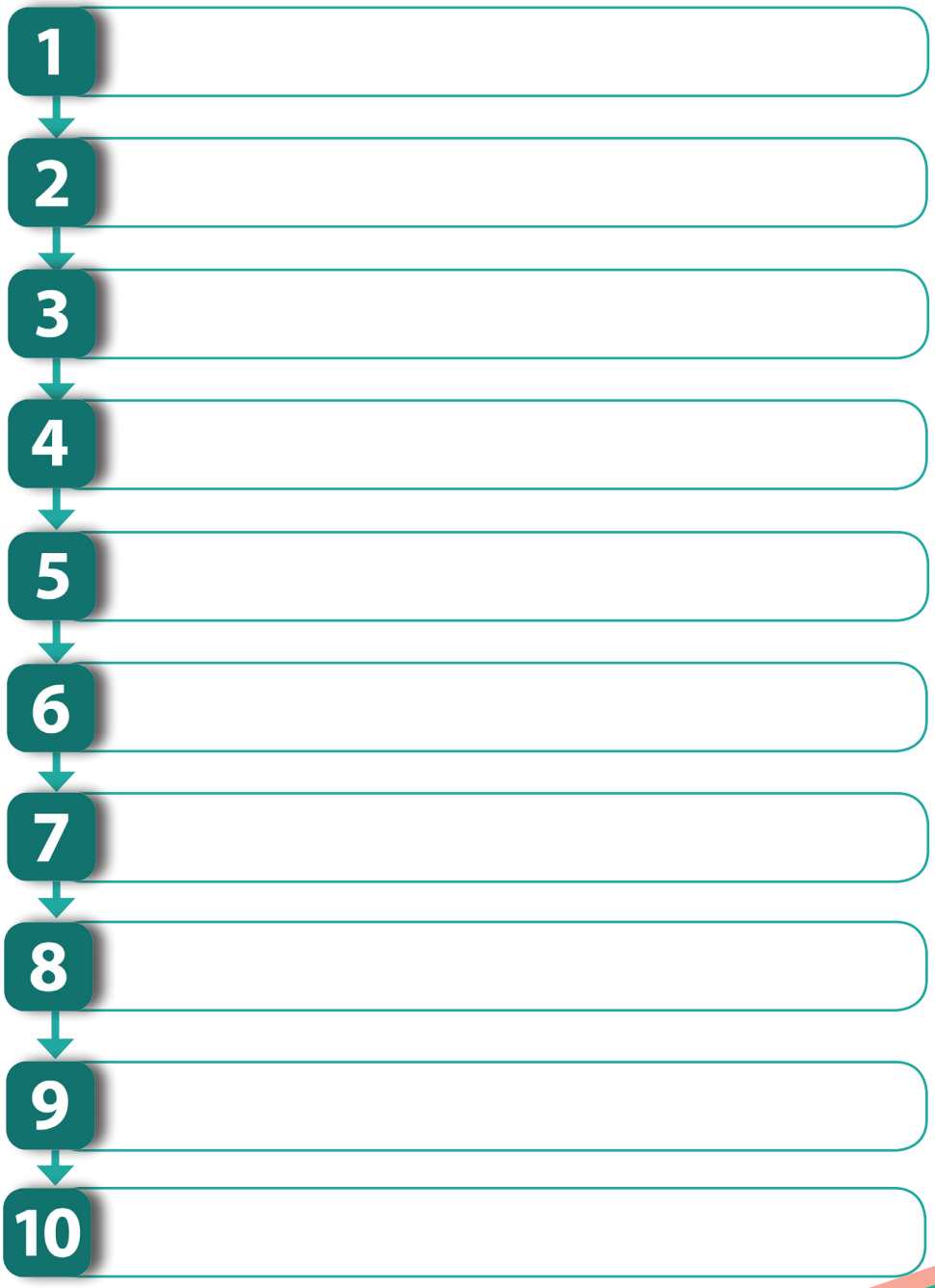
8
- Patient directed to the pharmacy (if applicable); waits at pharmacy window to pick-up medications

