

Alexia: Hi. Welcome to the Why and How To Conduct a Cost Analysis. Today, both Stewart Landers and myself, Alexia Eslan from CBA@JSI, we'll be presenting on why to conduct a cost analysis and how to do it.

If you notice on your screen on the bottom right hand corner you have a list of tools to download. There's no need to do that right now. Just so you know, you will be able to download all the tools we'll be covering and discussing doing our webinar today as well as the PowerPoint slides from the presentation.

My name is Alexia Eslan, I am a senior consultant at JSI Research and Training Institute. I've been with JSI, I am working on the capacity building assistance project for the last 7 years.

Stewart, would you like to present yourself?

Stewart: Yes. My name is Stewart Landers and I've been with JSI for 20 years as a senior consultant and currently I am the director of our Boston office for our health services division.

JSI has been involved with HIV since the beginning of the epidemic working on building capacity for providers on both the prevention and care side of HIV.

Alexia: Our CBA project has funded by the Centers for Disease Control and Prevention. We provide capacity building assistance to community based organizations throughout the U.S., and we are funded to provide capacity building assistance directly for organizational development and management with prevention with HIV positive persons [00:02:00] and with high risk negatives.

Stewart: Just to mention, JSI is a public health organization that works in all areas and has been in business since 1978.

Alexia: Great. Thank you Stewart. Let's review our objectives for our presentation today. The first one is to identify your organization's purpose for conducting a cost analysis and learn how to set parameters for the scope of a planned cost analysis.

We would go through a decision tree tool that will help you to make those decisions. Then you'll be able to get a set of simple cost analysis and time study tools that you can utilize in your organizations to look at your costs and your expenses and the time study tools actually support the cost analysis tools that we will introduce. We will introduce a total of 4 tools throughout this presentation.

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Then the other objective is really to name the major steps in completing a cost analysis. At the end of this webinar you'll be able to do that. Then you'll be able to begin to interpret the results.

Given our time today we will not go into too much depth into interpreting the results, but we will be providing you with our website at the end of the presentation and you can contact us through that website and ask for any technical assistance or other questions that you might have related to this webinar.

Let's dive into the content of this presentation. First, let's start by defining what a cost analysis is. On the screen you can see two formal definitions [00:04:00] of what a cost analysis is. Merriam Webster Dictionary defines this as the act of breaking down a cost summary into its constituent parts and studying and reporting on each factor. Then the businessdictionary.com defines it as the accumulation, examination and manipulation of cost data for comparisons and projects.

Basically, a cost analysis is a way to look at an organization or a program's costs for a number of different purposes such as for budgeting, for strategic planning, for advocacy and also for building.

What does a cost analysis do? First; it helps you determine your expenses related to the services you provide. In addition, it provides a tool to gather your expenses and tie them to the services you provide.

For example, if you're looking at building for services, first you need to know how much it costs you to conduct those services. It really just provides a tool to do that.

What is the purpose for conducting a cost analysis? The first one is to develop. It increases your understanding of how you use your funds. For example, if you're applying for funding or when you're analyzing your financial statements, it helps you to do that.

Second; it helps you determine which services to focus on. For example, if you're currently providing an array of services and you realize that, say, for example HIV testing is providing a greater benefit to the community and the cost are lower than another service that you're providing, you might want to refocus some of your energy towards [00:06:00] HIV testing versus some of the other services.

Of course, you do have program requirements that you need to follow. This gives you an idea and especially why you do have a little bit more of leeway.

In addition, a cost analysis helps you to establish what your charges or fees are going to be if you are going to be building for services. Setting those fees and understanding a cost will help you negotiate charges with various pairs.

For example, if you're establishing a contract with a community health center to get reimbursed for services that you're providing then this will help you negotiate what your rates would be.

What are the benefits of a cost analysis? These are related to the purposes, but they expand a little bit more. The first benefit of providing a cost analysis is that it provides you with the knowledge needed to develop, implement and analyze efficiency in your organization program and multiple programs.

In addition, it helps you to control costs. It helps project incremental cost of expanding services. For example, when I talked about focusing on HIV tests, another example would be currently you're providing about 400 HIV tests and you want to expand to providing 600 annual HIV tests. Then a cost analysis will help you to project what those additional costs would be to increase that service.

In addition, a cost analysis assists your organization in remaining financially viable and continue to operate. Successful management of contracts with third party pairs. As I said earlier, when you're looking [00:08:00] at contracting or building for your services, this will allow you to be more successful with doing that.

