handout # 3

Guide for Collecting Expenditure Data in a Clinical Intervention in a Primary Care Practice

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Introduction and Objectives

This is a guide for collecting data on the expenses necessary for primary care practices like yours to (1) plan/prepare, (2) implement/deliver, and 3) adopt innovative interventions. The guide is not intended to facilitate data collection for a full-fledged cost-benefit or cost-effectiveness study. Instead, the results of these studies are intended to:

- Provide primary care clinicians and staff an understanding of the amount and types of expenses necessary to implement an intervention in their own practice, and
- Present a cohesive argument to payers about the need for redesigned reimbursement systems for primary care practices to deliver these needed services.

The guiding research question is **"What are the incremental in-practice expenses that are attributable to an intervention?"** This question is based on the premise that the tools necessary to deliver the intervention have been previously developed and do not need to be re-created to implement in other settings.

To arrive at a believable estimate, expenditure data will be collected at various points during an intervention using a series of tables and figures with standardized categories and definitions to help capture all of the in-practice expenditures involved with an intervention. The original guide and tables were put together as part of the Robert Wood Johnson sponsored Prescription for Health (P4H) studies. The effort was led by a six-person steering committee headed by co-PIs Martey Dodoo and Alex Krist with representation from two participating research networks, the Analysis Team, and the National Program Office (NPO) of P4H. This committee was charged with making pragmatic decisions to ensure that the data collection tools and protocol presented here provide credible estimates of the expenditures a primary care practice could expect to make to: 1) plan/prepare, 2) implement/deliver and 3) adopt a P4H intervention.

It is important that you review this guide, particularly the sections on “Getting ready to complete the data reporting figures and tables” (pg. 6) and the key definitions (pg. 8) before you start to collect data using the figures and tables.

Research Design and Scope

The table below presents the full scope of potential expenditures that may be involved in a study as a 3 x 3 matrix of expenditure types and locations.

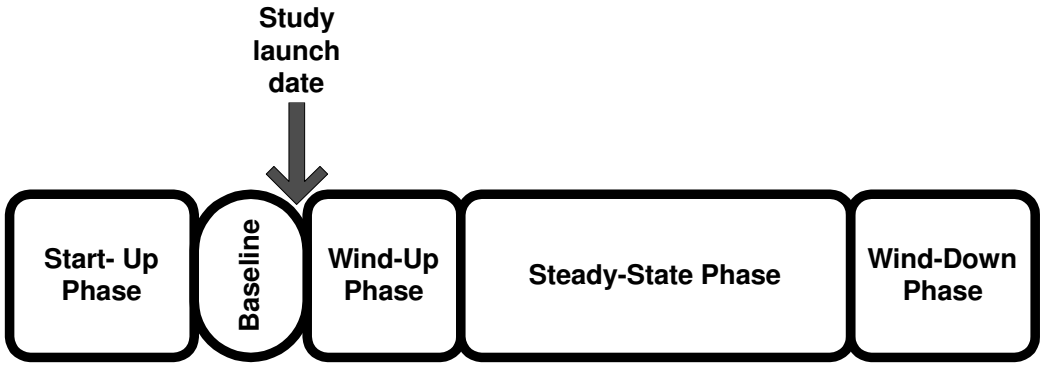
Potential Expenditures, Types, and Locations

	Location where Expenditure occurred	
Expenditure Type	**In-Practice**	**Out-of Practice***
Start-up expenditures		
Expenditures on staff		
Operating expenditures		

Notes:
* Location other than the practice

Study Stages, Data Collection Tools and Schedule

There are five different stages that practices normally undergo as interventions are implemented and carried out. Data may be collected using four standardized tools: Figure 1 and Tables 1, 2, and 3. The diagram below describes an illustrative data collection schedule according to the five study stages and the data collection tables and figures associated with each of these stages.

General Study Stages							
	Start-up	**Baseline**	**Wind-up**	**1st half steady state**	**Middle of steady state**	**End of steady state**	**Wind down to end of study**
Data Collection Schedule	Startup expenses (Table 1)	Patient flow diagram (Figure 1) Operation expenses (Table 3)			Patient flow diagram (Figure 1) Operation expenses (Table 3) Staff salary (Table 2)	Patient flow diagram (Figure 1) Operation expenses (Table 3)	
Data Reporting Period	Entire startup period (project dependent)	1 month			1 month	1 month	

1. Start-up

The start-up stage is the period before the intervention actually begins. It is the initial preparatory stage in the practices when much of the planning takes place for implementing the project into practices.

During the start-up stage, practices can use **Table 1** to track and collect all incurred start-up expenses. An example of start-up expenditures are the expenses required to adapt an existing tool (e.g. survey to screen patients for unhealthy behaviors) to a practice site for use during the intervention. Such expenditures may take the form of staff time, administrative materials, and/or use of equipment.

By the end of this stage, start-up expenses may be collected using Table 1 (see pg. 10 for specific instructions).

2. Baseline

The baseline stage is the period just before the launch of the intervention in practices, and is the first reference point in a *before-after* study.

During the baseline stage, practices may complete **Figure 1** to track and report the number of patients participating in all and any of the different phases/steps of the intervention (see p. 7 for specific instructions).

Practices may also use **Table 3** to track and collect all and any expenses (see pg. 15 for specific instructions). By the end of this stage any patients participating in the intervention may be counted using Figure 1, and staff time and all expenditures may be collected using Table 3.

3. Wind-up

The wind-up stage occurs after the launch of the intervention when recruitment has started and participation rates begin to increase.

There is no data collection during this stage.

4. Steady state

The steady state stage is the main operating phase of the project when participants are being recruited and the intervention is being delivered with possible minor changes to the intervention taking place.

Approximately halfway through the study's steady state and again at the end of the steady state (approximately one month before the wind-down stage begins), practices may again complete **Figure 1** to report the number of patients participating in the different phases/steps of the intervention, as well as **Table 3** to track and collect all operating staff time and expenses.

Also approximately halfway through the study's steady state, practices may complete **Table 2** to collect average monthly salaries and fringe benefits for all in-practice clinicians and staff directly involved in the delivery of the intervention (see pg. 13 for specific instructions).

5. Wind-down

The wind-down stage is when the project is no longer in full operation, preparing to end, and participation rates may be falling. Some practices may continue their interventions with no wind-down stage.

There is no data collection during this stage.

Getting Ready to Complete the Figures and Tables

As a practice clinician or staff person expected to collect and report on expenditure data for this intervention, it's important that you review and understand the data collection tools before you begin collecting expenditure data. Careful review of these tools will help you think in advance about specific expense information you may need to include on these forms.

Step 1: ***Review Figure 1, Key Definitions, and Tables 1, 2, and 3***

Figure 1 was created to depict the potential steps/flow that patients in a practice will experience when participating in the intervention. Please review this figure carefully and make sure that you understand this hypothetical flow diagram and how it can be adapted to fit your intervention. Also begin to consider who in your practice will be involved in delivering each step. It is very important that the information on this figure is accurate, as it organizes the categories of expenses in the data collection tables (Tables 1, 2 and 3).