Sample Patient Visit Flow and Opportunities: Below is another example of a patient workflow. Notice that each step offers applicable staff an opportunity to engage their patients and **Ask, Advise, Assess, Assist,** and/or **Arrange follow-up contact.**

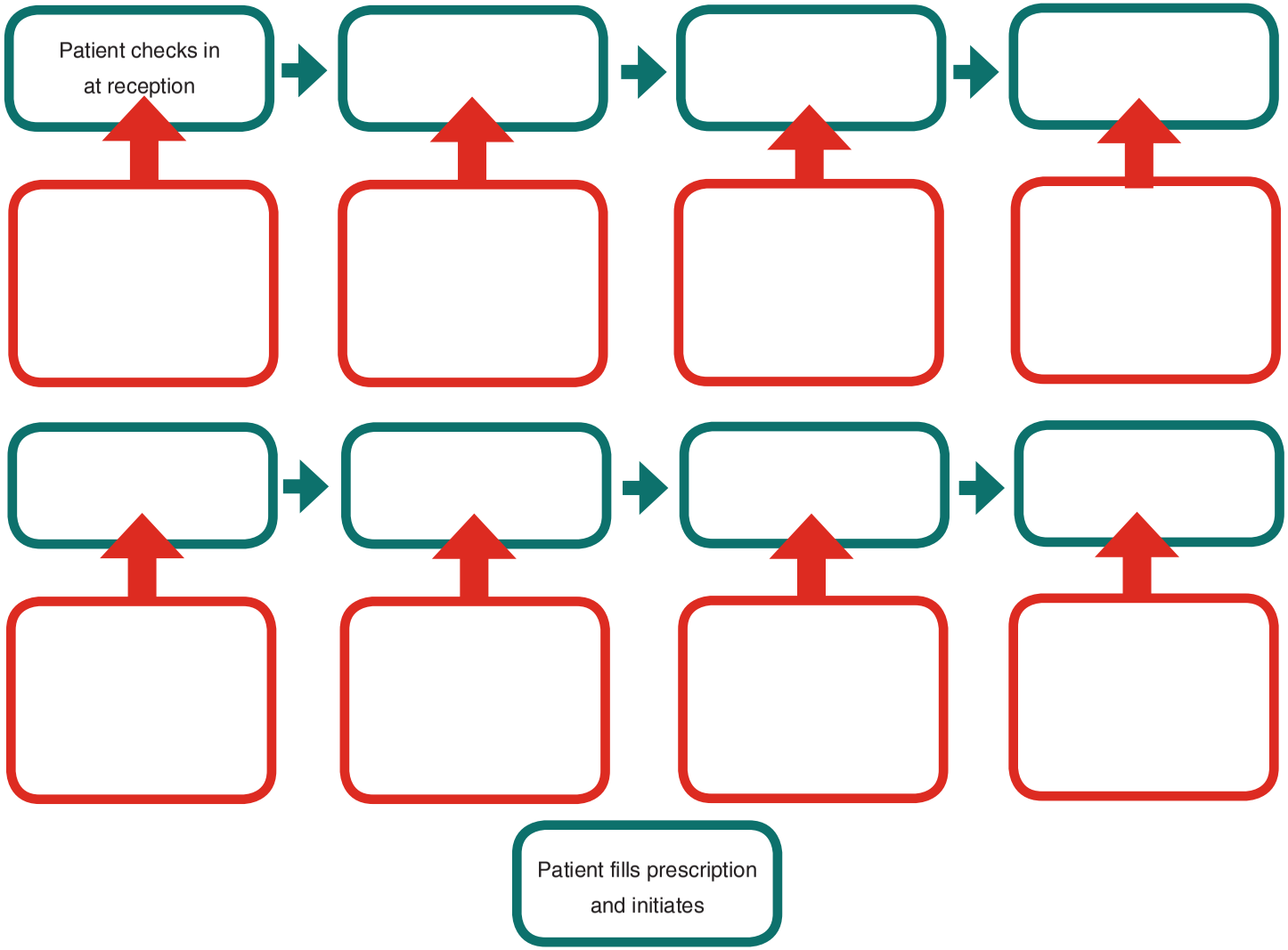


Patient Flow Visit Worksheet

It is important to outline how patients advance through each step at a healthcare delivery site, from the time of entry to exit. Regardless of agency, both the layout and staffing differ from department-to-department and site-to-site. Use this worksheet to record patient flow related to providing tobacco dependence screening and treatment to patients in your site.



Patient Flow and Opportunities Worksheet: When completing this flow chart, it is important to consider how care is delivered on a **typical** day at the specific department/healthcare delivery site. In the **blue rectangles,** indicate the different steps a patient encounters during a **typical** medical visit. Review patient flow—the patient's movement through the healthcare continuum—and, in the **orange rectangles**, identify key opportunities to **Assess, Advise, Assist,** and **Arrange** for the tobacco screening, counseling, and treatment for patients, as well as key staff responsible for providing these critical tasks.



IDENTIFYING KEY OPPORTUNITIES

After outlining the standard process for delivering tobacco dependence screening and treatment, consider the following questions related to screening for and treating tobacco dependence:[1]

What questions are asked (1) on the intake form, and (2) when patients' vital signs are measured?

- Are these questions sufficient to identify all tobacco users?

What staff persons do patients interact with before meeting with the prescribing clinician?

- What information is typically exchanged with patients before they meet with the prescribing clinician?
- Do these staff have an opportunity to deliver messages urging tobacco users to quit?
- Are tobacco cessation posters visible, and are brochures, and pamphlets readily available to reinforce messaging?

