Transcript:

SBIRT – Now More Than Ever

Presenter: Dr. Richard Brown
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ANN SCHENSKY: Hello, everyone. And welcome to our webinar today, SBIRT, Now More Than Ever. We're going to give people a couple minutes to get settled in. And we will get started. Thank you for joining us. Again, our webinar today is SBIRT, Now More Than Ever, presented by Rich Brown and the Great Lakes Mental Health Technology Transfer Center. This webinar is brought to you by the Great Lakes ATTC, PTTC, MHTTC, and SAMHSA. The Great Lakes ATTC, MHTTC, and PTTC are all funded by SAMHSA. We are funded under the following cooperative agreements.

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Again, I'd like to thank you for joining us. We have a couple of housekeeping details. Today's webinar will be recorded. And the recording and the slides will be available on the Great Lakes current YouTube channel and the Great Lakes MHTTC Products page. Certificates of attendance will be emailed to all attendees. It could take up to two weeks. At the end of today's webinar, you will be directed to a very short survey. We would really appreciate it if you could take a few minutes to complete it.

Couple extra ones. If you have any technical issues during the webinar, please individually message Kristina Spannbauer or Stephanie Behlman in the chat section. And then we'll be happy to assist you. If you have questions for the speaker, please put them into the Q&A section, and we will address them at the end of the webinar. If you have any questions about other webinars or presentations that we do from the Great Lakes, you can get on our social media pages.

And our speaker today is Dr. Richard Brown. Dr. Brown is a highly experienced family physician and health care leader who is a nationally recognized leader in implementing SBIRT-- Screening, Brief Intervention, and Referral to Treatment programs-- focused on preventing problematic use, abuse, and dependence of alcohol and illicit drugs. Dr. Brown has served as a Practice Transformation Team member for an SBIRT related project administered by the National Council on Behavioral Health and funded by SAMHSA. Most recently, Dr. Brown served as market medical director for Concerto Health. Previous to that, he was a professor of family medicine and

the director of the Wisconsin Initiative to Promote Healthy Lifestyles at the School of Medicine and Public Health at the University of Wisconsin, Madison. Welcome, Rich. And I will turn it over to you.

RICHARD BROWN: Thanks very much. And good afternoon, everyone. It's good to be with you back in the Midwest. I am currently based in Seattle. But I spent 27 years at the University of Wisconsin in Madison working on projects with partners in Minnesota and Illinois. Then for my last three years before retiring, I was with Concerto Health, which put me in Michigan. And we worked closely with people in Ohio as well. So although I am currently in beautiful Seattle, where I highly recommend visiting, if you haven't gotten the chance to be here, of course, when it's safe again. But it's good to be back with you based in the Midwest.

So what I am not going to focus today is on how to deliver SBIRT. Instead, I'm going to focus on how to convince others, especially health care leaders, to deliver SBIRT. There's been so many pilot projects and large scale demonstration projects and even randomized controlled trials showing that SBIRT is effective. We don't need any more of those projects. What we now need is to convince health care leaders to implement SBIRT on a large scale basis.

And when I say SBIRT, by the way, I do include two twists. One is that, when I think of SBIRT now, I don't only think of alcohol and drugs, I think of an expanded SBIRT model addressing a whole slew of behavioral risks and disorders. So I tend to call that model BSI, Behavioral, Screening, and Intervention. And I also want to emphasize, when I think about SBIRT or BSI, I think about hiring new health coaches who we train to deliver BSI with excellent rigor. And more about that as the talk progresses.

Here's what I'll be talking about. And so first of all, the quadruple aim that should be guiding all of us to continue improving health care services, what I mean by "Behavioral Health," "the Problem" of behavioral health as it's seen by general health care leaders, what do we know about "What works," and then, various versions of health coaching programs that could make a huge difference for our patients.

So first of all, the quadruple aim, if you're speaking with any health care leader, it's important to frame things in terms of this quadruple aim. All health care experts agree that we ought to be attempting to improve health care services so that patients report having a positive experience. If they don't, they may not keep coming back. Health care services ought to be improving health outcomes across our population, such as various measures of wellness or improvement of disease or also avoiding hospitalizations. And when we do that, we naturally reduce costs. If we keep people well, we keep them out of the hospital. Hospitalizations tend to be one of the highest health care costs. We tend to keep people out of emergency rooms, because they're remaining healthy. And hopefully, we're doing this in a way that continues to improve

health care team well-being and job satisfaction-- avoiding burnout that's way too common in health care.

