

JULY 6 WEBINAR TRANSCRIPT

Michelle Day: [00:00:00] [00:01:00] Good afternoon, everyone, and welcome to The Fletcher Group Rural Center of Excellence's webinar series. Today's session is scheduled to run from 2:00 PM to 3:00 PM Eastern Standard Time. My name is Michelle Day, and I am your moderator for the session along with Janice Fulkerson and Erica Walker. A couple of brief housekeeping items and then we'll begin.

You entered today's session on mute, and your video was off and will remain so for the entirety of the webinar. Your chat feature is located at the bottom right of your screen. Use the dropdown feature to communicate with either the panelists only or panelists and attendees. Please direct all questions regarding the webinar content to the Q and A section.

Be advised that this meeting is being recorded and will be available to you on our website once it has been transcribed. You can access our website at www.FletcherGroup.org. Also at the conclusion of today's [00:02:00] session, there will be a short survey regarding the webinar content. Your participation in that survey is greatly appreciated and will only take a few moments to complete.

Today's presenter is Fletcher Group's own Dr. Madison Ashworth. Maddi is a Research Associate with The Fletcher Group. Her research focuses on the intersection of health and experimental economics, specifically in designing and testing different policies to determine their efficacy in changing behavior and public health outcomes.

She received her Ph.D. in economics from the University of Wyoming in 2023 and has led numerous research projects related to Covid-19 substance use disorder stigma and evaluations of recovery support services. Maddi, the floor is yours.

Dr. Madison Ashworth: Thank you so much, and let's see if we can go to the next slide here. There we go. All right, well, thank you all so much for coming to [00:03:00] this webinar today. Um, today I just want to provide kind of a brief overview of a recently developed tool that The Fletcher Group has created called The Fletcher Group Economic Calculator.

Um, so this tool allows recovery houses to demonstrate the economic costs and benefits of their specific recovery housing program. Um, so in the webinar today, I just want to provide a little background on why we created the tool, um, what is included in the tool, and then of course, most importantly, how you can actually use it.

So, I kind of want to start today by just getting into why we created this tool. So, there's a recent study that came out in 2019 by the Recovery Centers of America, um, that wanted to estimate the total economic costs associated with substance use disorder in the U.S., and in their estimate, they included things like healthcare costs, criminal justice, costs, productivity, and employment costs, and things like that.

And in their estimate, they found that substance use disorder costs the U.S. approximately [00:04:00] \$3.7 trillion annually. So, that's a pretty substantial number there. And these costs come in the form of, you know, healthcare, but also in the form of mortality and reduced quality of life, which we can also value. And so probably unsurprisingly to a lot of, um, everyone on this call today, um, there are quite a few recovery support services out there to help, um, reduce those impacts of substance use disorder and help people get into recovery.

And one of those that we're focusing on today is recovery housing. And there's an evolving research out there, um, that has shown that, um, there are significant benefits associated with recovery housing. Um, recovery housing has been shown to improve health, both mental and physical, reduce substance use, um, reduce criminal justice involvement, increase employment

and incomes, and all of that together really does lead to greater Recovery Capital. Those resources, both internal and external, that a person has that can sustain them in [00:05:00] long-term recovery. And so all of these effects of recovery housing equate to significant economic benefits, both in the form of avoided cost savings, where we're, there's less utilization of the healthcare system and the criminal justice system, but also in personal economic benefits. So there is an individual valuation of, you know, improved health and improved quality of life that we want to capture as well. So we know in general that recovery housing is an effective tool to help individuals with substance use disorder, and that it is a way that we can avoid some of those costs, economic costs and personal costs that come along with substance use disorder. But there are really few robust analyses actually examining the costs and benefits of recovery housing. And so that's one of the kind of research gaps we wanted to fill with this tool. But also we wanted to provide a tool to recovery house owners and operators that they could use just as a means of community engagement, and as a way to just kind of see how they're [00:06:00] kind of performing in their, with their house as well.

So the main method we really look, we use, to identify and quantify the economic costs and benefits of recovery housing is through what we call a Cost Benefit Analysis. So a Cost Benefit Analysis is a systematic process for identifying, quantifying, and comparing the expected benefits of an action or a policy.

So Cost Benefit Analyses can be conducted at various stages in a program's life cycle. It can happen, um, before a policy has actually been implemented, where we're really looking at the expected benefits and costs to see if we should actually go through with implementation. Or it can be more retrospective where we've been operating a program or a policy for 10 years and we want to see the cumulative effects it's had in terms of the economic impacts.

So we can do it at different stages, and it can have different uses at those different stages. So, Cost Benefit Analyses are commonly used by government [00:07:00] agencies to just determine if a proposed policy or a program or a program that's currently implemented is worth the cost of implementing or doing that program.

And so usually these Cost Benefit Analyses will tell us the total economic cost of our policy or our program, the total economic benefits, and then other kind of metrics like net benefits and return on investment. And these Cost Benefit Analyses have really been widely conducted in the realm of substance use disorder on a range of things like drug court programs, residential treatment programs, and even different policies around tobacco use and alcohol taxes and things like that.

And so generally speaking, if our net benefits or our return on investment is positive, we can say that, you know, our program or our policy is on net beneficial and should be implemented or continue operating. And so these Cost Benefit Analysis can be used in a variety of ways. The outputs from them can really be helpful [00:08:00] in kind of providing a measurable recovery house outcome. You know, based on how many residents you serve, the programs you're employing and how successful your house is, it gives you a metric of how well you're doing and how the kind of impact you're having in the community and your state as a whole. Um, but it can also really help inform where your resources are allocated.

So this is where we often conduct Cost Benefit Analyses in the planning stage. So when we want to figure out if we want to open a house, or if we're considering different buildings or land acquisitions that we want to, um, partake to actually get a house opened. Cost Benefit Analyses can really inform where those resources are allocated.