Now let's dive into some of the decisions you need to make prior to starting a cost analysis. What I'm going to share now is cost analysis decision tree tool. What this tool does is it helps you determine what are the decisions you need to make prior to deciding what type of cost analysis tool you're going to be using.

Many times we focus on building as one of the reasons to conduct a cost analysis, but there're many other reasons. We've included four main reasons in this decision tree tool. As I stated earlier, the first one is building for services. Then we have to manage your budget, strategic planning and for advocacy.

For each of those categories there's questions you can ask yourself. For example, if you decide that you want to do a cost analysis for building for services then there're other decisions you need to make. Do you want a contract with the medical provider or clinic? Do you want to build third party pairs? For example, private health plans. Or do you want to build Medicaid and or Medicare?

Depending on that, you'll have more ability to negotiate your rates versus not. If you're building Medicaid or Medicare, really, the rates are set and so the only

way of changing those rates is doing some advocacy. Then you would go into that last bubble, the advocacy bubble and look at what you can do there.

If you're looking more at contracting with a medical provider clinic or billing [00:10:00] commercial insurances, then you truly need to be able to have a good sense of what your costs are so that then you can set fees and negotiate with these entities, what they should be paying you for those services.

Towards the end of this presentation Stewart is actually going to be talking a little bit about setting fees and some of the things to think about.

If you decide to bill for services, what we recommend is you actually conduct a unit specific cost analysis. In a little bit we're going to be going through what that unit specific cost analysis tool looks like.

In the other scenarios, if you're looking at managing your budget or strategic planning, you actually might be looking more at a program or agency wide cost analysis.

Then for advocacy, depending on what you're trying to advocate for, you might look at the unit specific ones. For example, if you're trying to advocate with your state health and human services department around the reimbursement for Medicaid rates then you might look more at unit specific cost analysis versus if you are looking at a broader, forming a coalition, you might want to look more at that program agency wide cost analysis.

Again, this is how the tool works and we truly stress and recommend that you look through this tool first before diving into any of the cost analysis tools.

This slide just builds on the decision tree tool and it basically stresses that when you are connecting a cost analysis, you need ...

[00:12:00]

The things to think about when you're thinking of the scope of your cost analysis is, do you want to conduct a cost analysis that looks at all services your agency or organization provides? You want to just focus on those related to HIV. Do you want to focus on those related just to HIV prevention? Or do you want to focus on specific services such as HIV testing, HIV education? You could also look at case management or counseling.

This is a decision that's really important to do ahead of time because depending on that, depending on [00:14:00] not only as this decision tree tool showed which cost analysis tool you would focus on, but also, what expenses are you

going to be gathering? That will help it make a lot, it will basically help the process be a lot smoother.

Now, Stewart is going to be talking about those expenses and other components.

Stewart: In preparation for conducting a cost analysis, it's very important to determine a method for appropriately allocating expenses. In terms of direct expenses, you need to consider those expenses that are used directly for the activities or services that benefit specific projects or programs. Whatever those expenses are that are associated with providing a procedure or service.

Direct expenses includes salaries which includes wages and fringe benefits, and fringe benefits are those additional costs that are associated with employee costs. That maybe the cost of health insurance or contribution to a retirement account or payroll tax associated with the employee.

Often, salary and wages are going to be the largest part of the cost of your program since we're in human services generally speaking, right?

In terms of other costs, you would have consultant costs and you would also have potentially cost associated [00:16:00] with volunteers which are called in-kind cost. We'll talk more about those later.

There are also costs for supplies, publications, travel and other miscellaneous things. Supplies can include things like HIV tests or condoms or other things that you might include as part of your prevention services.

In terms of indirect expenses, it's really important to understand that these are for services or activities that benefit more than one program at your agency. These are the precise benefit to a specific project are often difficult or impossible to trace.

What you have to do is have a method for allocating these indirect expenses to your program. Some of the examples that are up on the screen include utilities, rent, audit and legal, administrative staff which could include your agency or program leadership and equipment rental.

Again, you have to then say, these are services or expenses rather that benefit multiple programs. How are you going to allocate that to the specific program or programs that you're doing the cost analysis for? The important thing to remember is that it's important to be consistent [00:18:00] in how you allocate those resources for this cost analysis so that if you do other cost analysis, you're doing the same allocation method.

For example, you may want to look at rent and say we're going to divide that by the square footage that your program uses compared to the other programs that the agency provides.