How do prescribing clinicians support tobacco cessation during the encounter?

What reminder systems and prompts are in place to alert counselors and prescribing clinicians of opportunities to discuss tobacco cessation with patients?

- Are these reminder systems and prompts sufficient?
- Can the system be modified to include follow-up prompts for future visits?

How is tobacco cessation counseling and/or other treatment documented throughout the encounter?

What path do patients take as they exit the office? Do they make any stops that require interaction with staff?

- How can final interactions reinforce messages related to quitting?

There are always opportunities to improve patient flow to increase the quality of tobacco use cessation services delivered, and the efficiency of the process for delivering this care. **The Plan-Do-Study-Act Cycle Tool** (pg 154) can support such improvement efforts.

[1] American Academy of Family Physicians (2013). Ask and Act Practice Toolkit. Leawood, KS: American Academy of Family Physicians. Retrieved 23 June 2015 from: http://www.aafp.org/dam/AAFP/documents/patient_care/tobacco/practice-manual.pdf. healthcare

PLAN-DO-STUDY-ACT (PDSA) CYCLE TOOL

Plan-Do-Study-Act (PDSA) is a continuous quality improvement tool for testing the impact of changes in real world clinical settings. PDSA supports the improvement of a system or process by, in a step-wise fashion, planning changes, testing them out, observing the results, and acting on what is learned.

PDSA is a tool that healthcare delivery sites can use to successfully integrate tobacco dependence screening and treatment into standard delivery of care, as well as to increase the efficiency and consistency of these practices.

PLAN: In this phase of the PDSA, a multidisciplinary Improvement Team will identify a goal or aim to work towards. For example, as a goal, an Improvement Team may be working towards assuring that all patients, regardless of the reason for their visit, receive the 5 As Intervention.