So for example, if you're operating a recovery house right now and you're considering, do I want to open a second house to continue serving more and more people, conducting a Cost Benefit Analysis with some scenarios of what that second house could look like, um, can really help you determine what kind of building you want to do, who you want to serve, things like that so you can take into account the need of your [00:09:00] community. And also, you know, are the benefits of opening a second house going to be worth the costs? And then another really important thing Cost Benefit Analyses can be used for is grant applications. So grant applications are of course, a really big, um, task and undertaking for recovery houses.

It's one of the main ways that a lot of recovery houses are funded. And so providing these kind of universal and easy under, to understand metrics like return on investment or net economic benefits, these can be really helpful in kind of showing the value of your program to grant, um, those who give out grants. And you can really tailor Cost Benefit Analyses to show grant funders exactly the benefits they'll be getting from the money they're putting into your program. So those, that's where some of those outputs, like Return on Investment, really come into play here. So for the, you know, \$250,000 grant you're giving me, what is that Return on Investment, um, for that grant that you've been given and the programming that goes along with [00:10:00] it? And then finally, it can also be a really helpful tool to inform community outreach. So Cost Benefit Analyses can break out where different benefits accrue. You know, there's a whole suite of benefits that come from helping those with substance use disorders, we'll show in a minute, and we can really break out where the benefits are accruing with your specific program and you can use those results to speak to specific stakeholders.

So for example, if you are working with, um, healthcare professionals or criminal justice leaders in your community, you can show them specifically the economic benefits associated for the healthcare sector or the criminal justice sector with these Cost Benefit Analyses. And it can really help kind of get everyone on the same page and provide kind of a universal, um, metric that we can discuss and move forward with those kind of discussions. And then it can also, um, improve community relationships just in general by promoting kind of transparency about your program. In a Cost Benefit Analysis, quantifying the [00:11:00] costs of the program is just as important as quantifying the benefits, and so it provides a way for us to be transparent about what those costs are, but also show that there are significant benefits that go along with that program and show kind of how the math shakes out when we put the two together.

So, that's some of the ways that you can use a Cost Benefit Analysis. Um, but they can be pretty difficult to conduct on your own. Um, there are quite a bit of, uh, math that goes along with it and just a lot of data sources you have to compile. And so that is why our Fletcher Group, um, research team has created what we've titled The Fletcher Group Economic Calculator, um, which provides a customizable Cost Benefit Analysis for recovery housing programs.

So, this tool is fully customizable for any, um, for houses that want to use it. So, it can be customized based on your house size and your location specifically, like what state you're in, if you're in a rural area, things like that. It also is specific to your [00:12:00] house operating and startup costs and programming.

So it's going to look different for a house that is operating with, you know, a program that's operating with one house with maybe 10 beds versus a program that's operating with multiple houses, um, multiple centers, things like that. It also takes into account your specific success rate of your program. So, if you have an absolutely amazing program that, um, is really, really amazing at getting people into long-term recovery, that's going to be reflected by that success rate assumption as well, that's built into the calculator.

And it can also be customized based on your specific use cases. So we want to work with you with this calculator to make sure that we are providing information and, um, resources to help you with the specific need you have, whether that be grant applications, questions coming from the community, stakeholder engagements, things like that.

So, when we're looking at, say, grant applications, we can tailor it to be specific about the grant money that's coming in with the [00:13:00] funding, um, timeline and everything like that. So this calculator is currently offered as technical assistance through The, Fletcher Group, um, to any rural recovery house that would like to use it.

So, um, I'll speak a little bit more at the end of the webinar and exactly how you can use it. Um, but for now I kind of want to get into the tool itself, how we calculate some of those benefits, and what's included in it. So, the first step of any Cost Benefit Analysis is really to determine what benefits should be included in the calculation. Um, now I'm sure as all of us on the call are aware, there are tons and tons of different benefits from helping individuals with substance use disorder, um, get to their recovery. So, there's a wide array of benefits. Um, but for the purpose of this tool, we really do have to focus on the benefits that were most important, meaning they're the biggest buckets of where those benefits kind of accrue.

And the ones that can be reliably quantified. And it's that second one there, that reliable, quantified part that really did limit some of [00:14:00] the benefits that we were able to add into, um, our calculations here. So, of the benefits that we were able to include, we include some avoided cost measures, um, in the form of avoided healthcare costs, avoided criminal justice costs, avoided productivity costs, and then we also include some personal benefits of recovery to the individual.

So, these are gonna come in the form of, kind of the valuation of morbidity risk reductions, or the value of being healthier to the individual who's now in recovery. Um, and so one of the things that kind of sets our, um, cost benefit analysis tool apart from some of the other work that's been done in this sector is that inclusion of those personal benefits to the individual in recovery. So, we are really, um, one of the key things that we want to add here is that there is that health value and that valuation of an improved health, um, that we want to capture because that is an economic benefit that should be included in these Cost Benefit Analyses. So [00:15:00] gonna jump into here some of what the benefits specifically included, how we calculated some of these, and our data sources for them.

So, first starting here with avoided healthcare costs. So, in all of the avoided cost kind of numbers and buckets here, we want to get a number that has an annual healthcare cost per person with a substance use disorder. So, we want to get how much on average is a person with a substance use disorder costing that sector, whether it's healthcare, criminal justice, or in the productivity realm. So, to do that, we used the Recovery Centers of America's estimate of healthcare costs. And um, at the very beginning I kind of mentioned that they had done this very robust estimate, estimate of all of the different costs associated with substance use disorder in the U.S. Um, but we wanna focus now on what they estimated for healthcare costs alone.