Another option is you may want to look at the percentage of clients served by your program or the programs you're looking at for the cost analysis versus other programs. You could also look at the number of visits or the number of staff using fulltime equivalence as a measure.

Again, the important part is that your consistent in which method of allocation you use when allocating indirect expenses among programs. The reason for that is if you're not consistent you may use a different method and windup allocating, say, more than 100% of your rent cost among programs or less than all of the staff, all the administrative staff among programs.

As we said, for allocation of staff, it's really important that each and every person who has worked in one or all of your programs during the reporting period be counted. We recommend that a reporting period be a year, and it could be a calendar year or a fiscal year. In general, it makes the most sense to select a one year period as your period to evaluate cost.

[00:20:00] Again, if you need to have staff who work on multiple programs, in other works they're not 100% working for your program, we can allocate their time to a time study and we're going to cover this tool shortly. That helps you determine how much time that staff is working in a particular program.

As I've mentioned, cost allocation needs to include any in-kind donation of services, staff, facilities or equipment. In-kind is just another word for a contribution. Again, it can include both personnel and staff or other types of equipment, administrative services, supplies or facilities.

You may have someone from another agency or even a government program coming on site once a month or once a week to do testing that you don't pay for directly. You might have contribution of laboratory services for HIV tests. The reason we have to count those costs is that it's not clear that those will always be donated and you really want to know the value of those in-kind or volunteer services for your program.

Now, in terms of completing a cost analysis, we're going to cover the following set of tools. The first is, a program cost analysis tool that looks at agency and program specific costs. [00:22:00] I'm going to be talking about in a minute, but it really is more of a broad tool to really understand what your organization is doing for your program and how that compares to the agency as a whole.

A unit cost analysis tool will determine the cost per unit of service provided and Alexia will be talking about that tool a little bit later.

A staff time allocation tool supports the unit cost analysis. It's meant to be used when you have a good idea of what the average time spent by a staff person is to complete one unit of service.

If you don't know how much to allocate in terms of staff time then there's a time study tool that you could also utilize. All the tools that we present in this webinar can be tailored to your specific organization needs. Just make sure to review the formulas in the gray or green boxes when you make changes to ensure that the calculations are still accurate.

There's the time study tool.

The program analysis tool, as I mentioned, is useful for determining the costs for your entire HIV prevention program compared to all of your agency costs. It's a really useful for organizations that have many programs, not just HIV prevention programs. In a system helping to breakdown which direct and indirect costs are related to your HIV prevention program. [00:24:00]

As we discussed in the decision tree tool, this tool is particularly good for budgeting strategic planning and advocacy.

Again, here's the decision tree tool again. Here is the program or agency wide cost analysis. Hold on. Here's the program for agency wide cost analysis. The main purpose for this are to manage the budget and also for strategic planning.

This is a version of the tool, and again, you can download the tool directly from this webinar. What it does is basically looks at the total organization costs for different departments or call centers of your organization.

Again, here, the first column is the total organization costs. They are arranged all direct and indirect services listed down this left hand side of the tool. [00:26:00] Then it has the direct costs for your program and the indirect costs for your program, for direct costs here. I'm mucking it up good. Indirect program costs here. Then as we discussed, the in-kind contribution for program costs.

In-kind contributions as we said are the donated goods or volunteer time. Again, we want to calculate that because if the time or the goods would not provide it for free, it would be a cost to your program.

I'm going to go and show you an example of this. I'll show you on my screen. Here we have the program cost analysis with some costs filled in. Again, we

have, for example, the finance director or the chief financial officer. That may cost your organization \$75,000. You may decide to only allocate 5000 of it for direct work they spend on your program, maybe developing budgets and helping out with the management, fiscal management of the program. Then maybe 2000 is allocated from their time for general financial work they do for your agency.

You may also have telephone costs. Here, we put them [00:28:00] as 2000 for the agency but you may decide that only \$400 of it is for your program. Essentially, we can then continue to scroll down. Again, it has this transportation, medical, laboratory.

Again, I just filled in a few fields to give you an example, health education. We may have \$60,000 in cost for your agency but only 20,000, maybe one health educator is part of the particular program you're looking at.

Again, I threw in some costs for rent. Again, 15,000 for the agency, maybe 3000 or a fifth for your program. Then this automatically sums at the bottom both the total organization costs and then the total program costs. Those add up horizontally as well so that you can see what those costs are for the program.

[00:30:00]

In summary, the components of the PCA include looking at administrative, patient transportation, costs, medical costs, laboratory, pharmacy, other health services, other non-direct health services, employee health and welfare and facility costs.