Step 1: **Form the Improvement Team and Designate Responsibilities**

- Strategically form an Improvement Team with the expertise and authority to implement the change successfully. These individuals should possess one or more of the following:
  - **Clinical expertise:** The understanding of both the clinical implications of changes to the process and the consequences of such changes on other aspects of care delivery
  - **Technical expertise:** A strong knowledge of evidence-based and best practices for delivering tobacco dependence screening, counseling, and treatment
  - **Leadership of day-to-day operations** affords an understanding of both the details of the process and the consequences of making change(s) to the process
  - **Knowledge of when and where to engage stakeholders** (e.g., staff, patients) affected by the change

Use the chart below to make a list of the key members for your improvement team.

STAFF NAME	STAFF ROLE

Step 2: **Setting an Aim**

- The aim should be time-specific and measurable. It also should define the specific population of patients to be affected.

What are you trying to accomplish?

- Consider all the systems and processes (e.g. patient flow, insurance verification, clinical documentation charge capture) that support the goal.

To achieve the goal, what process(es) must be improved?

- If there is more than one process, select the one process, which, if altered, has the potential to have the greatest improvement on outcomes. Describe below.

Step 3: **Identify how the selected process can be improved**

- Decide on the changes to be implemented to improve the identified process.

What changes can be made to this process that will result in improved performance and, ultimately, outcomes?

Step 4: **Identify measures to gauge whether planned changes actually result in improvement**

- Decide how to measure the impact of the changes you choose to implement.

How will it be known that a change is an actual improvement (e.g. increased rate of patients screened for tobacco dependence, increased rate of patients provided with on-site tobacco cessation medication)?

- Identify/create data source(s) that will enable the measurement of identified changes (e.g. data reports, dashboard) using the chart provided below.

CHANGE MEASURE	DATA SOURCE

DO The next phase of the PDSA cycle is to test the changes believed to result in improvement in the clinical setting and document the impact of such changes. Make sure to test changes on a small scale to see if they work prior to implementing changes more broadly.

Step 5: **Test identified changes on a small scale**

- Rollout the test for a designated timeframe. The timeframe should be time limited, but allow for sufficient time to see a change.

Were there any circumstances that affected implementation during the designated time frame (e.g. unexpected absence of key staff, competing priorities)?

STUDY In this phase of the PDSA, the Improvement Team will analyze the data collected during your testing stage and compare it to predictions.

Step 6: **Set aside time to study test results**

- Study the outcomes that resulted from implementing the identified change.

What was learned (e.g. staff needs refresher training on the 5 A's, electronic health records needing prompts that cannot be by passed)?

What impact did the change have on identified measures?

ACT In this phase of the PDSA, the Improvement Team will refine changes that were tested based on what was learned during the STUDY phase. Based on the outcomes, the Improvement Team may want to initiate a new PDSA cycle. Once the Improvement Team reaches a point where it does not see opportunities for further refinement, the identified change is ready for full-scale implementation at the healthcare delivery site.

Step 7: **Implement further change**

- Determine which modifications, if any, can be made to refine change.

Is there a need or opportunity to refine the change? If yes, how?

Step 8: **Spread and institutionalize at the healthcare delivery site**

- Identify next steps towards widespread implementation of changes.

What needs to be done to institutionalize the final changes at the healthcare delivery site?

How will the Improvement Team communicate the improvement process and results to all staff affected by the change?

Source: Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.

PERFORMANCE FEEDBACK

Performance feedback is a process that provides staff within a health system with an opportunity to view their performance in comparison with that of their peers and adopt benchmarks and regulatory standards. Encourage healthcare providers to accurately document work done and provide a representation that relates the contributions of that work to overall agency performance and patient health outcomes. Performance feedback supports healthcare providers and health systems to deliver high-quality care. Peers' performance can be expressed in relation to one another, allowing for a side-by-side comparison of individuals or teams, or expressed as an average.

To create a performance feedback system that gauges the delivery of tobacco dependence screening and treatment across healthcare providers and within the organization, a health system should follow the steps below.