So their healthcare cost estimate included things like inpatient and outpatient stay, hospital stays, health insurance administration, specialty disease [00:16:00] costs, the cost of substance use disorder treatment, and personal protective equipment, and just any other costs you can associate with healthcare and emergency services. It was all baked into this estimate. And so the first thing we want to do when we're calculating these avoided healthcare costs to put into our Cost Benefit Analysis is to subtract costs that are going to appear elsewhere in the model. So, those are gonna

be our costs of substance use disorder treatment, because we're going to bring those in later when we talk about the costs associated with recovery housing programming.

But we also want to subtract costs that are likely to remain after treatment. So, those are some of those specialty disease costs. Those are going to be the illnesses and kind of chronic diseases that can come along with substance use disorder that aren't necessarily going to be cured, right when a person goes into long-term recovery. Right. And so we're going to kind of let those costs still kind of accrue even after an individual is in, um, long-term recovery. So, after we subtract some of those costs, we see that the estimated healthcare costs in the [00:17:00] US due to substance use disorder in 2019, um, was \$52 billion annually. And so to get our per person with a substance use disorder number, we can divide that number, um, by the number of people with a substance use disorder in 2019 to get that average annual healthcare cost per person with a substance use disorder.

And that's going to be just about \$2,500 per person with a substance use disorder. And then because we really did want to make this tool local, and what I mean by local is that a lot of Cost Benefit Analyses take a really kind of zoomed-out perspective at the federal level or sometimes even the global level. We wanted this tool to be useful for recovery house O, owners and operators at a more local level. A lot of times when you're trying to get recovery houses operating and started up in areas, talking to your local and state officials are the ones that you need to convince the most to give you funding or to let your house kind of go into operation. And so because of that, [00:18:00] we really wanted it to have that kind of local spin, where we wanted to focus on state level costs and state and local kind of impacts of recovery housing programs. And so, In order to get kind of that local impact of the healthcare costs, we went ahead and weighted, um, the healthcare costs by state healthcare expenditures. So, we recognize that in a lot of states there's different, um, healthcare costs associated with that. So, in some states, it just costs a little bit more to get healthcare than in others. That due to access, um, cost of living kind of inflationary things as well. And so we wanted to have that weighted aspect so that we are capturing that in some states, maybe Wyoming, that healthcare cost is gonna look a lot different than another states like Florida.

So, that's kind of one of the customizable features that is baked into the model as well. And then we also wanted to look at our criminal justice costs. So again, with this one, we are looking at a per average, per [00:19:00] person with a substance use disorder, um, criminal justice cost. And so to do that, we looked at the Bureau of Justice Statistics state-level criminal justice expenditure from 2017. And so that's going to look at each state's, um, expenditures on things like wages, capital outlays, and expenditures from police, judicial, and legal and corrections. So there's kind of a lot baked into that. But again, you're going to notice that this is the, this state level. So we are again demonstrating that more local kind of state impact.

And so we first needed to recognize that not all criminal justice expenditure is related to substance use disorder. So, we went ahead and calculated how much of that criminal justice expenditure is related to substance use disorder. And the National Center for Drug Abuse Statistics puts that at about 26%. So 26% of all of the criminal justice expenditures in each state. Um, and then we went ahead and divided that by the estimated number of individuals with a [00:20:00] substance use disorder in each state in 2017. So what that's going to give us is a per state average amount per person with a substance use disorder that's spent on criminal justice each year.

And so two things to note here is that, of course we're using the state level criminal justice expenditures. So, we have that local kind of, um, state level expenses coming in. But now we're

also looking at the number of individuals with a substance use disorder in the state in 2017. And so what that's showing us is that we're able to kind of control for some of the prevalence of substance use disorders, and that differential prevalence in different states. And so that does bring a little bit more, kind of variability in the criminal justice costs across the states because we have both the prevalence and the expenditures coming in and varying there. And one thing that I want to note in both the, um, healthcare and criminal justice costs, as you're noting that they are a little dated 2019 and 2017, all of these numbers when we bake them [00:21:00] into the model, are turned into 2023 dollars to control for some of that inflation and things like that.

All right. And then for avoided productivity costs. So the Recovery Centers of America, again, this is a super awesome estimate of all the costs associated with substance use disorder. So, we do use it a couple times throughout the model. Their estimates. Um, they estimated total productivity costs due to substance use disorder to be about \$192 billion. And so productivity costs really come in two different forms. Um, the one that most of us will be familiar with is kind of economic productivity, your employment, your income, your spending in the local community at different businesses. Um, that's going to be your economic productivity. And so that economic productivity loss due to reduced employment, reduced, um, productivity while employed due to substance use disorder that's baked into that total estimate.

But what's also baked into that total estimate is household productivity. So household productivity sometimes doesn't get as much [00:22:00] traction or doesn't get included in a lot of estimates, um, because it is a little bit harder to quantify. But again, the Recovery Center of America has did a very good job quantifying that household productivity. And so household productivity comes in the form of, you know, anything that kind of keeps a household running, whether it's childcare, um, cooking, cleaning, anything like that, every day-to-day activity that keeps you being able to kind of go out and be economically productive. That's what we call household productivity.

And that has an economic value as well, because if we don't have any of that productivity happening, we can't have any of the economic productivity we usually see. And so that gives us a really robust estimate of all the productivity costs, um, that come along with substance use disorder because as we both know, um, we all know that a substance use disorder can impact both kinds of productivity, um, sometimes equally. And so again, we want to get that, um, cost per person with a substance use disorder. So we divide by the total number of people with a substance use [00:23:00] disorder in 2019 to get our average product ki, productivity cost per person with a substance use disorder, which is just over \$9,000 per person. So what these numbers kind of tell us what these avoided costs numbers is that.