Again, here was the bottom of that spreadsheet where it sums up the total for the organizations costs and the facility costs. We've already shared the example. We'll move back to Alexia to discuss the unit cost analysis tool.

Alexia: Great. Thank you Stewart. Stewart just covered the program cost analysis tool and now I'm going to be covering the unit cost analysis tool. As you remember, that decision tree tool, there is the different options of tools you can select. This one is great for when you're going to be doing billing.

A unit cost analysis tool is easy to use and it does not require an accounting background, so most people can complete it. Of course, with support from your team and from your finance person. You can use a unit cost analysis tool to determine the true cost to provide in a particular service or procedure.

For example, what does it cost to conduct one session of counseling with a client or what does it cost to conduct outreach with one individual, one person. I really

looked at that unit. We'll talk a little bit [00:32:00] about this in just a little bit, but you will decide how that unit is defined.

The cost of services is determined by the expenses and the utilization, and a unit cost analysis considers all of the resources associated with providing a particular service and calculates how much it cost to provide that service.

Let me show you a snapshot of what the tool looks like and then I'm actually going to be talking in detail about it. This is what a cost analysis tool looks like, you have it in the bottom right of your screen, on the tools to download, it's called the unit cost analysis tool.

What it does is it basically has 6 main steps that it looks at. I'm going to walk you through each of these steps and then I'm going to go through an example of how to fill this out and how you would be calculating each of these steps.

The first step is defining what that unit of service is. How you define that unit of service depends on what makes sense to your organization and how you track things within your organizations.

You have to ask yourself a few questions. The first question to ask yourself is to identify the type of service costs you want to know such as providing an HIV test, providing counseling services, linking one HIV positive individual to care. What service do you want to focus on? What service you decide to focus on will depend on, for example, if you are in negotiations with the community health center [00:34:00] providing certain services to get billed for. The services that you've discussed with that community health center that you will be providing for them would be those services that you would focus on for this cost analysis.

It truly just depends on what you're looking at. First, you decide what service you're going to focus on then you need to define what that unit of service is going to look like. How do you define it should be based on what is meaningful, familiar and useful to your organization.

This definition will be important when you begin to figure the cost of staff time associated with the service. The third question to ask yourself is how can you pull the information?

For example, if your units of service correspond with data that you already captured by a tracking system, it will be easier for you to find the data you need and analyze your organization or program's costs.

If you use, say, an electronic health record or you have a practice management system, and the way it's defined within that system is a certain way. It will be

easier if you use that same definition. Instead if you do not use an electronic tracking system then you might have more variability.

Lastly, how do others define it? For example, when I was talking about you potentially negotiating to provide certain service to get reimbursed for with the community health center, if they are defining a service in a certain way, you could consider defining it the same way, so then when you bill them for that service, it corresponds to how they are referring to the service.

Once you define your unit of service, you define what service [00:36:00] you're going to focus on and what the unit looks like then you need to determine the number of unit services provided.

It's really important to look at the same time period for all of your calculations. All expenses you will be looking at and all the information you will be gathering, make sure that it's the same time frame. I recommend you look at a whole year of data.

For example, here, when you're going to be determining the number of units of service that you provide, that would be within that whole year. For example, if you're looking at data for 2013, it would be the total number of units that you've provided in 2013.

If we are looking at HIV tests, it would be how many HIV tests did you provide in 2013, that's basically the unit of service.

There's a few different ways of getting this number, the first is pulling it straight out of your practice management system or electronic health record. The second one is if you, for example, use an Excel database or an access database, then you could pull the number from that.

If you do not currently use an electronic tracking system that you could easily pull the information from, you could conduct an audit. What an audit would do is you would look at data, say, for example, for a month and look at how many units of service you've provided in that month and then you could extrapolate that to the entire year. You would multiply that number for that one month times 12 to get the number for the entire year.

Obviously that's not as accurate because it does not take into account some of those seasonal changes that might affect how much of that service you're providing, [00:38:00] but it is an alternative if you do not have that information readily.

The goal is to acquire the most valid and reliable information available. The third step in the unit cost analysis tool is to calculate your direct costs. Stewart earlier talked about what some of those direct costs include. For example, staff time, fringe benefits and other components, supplies and other resources.

The direct costs are one of the most important costs related to unit cost analysis, because what happens most of the time is same as what Stewart mentioned, because we are mostly service providers, staff time is a huge chunk of what the cost are. That is the direct cost.