Step 2: ***Identify necessary people***

After you have reviewed Figure 1, Tables 1, 2 and 3, carefully, begin thinking about who in your practice is necessary and best suited to provide the data you will collect with these tools. Generally, you will need input from people who are directly involved in delivering the intervention (e.g. practice clinicians and staff) and can quantify the amount of time they spend delivering their part of the intervention, as well as the number of patients that have participated in the intervention. You will also need to confer with the person(s) who have knowledge of the practice's expenses and the specific expenses related to the intervention, such as staff salaries, equipment, phones and utilities, travel and transportation, and administrative supplies (e.g. the practice manager).

Step 3: ***Identify necessary information***

Gather the necessary expense information and have it readily available as you begin to complete the tables. Information sources to consider may include lists or spreadsheets of staff salaries, office expenses, intervention expenses, or end-of-the-year tax files.

Step 4: ***Complete Figure 1 and Tables 1, 2, and 3***

When completing the figure and tables (even at baseline) record all data available for each of the tables. When you encounter a cell/item for which you incurred no expenses, please enter "0" rather than leaving the cell blank. If you are unsure of the accuracy or appropriateness of the data available, please use the "Notes" section at that bottom of each table to record how you obtained the data.

Step 5: ***Record unanticipated expenses***

When completing the figure and tables (even at baseline) record any unanticipated and/or additional expense items that are not already listed in these instruments in the "Notes"

section at the bottom of each sheet. It's important that to have the most accurate account of all the expenditures your practice incurred when implementing and delivering your intervention, which often means you must account for expense items left out of the generic tables.

Instructions for Completing Figure 1: Patient Flow Diagram

Figure 1 shows an example of the flow or steps that patients may experience when participating in your intervention. The flow diagram may be used to collect data on the number of patients who participated and completed each step of an intervention. The information you provide at different stages of the study may be used later to calculate how much was spent to deliver the intervention per patient and for all patients that participated in the study.

Step 1: ***Understanding the figure***

Figure 1 is only a hypothetical example of a flow diagram. You may have to adapt this figure to better depict the steps and flow of patients in your practice or during your particular intervention. The Figure 1 adapted for your intervention will be critical in obtaining accurate calculations of how much was spent to deliver the intervention to patients. Please make sure that you understand each step of your intervention and how it may be depicted in Figure 1 (see sample Figure 1 with illustrative patient numbers on the next page).

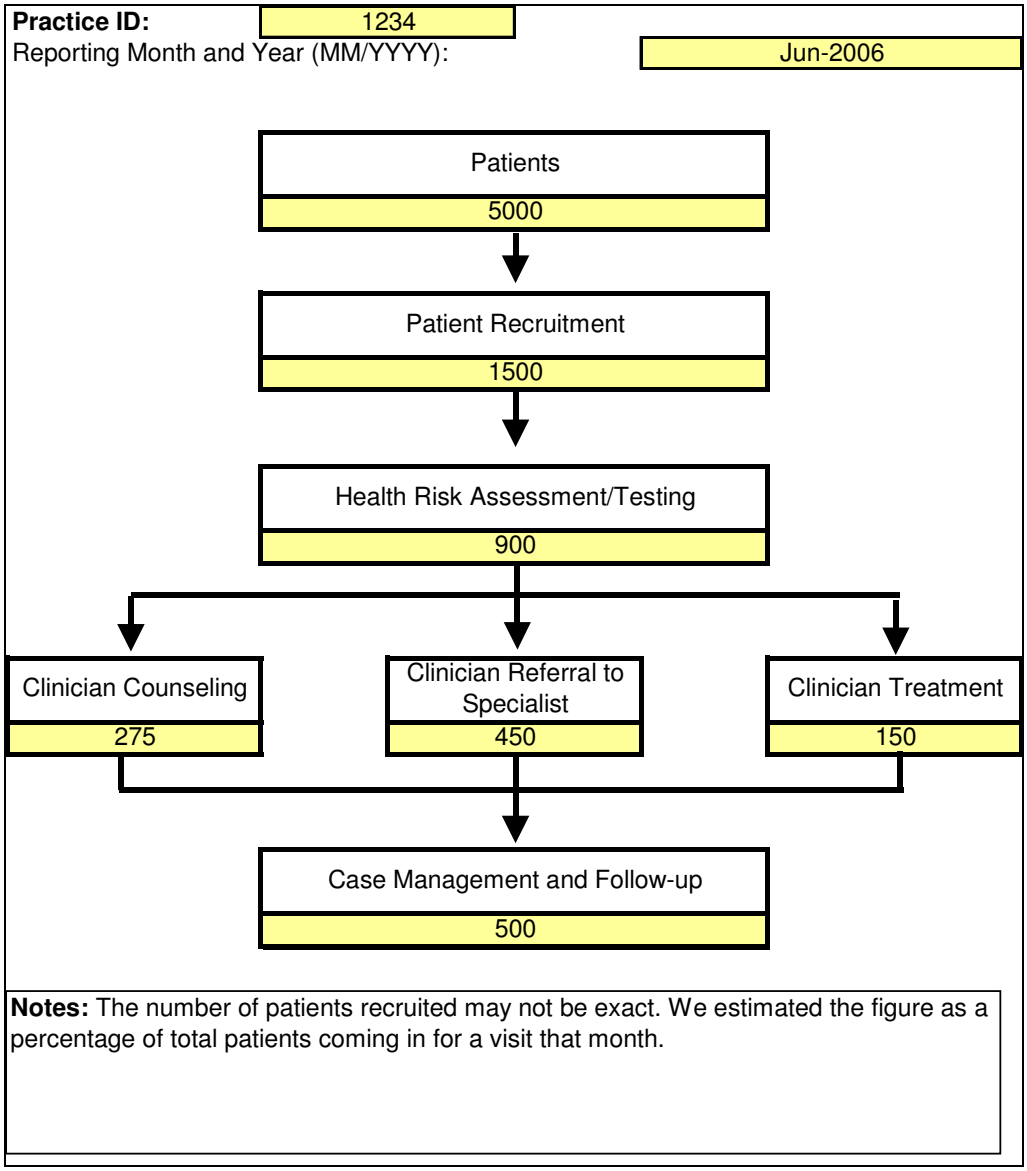
Step 2: ***Fill in identifying information***

After you have adapted Figure 1 to fit the scope of your intervention, fill in all identifying information and the exact dates of the month for which you are reporting patient numbers.

Step 3: ***Fill in patient numbers***

In the designated spaces provided in Figure 1 (highlighted yellow) fill in the number of patients who participated and completed each step of the intervention. Please include exact number of patients for each step. If you can provide an estimate only, please report how you determined this estimate in the "Notes" section.

Sample Figure 1 with Illustrative Patient Numbers:



Key Definitions

Start-up expenditures are expenditures for those activities or items required for the intervention that **occur before the steady state of the intervention**. For example, start-up expenditures may be necessary when adapting or modifying an existing tool (i.e., survey to screen patients for unhealthy behaviors) to a practice site. These expenditures may take the form of staff time, administrative materials, and use of equipment.

Please note that **development expenditures** are different than start-up expenditures, but both will be included in the scope of the expenditure studies. For example, development expenditures are those expenses incurred to initially develop materials such as websites,

telephone systems, PDA software, screening instruments, training materials, and counseling scripts provided to practices as a finished product to implement and deliver with the goal to test these products as part of their study's intervention. A good rule of thumb to use in differentiating a start-up from a development expense is to ask: Did the practice incur any expense when using this product? If you had to take an existing product and use practice resources to adapt it for use at your site, then the answer would be "yes" and whatever resources you used would be considered start-up expenses. If you used the product as it was and did not use any practice resources to utilize it, then the answer would be "no" and it would be considered a development expenditure.