- Determine tobacco dependence treatment measure(s) through a performance feedback system. This can be accomplished by defining the numerator and denominator, with the numerator indicating how many times the measure has been met and the denominator indicating the opportunities to meet the measure. Examples of measures that can be used, including the denominator and numerator, refer to the 5 As of tobacco dependence treatment (Ask, Advice, Assess, Assist (Prescribe and Counsel), Arrange):

  Ask: Percentage of patients screening for tobacco use over the age of 13 in the last 12 months.
  Numerator: Patients who were screened for tobacco use at least once within the last 12 months.
  Denominator: All unduplicated patients ages 13 years or older.

  Advise: Percentage of tobacco users who were advised to quit.
  Numerator: Patients who were advised to quit at their last visit.
  Denominator: All unduplicated patients over the age of 13 who screened positive for tobacco use in the past 12 months.

  Assess: Percentage of tobacco users who were assessed for readiness to quit.
  Numerator: Patients who were assessed for readiness to quit at their last visit.
  Denominator: All unduplicated patients over the age of 13 who screened positive for tobacco use in the past 12 months.

Prescribe: Percentage of tobacco users who were prescribed tobacco cessation medications

Numerator: Patients who screened positive for tobacco use and were prescribed with a tobacco cessation medication at their last visit.

Denominator: All patients over the age of 13 who screened positive for tobacco use in the past 12 months.

Counsel: Percentage of tobacco users who were provided tobacco cessation counseling.

Numerator: Patients who screened positive for tobacco use and were provided tobacco cessation counseling (includes 3 minutes or more) at their last visit.

Denominator: All patients who screened positive for tobacco use in the past 12 months.

Arrange: Percentage of tobacco users whose follow-up was arranged. Examples of how this activity could be measured include: Percentage of tobacco users who received follow-up within two weeks after their actual appointment. Percentage of tobacco users who were referred to the New York State Smokers' Quitline; or Percentage of tobacco users who were referred to a local cessation program.

Numerator: Patients who received follow-up contact within two weeks of their actual appointment.

Denominator: All patients over the age of 13 who screened positive for tobacco use in the past 12 months.

- Set benchmarks by comparing a provider's or organization's performance with an external or internal standard. Benchmarks can stimulate healthy competition to improve performance on selected measures. Benchmarks can be generated by comparing a provider or organization to the following:
  - Provider :
    - Peers within a department or across the organization
    - Aggregate rates from similar organizations in the same city or region
    - A Federal or State Regulation Standard
  - Organization:
    - Similar organizations in the same city or region
    - A larger group of organizations across the country
    - A Federal or State Regulation Standards

- Set timeline for performance feedback and clearly identify staff member who will be creating reports.

  Determine Timeline: For example, distribute reports on a regular basis (e.g., monthly, quarterly), circulating the previous reporting period's data by the end of the first month of the next reporting period.

  Identify Performance Feedback Creator and Distributor: For example, Director of Quality Improvement, Medical Director, or Chief Operations Officer.

- Encourage staff to provide their own responses to performance feedback reports.

  Staff Feedback: Staff feedback is important to ensure that data is being captured accurately. If staff see any discrepancies, this creates an opportunity to review the data system to ensure accuracy and can also create training opportunities in terms of skills building and documenting. This feedback loop is critical to ensure that all glitches and needs are addressed to ensure the highest quality.

- Comparing regularly reported (e.g., monthly, quarterly) and annual performance feedback data can show progress over time, assisting organizations with identifying areas in need of improvement and/or successful interventions, and, ultimately, tailoring future interventions to meet desired benchmarks.

REGULAR TOBACCO DEPENDENCE TREATMENT PERFORMANCE FEEDBACK EXAMPLE

Performance Measures:

Ask: **Numerator:** Patients who were screened for tobacco use at least once within the last 12 months
Denominator: All unduplicated patients ages 13 years or older

Advise: **Numerator:** Patients who were advised to quit at their last visit
Denominator: All unduplicated patients over the age of 13 who screened positive for tobacco use in the past 12 months

Assess: **Numerator:** Patients who were assessed for readiness to quit at their last visit
Denominator: All unduplicated patients over the age of 13 who screened positive for tobacco use in the past 12 months.

