

Center of Excellence for Health Systems Improvement Tobacco Dependence Treatment Financial Modeling Tool

Section 1: Introduction

Tobacco use is the leading cause of preventable disease, disability, and death in the United States. An estimated 36 million adults in the U.S. currently smoke cigarettes, and over 16 million individuals in the U.S. live with a tobacco-related disease.¹ In New York State (NYS), although the adult smoking rate is at a record low, tobacco use still claims approximately 28,000 lives annually, and approximately 2 million adult New Yorkers continue to smoke cigarettes. The current overall adult cigarette smoking prevalence rate in NYS is 14.2%, and rates are much higher among adults with behavioral health issues (26%), individuals with less than a high school education (19.2%), and individuals who earn <\$35,000 annual salary (19.1%).²

To assist healthcare organizations in addressing this ongoing issue, The Center of Excellence for Health Systems Improvement (COE for HSI) provides technical assistance and support to 10 Regional Health Systems Improvement (HSI) Grantees across NYS who work closely with hospital systems, Federally Qualified Health Centers (FQHCs), and Behavioral Health organizations to put systems into place to ensure that every tobacco user is screened, offered education and counseling, and receives timely TDT, if desired.

The Financial Modeling Tool is a resource meant to assist HSI Grantees and the healthcare organizations that they work with in determining the financial impact of providing TDT services. The tool can be used to analyze and compare the projected financial impact of various scenarios for providing TDT services. The tool will also assist in identifying and capturing all tobacco related contract information, which will allow for better business planning for these services.

Section 2: Rationale for Providing Tobacco Dependence Treatment

Systems Changes Strategies That Support Tobacco Cessation

Healthcare providers and organizations have the ability to make significant reductions in tobacco use among their patients, which can be accomplished by putting systems into place that ensure that every patient is screened for tobacco use and offered appropriate treatment. This can include providing tobacco cessation counseling and prescribing Nicotine Replacement Therapy **on-site**, and concomitant use of other resources for support like the NYS Smokers' Quitline (1-866-NY-QUITS). The U.S. Public Health Service (PHS) Clinical Practice Guidelines advise that in order for healthcare organizations to successfully reduce tobacco use, each of the following Systems Change Strategies can be undertaken:³

- 01  Implement a tobacco user identification system at every site/clinic
- 02  Provide education, resources, & feedback to promote provider intervention
- 03  Dedicate staff to provide tobacco dependence treatment and assess its delivery in performance evaluations
- 04  Provide tobacco dependence treatments (both counseling and medication)



Healthcare providers can contribute significantly to ending tobacco use. Patients that are advised to quit using tobacco by their physicians are 1.6 times more likely to quit than patients not receiving physician advice.⁴ According to National Adult Medicaid Consumer Assessment of Healthcare Providers and Systems (NAM CAHPS) data, as of 2015:⁵

- 27% of adult Medicaid beneficiaries reported use of tobacco, with 17% using tobacco every day and about 10% using tobacco on some days
- Among beneficiaries who reported tobacco use, 74% reported being advised by a health provider to quit
- 44% reported that their health provider recommended medication to assist with quitting tobacco use
- 39% reported that their health provider recommended methods other than medication (e.g.; referral to a Tobacco Quitline) to assist with quitting tobacco use

While some clinicians are advising patients to quit tobacco use, many are still missing opportunities to discuss tobacco cessation strategies and provide pharmacotherapy. Barriers to providing these services are well-known; clinicians don't have the time, frequently lack the training, lack a supportive practice design/workflow, and fail to maximize their reimbursement for providing this crucial service. Yet for most health plans, including Medicare, Medicaid, and Medicaid Managed Care, counseling patients to quit using tobacco is a reimbursable service.