Now various health care settings ask, well, what's in it for me to keep transforming health care according to this Quadruple Aim? Because one, we're reducing costs. We may actually be reducing revenue for health care organizations. We may be reducing revenue by hospitals and emergency rooms. Patients are more well. Maybe they're not seeing their regular doctors as often as usual. So the answer to what's in it for me for the health care professionals who will be deciding whether or not to implement SBIRT really pertains to increasing impetus at the federal level.

The folks who run Medicare and, to some extent, Medicaid continue to expand value-based reimbursement so that increasingly, over time, health care professionals are being reimbursed not just for seeing patients or delivering a service, but for actually keeping people well, keeping them out of the hospital. So there's more and more opportunities for health care professionals to share in those savings that good services generate and savings that are generated by attaining this quadruple aim.

So that's one of the reasons it's important to deliver SBIRT now more than ever is the increasing emphasis on value-based reimbursement, keeping patients healthy, and out of the hospital rather than just delivering services on a fee for service basis. And especially in my role at Concerto Health, which was a for profit health care company, and in my role of senior medical director for Population Health Management, I had lots of contact with health care leaders at health insurance companies and large health care organizations. I learned how they view behavioral health.

And so here's their view. It's not just alcohol and drugs, the traditional focus of SBIRT. And it's not just mental health disorders. But this indeed is an important category of behavioral health-- so, for example, anxiety, depression, PTSD, serious and persistent mental illness. Also, we include unhealthy and risky behaviors, such as smoking, poor diet, physical inactivity, and maybe unhealthy drinking or drug use that does not meet criteria for an alcohol or drug use disorder. They especially are concerned about non adherence to treatment regimens and especially for these chronic diseases, coronary artery disease, chronic kidney disease, chronic obstructive pulmonary disease, including emphysema, such as people tend to get after years of smoking, diabetes, heart failure, hypertension. When these diseases are not well controlled, people tend to end up in and out of the hospital much more frequently. So this really is a key part of behavioral health that, often, folks in the mental health and substance use disorder arenas tend not to think about. Yet, this is the key part of behavioral health that general health care professionals and leaders tend to focus on. And this involves helping people adhere to their medication regimens, changes recommended regarding diet, physical activity, and also receiving health care services, getting the follow up

that's recommended, seeing the dietitian, seeing the physical therapist, et cetera.

So often, I've been in a position, years ago, to advocate for SBIRT. And many folks continue to do that. That would be a solution for a relatively small problem. I know it's a big problem as far as public health goes. But it's a small problem compared to the whole realm of behavioral health that health care leaders know they need to address but they're not quite sure how. So they are much more likely to listen to you if you come in advocating a solution for the entire scope of behavioral health issues, including adherence to treatment regimens than if you just come and recommend SBIRT. So in essence, come in with a bigger solution for a much bigger problem, you'll get much more attention.

So what is that problem? And it's in all of these realms of behavioral health. And I'm going to focus on sampling of results from various studies that frame these problems in terms of what's important to health care leaders. So in the mental health and substance use disorder arena, let's focus, first, on anxiety disorders. And I'll show you a series of slides, summaries of research findings that point out how behavioral issues lead to worse health outcomes and higher costs. And most health care leaders are not concerned about anxiety disorders just to treat people to feel calmer. Yeah, that's nice. But if we can show that doing a better job recognizing and treating anxiety disorders will improve general health outcomes and reduce health care costs, then health care leaders are going to listen to us much more closely.

So for example, one piece of research found that for patients with chronic lung disease, if they have an anxiety disorder, they have 40% more exacerbations of their illness resulting in more hospitalizations. We also see that anxiety is associated with more coronary artery disease and more deaths from coronary artery disease or patients with heart failure. Anxiety is associated with taking fewer medications, more emergency visits, hospitalizations, and deaths. So this is the kind of information that health care leaders tend to listen to about this whole realm of behavioral health.

Or depression-- people with depression have more hospital admissions, more days in the hospital, more hospital admissions, more 30-day readmissions. And this is especially important. Because health care organizations get penalized by the folks who run Medicare if lots of patients come back for readmissions-- they were in the hospital, they were discharged, they're back in the hospital less than 30 days later.

A study among patients at one hospital in Boston found that even mild symptoms of depression that don't meet criteria for full-fledged depressive disorder increased 30-day readmission rates from 13% to 20%. And then another study focused on what predicts the need for repeat surgery for patients who already have their hip replaced. And the study focused on 29 possible conditions that could predict the need for additional surgery,

including obesity, diabetes, heart disease, lung disease. They found that depression was actually the number one risk factor, because patients wouldn't participate in physical therapy as vigorously, they would tend to stay in bed much longer, et cetera. So this is the kind of information that gets health care leaders interested about doing a better job identifying and treating anxiety and depression.