It is really important to get very accurate direct costs when possible. Also, cost information for other resources. For example, materials, supplies and tests that are used while providing a particular service can be obtained by either talking to the people that are providing that service and seeing exactly what are the other costs that are related to providing that service, unless if you don't know directly.

Again, the direct costs are the expenses that you can easily relay to the provision of a specific service that they're tied with that such as staff time and other resources. Step number 4 is calculating those indirect costs.

The indirect costs are expenses that are shared by more than one area or more than one service of the organization. These don't tie as [00:40:00] easily to the direct service that you're talking about.

What I list in this slide is few different ways that you can calculate indirect costs. Stewart mentioned a few of these when he went through the samples, examples of indirect costs. Basically, there's four that are listed here. There are others but these are the main ones. One is looking at the ratio of selected service to all services. If you provide, say, 10 different services at the organization and you look at the total number of services provided, say, it's 2000 per year.

Then you're looking at in this example, say, we will be looking at HIV tests. Out of those 2000 total services that you provide HIV tests are 500 of those. You provide 500 HIV tests out of 2000 total services or units of service. That's one fourth of your total services. So then when you're looking at your indirect cost, you look at your total indirect cost and you allocate one fourth of those to your HIV tests.

The other basis you can use to calculate your indirect cost is the percentage of total revenue attributed to the service. Given your total revenue for all services, what is the revenue that that particular services that you selected generate.

Another one, and this is applicable only if you're really using specific space within your organization to provide a service. What it looks at is the percentage of

practice square footage [00:42:00] devoted to the service. If you are providing case management and you are using a certain square footage to do that, it would look at that percentage of square footage compared to the entire organization's squares footage.

This one is a little trickier and it relates more to rent, utilities and some of those other indirect costs. You would have to decide which one of these makes the most sense for the specific units of service that you're looking at.

The last one is the percentage of total direct cost attributed to the service. We're looking at all your total direct costs for all the services you provide. You look at just the direct costs for providing, in this example, HIV tests. What percentage is that compared to the total overall, and you apply that same percentage to the total indirect costs.

We could have a whole presentation just on how to calculate indirect costs. This is just a brief overview. Again, we will be providing you with our contact information so you can reach out to us if you have any specific questions when you're completing these tools and calculating these costs.

Then we move to step number 5 within the unit cost analysis tool. This is to calculate depreciation. Where this is applicable is if you have equipment that is of a significant cost that relates to the service that you are looking at.

For example, if you're looking at providing case management and you use a laptop for providing case management. [00:44:00] That laptop would be part of the equipment that you would be calculated here.

Another example is if you're conducting outreach services and you use a copier to create fliers to handout to people, then that copier itself would be part of the equipment related to providing that service.

For calculating the depreciation of the equipment related to providing that service, we recommend using a straight line depreciation approach. What this does is it looks at what is the original value of the equipment that you purchased.

For example, if you're looking at a laptop, it originally costs maybe \$2000. Then you're looking at what the resale value is currently. For example, if you could sell it now, say, for a thousand dollars then the depreciation cost would be that difference. Two thousand, the original value, minus 1000, the current resale value, depreciation cost for that laptop in this example would be a thousand dollars.

Another component are looking at the depreciation that we will go through when we look at the example is looking at how many years does it have left of life. If that laptop could still be used for another two years, that's part of what you will look at when you're calculating the final cost of the depreciation.

Again, we're going to cover this in the example so it's going to become a lot more clear.

The final step is the easiest step. Basically what you do is you look at your total direct cost per unit of service, that's all indirect cost per unit of service plus the depreciation cost per unit of service to get what that total cost per unit of service is.

[00:46:00] Again, you define that unit of service. Was it 1 HIV test? Was it case management with one client? What you're going to get with this tool is what it cost to do that one specific service.

Now we're going to go through an example and I am going to share my screen so you can see the example more clearly. Here's the unit cost analysis tool. This tool has been adopted from a tool that was created by the American Academy of Family Physicians. If you see on the top of the tool, it actually provides a link to the original tool.

There is an article that is associated with that tool that explains each of the steps as well. Some of the things that we changed or that we tailored within the tool is the specific, some of the direct cost listed. There is this very specific to a family practice versus we made them more specific to a community based organization providing HIV prevention services.

The other thing we did is we added a column, column D right here which has the in-kind contributions. As Stewart mentioned earlier, it is very important to include in-kind contributions in your cost analysis calculations. That's why we added a column to make sure that you are including those contributions.