For every person who's now in recovery and not in active um, addiction, they will be kind of saving, um, the economic system as a whole, that amount of money in either healthcare, criminal justice, or productivity expenditures. And so we also wanted to bring in, um, another kind of piece of customizability for the people who are using this tool. And we wanted to look at the differences between rural and non-rural productivity, especially economic productivity. Um, it's pretty well documented that income and earnings vary between rural and non-rural areas. In non-rural areas and urban cities there's just a lot more job opportunities that are higher paying just due to the types of jobs that are there.

Um, but they also have cost of living, so there is, um, [00:24:00] issues. So there do have higher wages there as well. And so the productivity costs associated with, um, a person with a substance use disorder is going to vary whether that, um, individual in a rural or non-rural area. So we see here that because of that kind of difference in the income and earnings potential between rural

and non-rural areas, that, um, the productivity costs for rural individuals is about \$7,000. Where the productivity costs for non-rural individuals is about \$10,000. Um, so that's another kind of customizable feature where if your house is located in a rural area and you're serving rural individuals, you are going to have that kind of, um, customizability to for your Cost Benefit Analysis. All right?

And so then, the other one that kind of, um, is a little bit different. Our other benefit that's a little bit different from our Avoided Cost Measures is what we call Morbidity Risk Reductions, or the Valuation of Improved Quality of Life. [00:25:00] And so there's a lot that kind of bakes into this, um, estimate here, but we'll go kind of through steps about how we estimate this and the different ideas behind it. So to value, um, your willingness, um, to kind of your valuation of improved health, we can kind of start by just thinking about how much each individual, everyone here, would be willing to pay to get an additional life year at an improved health state. So how much, we kind of start by thinking, how much money would you be willing to pay for an additional year of life?

Right. There's some value that all of us have that we would be willing to pay just to have one more year to live. Basically add on our additional life, um, year of life expectancy. And we call this number, um, the Value of a Statistical Life Year. Okay? And we sum that up over, we get estimates, um, in a variety of ways. I won't bore everyone with all the different ways you can estimate this number. Um, but people and economists smarter than I have [00:26:00] come up with some amazing ways to value this. And generally, they aggregate over everyone's Value of a Statistical Life Year to get that average number that we use. And, um, government agencies and things have given us and given, um, Cost Benefit Analyses kind of guidelines with the, to stick these estimates at.

So we're following all of the kind of federal guidelines and, um, suggestions on the values for these things. And so we take our Value of the Statistical Life here. And in that calculation, um, life expectancy is also a big key. And so we do know that rural and non-rural populations have different life expectancies. And so that means that our Value of a Statistical Life Year will also vary by rurality. And then another key part of this is that we assume that an individual who goes into recovery from their substance use disorder is going to have an improved quality of life. Just because of their improved health, their improved social functioning, better relationships, things like that. [00:27:00]

And some estimates have suggested that substance use disorder in general reduces individual quality of life by 0.2 Quality Adjusted Life Years. And again, these are all just metrics so that all our math works together nicely. But to get our willingness to pay for each additional life year of improved health, we can multiply that 0.2 Additional Quality Adjusted Life Years and multiply that by our Value of a Statistical Life Year for rural and non-rural individuals to get the willingness to pay for each additional life year of improved health. So all of those acronyms to say that we can go ahead and value how much people are willing to pay for each additional life year they live at this improved health state. So how much are people willing to pay to be in recovery and have each year, um, and be at that improved health state and have that improved quality of life?

Okay, so switching gears a little bit, now we want to move from talking about how we quantified the [00:28:00] benefits to how we quantified the costs. And so these are pretty straightforward. Um, generally when we think about costs, um, with recovery housing, we have two types of recovery housing costs that are going to be captured in our model. We have our startup costs and our operating costs. And they come in at different places in the model. So, it is important to kind

of create the distinction of what a startup cost looks like and an operating cost. So our startup costs are gonna be any costs that are associated with beginning a recovery house that has residual value after the lifetime of the project.

So that could be things like land purchases, buying buildings, doing construction. Anything that's like a durable good. It can be equipment that, um, has residual value at the end of your recovery housing time, things like that. Um, it's not going to be regular supplies that are used in the day-to-day, but it will be more of those durable goods, you know, can come in the form of equipment like, um, vehicles as well, or medical equipment, things like that. Anything that you could, [00:29:00] if you, um, quit operating a recovery house right now, um, that you could sell for a decent chunk of change. So, like your land, like your buildings, Um, the operating costs, um, are a little bit different. These come in the form of variable costs of operating recovery housing each year.

So, if you don't own the building that you're operating recovery housing out of, this can be your rent that you pay each month. It can be staffing costs, it can be programming costs, any kind of, um, things that you're providing to residents and things like that. So, your operating cost is really going to be kind of your annual, um, operating budget that you use each year. And then those startup costs are going to be more of those fixed costs that happen in the first year of beginning the project. All right, so just kind of a summary, um, of all these model inputs. So, all these model inputs that are provided by the recovery housing programs, these are the numbers and the ways that you can customize the model to fit [00:30:00] your recovery housing program.

We also have a key, uh, kind of handful of model parameters that are informed by the literature. So, these are statistics and, um, different kinds of estimates that we've just pulled from various studies on the topic. So the ones informed by the literature are going to be that percent of criminal justice expenditure related to substance use disorder, our lifespan and earnings in rural and non rural areas. Our average age of recovery house residents, our Value of a Statistical Life, and then our discount rates. So all of those are informed by the literature and those guidelines by federal governments of what to include in cost benefit analyses. But then the model inputs that are provided by the recovery housing programs, this is where we can really tailor it to your program.