Non-recurrent expenditures are expenditures for those activities or items that **occur one time only,** such as the purchase of buildings, space occupancy, practice equipment, appliances, furniture, computers, or software. These types of expenses, in some instances, can also be referred to as **Capital Assets**. Please note that for purposes of this study we are interested only in knowing about the non-recurrent/capital assets you acquired specifically for the intervention.

Recurrent Expenditures are expenses that **happen more than one time**. Recurrent activities or items may be repeated daily, weekly or monthly. Examples of recurrent expenditures are salaries, periodic rental fees, or periodic purchasing of office or medical supplies.

Replacement cost is the amount it would cost your practice if you didn't have an item/asset (i.e., office space, furniture, computers) and you needed to make such a purchase (replace it).

Overhead expenditures are expenditures for **activities or items that are devoted to both the intervention and to other regular practice services,** which are often also necessary for your business (practice) to function. Overhead expenditure items often include services and resources that are provided as a regular part of every practice and would be provided whether or not the intervention was taking place. Examples of overhead expenditure items include supervision, management and clerical support, billing services, and phone and utilities. Supervisors, managers and clerical/administrative support staff are often referred to as overhead staff. Please note that for all overhead expenditures, it will be necessary to estimate the proportion/percentage of the activity or item that is devoted to the intervention.

Direct staff are those staff members who provide intervention services or activities that involve **direct patient contact**. Examples include the nurses, counselors, physicians, social workers, and psychologists who provide intervention services **working directly with** patients. You should be able to identify all of your direct staff for each step in the Figure 1 flow diagram.

Instructions for Completing Table 1: Start-up Expenditures or Development Expenditures

Table 1 can be used to capture both the start-up expenditures and development expenditures necessary to implement the intervention in practice. If collecting both types of expenditures, fill out Table 1 once for start-up expenditures and a second time for development expenditures. The information gathered may be used to calculate how much was spent on all start-up and/or development expenditures and can be aggregated with all other expenditure data to arrive at a calculation of total expenditures for delivering the intervention.

Table 1 consists of three sections for reporting start-up expenditures for staff (Section A), non-recurrent/capital assets (Section B), and overhead (Section C). An example of a completed Table 1 is presented below as "Sample Table 1 Screen Shot" and "Sample Table 1 Screen Shot (continued)." The activities listed under Section A of the sample screenshot below are illustrative of typical activities that may be completed during the start-up or development stages. You should change the activities listed to better reflect the activities completed during your intervention.

Step 1: ***Fill in identifying information***

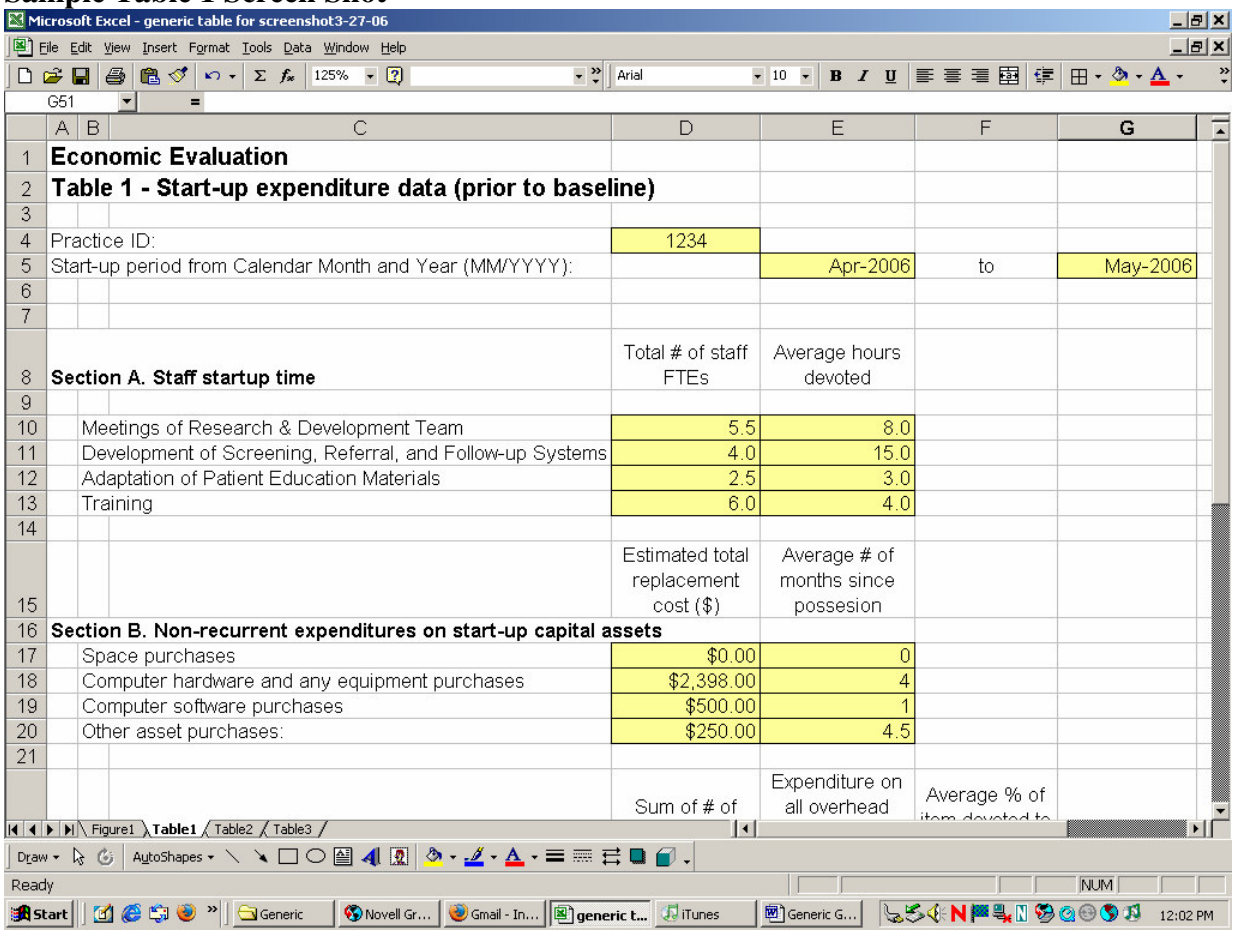
Fill in your practice ID, other identifying information, and the exact dates for which you are reporting start up expenditures. To do this, you will need to determine the dates when your start-up period began and ended. Please make sure that you report expenses for the whole start-up period. Reporting expenses only for the month before your launch date may not accurately represent the entire start-up period.

Step 2: ***Complete Section A (Staff time used at start-up)***

Section A of Table 1 is devoted to time used by staff in intervention activities during the start-up and development periods prior to the official launch of the intervention. We are interested in knowing the amount of time devoted to preparations required to implement the intervention in your practice.