Similar data for drug use disorder. It's not just drug use, shown in the blue, but it's drug disorders, shown in orange, that actually puts people at a higher risk, generates greater numbers of hospitalizations in each year. And in fact, here's the most recent data on opioid related hospitalizations in your six states. And you can see, after many years of elevations in hospitalization rates, fortunately, hospitalization rates are starting to go down a bit. But they're still much higher than they were many years ago. We still need to do a much better job getting our opioid epidemic under control. And similar data for emergency room visits. All of these services generate lots of health care dollars, which health care leaders want to reduce expenditures.

How well do we do at treating these disorders? Well, one study found that 60% of patients with an anxiety disorder are not treated, many are suboptimally treated, and many are-- only 26% are optimally treated-- 26%. In depression similar, almost about half are not treated, only about 20% are optimally treated. So in a sense, this is good news. Because it means that if we know that we can do a better job treating these illnesses, and if we were to do so, we would reduce hospitalizations and costs, as health care leaders wish to do.

How do we do at addressing alcohol issues? Well, this study found that of all these alcohol dependent patients across the US, almost three quarters got no advice to cut down, no information on treatment. That's just terrible performance at addressing alcohol dependence. So again, there's much room for improvement.

Now this slide is a little complicated. But this particular slide is especially convincing for health care leaders. It is based on a study of thousands of dual eligibles, so patients in the US who have Medicare and Medicaid, meaning that they're either elderly or disabled, and they have low incomes. And the researchers looked particularly at patients with one of these five chronic diseases that are especially concerning to health care leaders. Because they end up resulting in lots of hospitalizations.

And what the researchers were curious about is what percent of patients with these disorders, these common chronic illnesses, had a mental health disorder, shown in green, and alcohol or drug disorder, shown in yellow, or both, shown in red. And you can see, as shown in blue, only a quarter to a third had no mental health or alcohol or drug disorder, half had a mental health disorder, several percent had an alcohol or drug disorder, 10% to 20% had both. So this illustrates that for folks with one of these chronic diseases

that are very important to health care leaders, most of these patients have a mental health or alcohol or drug disorder on top of that. And it's pretty clear to most health care leaders that, hey, if we're not treating the mental health disorder or alcohol or drug disorder, people are probably not going to take as good care of their chronic illness.

And here are some even more convincing data for health care leaders that as patients progress on this graph from blue to red, they have mental health or alcohol or drug disorders or both, we see much higher rates of hospitalization for all these conditions and much higher total cost of care per patient per year. So with this slide, with this data, health care leaders really start to understand that, hey, if I did a better job recognizing and treating these mental health and alcohol or drug disorders, I could help keep my patients out of the hospital and reduce their health care expenditures-- critical information for health care leaders.

At Concerto, I helped guide an analysis which convinced my bosses to implement the kind of health coaching that I'll be talking about in a few minutes. What we found among our dual eligible patients, in a few different states, is that about half had no mental health or substance use disorder, half had one or both kinds of disorders. For those without a disorder, they were responsible for 25% of all admissions by abuse patients. Those with a mental health or substance use disorder were responsible for three quarters of all admissions, triple the rate of patients without a disorder. So this was very persuasive to leaders at Concerto to get them to consider the kind of health coaching program that I'll be talking about.

So that's the problem of behavioral health with regard to mental health and substance use disorders. Now let's focus on unhealthy and risky behaviors. And smoking is a huge risk. We see smokers-- hospitals tend to aggregate smokers. Because smokers are much more likely to have chronic diseases that end them up in the hospital. You can see, smoking increases the chances for readmission, higher 30-day readmission rates by people who smoke for all of these medical and surgical conditions, and also schizophrenia. For people who smoke who get surgery, we see much higher rates of complications, which often lead to readmissions, which hospitals get penalized for.

And back to those folks who were having hip replacements, if they smoke, we see several times the risk of very serious complications which, again, generate higher cost, more hospitalizations. So this is very convincing data that we ought to do a better job identifying our patients who smoke and helping them quit.

For unhealthy drinkers, who may not have an alcohol use disorder, we see the same number of hospitalizations as for heart attacks. At one inner city hospital, 20% of ICU admissions were generated by drinking. We see more ICU admissions, higher costs among patients with pneumonia who drink excessively, again, more admissions, more 30-day admissions, or

readmissions for VA patients with heart failure, more repeat traumas by alcoholic patients who have initial traumas that are alcohol related, higher complication rates in patients who drink in a dose response relationship.