Tobacco Cessation Benefits

As of December 1, 2016, Medicaid Fee for Service (FFS) and Medicaid Managed Care companies (MMCs) have aligned criteria to provide the following Tobacco Cessation Benefits to all members:⁶

- ✓ Unlimited annual quit attempts for tobacco cessation agents (removed the previously placed two quit-attempts annual limit)
- ✓ Prior Authorization of tobacco cessation agents is not needed (exceptions apply for brand name medications that have generic equivalents available)
- ✓ Formulary coverage of all 7 FDA-approved tobacco cessation agents
- ✓ Allow concomitant use of 2 tobacco cessation agents
- ✓ Follow FDA approved limits for Age Restrictions
- ✓ Follow FDA approved supported Quantity Limits

Tobacco Cessation benefits offered by private insurers vary by payer

Section 3: Introduction to this Tool

The Purpose of this Tool

The TDT Financial Modeling Tool is intended to help you examine the financial impact of providing TDT at your health care organization, specifically Tobacco Cessation Counseling (TCC) services and on-site pharmacotherapy (if provided). Utilizing this tool creates the opportunity for you to compare the cost and reimbursement of providing on-site counseling and on-site *distribution* of pharmacotherapy to make the financial case and/or calculate the financial impact for providing this potentially lifesaving treatment.

Specifically, it is designed to consider costs and revenues associated with TDT services, and to determine if a profit can be realized, or if losses are projected for the provision of these services. Information gleaned can help support health care organizations in negotiating with third-party payers (TPP); both to identify payers for which these services need to be added to your contract, and to identify plans for which costs for providing tobacco dependence medications and counseling are higher than the reimbursements received.



Who Should Use this Tool

The TDT Financial Modeling Tool was designed specifically for use by Executive Leadership and Finance Team-members within health care organizations, but it can also be a useful experience to involve healthcare providers and frontline staff in completing this exercise. The tool was meant to be used by FQHCs, Community Health Centers, and Behavioral Health organizations, but can also be used by hospitals and small practices. Healthcare organizations would benefit from working in partnership with COE for HSI or their HSI Grantees to complete this tool.

Section 4: Background on this Tool

How this Tool Calculates the Financial Impact of Providing TDT

The Tobacco Dependence Treatment Financial Modeling Tool calculates revenue assuming TCC interventions are either 3-10 minutes (intermediate counseling) or 11+ minutes (intensive counseling). Guidelines recommend fostering motivation (using the [5R methodology](#)), and/or providing treatment (using the [5A methodology](#)) for all smokers on each visit. The model assumes that at least 3 minutes are necessary to review foster motivation and/or provide treatment, and is set up to project costs and contribution margin based on half intermediate and half intensive TCC visits. **This formula can be changed (COE for HSI can provide Technical Assistance with this) to allow your facility to explore using different combinations of TCC visit types and determine how these various scenarios would affect your contribution margin.**

What this Tool Contains

The Tobacco Dependence Treatment Financial Modeling Tool is a Microsoft Excel workbook that contains three different spreadsheets that will help you in examining the financial impact of providing TDT at your health care organization.

- The first spreadsheet, **(1) Modeling Tool – TCC**, is a modeling tool designed to assist you in calculating costs and reimbursements associated with TCC services.
- The second spreadsheet, **(2) TPP Reimbursement Fact Sheet**, is a tool designed to assist you in capturing all the relevant data from your TPP reimbursement sources. When you enter data in this tool regarding payer names and reimbursement rates it will link to the first spreadsheet, **(1) Modeling Tool – TCC**, and accurately calculate reimbursements.
- The third spreadsheet, **(3) Medication Sheet**, assists you in capturing both the costs and revenue associated with the *on-site distribution* (not prescribing) of nicotine replacement therapy. Although prescribing nicotine replacement therapy meets the intent of the recommended treatment process using the 5A methodology, on-site distribution allows the patient to receive the nicotine replacement therapy more quickly and conveniently. The **(3) Medication Sheet** also provides an example for a typically prescribed course of treatment. For more specific information regarding recommended courses of treatment for tobacco cessation, please see the link under “Resources” on page 9 of this document titled [NYC DOHMH Smoking Cessation Medication Prescribing Chart](#).

Information Required to Complete the Tool

To complete the Financial Modeling Tool, you will need information from your TPP contracts as well as from your electronic health record (EHR) or Practice Management system. Utilize the following information to complete the analysis of the financial impact of providing **TCC services**:

- Number of patients by payer type for a specified time period (of your choice)
- Number of visits for the same time period, by payer type



- While not necessary, number of patients who use tobacco that were seen in that same time period (if you are not able to obtain this information, the modeling tool will utilize evidence-based data to predict the estimated percent of your patient population who use tobacco)
- TPP contract information related to TCC covered services (see **TPP Reimbursement Fact Sheet** for details). **You must have reimbursement rates for TCC services for the tool to calculate, however other information on the spreadsheet is helpful but not necessary.**
- Hourly rate of pay (including fringe benefits) for provider(s) who would be providing these services