Record the total staff FTE (full time equivalency) and the average of the total number of hours for all research, development, and practice staff involved in activities **during the whole start-up period**. For example, if five full time physicians, and two half time nurses were involved in training during the start-up period, you would record 6.0 under staff FTE for that activity in Table 1 for start-up. If they, on average, spent four hours each on training, you would record 4.0 under "average hours devoted." Similarly, if five full time investigators and one half-time research assistant held meetings for research and development for a total of eight hours, you would record 5.5 under staff FTE and 8.0 under "average hours devoted" in Table 1 for development. You would conduct similar calculations for all other start-up or development activities. See the sample screenshots of Table 1 for a visual example.

Sample Table 1 Screen Shot



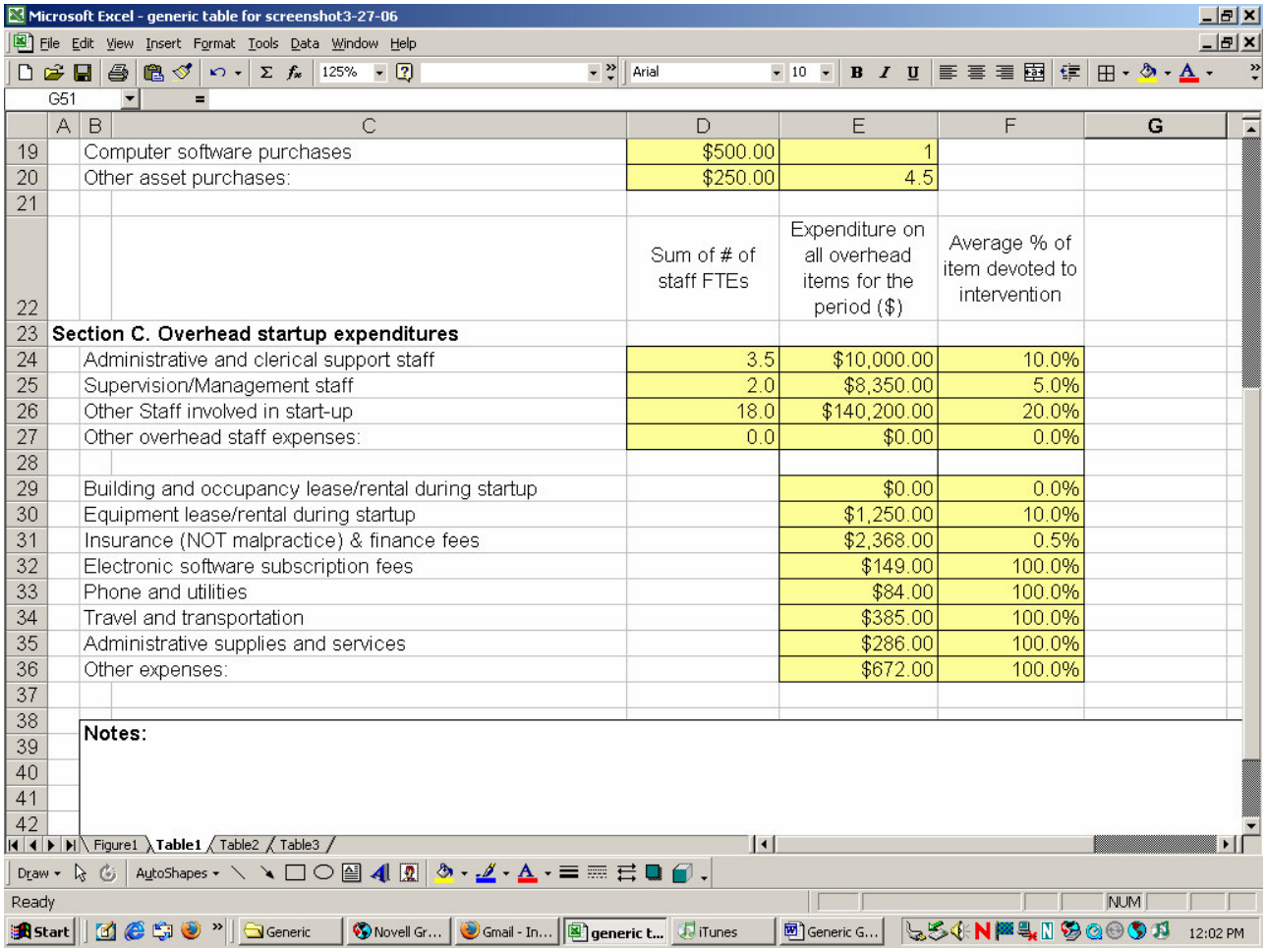
	A	B	C	D	E	F	G
1	**Economic Evaluation**						
2	**Table 1 - Start-up expenditure data (prior to baseline)**						
3							
4	Practice ID:			1234			
5	Start-up period from Calendar Month and Year (MM/YYYY):				Apr-2006	to	May-2006
6							
7							
8	**Section A. Staff startup time**			Total # of staff FTEs	Average hours devoted		
9							
10			Meetings of Research & Development Team	5.5	8.0		
11			Development of Screening, Referral, and Follow-up Systems	4.0	15.0		
12			Adaptation of Patient Education Materials	2.5	3.0		
13			Training	6.0	4.0		
14							
15				Estimated total replacement cost ($)	Average # of months since possesion		
16	**Section B. Non-recurrent expenditures on start-up capital assets**						
17			Space purchases	$0.00	0		
18			Computer hardware and any equipment purchases	$2,398.00	4		
19			Computer software purchases	$500.00	1		
20			Other asset purchases:	$250.00	4.5		
21							
				Sum of # of	Expenditure on all overhead	Average % of	

Step 3: *Complete Section B (Non-recurrent, including capital asset, expenditures)*

Section B of Table 1 is devoted to expenses related to non-recurrent (purchased only once) capital assets purchased during the start-up and development periods to be used specifically for the intervention. This section can be used to identify which capital assets were required to implement the intervention in your practice. A good rule of thumb when determining items to report is to ask "Would the building, equipment, software, or furniture have been purchased at all if we weren't doing this study?" If the answer is "yes" it should NOT be recorded (i.e., office space/building used for your study start-up is also used to see patients in your clinic). However, if you answered "no" the expense should be recorded in this section (i.e., acquired additional office space, furniture, equipment just for the study start-up activities).

Record the estimated replacement cost of any capital assets required for the start-up activities. If a type of capital asset (i.e., space) was not purchased in the start up stage, then enter "0" in that particular cell. Record the number of months you have had the capital asset(s). If the row refers to more than one item (i.e., 3 computers), use the average length of time that you've had all of the items.

Sample Table 1 Screen Shot (continued)



	A	B	C	D	E	F	G
19			Computer software purchases	$500.00	1		
20			Other asset purchases:	$250.00	4.5		
21							
22				Sum of # of staff FTEs	Expenditure on all overhead items for the period ($)	Average % of item devoted to intervention	
23	**Section C. Overhead startup expenditures**						
24			Administrative and clerical support staff	3.5	$10,000.00	10.0%	
25			Supervision/Management staff	2.0	$8,350.00	5.0%	
26			Other Staff involved in start-up	18.0	$140,200.00	20.0%	
27			Other overhead staff expenses:	0.0	$0.00	0.0%	
28							
29			Building and occupancy lease/rental during startup		$0.00	0.0%	
30			Equipment lease/rental during startup		$1,250.00	10.0%	
31			Insurance (NOT malpractice) & finance fees		$2,368.00	0.5%	
32			Electronic software subscription fees		$149.00	100.0%	
33			Phone and utilities		$84.00	100.0%	
34			Travel and transportation		$385.00	100.0%	
35			Administrative supplies and services		$286.00	100.0%	
36			Other expenses:		$672.00	100.0%	
37							
38		**Notes:**					
39							
40							
41							
42							

Step 4: ***Complete Section C (Overhead expenditures)***

Section C of Table 1 is devoted to overhead expenditures incurred during the start-up period. This section can be used to record the overhead expenditures and the proportion/percentage of the expense required to implement the intervention in your practice.