And so with regard to these first two categories of behavioral health issues, how common are these disorders and unhealthy behaviors? Well, in your six states, we see between 5% and 7% of patients with alcohol use disorders, about 3% with drug disorders-- combining those, 7%, 8% with a substance use disorder. And this is a real tragedy of people who have a substance use disorder. The percentage of those who got no treatment in recent year was over 90% in most states. That is such a tragedy. If that were true for any other health care condition, we'd probably have people demonstrating out in the streets. And this makes no sense, whatsoever. Because if we got these folks treatment, we would not only reduce their drinking and drug use and help them live happier and longer lives, but we would help attain that through the Quadruple Aim of reducing health care costs and improving health outcomes.

We see about 20% prevalence of people with any mental illness and with serious mental illness defined as mental illness that seriously reduces people's function in life, we see 4% to 6% prevalence. Major depressive episode, 7% to 8% prevalence, serious thoughts of suicide, 4% or 5%. So you start adding up all of these numbers. And you realize, wow, this is a lot of patients.

We see about 20% prevalence of smoking. We see even higher prevalence, 25% to 30% of people, who are drinking at higher than healthy levels. Five or more standard drinks in a day for a man, four or more standard drinks in a day for a woman. We see about 10% marijuana use and 3% or 4% other drug use.

So we keep focusing on the latest drug epidemic. Right now, it's opioids. And it's true, we need to do a much better job. But unfortunately, that makes us often forget that there are many more patients who continue to drink in an unhealthy fashion we really need help for that. As far as drug use, we see in the last year, 3% to 5% people misusing pain relievers, about half a percent using heroin, half to 1% methamphetamines. So that's the prevalence of folks who fit into these categories of mental health and substance use disorders and unhealthy and risky behaviors.

Now, let's focus on what health care leaders are especially concerned about, non-adherence to treatment regimens for these various chronic diseases. We see that non-adherence to medication for hypertension is the greatest risk factor for heart failure among blue collar minority patients. We see that elderly patients have high non-adhering rates, resulting in lots of hospitalizations, lots of emergency room visits.

A proportion of days covered is a nice measure to look at. It talks about what percentage of days out of a year do people even have the medication at home

that they should be taking for their diseases. So you could see, many patients don't even have the medication they should have at home for high blood pressure. And a study in Indiana found that the same was true for patients with type 2 diabetes, resulting in more hospitalizations.

As far as how we do at treating chronic disease, only about half of our patients with hypertension are well controlled. Only about half with diabetes are well controlled, and only about 1/3 with high cholesterol are well control. So this leads to lots more heart disease, and heart disease continues to be the number one killer in our country. And we see even worse control among elderly, minority, and low income patients.

The impact of all this non-adherence to medication regimens is amazing, so many preventable deaths, so many dollars wasted on avoidable hospitalizations and lots of other avoidable costs as well. So the way I put all this together is we have so many patients who smoke, engage in unhealthy drinking and drug use, have mental health disorders, may even be addicted to alcohol or drugs. This in turn leads to more chronic disease, also, worse self-care for these chronic diseases. And that leads to all of these hospitalizations and readmissions that generate huge costs, more complications that lead to more admissions and so forth, worse quality performance, which actually results in penalties by Medicare.

So these behavioral issues are so critical to do a better job addressing if we're going to do a better job with that quadruple aim and help health care organizations actually improve their bottom lines under value based reimbursement programs. So to summarize, we need better recognition and treatment for disorders. We need better recognition and intervention for unhealthy and risky behaviors. And we need better efforts to boost adherence to chronic disease treatment regimens.

And I would argue is that we don't want separate programs and separate individuals doing all these different things. We need a single integrated solution that health care organizations can implement. And back to the title, we need these things now more than ever because of the coronavirus and the devastating effect it's having on our economy.

This is a wonderful review article, if you're interested, which demonstrates that mental health outcomes, substance use disorder outcomes, risky behaviors tend to dramatically go up in times of recession, like we are in now. The Kaiser Family Foundation is tracking some interesting measures related to coronavirus. You can see, as of late March, just under half of people felt that worry or stress related to coronavirus was having a negative impact on their mental health, 19%, a major impact. And that got much worse from the two weeks before.