If you will be providing *on-site distribution* (not prescribing) of nicotine replacement therapy, you will also need the following information to complete the analysis for the financial impact of **on-site distribution of nicotine replacement therapy**:

- Covered pharmaceuticals and reimbursement rates for each of your TPP contracts
- Average cost to purchase each specific nicotine replacement therapy form

Section 5: How to Use this Tool

These step-by-step instructions will guide you as you complete the analysis of the financial impact of providing TDT at your health care organization. It is important to note:

- Cells that require manual data entry are shaded in **red**, and will turn **green** when data are entered.
- Cells that are not shaded in red are *formulated* cells that will populate automatically.
- You will not need to use the **(3) Medication Sheet** if you are not considering *on-site distribution* (not prescribing) of nicotine replacement therapy.
- Save each version that you create so that you will have a copy for reference of all financial projections using differing scenarios.

Step 1: Enter Your Health Care Organization's Information into "Modeling Tool - TCC"

Start by entering basic information specific to your health care organization in the four cells found in the top left-hand corner of **(1) Modeling Tool – TCC**, also shown below. Note:

- For text-cells, such as those shown in the screenshot to the right, **you must double-click on the cell to be able to enter data.**
- Text cells **will not turn green** upon entering data
- For numerical data, it is not necessary to double-click on the cell.

Health Center Name:	Date of Analysis:	Version:	Completed by:

Step 2: Enter the Names of Payers into TPP Reimbursement Fact Sheet

Enter the names of the Medicaid Managed Care Organizations (MMC) and Private Health Insurance Companies that you currently contract with on the **(2) TPP Reimbursement Fact Sheet**. When entered, the names of the payers that you enter within the cells (displayed) will carry over to the **Modeling Tool – TCC** and **Medication Sheet**.

MMCO 1:	HealthFirst
MMCO 2:	Affinity
MMCO 3:	
MMCO 4:	
MMCO 5:	
Medicare	
PI 1:	Aetna
PI 2:	Anthem
PI 3:	
PI 4:	
PI 5:	



Step 3: Enter # of Patients and Patient Visits onto “Modeling Tool – TCC”

Enter the number of patients and patient visits for each payer, including Self Pay patients, as shown. The average number of visits per patient per year by payer will automatically calculate based on the data you enter.

Third-Party Payer		# of Patients	# of Visits	Visits/Pt/Year
Medicaid FFS		514	1651	3.2
MMCO 1:	HealthFirst	344	578	2.4
MMCO 2:	Affinity	299	701	2.3
MMCO 3:	HealthPlus	354	795	2.2
MMCO 4:	MetroPlus	409	920	2.3
MMCO 5:	Wellcare	464	701	1.5
Medicare		407	1778	4.4
PL 1:	Aetna	288	411	1.4
PL 2:	Anthem	515	2074	4.0
PL 3:	BCSS	45	210	4.8
PL 4:	Cigna	988	2007	2.0
PL 5:	Oxford	98	301	3.1
Self Pay		51	62	1.3
TOTAL		4676	12196	

Step 4: Enter Hourly Rate of Clinician

Next, enter the hourly rate of pay (including fringe benefits) of the clinician who will be providing Tobacco Cessation screening and counseling in cell K2 of the **(1) Modeling Tool - TCC**.

Enter clinician hourly rate, including fringe benefit rate in cell K2	
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Step 5: Revenue, Expense and Margin Calculations

This model utilizes two methodologies to calculate revenue and contribution margin. You could choose to use both, or either of the two:

Methodology 1

If your organization uses an EHR that allows you to record patient/client tobacco-use status, enter the number of known tobacco-users in cell G2 of the **(1) Modeling Tool - TCC**. Columns with orange cells will then populate.

Enter total number of patients that use tobacco in cell G2 (from EHR data)	
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Methodology 2

If your organization is not able to quantify the number of patients/clients that are known tobacco-users, leave this cell blank. The estimated number of tobacco users, by payer, based on data from the NYS DOH Office of Quality and Safety regarding average percent of tobacco users by payer, will automatically populate. Once column C is completed in the **(1) Modeling Tool - TCC**, columns H and I will automatically populate.