Since start-up and development happen before the intervention is in operation when there are most likely no participating patients, expenditures on staff of any type are considered overhead expenditures. To quantify overhead staff expenses, first record the sum of staff FTEs for all staff who provided any services during the start-up period. For example, during the start-up period, two full-time supervisors, three full-time and one half-time administrative assistant spent time preparing the health assessment instruments for the intervention. You would record 3.5 as the "sum of staff FTE" for "Administrative and clerical support staff", and record 2.0 as the "sum of staff FTE" for "Supervisory/Management staff". Please record FTEs in numbers not percentages.

You would then record in the "expenditure on all overhead items" column, the total dollar amount spent during the entire start-up period on salaries for the overhead staff types during the start-up period (not just the expenditure as it relates to the study). Lastly, record the

individual FTE **percentage (%)** for each service that staff provided for the intervention. If the row refers to more than one staff member providing a service (i.e. 3 clerical staff), record the average **percentage (%)** of their FTEs that were devoted to an overhead service for the intervention.

To quantify overhead expenses not related to staff such as computers, building use, and phones, record the total dollar amount for each of the items for the entire start-up period, followed by the **percentage (%)** of each item that was devoted to start-up activity for the intervention. In example screen shot 1, the total expense for equipment lease/rental for the start up period was $1,250, but of that total only 10% was devoted for the intervention. When quantifying expenses for multiple items (e.g. 3 computers), determine the sum for the total dollar amount for the items, and then determine the average **percentage (%)** of the items that were devoted to an overhead activity for the intervention. For example, computer 1 – 10%, computer 2 – 25%, and computer 3 – 25%. The average percentage of these items devoted to the intervention would be 20%.

Note: If you used a capital asset (i.e. rental of building space, phone services, utilities, equipment rental) that was recurrent in nature such that you paid a monthly lease or fee for its use, you should record it in Section C as an overhead expense.

Instructions for Completing Table 2: Direct Staff Salaries

Table 2 captures the salary expenditures necessary to implement the intervention in a practice. The information you collect here can be used to calculate how much was spent on direct staff salaries, and will be aggregated with other expenditure data to arrive at a total expenditure number for delivering the intervention.

Please make sure that when you calculate monthly averages to complete this table you take into consideration the **entire timeframe** from the official launch date of the intervention to the current month for which you are reporting. For example, if your official launch date was February 1 and you are completing this form on April 10 (middle of steady state), your "per month" calculations should include averages for salaries and benefits from February through April. An example of a completed Table 2 is presented on the next page as "Sample Table 2 Screen Shot. "

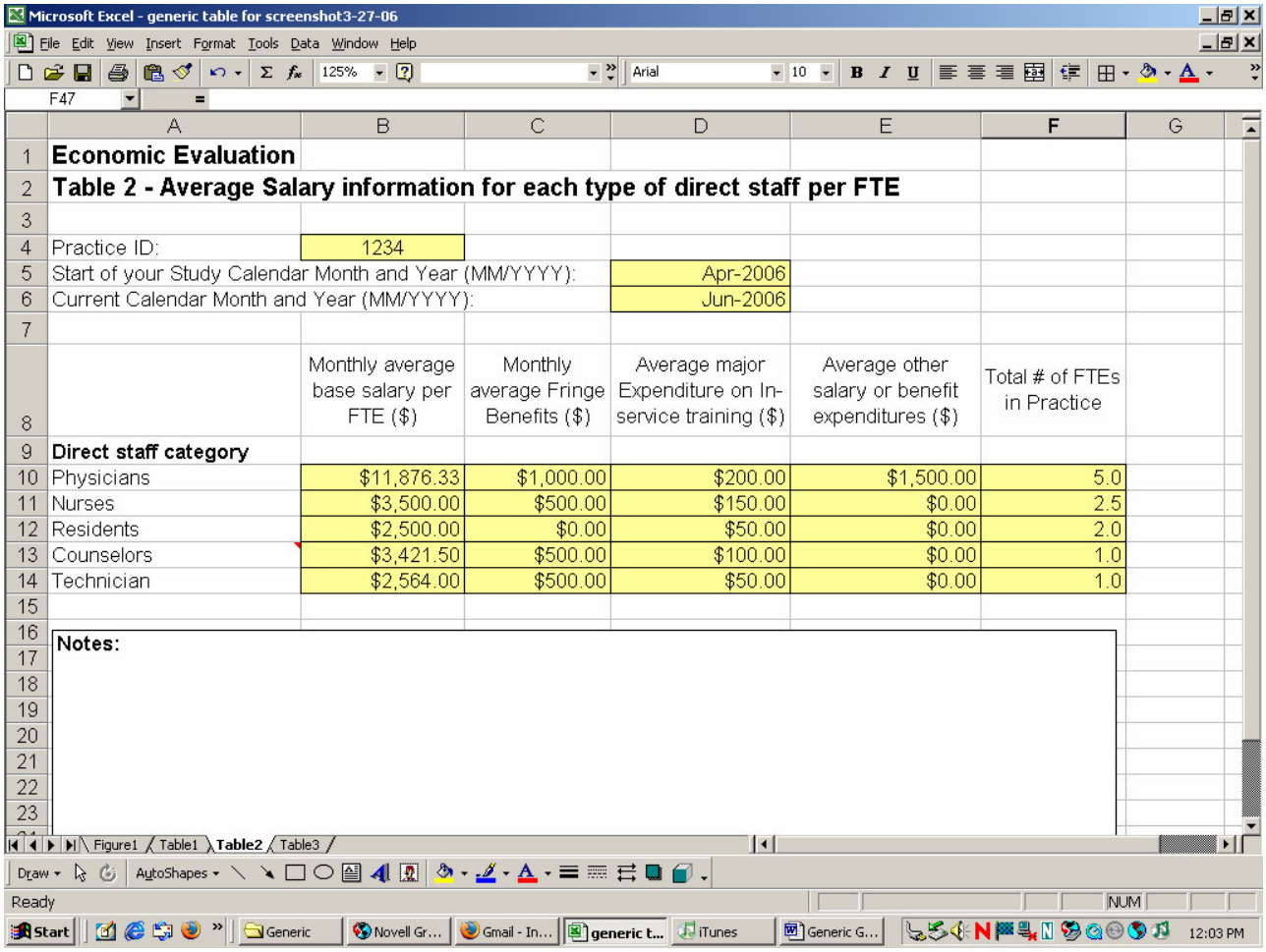
Step 1: ***Fill in identifying information***

Fill in your practice ID #, other identifying information,, the exact date on which your intervention formally started (study launch date), and the current month and year for which you are reporting.