And from 45% to 72% reported worry about loss of income, worry about job loss, worry about affording medical care for coronavirus, family members

getting sick, needing to keep working and increasing their chances of catching the virus, worrying about their investments, and general disruption of their lives. And I added this slide just this morning. It's a new article from Politico. Pandemic unleashes a spike in overdose deaths.

Drug overdose deaths are surging amid the coronavirus pandemic driven by increased substance use due to anxiety, social isolation, and depression. So 11.4% year over year increase in fatalities in the first four months of this year, so lots of reasons why we really need to address these behavioral issues now more than ever. So now, let's talk about what actually works.

And in that realm, I'll talk about behavioral screening and intervention. The aspect of that focuses on alcohol and drugs is SBIRT, so we screen everyone. If they screen negative, we assume they're low risk, or we reassure them. If they screen positive, we conduct further assessment.

Fortunately, most patients fall in an intermediate risk level. For SBIRT, that would be high risk use and problem use. And we deliver a brief intervention, and that often succeeds at reducing unhealthy drinking and drug use for patients in a high risk category, likely dependence. We would try and refer people to treatment.

If people go to treatment, great. We continue following up and supporting them after treatment. If they decline treatment, we try an intervention. And sometimes, that's what's necessary to help people realize that, gee, maybe they need more help than they initially thought, and maybe then they are willing to accept a referral to treatment.

So there are so many studies that show that SBIRT is effective, and there's lots of other studies that show that this kind of systematic screening, assessment, intervention referral are effective for a variety of behavioral issues and so many benefits relating to better identification and wonderful benefits of interventions. Let's not wait until people have obvious serious problems. Let's systematically screen them, so we identify problems early while they are still milder and people don't need as many services. And we keep costs down.

So who should deliver these services? Well, in many projects, we hope that we can train current staff and somehow get them to do this. And in my experience, that rarely, if ever, works. Go into any health care setting, and people will tell you that, if anything, they are understaffed.

So training and begging current staff to deliver these services is not the way to go. People just don't have time, even if they are interested in delivering these services. Another way to go would be to hire all these different people to address all these different behavioral issues that we talked about, but that's certainly not feasible.

So what I and other colleagues have found as the best way to go is to hire a health coach, train them to rigorously deliver these services. Training takes about three or four weeks. And these rather low paid individuals can do a much better job than higher paid current individuals, such as physicians, nurses, who just don't have the time to deliver these services.

As far as the effectiveness of these services, BSI clearly works for smoking, if we deliver optimal intervention, including motivational interviewing, medications to reduce urges and cravings, and more than eight one on one support sessions. Most health care professionals hear this, and they say, oh, my god, we can't deliver so many support sessions. And I respond, how could you not deliver the services necessary to address the number one preventable cause of death in our country?

And the answer is they don't have time to deliver the services, but they can hire and train health coaches to do so. BSI works for unhealthy drinking and drug use. So for alcohol, we see all these wonderful impacts of delivering brief interventions to people who screened positive for unhealthy drinking. And we also see dramatic reduction in days of use of drug use per month.

So what works as far as mental health disorders is called collaborative care, a team approach to mental health disorders. Now typically, when mental health disorders are diagnosed in primary care, the practitioner may prescribe medications, may provide some emotional support. I know most will try to refer patients for counseling. Some patients go. Unfortunately, many do not.

Sometimes, they will try to refer patients to psychiatrists. Often, psychiatrists are not available, or there is a huge waiting list. So this is the current typical way of addressing mental health disorders, where for many patients, it's just the primary care provider seeing that patient.

What we can do is add a health post to the mix, who can deliver a variety of services, more comprehensive services, and take some of the burden off the primary care provider. They can be the first responder for patients who screened positive on the PHQ-9 for depression, the GAD-7 for anxiety. By using those questionnaires, they can insist with accurate diagnosis.

They can help guard against suicide by identifying suicidality by the ninth question of the PHQ-9 and make the appropriate referrals for immediate suicide risk assessment. They provide feedback and education on the disorders that patients screened positive for. In doing so, they instill optimism for treatment, talking about various treatment with the modalities. They help reduce barriers to referral.

They also deliver behavioral activation. I'll talk about that on the next slide. They promote engagement and treatment. Not just that initial session, but with ongoing follow up. They're also re-administering symptom questionnaires and

letting the rest of the team know if patients are not getting better with whatever treatment regimen they are on.

Behavioral activation is very helpful. What it involves is it involves engaging patients in these behaviors, which help improve their depression and anxiety symptoms. Exercise, variety of tips around improving sleep, sleep hygiene, having fun, socializing, eating healthier, and engaging in relaxing activities. They engage patients in changing these behaviors, and in follow up, help patients modify their plans to maximize improvement.