In the example I'm going to provide, we do not have in-kind contributions. This is the example that is provided in the article from the American Academy of Family Physicians [00:48:00] and that is the same example that we will be providing here.

The example is for the Truman Family Practice. They're looking at data between January through December 2013. The first step, remember, is to define the unit of service. In this example unit of service is defined as an adult physical exam. Then the second step is to determine the number of units of services provided.

In this example, in the whole year in 2013 Truman Family Practice provided 2000 adult physical exams. Now we need to calculate the direct cost associated with that one adult physical exam.

The first thing is to look at the different staff for provider time. This example looks at physician nurse and receptionist's time. It first looks at the physician costs, and to calculate the cost for the physicians for this conducting an adult exam, an adult physical exam, what we do is we look at the salary and benefits for the physician for the full year. In this example, it's 150,000. That is divided by the number of work weeks per year. A year has about 52, it has 52 weeks. We are assuming that there is about 50 workable weeks.

Then that number is divided by the 40 work hours per week, then by 60 minutes per hour to get a rate per minute for that physician.

In this example, the rate is \$1.25 per minute, it cost \$1.25 per minute of that physician time. [00:50:00] Then we multiply that by the length it takes the physician to conduct an adult physical exam. Again, in this example, it's 15 minutes. You multiply the 1.25 per minute rate times the 15 minutes it takes the physician to conduct the adult physical exam and you get a unit cost of \$18.75.

In this example, again, we do not have any in-kind. All the numbers within the unit cost will equal the column D, the unit cost with the in-kind because we do not have any difference there.

The nurse cost and the reception cost is very similar to ... you follow the same steps that you do with the physician cost. You look at what their salary and benefits are, you divide it by 50 work weeks, divided by 40 work hours per week, divided by 60 minutes per hour to get what the per minute rate is.

In the case of the nurse in this example, their rate per minute is about 37 cents. Their time is not the same as the physician time because the nurse only spends 10 minutes with a patient during their adult physical exam. Then in this case, you would multiply their per minute rate times 10 minutes. You get a total unit cost of \$3.75. Then you can follow through for the receptionist's cost.

Other costs that are added in these examples are costs for the disposable resources, \$5.50 and then any lab tests that were run during the adult physical exam. Then in this case it's \$15 that they spent on those laboratory tests.

The total direct costs for conducting an adult physical exam, [00:52:00] one adult physical exam is \$44.04.

Next, you need to move into the indirect cost, because as we talked about, just looking at the direct cost doesn't truly give you an accurate cost of what it's costing your organization to provide that because you do need to pay for rent and utilities and all these other indirect cost that will affect you being able to provide that service.

It's very important to also look at the indirect costs. In this case, what they're looking at is they're using a percentage of total visits to allocate the indirect rate to their total indirect costs. The first step is to add the total indirect cost for the entire practice.

There's \$60,000 that are allocated to rents and utilities per year, 50,000 to administrative salaries and benefits, 90,000 to insurance for the total indirect cost that this practice has per year is \$200,000.

Then, what they're looking at is that out of all the visits that they provide to their patients, 20% of those are for adult physical exams. Then they're applying that 20% rate, indirect rate to the \$200,000 total indirect costs to get \$40,000. \$40,000 is the indirect cost related to providing the 2000 adult physical exams per year.

To get the unit cost, we need to divide that 40,000 by 2000 which is the number of adult physical exams to get a \$20 per [00:54:00] adult exam cost.

Now you are starting to see how this develops. We have the \$44.04 for the direct costs, we have the \$20 for the indirect cost. Then the last piece, remember, is to calculate that depreciation, that's step number five.

In this case, they do have equipment that is associated with providing an adult physical exam. If you do not have equipment that's associated with providing a service, you can just omit this step five. Again, as Stewart mentioned, you can easily tailor this tool. What is important is that you make this tool appropriate to your needs. Taylor it as needed, just make sure that the green areas that auto calculate or change so they make sense once you make those deletions or adaptations.

With the depreciation, they're looking at equipment that initially cost them \$50,000. That's their original value. They can currently sell it for \$10,000. That depreciation cost is \$40,000.

Remember that I mentioned something about years when I was talking about depreciation cost earlier. This is where that comes into play. They're estimating that the equipment that they're looking at still has 10 years off of life, that it could still be used for 10 more years.

Then what you need to do is divide that 40,000 times 10 years to get what that depreciation cost will be for one year. Then, you need to allocate that same rate that you allocated for the indirect costs, you need to allocate it also to this equipment. [00:56:00] The reason they're doing this in this example is because the equipment that they're using, they use it for all their visits.