Step 2: ***Fill in average monthly salaries*** for direct staff members

Record the average monthly **base** salary for one individual (1 FTE) for each of the direct staff categories listed. You should fill in all the staff types that you anticipate will be in direct contact with patients during the course of the intervention. Please note that you should arrive at an average monthly **base** salary for each type of staff by considering the salaries of all staff in the practice in the same category and not just those involved in the intervention.

Sample Table 2 Screen Shot



	A	B	C	D	E	F	G
1	**Economic Evaluation**						
2	**Table 2 - Average Salary information for each type of direct staff per FTE**						
3							
4	Practice ID:	1234					
5	Start of your Study Calendar Month and Year (MM/YYYY):			Apr-2006			
6	Current Calendar Month and Year (MM/YYYY):			Jun-2006			
7							
8		Monthly average base salary per FTE ($)	Monthly average Fringe Benefits ($)	Average major Expenditure on In-service training ($)	Average other salary or benefit expenditures ($)	Total # of FTEs in Practice	
9	**Direct staff category**						
10	Physicians	$11,876.33	$1,000.00	$200.00	$1,500.00	5.0	
11	Nurses	$3,500.00	$500.00	$150.00	$0.00	2.5	
12	Residents	$2,500.00	$0.00	$50.00	$0.00	2.0	
13	Counselors	$3,421.50	$500.00	$100.00	$0.00	1.0	
14	Technician	$2,564.00	$500.00	$50.00	$0.00	1.0	
15							
16	**Notes:**						

Step 3: ***Fill in average monthly fringe benefits***

Record the average monthly fringe benefits for one individual (1 FTE) for each of the staff categories listed. Please note that you should arrive at an average monthly fringe benefit amount for each type of staff by considering the benefits of all staff in the practice in the same category and not just those involved in the intervention. Examples of fringe benefits include insurance (health, dental, malpractice, life, disability), retirement accounts, and flexible spending accounts.

Step 4: ***Fill in average monthly expenditures for staff time spent in intervention-related training***

To quantify the average monthly expenditures for staff time spent in intervention-related training, determine the percentage of every staff member's FTE that was devoted to training related to the intervention. Determine the total sum of these FTE percentages for all staff that attended training by staff type. Record the dollar amount for the total sum of these FTEs by staff type. Please note this does not include staff time for attending training for any other patient care/practice activities, only for those related to the intervention.

Step 5: ***Fill in total number of direct staff member FTEs in your practice***

Record the total number of FTEs for each direct staff type in your practice. Please note that you should arrive at this number by considering all staff members in your practice in the same category and not just those involved in the intervention. Record clinical/direct patient care FTEs only.

Step 6: ***Use the 'Notes' section as necessary***

If you are unable to report monthly average salary or benefit information, you may record an average value for staff of this type in your geographical/regional area. If you are unable to report any/all of the information above, please provide an explanation in this section.

Instructions for Completing Table 3: Basic Operating Expenditures

Table 3 shows the basic operating expenditures necessary to implement the intervention in practice. The information provided will be used to calculate how much was spent on all operating expenditures and will be aggregated with all other expenditure data to arrive at a calculation of total expenditures for delivering the intervention.

Table 3 contains three sections for reporting operating expenditures that are recurrent (Section A), non-recurrent/capital assets (Section B), and overhead (Section C). The activities/items listed under Section A were derived from a list of expected operating expenditures provided in Figure 1. Thus, after you modify Figure 1 to better fit your intervention, you will also need to adapt portions of Table 3. Please note that when reporting data for this table, you should include numbers for the entire reporting month. The reporting month is the full month prior to the date on which you are reporting these data. An example of a completed Table 3 is presented on the next pages as "Sample Table 3 Screen Shot" and "Sample 3 Screen Shot (continued)".

Step 1: ***Fill in identifying information***

Fill in your practice ID #, other identifying information, the current calendar month, the study stage (baseline, mid-steady state, end-steady state) for which you are reporting operating expenditures, and the total number of hours your office was open during the reporting month.

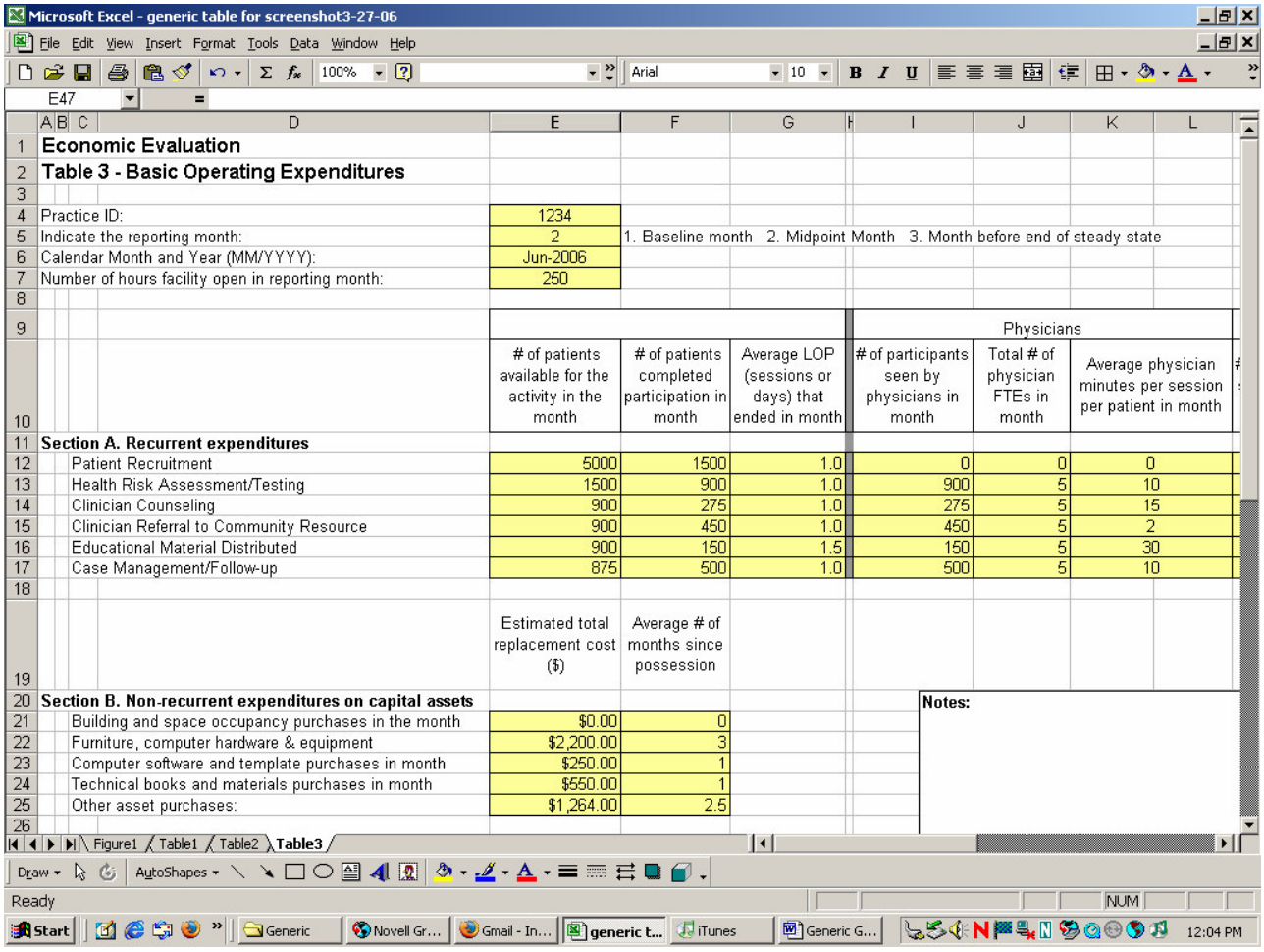
Step 2: ***Complete Section A (staff time spent on recurrent intervention activities)***

Section A of Table 3 is devoted to the number of patients that received your intervention and the amount of staff time involved in direct patient activities necessary to deliver each step of the intervention to these patients. Staff types found in Section A of Table 3 should be the same as the direct staff listed in Table 2. These time periods spent in direct patient activities are broken down by intervention steps provided to individual patients.