Estimated # of pts eligible for TCC (based on est % of population that uses tobacco)	Estimated # TCC visits/year (based on est % of population that uses tobacco)
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Using Both Methodologies

If you input the known number of tobacco users into cell G2 of the **(1) Modeling Tool - TCC**, the tool will display the estimated total cost, revenue, and contribution margin based on **both** your known number of tobacco users **and** the estimated percent of tobacco users, by payer, based from the NYS DOH Office of Quality and Safety data. This is differentiated by the color scheme utilized on the **Modeling Tool – TCC** (Orange = results based on EHR data, Gold = results based on estimated percent of tobacco users by payer).

Total Cost TCC all projected visits (1/2 intermediate, 1/2 intensive), based on EHR data	Estimated Total Cost TCC all projected visits (1/2 intermediate, 1/2 intensive, based on est % of population that uses tobacco)	Revenue (using EHR data)	Estimated Revenue (based on est % of population that uses tobacco)	Contribution Margin (using EHR data)	Estimated Contribution Margin (based on est % of population that uses tobacco)
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Step 6: Delete Rows Not Utilized

For the tool's formulas to correctly calculate the **totals** for each column, you must delete any rows that are not utilized for MMCOs and Private Insurers in the **(1) Modeling Tool - TCC**. Do this by selecting any rows that are not used, right clicking on the selected rows, and selecting "Delete." An example of the deletion process of unused MMCO and Private Insurer rows are pictured here. COE for HSI or your HSI Grantee can assist you with this process if needed.

Medicaid FFS		514	1651	3.2	0	0
MMCO 1: HealthFirst		244	578	2.4	0	0
MMCO 2: Affinity					0	0
MMCO 3: HealthPlus					0	0
MMCO 4: D					#DIV/0!	#DIV/0!
MMCO 5: D					#DIV/0!	#DIV/0!
Medicare		1778		4.4	0	0
PI 1: Aetna		411		1.4	0	0
PI 2: Anthem		2074		4.0	0	0
PI 3: BCBS		215		4.8	0	0
PI 4: Cigna		2007		2.0	0	0
PI 5: Oxford		301		3.1	0	0
Self Pay		62		1.2	0	0
TOTAL		0573		0	#DIV/0!	#DIV/0!

Step 7: Review Profit (Contribution Margin) of Providing TDT

At this point, row 17 on the **(1) Modeling Tool – TCC** will provide you with a total for each column. The row labeled:

- "Total" within column P provides a **Contribution Margin (profit)** which includes all payers based on the number of tobacco users at your site that you entered into cell G2.
- "Total" within column Q provides an **estimated Contribution Margin (profit)** based on evidence-based data regarding average percent of tobacco users by payer.

These cells will give you a broad picture of whether a profit can be realized by providing TDT services within your health care organization. **If you are not considering on-site distribution (not prescribing) of nicotine replacement therapy, you have now completed your analysis.**

Step 8: Enter the Cost of Nicotine Replacement Therapy

If you are planning to distribute on-site nicotine replacement therapy, you will now complete the **(3) Medication Sheet**. The names of your payers will be carried over to the **(3) Medication Sheet** if you have already entered them on the **(2) TPP Reimbursement Fact Sheet**.

Enter the cost to your health care organization for each of the 7 FDA-approved nicotine replacement therapies in Row 3 of the **(3) Medication Sheet**.

Medication	Bupropion (Zyban)	Nicotine Gum	Nicotine Inhaler	Nicotine Lozenges	Nicotine Nasal Spray	Nicotine Patches	Varenicline (Chantix)
Cost	\$98.00	\$15.00	\$125.00	\$28.00	\$89.00	\$30.00	\$107.00

Step 9: Enter the Reimbursement Rates for Each Nicotine Replacement Therapy

Next, enter the contracted reimbursement rates in columns C to I of the **(3) Medication Sheet** for each nicotine replacement therapy as offered by each payer.

Third Party Payer	Reimbursement						
Medicaid FFS							
MMCO 1: HealthFirst	\$121.00	\$18.00					
MMCO 2: Affinity	\$104.00						
MMCO 3: HealthPlus	\$115.00						
Medicare							
PI 1: Aetna							
PI 2: Anthem							
PI 3: BCBS							
PI 4: Cigna							
PI 5: Oxford							
Self Pay							



Step 10: Review Pharmaceutical Cost vs. Reimbursement for Nicotine Replacement Therapy, and Review Profit for Providing On-Site NRT for an Example Course of Treatment

Use columns C through I to identify NRT cost vs. reimbursement issues.