If you're using an equipment just for one service, for example, that laptop to provide case management. If it's just for case management then you do not need to apply this rate, it's only if you're using the equipment for all services you're providing.

In this case they are using it for all their patient visits, they are applying that same 20% rate to the depreciation calculation. Then they're dividing that number by the number of total visits that they provide to get the unit depreciation costs, and that is \$.40.

If you click on this ... if you can see right now, I clicked on that cell. Since this auto calculates, if you look at the actual formula for this cell, it will show you that what this calculation is looking at is that total depreciation cost for the equipment, the 40,000, divide it by the amount of years that it still has left, multiplied by that 20% rate, divide it by the total number of adult physical exams provided of 2000. That's how you get that \$.40 per unit of service rate.

The last step as I said is the pretty easy step, you just add all the different per unit cost from step 3, 4 and 5. The direct costs, 44.04, \$20 for the indirect cost, \$.40 for the equipment [00:58:00] depreciation. The total true costs for conducting one physical adult exam is \$64.44.

When you download this tool, the second tab is the example, so you will have the example so you can walk through it. That will help you to revisit this example and make sense of it and so then it will help you also as you go through your own cost analysis.

I know I just covered a lot of information. Hopefully you can digest it and let it sync in. Now we're going to go into a couple more tools before we talk about how to interpret some of the results. The next two tools are really supporting both the program cost and the unit cost analysis tools.

The first one I will talk about is this staff time allocation matrix. This is specific for the unit cost analysis tool. If you remember in the example I provided, when I looked at the staff time. I looked at the physician, the nurse and the receptionist's time, cost. It multiplied with their per minute rate was times the time that that person spend conducting that unit of service.

Sometimes it's hard to know that and especially off the top of your head. It's easier to collect that data ahead of time so then when you're completing the cost analysis tool, you have it at the tip of your fingers.

What you do, the way this staff time allocation matrix works is you ... let me actually share the tool itself [01:00:00] to make it a little easier. Here we go, this is a staff time allocation matrix.

It has some directions here in the top for you to read. Then what it does is it looks at potential activities that you might be providing. Again, these are to be tailored as you need. For example, if you do not provide condom contribution, you could switch that and make that transportation if you provide transportation services.

Tailor this as needed to make sense for the services you provide, especially the services that you will be focusing on for that unit cost analysis tool.

Let's look at an example, for example, at HIV testing. We want to look at what is the time that each of the staff involved with providing an HIV test spend in providing one HIV test? That's a unit of service that we are looking at.

We determine that it takes the program staff 20 minutes to provide that HIV test. In addition, there's a volunteer at the community based organization that assist the staff to provide the HIV test. They're involved about 5 minutes in providing that HIV test.

Here you're gathering this information. Then again, when you go back to your unit cost analysis tool and you're looking at what your permanent rate is for that specific program staff, and feel free to actually identify by name who that program staff is in this tool. You would be multiplying that permanent rate by 20 minutes because that's how long they spent on the HIV test. Versus when you're looking at the in-kind time for that volunteer, you would be multiplying it by five minutes. [01:02:00]

As you complete this and as you do the cost analysis, all of this will make more sense. The final tool I wanted to share with you in this time study tool. This tool is useful for when you can't easily determine how long it takes a specific staff person to conduct that unit of service.

What you do is you basically use a tracking tool. A time study tool is for one person, one staff person at a time and it looks at an entire week. It looks at how much time does that person spend in all the different activities that you define in this top row here. Again, you could tailor this to make sense to the activities you provide within your organization.

For that whole week, Monday, Tuesday, Wednesday, the applicable days that that staff person is there. How much time do they spend doing HIV testing? How much time do they spend doing counseling? Linkage to care, and so forth?

This tool is for the actual staff person to complete. As they are going through their week, they are timing how much time they're spending on each of these activities.

The tool provides you ... you track it per minute and the tool provides you in this column right here, total amount of minutes spent in all HIV prevention activities. It also does the same per hour. The total number of hours for all HIV prevention activities.

If you're going to be using this for the unit cost analysis tool versus the program cost analysis tool, it also provides here an area where you can enter the total number of units [01:04:00] of service you provided in each of those activities. You track how much time that staff person spent throughout the week providing HIV testing. It would add it up here in total time. Then you will enter how many HIV test that person provided in the whole week. Right here, it will provide the time per unit of activity. It will say how much time they spent specifically on average providing that activity.