So we know from literally dozens and dozens of randomized controlled trials that, first of all, when we screen patients, we help identify many more patients by delivering other elements of collaborative care. We see much higher rates of remission and much higher, much better treatment response. And these data are actually from an effort in Minnesota, which dramatically improved delivery of collaborative care.

And since all these studies came out on depression, randomized controlled trials are showing collaborative care are very effective for other mental health disorders. And I want to emphasize that BSI itself is not only great at preventing chronic illness and injury. It's also great for people who already have a chronic illness to reduce severity, complications, and hospitalizations, smoking cessation. It helps patients with heart failure and COPD, alcohol intervention.

It reduces high blood pressure. Even a three point reduction in blood pressure in large populations can reduce heart attacks and strokes. And by helping patients with diabetes improve depression symptoms, we can also help them manage their diabetes better.

What works in terms of the method of working with patients around behavior change is motivational interviewing. We avoid doing all these things that don't work that elicit poor patient response. Instead, we engage patients about learning about risks and consequences they find important. We help them weigh the pros and cons of behavior change in light of their goals and values.

And for patients who do commit to help patients commit to making a change, we help them make and strengthening their own arguments for change. And for those who do commit to change, we help them design specific behavior change plans. We find these plans over time to help them meet their behavior change objectives and their goals for improvement.

So there are so many studies that show that motivational interviewing is the way to go, and this is another reason to hire and train health coaches. Most practitioners simply cannot take the time to become great at motivational interviewing, whereas we can train health coaches to be excellent motivational interviewers in that initial three to four weeks of training. Also, we want to emphasize pharmacotherapy for alcohol and opioid use disorders.

In the original SBIRT model, we just talked about referring patients to treatment if they seem to be dependent. But unfortunately, most patients still don't go to treatment. So then what do we do? They're still coming back to primary care.

And the answer is, in part, we can be prescribing FDA approved evidence based pharmacotherapy, disulfram, acamprosate, or naltrexone for alcohol use disorder. For opioid use disorder, regular health care settings can not prescribe methadone, but they can prescribe naltrexone and buprenorphine. So we need to do a better job when patients will not go for specialized treatment, offering treatment in primary care settings, pharmacotherapy by the PCP, motivational interviewing and a behavior change planning by a health coach, and even better, offering onsite counseling, bringing counselors into primary care and offering one on one or group treatment.

Now, let's talk about how we can do even better than what I've talked about, so this would be an integrated health coaching program for primary care. And this comes out of work that I and colleagues have done at the University of Wisconsin in Madison. We have lots of funding from SAMHSA and then follow up funding from AHRQ and the CDC.

And in our first few projects, we help lots of clinics deliver BSI. They screened over 100,000 patients, intervened for over 23,000 patients. In our initial SAMHSA funded project, we found that patients are very satisfied to receive SBIRT.

We also found typical reductions that randomized controlled trials have attained. This a sufficient reduction in binge drinking to reduce hospitalizations and emergency room visits as I mentioned earlier, significant marijuana use reduction. For a few clinics, we had health coaches delivering collaborative care for depression.

Look at that reduction in PHQ-9 scores that we got. We also found that our bachelor's level health coaches did better than our masters level health coaches. And I think that's because our bachelor's level health coaches just stuck to our protocols and didn't veer off to other services that master's level coaches knew how to deliver.

And we also documented substantial health care savings, and this is what health care leaders are especially interested in. It's not just improving care, but generating cost reductions. Then in our next project, we realized we could expand the scope of behavior issues to address. So we started screening for all of these issues, and screening for fruit and vegetable intake and physical activity is especially helpful in getting patients comfortable with the screen before we start asking more sensitive questions.

It frames the more sensitive issues, like alcohol, drugs, and mental health disorders, as regular health issues. So people feel more comfortable

responding and responding accurately just reading questions. So over the years, these are the components of health coaching programs, and SBIRT, and BSI programs that I've seen are necessary for success.

First, of course, we need a skilled health coach who we've learned how to select for their warmth, their empathy, their nonjudgmental stance. That substantial training up front is necessary. We can just provide training at a couple of workshops. They really need in-depth training, ideally for three or four weeks, if they're going to address all of the topics that I've mentioned.

And we continue to monitor their performance, have them audiotaped, give them feedback. So we continue to coach the coaches. And within several months, they really become experts, much better than the vast majority of physicians and nurses.