Prescribe: **Numerator:** Patients who screened positive for tobacco use and were prescribed with a tobacco cessation medication at their last visit
Denominator: All patients over the age of 13 who screened positive for tobacco use in the past 12 months

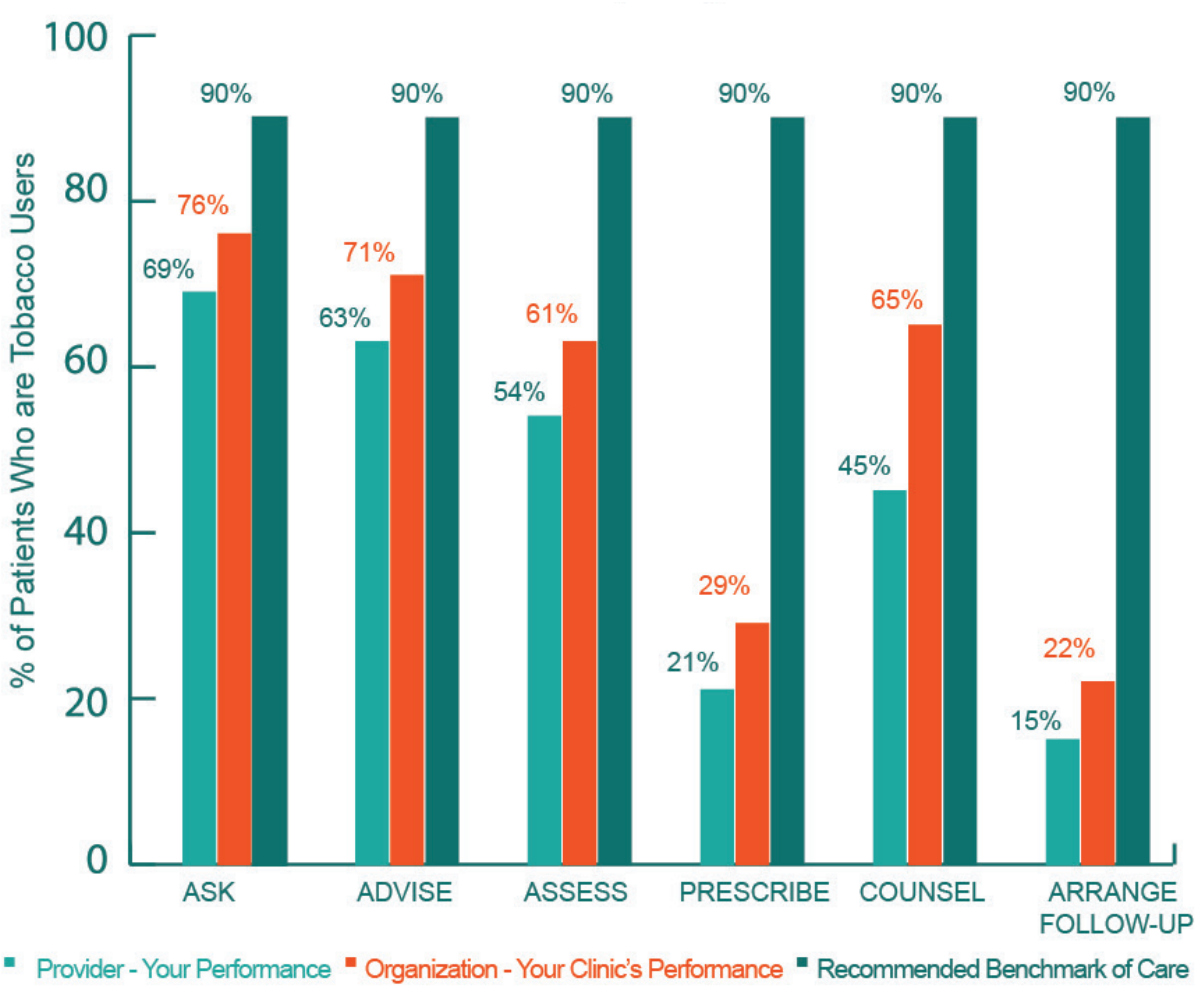
Counsel: **Numerator:** Patients who screened positive for tobacco use and were provided tobacco cessation counseling (includes 3 minutes or more) at their last visit
Denominator: All patients who screened positive for tobacco use in the past 12 months