Columns J to L provide an example of revenue, cost and contribution margin (profit) associated with a typical course of treatment utilizing nicotine patches. These columns will automatically populate once data are entered in column H as well as the patient visit data on the **(1) Modeling Tool – TCC**. The model assumes 30% of patients utilizing tobacco products will elect to use this example course of pharmaceuticals (**again, this formula can be changed**).

Section 6: How to Use the Findings from Your Analysis

If the amounts you arrive at on the **(1) Modeling Tool – TCC**, and **(3) Medication Sheet** are “in the black” (a positive value), the tool is predicting that your organization will realize a profit from providing TDT services, and you have much of the information needed to make your business case. Remember to take a close look at the data in columns P and Q by each payer in **(1) Modeling Tool – TCC**. This will illustrate which payers, based on visit volume, clinician costs, and reimbursement rates entered, represent profits and which represent losses. Margins can be increased and/or improved by exploring several options, some of which include:

- Increasing visit volume,
- Lowering clinician costs (utilizing a lower level clinician),
- Negotiating higher reimbursement rates, and
- Identifying where services are not contractually covered, and pursuing contracted reimbursement for these services.



The information in the tool does not need to be exact. It is a starting-point for better understanding the net financial impact of providing tobacco dependence treatment services.

Section 7: Other Helpful Hints

To most effectively and efficiently capture revenue associated with TDT and achieve program goals, it is important to:

- Adapt billing forms to include tobacco-cessation services codes
- Monitor monthly:
 - Number of tobacco users
 - 1. Number of Tobacco Cessation Counseling interventions
 - 2. Medications prescribed (type and amount)
 - 3. Charges and reimbursement for TCC codes. Identify any denial issues promptly and address.
- Use established TDT quality measures (such as HEDIS, NCQA) to evaluate TDT performance. COE for HSI can advise your organization in creating your own quality/performance measures and collecting data regarding tobacco dependence treatment if you would like.
- Train providers on the measures, and provide monthly feedback on performance.



Resources

1. Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs — 2014. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
2. Independent Evaluation of the NY Tobacco Control Program, RTI International; October 2017 (2016 NYS Prevalence Rates).
3. U.S. Public Health Service (PHS) Clinical Practice Guidelines Quick Reference Guide: Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update. Quick Reference Guide for Clinicians*. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. April 2009.
4. Caplan, L., et al. *Training Physicians to Do Office-based Smoking Cessation Increases Adherence to PHS Guidelines*. [J Community Health. 2011 Apr; 36\(2\): 238–243.](#)
5. *Medical Assistance with Smoking and Tobacco Cessation: Findings from a 2014- 2015 Nationwide Survey of Adult Medicaid Beneficiaries* (NAM CAHPS Analytic Brief) <https://www.medicaid.gov/medicaid/quality-of-care/downloads/performance-measurement/brief-tobacco-cessation.pdf>
6. [March 2017 NYS Medicaid Update on Tobacco Cessation Coverage](#)
7. [Issue Brief: Medical Assistance with Smoking and Tobacco Cessation: Findings from a 2014-2015 Nationwide Survey of Adult Medicaid Beneficiaries](#)
8. [Center of Excellence for Health Systems Improvement for a Tobacco Free NY ICD-10 Billing Guide](#)
9. [Center of Excellence for Health Systems Improvement for a Tobacco Free NY ICD-10 Billing Scenarios](#)
10. [Article 31 OASAS and OMH Guide](#)
11. [June 2016 Behavioral Health Transition to Managed Care Medicaid Update](#)
12. [NYC DOHMH Smoking Cessation Medication Prescribing Chart](#)
13. [ICD10 Code Guidance Document](#)
14. [NYS OMH Clinic Guidelines](#)
15. [AHRQ's 5R Methodology Guidance](#)
16. [AHRQ's 5A Methodology Guidance](#)
17. U.S. Department of Health and Human Services. (2014). The health consequences of smoking – 50 years of progress: A report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2014. Printed with corrections, January 2014.
18. Behavioral Risk Factor Surveillance System Brief, Number 1704. New York State Department of Health, Bureau of Chronic Disease Evaluation and Research.