Step 2a: Record information for all staff members and all patients

Record the total number of patients that were eligible, available, or assigned to participate in each step of the intervention for the full month for which you are reporting, followed by the number of patients that actually completed each step of the intervention during that month. Please note that for many steps the first number (available patients) will be higher than the second number (patients who completed).

Sample Table 3 Screen Shot



Microsoft Excel - generic table for screenshot3-27-06

Economic Evaluation

Table 3 - Basic Operating Expenditures

Practice ID:	1234
Indicate the reporting month:	2
Calendar Month and Year (MM/YYYY):	Jun-2006
Number of hours facility open in reporting month:	250

1. Baseline month 2. Midpoint Month 3. Month before end of steady state

	# of patients available for the activity in the month	# of patients completed participation in month	Average LOP (sessions or days) that ended in month	Physicians: # of participants seen by physicians in month	Physicians: Total # of physician FTEs in month	Physicians: Average physician minutes per session per patient in month
Section A. Recurrent expenditures						
Patient Recruitment	5000	1500	1.0	0	0	0
Health Risk Assessment/Testing	1500	900	1.0	900	5	10
Clinician Counseling	900	275	1.0	275	5	15
Clinician Referral to Community Resource	900	450	1.0	450	5	2
Educational Material Distributed	900	150	1.5	150	5	30
Case Management/Follow-up	875	500	1.0	500	5	10

	Estimated total replacement cost ($)	Average # of months since possession
Section B. Non-recurrent expenditures on capital assets		
Building and space occupancy purchases in the month	$0.00	0
Furniture, computer hardware & equipment	$2,200.00	3
Computer software and template purchases in month	$250.00	1
Technical books and materials purchases in month	$550.00	1
Other asset purchases:	$1,264.00	2.5

Notes:

Figure1 | Table1 | Table2 | Table3

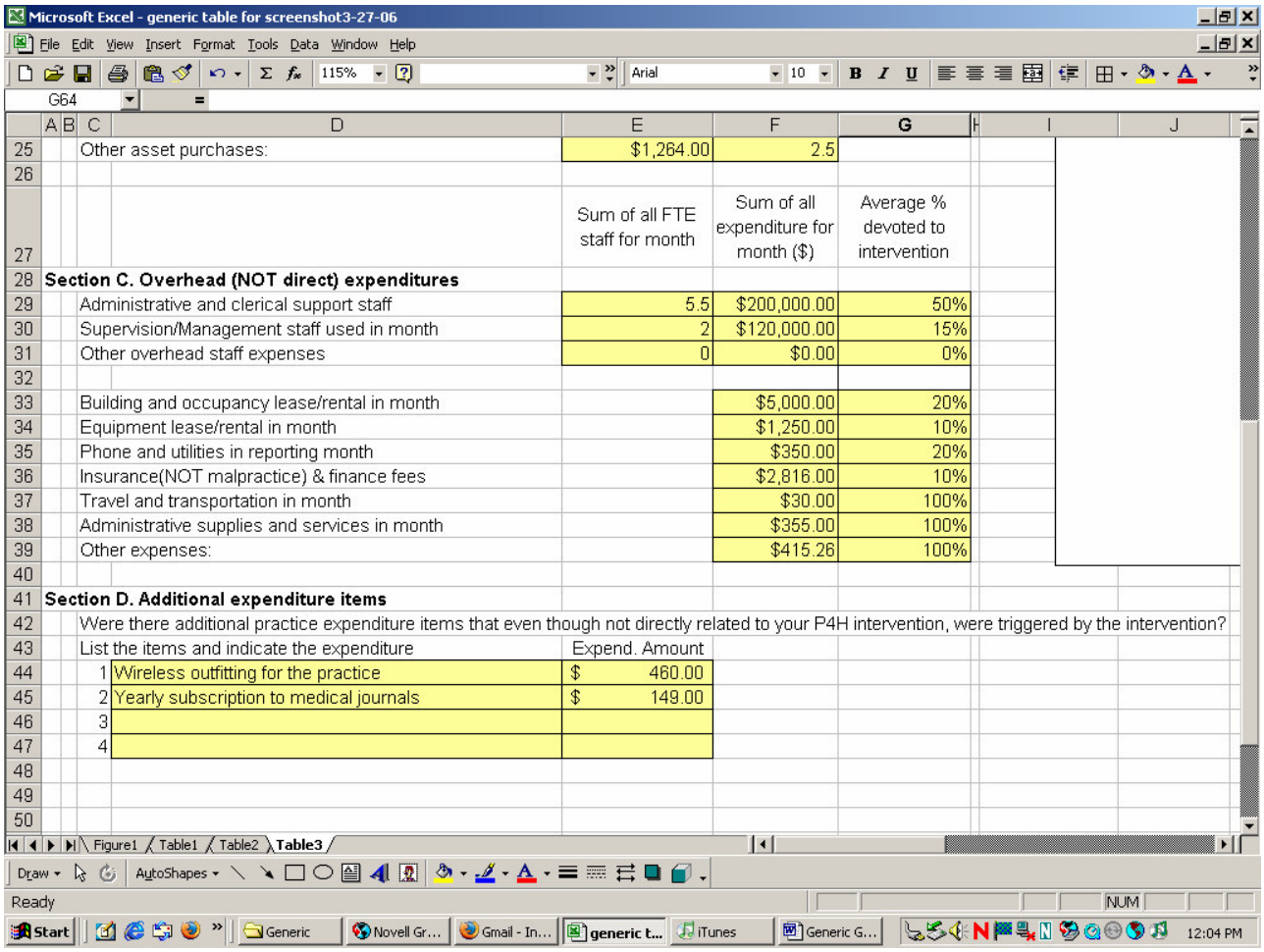
Ready

Record the average length of participation (LOP) as the number of sessions a patient completed in each step of your intervention. For purposes of this study, a session can be defined as one discrete event regardless of how long the session lasted. For example, if all patients participated in only one session to receive the first step of your intervention (i.e., filled out a screening survey), you should record this as "1." However, if half of all the patients that participated in step 1 completed one session and the other half completed two sessions, you should record this as 1.5 (the average length of participation).

Step 2b: Record information for patients seen by each direct staff type

Record the total number of patients that were seen by each direct staff type for each step of your intervention. You will need to know how many patients in the intervention were seen by physicians, nurses, counselors, or other staff directly involved in delivering steps of your intervention. Record numbers of patients, not percentages. Repeat this step for all staff types.