So, the first one here is obviously our costs that we discussed. So, what are your annual operating costs? Are they kind of the same year to year? Do they change from year one to two? Things like that. What are your initial startup costs? How much did it cost to buy that building that [00:31:00] you're running in? How much did it cost to buy the land?

Things like that. What kind of, what state you're in? So, um, from when we talked about the benefits, we know that our healthcare costs and our criminal justice costs all vary by state. So depending on, you know, these, these different benefits are going to look a lot different if we're in Idaho versus, uh, Michigan, right? Same thing with our rural area. So we need to know if your recovery house is in a rural area per a HRSA definition, um, that will influence, um, some of those, um, valuation of improved health states and some of those productivity costs. We also need to know the number of residents you serve annually. Just to get an idea of how many residents are kind of going through the house, and then importantly, and I think probably the diff most difficult one to estimate here is the success rate.

So this is going to be the percent of residents that enter your program that then go on to long-term recovery. Right. And so that means [00:32:00] that over the number of years that we're running this calculation, those are the percent of residents that stay in recovery over the entire time horizon. So it's a pretty strict assumption and I definitely know that this is not, um, really

how, um, recovery necessarily works, but it is what we had to do to get the model tractable, um, and keep it relatively simple.

So this is gonna be say 50%. Um, that means 50% of residents that go through the house enter long-term recovery after going to the house. Um, the other thing that we wanna note here is the time horizon. So this is the number of years to run the calculation over. So when we sum up all of our benefits and our costs, we start in year one and we sum up over however many years you wanna run the calculation.

It can be 3, 5, 10, up to 30 years because of some of the success rate assumptions and other things in the model. We do have a max of 30 years. Um, But what we know here is when we add up our benefits, the person who has served, the residents who are served [00:33:00] in year one will continue to accrue benefits over the entire time horizon. So we're able to track kind of the lifetime benefits of that individual in recovery over our time horizon. And that time horizon can really be informed by what you're looking to do with the calculator and the the tool. Are you looking at it for a grant application? Generally, grants get paid out over a year, three years, five years, things like that, that can help you really, um, inform that time horizon.

If you've been a house operating for five years and you kind of want to do a retrospective analysis and look back over your five years, that can inform your time horizon as well. But again, with that time horizon, we do have a max of 30 years there just because of some of the limitations of the model that I'll talk about a little later.

So, those are kind of the model inputs and what kind of goes into actually making this calculation and this tool run. So, the results from the calculator. So, when we put in all our, um, numbers into this calculator, [00:34:00] we get a kind of handful of different results. So, the first result we get is a pretty simple one.

Uh, the total number of residents served each year. Uh, total residents served over the time horizon and total residents served each year, which you provide to us. So, for example, if I'm a house with 10 that serves 10 residents a year, over 10 years, a hundred residents served, we'll also get our total economic benefits. So that's going to be the sum of all of those monetary benefits that we discussed. Those avoided healthcare costs, avoided productivity costs, avoided criminal justice costs, and that, um, valuation of that improved health. We'll also have all of our total costs that are summed up. So, those startup costs, plus all of our operating costs over our time horizon.

Um, and I will note in all of these results from the calculator, um, all of the monetary ones will be put in the present value. So, we'll be, we will be accounting, um, for kind of the time horizon that way as well. Um, and then we'll also calculate the net benefits. So [00:35:00] that's gonna be the total benefits after the costs are factored in. So, total benefits minus total costs, and then we'll calculate a handful of return on investment numbers. And the most important one, the one that most people will be using, um, kind of i, I think the most is the total return on investments. And so that tells you, for every dollar invested in this recovery housing program, what is my return on investment?

So, in taking into account all of the costs associated with recovery housing, depending on what you're looking to do and the type of grant you're applying for, the type of stakeholders you're talking to, you might also be interested in a startup return on investment, which just calculates your return on investment, only taking into account startup costs. Or you might be interested in your operating return on investment. So that's going to take into, um, calculate your return on investment with only the operating costs. And then because of that success rate assumption being pretty difficult to kind of come up with and assume, especially if [00:36:00] you aren't a

established recovery house that's been documenting outcomes and following residents for a long time, um, that success rate, um, can kind of be a guess, right?

It can be an estimate based on what we know in the literature or just on what you've seen anecdotally. And so to promote transparency about that kind of uncertainty over that success rate, we do provide, um, the net benefits and the total return on investment across different success rate assumptions. So we'll run those calculations and get that net benefit and ROI number across a success rate of zero, 10%, 20%, 30%, et cetera. So you can see how those net benefits and total return on investment change as that success rate assumption changes over time. And so we'll run kind of, and I'll show in a minute with a use example.

You'll have kind of a baseline case that you might be presenting to grant application for funders or stakeholders. But you can also, if there's questions about that success rate, then show them that yes, we've taken [00:37:00] that into account. Here's what our net benefits and ROI are for some lower success rates or higher. All right, so, here is a little bit of a use example. So just to put some numbers to kind of all of the things we've been talking about so far. Let's just go through an example house and an example of the results that our model puts out. So I have a, um, imaginary recovery house here with the given characteristics.

I'm operating in the state of Wyoming. Because I'm operating in the state of Wyoming I am of course, in a rural area. My annual operating costs are \$110,000 per year. Um, I bought a very nice, um, little cabin in Wyoming to run the recovery house out of. So my startup costs were 1.5 million. Um, my success rate is 50%. And the number of residents I serve annually is 10, uh, 10 residents per year. And I'm going to run this calculation over a time horizon of 10 years. So I'm going to calculate my operating costs, my startup costs, and [00:38:00] everything like that, and my benefits over a 10 year period. So, from that set of characteristics, we get a couple, these two kind of result tables.