We provide them with the research based protocols, the screens, the assessment, the intervention protocols, referral resources. We provide them with health information technology. Basically, it's great if there are electronic health systems can help guide the screening and the scoring of screening and assessment tools. With the data they collect, we can track service delivery and behavioral outcomes.

How many patients did we get to quit smoking? How many patients did we get to cut down on their drinking? Are we reducing patients PHQ-9 scores? If not, where can we do better?

So that involves forming quality metrics, using quality improvement framework, and coaching on best practices. So these are all the components that are really necessary for the kind of rigorous health coaching program that can generate all the improvements and those quadruple aims and really give health care leaders what they want, what they're looking for. And what else they are looking for, as I mentioned, in cost savings, so here are two studies on cost savings that result from smoking cessation programs, three studies that focus on cost savings for alcohol and drug SBIRT programs, one excellent study showing dramatic cost reductions for depression screening and collaborative care.

From these studies, I am taking away these numbers shown in green to show you some projections that you can relate to health care leaders, how much money they can save. So we plug those projection in. We see that for 1,000 primary care patients, 20% of patients are drinking too much, and we know that we save $300 for each persons screen. Each of these 1,000 patients we're screening, we would save $300,000 by administering SBIRT for alcohol and drugs.

For depression, this cost savings are computed on those patients who receive collaborative care, $1,300 per patient, 200 patients in the first year. So we save this amount, $260,000. For patients who smoke, the studies show that

for every additional patient we get to quit, we would save $571. So it's $23,000 in savings.

So overall in the first year, each health coach working on 1,000 patients would save just under $600,000 a year or about $600 per patient and screening. How much time would a health coach need to spend with patients? Well, typically, on average, three sessions for alcohol and drug use, 10 sessions for collaborative care for anxiety and depression, three sessions for cigarette smoking.

Again, these are averages. Some patients would get a lot more services. Some patients who are not interested might just receive one session and quit. So this would be the number of hours the coach would spend, so altogether, over 1,500 hours in a year.

So this demonstrates that each health coach could work with 1,000 primary care patients, and a very crude estimate of costs, including salary, benefits, overhead, supervision, $100,000 a health coach. Now, plug that in. Here are the health care cost savings per health coach in that first year, $100,000 of expenses.

So we'd see just under a half million dollars of net health care cost savings in that first year, nearly five to one return on investment. If we had 12 health coaches working under one supervisor, we would get just under $6 million of net health care savings in that first year. That's the kind of information that health care leaders really perk their ears up at, and we can even do better than that.

We can expand health coaching programs. In addition to screening for these behavioral issues, where we know there's good return on investment, we can identify patients who have these chronic diseases and provide coaching services for those who are chronically ill, frail, or low income patients. We can have coaches screened for a whole variety of other issues pertaining to medications and adherence, patient function, and may need for physical therapy, occupational therapy, more home care services.

Are they getting the help that they need for specific common health issues that reduce quality of life? Social determinants, which we now know are very important in determining health care outcomes and referring patients for resources to address these, and a variety of health care related issues. Do patients need more help making appointments, keeping appointments, getting transportation to appointments, et cetera?

So this is the kind of program that I was responsible for developing at Concerto. We had health coaches educating patients about the basics about their chronic diseases, what's normal anatomy and physiology, how does their disease alter their anatomy or the way their body is functioning, what kind of

symptoms and complications might they have from their illnesses, especially if they're not well controlled. Then they do motivational interviewing.

What kind of symptoms and complications does that patient most want to avoid? And with that in mind of a whole menu of behavior change options, which are they willing to start changing? So we help the patient develop SMART objectives around behavior change and work with patients over time to continue improving their efforts, until they reach their goals. So that they are not having symptoms, and they're much less likely to suffer the complications they wish to avoid.

And here is a whole menu of behavior changes that might be useful for patients with one of these five chronic diseases, and you can see the checkmarks indicate which of these behavior changes are relevant to which chronic disease. So that's how health coaches can work with patients around various chronic diseases that, again, are especially important to health care leaders, and notice this includes an emphasis on smoking cessation. It includes an emphasis on alcohol and drugs.

It includes an emphasis on depression and anxiety, because all of those things interfere with chronic disease self-management. So for patients with unhealthy behaviors and substance use disorders, the coaches use motivational interviewing to promote commitment to change, behavior change planning to help patients without a change over time. They use collaborative care for mental health disorders, help engage patients in pharmacotherapy. And for those with unmet medical and social needs, like social determinants of health, if a patient screened positive for those, they'll make referrals as necessary.