This will give you a good average estimate. The other thing this tool looks at which could be applicable to you or not depending on how large your organization is and how many other services you provide, is if you provide more services not just HIV prevention it gives you the ability to also look at those other programs so you could put STD here or other services that you're providing and track the time for those as well.

This is the time study tool and, again, both the staff time allocation tool and the time study tool support the unit cost analysis tool and the program cost analysis tool.

Now, let's move into ... actually, once you collect this information, what can you do with it? How do you interpret the results? Now, I'm going to hand it over to Stewart.

Stewart: Thank you Alexia. We want to help you with some basic interpretation of cost analysis results. Again, Alexia suggested with some of the other tools [01:06:00] and areas, you could do an entire webinar on this. This is going to really be a general overview.

First, what you'd like to do is compare the unit cost that you came up with for your services to anything that you are currently billing or budgeting for those services if applicable.

You may be getting reimbursed by a payer, by a health center or hospital or insurer for these services. It could be a medical provider, like an early qualified health center or an insurer such as Medicaid or Medicare or even a private insurer.

You want to obviously see if what you're bringing in is comparable to what you've calculated not the cost of the service to be.

You may also want to compare the unit cost of services to one another for some different services to determine how they compare, which are expensive, which are more inexpensive. Therefore, which might be the more advantageous for your agency to provide given the demand, the impact of the service and the cost.

Also, you'd like to decide if you're making a loss or a profit in a given area of service. You may not be able to decide this for sure right now since you are receiving much of the funds from grants. Still, you have a certain amount of revenue related to the given service [01:08:00] and you would to, at least, understand whether the cost coming in are currently really supporting the cost you are expending for those particular services.

In addition, you may want to compare your rate and costs to what's going on in the market around you for services and ask yourself the following the questions. Are the fees that you would be needing to charge to cover your costs comparable to those that are happening in other places?

You may want to contact another agency that's offering the same service that is collecting either insurance or reimbursement from a health care provider and see how those compare with the costs that you've come up with for that service. Is your cost competitive? Is it cheaper? Is it more expensive? Is the same?

Also, do you offer the same number or more or fewer services than other providers? A lot of clients really want to come to a place where they can get multiple services. You're really looking for a whole range of things that make you more attractive and also make you better able to negotiate with a commercial payer or a federally qualified health center when negotiating a rate for the services that you will provide.

Finally, what discounts are you offering and when? Many places offer sliding fee scales or they offer discounts for bundle services if someone gets a combination of services. [01:10:00] You have to really understand what are the needs for

revenue to be able to offer a given service and then see if you can adjust the revenue that you're getting along with potentially some discounts that you're offering on both the individuals and to those who contract with you so that you can again make yourself very attractive in a market place.

Finally, again, part of why you're conducting this cost analysis is to be able to assist you with establishing fees. A fee scale that you establish will be based on the outcome of the cost analysis and the cost analysis creates the reasonable cost for providing those services. The fee scale that you then set should generate sufficient income along with any other sources of revenue you might have such as private fund raising or grants to maintain the program.

In summary, your fee should reflect your operational costs which you calculated through the cost analysis and they need to be competitive so payers will want to contract with you and they need to be reasonable.

As a reminder, you should update your cost analysis as needed but at least annually to incorporate changes in costs and make sure your fee structure stays up-to-date.

Alexia?

Alexia: Great. Thank you Stewart. Now, just to wrap up, we wanted to share a couple of resources with you. The first one listed here is the resource to access the original unit cost [01:12:00] analysis tool that was created by the American Academy of Family Physicians. This is the link that will take you to the article that describes the tool and sample tool.

Then the second resource on here is our website. That's cba.jsi.com and if you go to our website, there's an icon on there that you can click on that will say contact us. You can send us an e-mail if you have any questions. In addition, you can submit questions directly through our website that are related to cost analysis in general or specifically to this webinar and we will make sure to send you a response to those. We're also tracking those questions and answers in a separate Q&A document so then you can look at what other questions submitted where or are and you can also get a good idea of other questions you might have.

Finally, please remember to download the tools that you see here on your screen to the right. There's the program cost analysis tool, the unit cost analysis tool, the time study tool, the staff time allocation matrix in addition to the actual PowerPoint slides from this webinar, and the cost analysis decision tree tool that we discussed.

We will also have these on our website at cba.jsi.com and you can access them through there as well.

Thank you so much for your time today and it is a pleasure to be talking about cost analysis because it is such an important thing to do for organizations. Please contact us with any questions. [01:14:00]