So, on the left hand side we have our baseline results from the model. So those are the numbers that come out exactly from that input results that I had. So, my total residents served are a hundred residents. My total economic benefits of this recovery housing program is 26.1 million. My total costs are 1.2 um, million dollars. And then we see here that my net benefits are \$24 million as well. And you'll notice if you're thinking, Hey, wait a minute, weren't your, um, My startup costs were over that 1.5 million, and that is correct. One thing that we take into account with those startup costs is that they do have that residual value at the end.

So, at the end of my time horizon, I could have sold my nice building and my land for some amount of residual value. And so we do take that into account when we look at [00:39:00] those startup costs because we do want to account for the residual values that those startup costs and kind of land and building purchases and equipment have. So then our net benefits are 24.8 million, and our total return on investment is \$19 and 90 cents. So what that means is that for every dollar invested in this recovery house, I have a return on investment of \$19 and 90 cents. So, um, compared to some other estimates of, um, Return on investment of substance use disorder treatment, residential, inpatient, things like that.

Um, this is a little bit higher just in general because of the high success rate and relatively low cost of care that comes along with recovery housing. For our startup return on investment, again, taking only into account those startup costs. We have \$84 per every dollar invested for the operating return on investment with just taking into account the operating costs.

Um, we have a return on investment of \$26 and 80 cents. And then on the right hand [00:40:00] side you can see our net benefits and return on investment across success rates. And so we have our success rates there going from zero to a hundred percent. And so you can see our net benefits

go up pretty substantially as that, um, success rate goes up, but is 0% success rate, not a single person who's entering um, the house is entering long-term recovery. Our net benefits and our total return on investment are going to be negative. And one thing that's not shown on the slide, but we do include in our report, is a kind of break even success rate is what we call it. So that's gonna be the success rate where those net benefits become positive.

So for example, in this use example, it was around two to 3%. So even if we are just having a success rate of 3% in our house because of the substantial benefits that come along with serving those with substance use disorder, we can, the net benefits and the return on investment for the recovery housing program will start to be positive.

Okay, so that's a little bit of our use [00:41:00] example. So now we want to ask a quick polling question just to kind of break up me talking about math. Um, so we would like to know how you envision using The Fletcher Group Economic Calculator. So if you would go ahead and select all the different, um, ways you envision using the tool, you can select all of those that apply. Um, if you select other, we would love to see in the chat what other ways, um, you can envision using this tool as well? So we'll wait a little bit for some answers to come in. Um, we have had some, we've kind of been piloting the tool with, um, some recovery house owners and operators getting their feedback on the report and everything.

And I think so far a lot of, um, individuals have found it helpful, especially for that engagement with stakeholders kind of getting everything in a universal language. Um, might be the economist in me talking, but I do believe that most money does seem to talk for most people. So they enjoy [00:42:00] kind of seeing the, the money that's associated with it.

They need to let, um, responses come in, and then I think we'll be able to see the results here in a minute. Do we have the results from that? Oh, there they were for a second. Okay. So it looks like a lot of the, um, results are in, so it looks like about the biggest potential use looks to be grant applications. So about 83% wanting to use it for grant applications. Engagement with stakeholders at 75%. Then community outreach, demonstrating house outcomes, program development, and program expansion.

Awesome. That is very helpful. We like kind of having some of this information as well, just so we can make sure that the [00:43:00] reporting and everything that we're giving, um, with this tool kind of meets everyone's needs. Okay. So just moving on really quickly before we get to the all important of what, how you actually get in contact with us to use the tool.

I want to touch on some of the limitations of it because every cost benefit analysis and every kind of economic modeling like this does come with limitations. Um, the first, and I think most important one is it's not capturing all the costs and benefits related to recovery housing. Um, when we kind of started developing this tool with our, um, kind of collaborators, um, with recovery housing and just people who've been working in the field for a long time, we had a really long list, like a whole laundry list of all the costs we wanted to include and all the benefits.

Um, but because of that reliably quantified, um, factor that we discussed earlier, A lot of 'em can't be included. They're just not, there's not the research out there to really put a monetary value to a lot of those benefits and a lot of those costs. And so because [00:44:00] of that, when we kind of looked through the list, we got the biggest chunks of both the costs and the benefits, and we were leaving off a relatively similar number of costs and benefits that we couldn't quantify. And so because of that, we do think that this is a pretty good kind of first estimate of the different costs and benefits. Um, the second big limitation that there, there is really no simulation of behavior or state transitions of people. So what I mean by that is that we are not

modeling recovery as it really happens in real life. With that success rate assumption of being, this is the percent of individuals who enter long-term recovery through the time horizon.

We know that that's not how recovery works for most people. That's not really a fair, um, kind of idea of how recovery housing works, but because of how the model has to work, that's the closest kind of assumption and way we can do it that actually makes the model tractable easy to use and easy to understand. And so in future iterations of the model, we do want to work on some of that simul, simulations of [00:45:00] behavior and transitions between recovery and, um, being in treatment and things like that. But again, that is just kind of a limitation and a, a kind of note we have to put on that success rate assumption and the time horizon.

One of the other big things, and this kind of goes with that first bullet point, is that we're not accounting for the lost consumer surplus of individuals. So we do know that there are a lot of individual costs to, in, to people who are entering recovery housing and entering treatment, whether that's just the lost, um, consumer surplus from using their substance of choice, whether it's the health effects and emotional effects of withdrawal, things like that.

Those are real costs that we do want to consider. And so that's one of the big chunks of costs that we weren't able to capture related to recovery housing and kind of changing that behavior. And then I kind of talked on this a little bit earlier, um, when I noted our data is a little bit old, but this is all based on pre covid healthcare and criminal justice cost data. And this was slightly because data is [00:46:00] lagged and it's also slightly on purpose, um, because we do not, we kind of wanted to get a snapshot of those healthcare and criminal justice utilizations and data, um, before a lot of those numbers got kind of inflated and changed by COVID 19 pandemic, right?