Sample Table 3 Screen Shot (continued)



25		Other asset purchases:	$1,264.00	2.5	
26					
27			Sum of all FTE staff for month	Sum of all expenditure for month ($)	Average % devoted to intervention
28		**Section C. Overhead (NOT direct) expenditures**			
29		Administrative and clerical support staff	5.5	$200,000.00	50%
30		Supervision/Management staff used in month	2	$120,000.00	15%
31		Other overhead staff expenses	0	$0.00	0%
32					
33		Building and occupancy lease/rental in month		$5,000.00	20%
34		Equipment lease/rental in month		$1,250.00	10%
35		Phone and utilities in reporting month		$350.00	20%
36		Insurance(NOT malpractice) & finance fees		$2,816.00	10%
37		Travel and transportation in month		$30.00	100%
38		Administrative supplies and services in month		$355.00	100%
39		Other expenses:		$415.26	100%
40					
41		**Section D. Additional expenditure items**			
42		Were there additional practice expenditure items that even though not directly related to your P4H intervention, were triggered by the intervention?			
43		List the items and indicate the expenditure	Expend. Amount		
44	1	Wireless outfitting for the practice	$ 460.00		
45	2	Yearly subscription to medical journals	$ 149.00		
46	3				
47	4				
48					
49					
50					

Step 2c: Record total FTEs and time spent by each direct staff type

Record the total sum of the FTEs of all staff for each staff type who provided direct intervention activities in the reporting month (up to 2 decimal places). Record clinical/direct patient care FTEs only. For example if there were five full-time and three half-time nurses providing intervention activities in the reporting month, you would record 6.50 in the "Total # of nurse FTEs in month" column. Repeat this step for all staff types.

Record the **average** amount of staff time (**in minutes**) spent delivering the intervention in the form of number of minutes that direct staff spent carrying out each step of your intervention per study participant for the full reporting month. For example, if it took

physicians an average of five minutes to deliver an intervention step to patients, you should record this as 5.0. Please provide the closest estimate if an exact value is not known and explain how you arrived at this estimate in the "Notes" section. **If your estimate is less than 1 minute, record 1 minute**.

Step 3: ***Complete Section B (Non-recurrent expenditures on capital assets)***

Section B of Table 3 is devoted to expenses related to non-recurrent (purchased only once) capital assets to be used specifically for the intervention, that were purchased **during the month for which you are reporting**. This section is meant to identify which capital assets were required to implement the intervention in your practice. A good rule of thumb when determining items to report is to ask "Would the building, equipment, software, or furniture have been purchased at all if we weren't doing this study?" If the answer is "yes", it should **NOT** be recorded (i.e. office space/building used for your study is also used to see patients in your clinic). However, if you answered "no", it should be recorded in this section if the capital asset was purchased during the month for which you are reporting (i.e., acquired additional office space, furniture, equipment just for the study in the middle of the steady state of the intervention).

Record the estimated replacement cost of any capital assets purchased during the reporting month for activities directly related to your intervention. If a type of capital asset (i.e., space) was not purchased in this reporting month then enter zero in that particular cell. Record the number of months you have had the capital assets. If the row refers to more than one item (i.e., 3 computers), use the average length of time that you've had all of the items.

Step 4: ***Complete Section C (Overhead expenditures)***

Section C of Table 3 is devoted to overhead expenditures incurred **during the month for which you are reporting.** This section should be used to record the overhead expenditures and the proportion/percentage of the expense required to implement the intervention in your practice.

To quantify overhead staff expenses, first record the sum of staff FTEs for all staff types who provided any overhead services during the reporting period. For example, during the reporting period, one full-time supervisor, two full-time and three half-time administrative assistant spent time reviewing the patient feedback reports. You would record 3.5 as the "sum of staff FTE" for "Administrative and clerical support staff", and record 1.0 as the "sum of staff FTE" for "Supervisory/Management staff". Please record FTEs in numbers not percentages.

You would then record in the "expenditure on all overhead items" column, the total dollar amount spent during the reporting month on salaries for the overhead staff types. Lastly, record the individual FTE **percentage (%)** for each service that staff provided for the intervention. If the row refers to more than one staff providing a service (i.e., 3 clerical staff), record the average **percentage (%)** of their FTEs that were devoted to an overhead service for the intervention.

To quantify overhead expenses not related to staff (i.e., computers, building use, phones), record the total dollar amount for each of the items for the reporting period, followed by the **percentage (%)** of each item that was devoted to intervention activities. If the row

refers to more than one item (i.e., 3 computers) use the average **percentage (%)** of the items that were devoted to an overhead activity for the intervention.

Note: If you used a capital asset (i.e., rental of building space, phone services, utilities, equipment rental) that was recurrent in nature such that you paid a monthly lease or fee for its use, you should record it in Section C as an overhead expense.

Step 5: ***Complete Section D (Additional expenditure items)***

Were there additional practice expenditure items that even though not directly related to your intervention, were triggered by the intervention? If there were, you may list the items and indicate the expenditure amounts in Section D. Please list in this section any triggered expenses that might be larger than most of those detected but that are NOT actually required to implement and operate the intervention.

Answers to Frequently Asked Questions (FAQs)

Question #1: Why do we estimate basic operating expenditures at baseline?

Answer: This is a very important point. The easiest way to calculate net (or incremental) expenditures is to subtract the baseline gross expenditures from the gross expenditures of intervention sites at steady state when the intervention is in full force. The alternative of estimating net expenditures on an item-by-item basis, would be harder, require some additional training, and be less consistent from practice-to-practice. It would also be harder to apply the necessary discount and depreciation factors required in such economic analysis. The pragmatic solution is to collect data on any intervention related expenditures at baseline and subtract that from expenditures during the steady state.

Question #2: Why do we estimate expenditures more than once in the steady state period?

Answer: Expenditures in any intervention may vary from month-to-month throughout the implementation period. Often unit expenditures are higher at the start of the intervention period as we learn to do things, but as the intervention goes on we learn to do things more efficiently and usually the unit expenditures decrease. So, the ideal would be to measure expenditures in every month of the intervention's operation period. On the other hand, if for example we measured expenditures in month 4 and those expenditures declined with continued operation (in months 8 through 10), we'd be unable to capture that decline. However, collecting expenditures at baseline, mid-point through the steady state period, and another month prior to the end of the steady state period proved to be a more pragmatic solution.

Question #3: What if we tried to determine but still don't know the replacement cost of an item used in the intervention?

Answer: Identifying the categories and items used or which expenditures were made in the intervention is the most important part of these studies. You should go ahead and complete the

table with the expenditure item you have identified, footnote the item, and provide a summary description of the item(s) or a list of items, how long the item(s) have been in the possession of the practice and how they were used in the intervention, and any other notes in the "Notes" section of the table.

Question #4: Why don't we just ask practices to tell us what incremental expenditures they made? They will remember, "Oh yeah, I had to buy a new chair for the counselor when seeing patients."

Answer: We aspire to be systematic and relatively uniform in our approach, and not rely on idiosyncratic methods in various practices. To minimize the risk of some practices forgetting certain items or some practices counting items that are shared with other practice operations when other practices don't, we are asking practices to report all their expenditures **for the reporting periods only**. As explained above, eventually we will subtract the baseline numbers from the steady state numbers. It is also important to remember that these subtractions will be done with the appropriate depreciation and discounting factors.