Arrange: **Numerator:** Patients who received follow-up contact within two weeks of their actual appointment
Denominator: All patients over the age of 13 who screened positive for tobacco use in the past 12 months

Data Source: Electronic health record (EHR) data.

Why these measures are important: These measures provide a snapshot of current provider and organizational practice with regards to the standard delivery of tobacco dependence treatment using the evidence-based 5A model (Ask, Advise, Assess, Assist [Prescribe, Counsel], Arrange-Follow-up).

PATIENTS TOBACCO DEPENDENCE TREATMENT PERFORMANCE FEEDBACK FOR (REPORTING PERIOD)



PATIENTS TOBACCO DEPENDENCE TREATMENT PERFORMANCE MEASURE DATA SUMMARY EXAMPLE: 2014 – 2015

DATA MEASURE: TOBACCO DEPENDENCE TREATMENT QUALITY INDICATORS, 2014 - 2015									
	2014				2015				2014-2015 Difference*
	QI	Q2	Q3	Q4	QI	Q2	Q3	Q4	
Ask									
Provider <Insert Name>	53.0%	55.0%	58.0%	60.0%	65.0%	61.0%	68.0%	69.0%	+16%
Clinic <Insert Name>	65.0%	69.0%	72.0%	74.0%	75.0%	71.0%	72.0%	76.0%	+11%
Regional Benchmark	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	-
Advise									
Provider <Insert Name>	45.0%	47.0%	46.0%	48.0%	50.0%	55.0%	61.0%	63.0%	+18%
Clinic <Insert Name>	58.0%	65.0%	64.0%	63.0%	68.0%	69.0%	70.0%	71.0%	+13%
Regional Benchmark	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	-
Assess									
Provider <Insert Name>	38.0%	38.0%	39.0%	43.0%	43.0%	46.0%	50.0%	54.0%	+16%
Clinic <Insert Name>	51.0%	52.0%	56.0%	58.0%	59.0%	60.0%	61.0%	63.0%	+12%
Regional Benchmark	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	-
Prescribe									
Provider <Insert Name>	15.0%	19.0%	18.0%	21.0%	20.0%	15.0%	18.0%	21.0%	+6%
Clinic <Insert Name>	22.0%	21.0%	23.0%	23.0%	26.0%	27.0%	26.0%	29.0%	+7%
Regional Benchmark	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	-
Counsel									
Provider <Insert Name>	30.0%	35.0%	35.0%	39.0%	41.0%	39.0%	43.0%	45.0%	+15%
Clinic <Insert Name>	55.0%	56.0%	57.0%	57.0%	59.0%	62.0%	66.0%	65.0%	+10%
Regional Benchmark	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	-
Arrange Follow-up									
Provider <Insert Name>	22.0%	21.0%	21.0%	22.0%	20.0%	18.0%	17.0%	15.0%	-7%
Clinic <Insert Name>	22.0%	20.0%	19.0%	22.0%	24.0%	26.0%	25.0%	21.0%	-1%
Regional Benchmark	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	-

Tobacco Dependence Treatment Performance Measure Data Summary Example: 2014 – 2015

Note: The data summary uses the numerator and denominators for Ask, Advise, Assess, Prescribe, Counsel, and Arrange mentioned on previous page and demonstrates the adherence rates over a two-year period to monitor changes over time.

*Difference between the two percentages expressed as a percent change. The measure is calculated calculating the different between the last period reported (Q4 2015), minus the first period reported (Q1 2014).