Healthcare became a lot more focused on treating the COVID 19 pandemic. Um, the criminal justice system had effects as well, and so we wanted to kind of get a pre-covid snapshot that then we could turn into 2020 \$3. And so the limitation there really is that we know that the substance, the kind of landscape of substance use disorder is also constantly changing. And so we do wanna continue to update the model with new data as we are getting it as well. Okay, so now the part that everyone probably actually cares about, but I had to put this at the end so you would sit through the math of it all, but this is how you can use our Fletcher group economic calculator.

So our Economic Calculator is available to any Rural Recovery House program. Including [00:47:00] those currently operating or those planning to start a recovery house. So I wanna talk a little bit about, um, kind of when you can use it, right? If you've been operating for a day, you can use the, um, you can use the calculator and we can help you come up with, um, maybe some forecasting or some looking at the, your operation so far. If you've been operating 10 years, we can use some of the data you've been collecting or just some of the information you have to do a retrospective or prospective analysis. And really importantly, for those of you planning to start a recovery housing program, you can go ahead and use this to help you plan.

We can come up with different scenarios of different kind of programs or configurations of a recovery house program you wanna use. So you can start planning out a recovery housing program and see the costs and benefits associated with each type of program you might wanna do. So to use the tool, you can go to our Fletcher group webpage, Fletcher, do Fletcher group.org and go to request technical assistance. It's, you scroll [00:48:00] down the page a little, it's on the left-hand side. Um, you can also get to that technical assistance request form by scanning the QR code on the screen, or I think the technical request, um, technical assistance request form was also put in a chat, a link to that as well. Um, so lots of options for you to get to that technical assistance request form.

Um, there is a little bit in that technical assistance request form that we ask some information just about your program, um, some contact information, things like that. And then we have a little box where you can kind of indicate what kind of TA you're requesting. So you can indicate that you would like to use the economic calculator. Tell us some background info on how you would like to use it if you're looking for a grant application, if you currently operate a house, if you're planning to start a house, um, anything like that, any kind of context information that you think is important for us to have. And then one of our outreach and engagement specialists will be in touch to learn about your house characteristics and we will get you your customized report. Um, so [00:49:00] we will talk, especially if you're uncertain about maybe, especially if you're planning to start a house, we can work with you to try and estimate some of those, um, inputs, model inputs that we need about your house characteristics as well. Um, so that is how, that is an overview of our tool. So I can turn it over now for some questions and I'll put my contact information up so that if you have any other questions that don't get answered or anything you wanna talk about the tool, you have my contact information there.

Janice Fulkerson: Dr. Ashworth, we have loads of questions that have come in through the chat and the q and a box, so, um, I'll try to get as many as I can in the next 10 minutes. Um, the first one that came in was, oh my, how do I find out all, how do I find the healthcare costs? And the good news is I don't think our requesters have to find the healthcare costs, do they?

Dr. Madison Ashworth: No, no. So this is all kind of, you give us the [00:50:00] inputs of your house characteristics and we will kind of run the model and come up with all of that. Um, we did all the hard work of searching for the data as well. Um, but it does look, um, we do have here interested more in more detail of the methods. We do have a detailed methods report, um, that when we, um, work with houses we can send out so that it can be referenced and everything like that. So you can see where the data sources are, um, that we're pulling all of these numbers from. But a lot of our healthcare, um, cost estimates came from the Recovery Centers of America. Um, I can look that one up and put a link to that study in the chat as well.

Janice Fulkerson: Um, other questions that come in. Um, you've talked about, um, inflation already. That was one of the big, um, uh, questions was accounting for inflation. Um, one of the other questions that came in was about furniture and, um, other operating costs or is that all? Can you go back to your, um, [00:51:00] uh, comments about what goes into the operating costs?

Dr. Madison Ashworth: Yeah, so the operating costs are kind of your day-to-day thing, so that will be staffing, um, any kind of non-durable goods. So the way I like to think about it is given your time horizon. So let's say I'm looking at my calculation, like our use example over 10 years. If the thing that you're considering a cost of, whether it be furniture, a computer, something like that, I. Could you sell it for a decent amount of money that's very close to the amount you paid for it in 10 years?

If not, um, it's probably going to be an operating cost rather than a startup cost. Things like land buildings, constructions, even sometimes vehicles in a certain time horizon, those can be more durable goods that will go up in that startup cost cuz they have more of that, they hold onto that resale value. Um, the way that like phones and technology is changing so fast right now, I think that the second you open a laptop, it's [00:52:00] basically, um, obsolete the next day with technology. So I would say that unless your time horizon is pretty short, you would put things like, um, technology in those operating costs.

Janice Fulkerson: Fantastic. Thank you for that. Yeah. Um, we're getting a few questions about, um, what are the next steps for development in the tool and will it be updated with, um, let's say post Covid, uh, data. And data elements.

Dr. Madison Ashworth: Yes. So the next steps for the tool is we're continuing to kind of work the recovery houses that we work with that are using the tool. We're continually kind of refining, um, the reporting aspect of it. So making sure that we're providing reports that are helpful to the individuals using the tool. Um, we are keeping our eye out for data that's coming out, um, around the criminal justice es, um, criminal justice cost estimates, the healthcare cost estimates, some of those so that we can continually keep those updated.

Um, I think there will be a [00:53:00] little bit of a lag in terms of healthcare and everything.

Um, there's always a lag in data just in general, but because we have that kind of Covid pandemic years, um, it'll be a little bit longer before we can even get some of that healthcare data that's, uh, quote unquote back to normal, if you will. Um, but for the next steps of the model as well, we are looking at trying to work with some collaborators, um, university collaborators at. Um, kind of improving the state transitions, so the dynamic interplay and things in the model so that we can loosen some of those restrictions about the success rate and the time horizon.

Janice Fulkerson: That is fantastic. Thank you. Um, we, um, are getting a lot of questions about the differences between urban and rural. Um, so, um, I'll talk about our services a little bit. Um, Dr. Ashworth, if you want to then talk about maybe some of the differences that you might see in urban versus rural model. [00:54:00] Uh, but first and foremost, The Fletcher Group is, uh, funded by a HRSA grant and our focus is rural communities. So, um, a lot of the work, most of the work that we do is in rural communities as defined by HRSA. So, um, if you are an urban, in an urban location and looking to expand to a rural community, we want you to give us a call and see if this calculator will, um, be beneficial to you.

Um, but we are focused in rural communities under this HRSA grant. Um, this tool, when it is available on our website, um, will be available for anybody who wants to access it. Just like many of the tools that we have available on our website. As we roll it out though, we're going to, um, uh, make it available to, through that technical assistance request that, um, Maddie talked about a few minutes ago.

Dr. Madison Ashworth: Yes, and I can [00:55:00] talk a little bit about the differences in the model with rural and urban as well. Um, We did build some of those in just in the valuation of kind of health and, um, life expectancy. So in that value of a statistical life year calculation, life expectancy is one of the, um, big kind of, uh, key components of that calculation.

And so because there is that difference in rural and non-rural life expectancies, that does make that value of a statistical life year different between those two. So, um, that, that kind of estimate right there is different between rural and non-rural areas as well as the productivity costs because of the difference in earnings and, um, kind of economic, uh, unemployment opportunities across rural and non-rural areas just because of the jobs they have and, uh, cost of living and things like that. Um, we do weight that productivity cost so that, um, it is a little bit more costly, um, for a person with a substance use disorder in terms of productivity costs to be in a non-rural [00:56:00] area than in a rural area.

Janice Fulkerson: Thank you for that. Um, uh, Norma wants to know, can this tool be used for an outpatient treatment program or is it really focused on recovery housing? Um, as, as a, as a fac, as an entity.

Dr. Madison Ashworth: Yeah, I mean, um, it can be used more broadly for different types of, um, outpatient and treatment programs. One of the things that comes with a difference in some of the types of programs is that the cost structure might look differently. And so, um, it might not be as simple as some startup and operating costs, like it is a little bit more for recovery housing. That was, um, when we talked with our collaborators, um, operating recovery housing,

that was kind of our two big buckets that we got for the cost. And so I could see for different types of treatment programs, whether that's more intensive, residential, outpatient, things like [00:57:00] that, those costs might be a little bit different. Um, but we are of course willing to try and help make this tool work for everyone. So if, um, you're in a rural area and you'd like to send us that technical assistance request form, we can talk about how that might look different.

Janice Fulkerson: Madison, will you, uh, please put that, uh, QR code back up on the screen?

Dr. Madison Ashworth: I would love to.

Janice Fulkerson: That would be great. We wanna remind, um, everyone that you, uh, can go to The Fletcher Group website, which is FletcherGroup.org. And then there's a link on the left hand side of the webpage where you can request assistance. And in that, like Madison said, we'll collect a little bit of information about who you are, um, but specifically mention the, uh, Fletcher Group Economic Calculator. Um, and then we'll know what to do when we reach out. Mm-hmm. Um, there's also a PDF in the chat. Um, Madison. Um, Erica put the PDF on the economic calculator, um, in the [00:58:00] chat for everyone to download if you'd like more information.

Dr. Madison Ashworth: Yes, yes. That is our methods report. So if you were really interested in all of the numbers we were discussing and everything like that, that is our, um, more detailed methods report that has a lot more of the equations, da, uh, data sources and everything like that in it as well, and some more of the use example. Um, expanding on that.

Janice Fulkerson: I'm scrolling through the questions, Madison. Is there any final, um, advice or thoughts that you wanna share with the audience before we sign off?

Dr. Madison Ashworth: Um, I think the last thing we would just say is that, um, if you think in any way that this economic calculator can be helpful for you, but you're not quite sure, um, anything about the kind of information you need to give us to run the tool or you're just not quite sure if it would be helpful, uh, reach out to us. Um, this is meant to be a very flexible tool for [00:59:00] everyone to, for recovery, house owners, operators to use. Um, so we really can make it function and work for you. Um, the bones of it are there and they're set, but, um, the results and everything like that, we can really customize it to what you need, and we are more than happy to help you make the tool work for you as well.

Janice Fulkerson: And that, uh, Dr. Ashworth, is one of the reasons why, as we're rolling this out, we wanna make sure that we have that connection with the individuals so that we can navigate the use and make sure that it's most informative. Um, so we're looking for that technical assistance request so that we can do that one-on-one with the organizations to ensure the tool is a valuable resource. Eventually, we'll put it out on the website for anybody to use, but we're going to roll it out slowly, um, for now.

Dr. Madison Ashworth: Yep. Perfect. All right, well, I believe we have a nice little exit video for the webinar. [01:00:00]

Janice Fulkerson: Thanks everyone for joining.

Michelle Day: Our webinar session. Thank you so much for joining us today. Also, please tune in on the first Thursday of each month from 2:00 PM to 3:00 PM Eastern Standard Time, where we'll be hosting subject matter experts from across the nation to bring you valuable tools and resources for more recovery house operators and SUD professionals. If you would like information on technical assistance, you can go to our website, again, www.FletcherGroup.org, which I have also copied in the chat, and submit a technical assistance request. Lastly, please take a moment to respond to the survey questions once they become available on your screen. Your feedback is very important and greatly appreciated. Thank you and have a blessed day.