So again, this is the whole gamut of behavioral health issues that health care leaders are concerned about. In my opinion, it doesn't make sense just to offer SBIRT for alcohol and drugs. We ought to be offering a robust program to address all of these behavioral issues.

Health care leaders are much more interested in great solutions for huge problems than a solution for just part of the picture here. So in summary, the problem, the opportunity for us in behavioral health is to help general health care leaders address all of these unhealthy behaviors and disorders, which lead to more hospitalizations, readmissions, complications, higher costs. There are huge gaps in most health care organizations.

Very few health care settings are delivering SBIRT or BSI using motivational interviewing. Very few are administering collaborative care for anxiety, depression. The solution is not to train current staff. They just don't have the time, and many don't have the interest.

The solution is to hire and train health coaches, provide rigorous training upfront, ongoing coaching, research based protocols, adjust the electronic

health record to support service delivery, continue using quality improvement to optimize workflow, so that maximum numbers of patients get served. And the benefits are that those health care organizations will do a much better job at meeting the quadruple aim and thriving financially as our country moves more toward value based reimbursement. So thanks very much for listening, and at this point, I would be glad to take some questions.

ANN SCHENSKY: Thank you very much, Rich. This was incredible information and lots of really good suggestions and things that we can do to improve health. And on that, we do have several questions. One is, where do you get a copy of the best BSI screening tool? And does it include questions on problem gambling?

RICHARD BROWN: OK, well, the second question, first, is, no, actually, we have not been addressing gambling. But I agree that that's a critical problem, and honestly, I'm not up on the latest information. So I don't even know what the best validated screen is for gambling, so maybe I can look into that and get back to folks afterwards.

As far as the best questions for all of the other health behaviors that I've mentioned for anxiety and depression, the standards are the GAD-2 and 7, for anxiety, the PHQ-2 and 9 for depression. I found it best to draw questions on fruit and vegetable consumption and exercise from CDC questionnaires. I think the staff running the webinar here is going to send you also an email follow up, so I can include some sample questionnaires that I've found useful in those regards.

ANN SCHENSKY: That would be fabulous. Thank you. How are health coaches funded?

RICHARD BROWN: OK, so most of us are used to thinking of writing a grant, getting a grant to fund health coaches. We don't need more of that, OK? We've been doing that for decades. We know that these programs work.

So just to get another grant to fund a few health coaches here and there is not what's needed. What we need to do is to talk to health care system leaders and help them realize that they can invest their dollars, so that they can generate return on investment for themselves, even within that first year. So we need to get away from grant funding.

Maybe some of you will find it useful to get an initial seed project going just to demonstrate that you have what it takes to be successful. But what we really need is to get health care leaders to invest their dollars, so that they can hire health coaches. They can hire people to train and supervise those health coaches. That's the only way that we are going to see that all of these BSI services are going to reach the vast majority of Americans who come for health care.

ANN SCHENSKY: Great, so another question that's tied to that is, does the title health coach exist in workplaces?

RICHARD BROWN: Yeah, so it varies by state. So you'd need to check your state regulations whether that title carries some legal obligations. Are their licensor requirements, for example? So far, I've found that most states don't have any legal definition of health coach.

There are some national certifications, which honestly, I'm not impressed with. I think the kind of training that I talked about today starting with all the screams, and the interventions, and motivational interviewing, and collaborative care have far more evidence than some of the national certifications have and the services they teach help coaches. And my other response is that we don't have to be wedded to that term of health coach.

We can also talk about health educators or peer educators. So you may want to choose the term based on how your state looks at the terminology. Also, I've found that various health care organizations want to call these people by different names, and I don't quibble over that. If they're willing to hire these folks and have them trained to help lots of people, I'm willing to call them whatever the health care leaders want to call them.

ANN SCHENSKY: Thanks. What are your thoughts of school counselors and psychiatrists being trained in SBIRT?

RICHARD BROWN: Oh, absolutely. In fact, I was involved with some projects when I was back at the University of Wisconsin, where we hired people who are about to get their bachelors in social work. And we had them go into the schools and deliver SBIRT confidentially to students. And we got some really good results, and the students really divulged a lot of information.

So yeah, by all means, we ought to be delivering SBIRT in schools. And when I say, SBIRT, I really mean BSI. We should not just focus on alcohol and drugs. We should also be focusing on smoking, and mental health disorders, and suicidality for youth. Those problems are so important. And also, it softens the sensitivity issue about asking questions about alcohol and drugs, if we first ask about other health issues, such as smoking. So by all means, we should be delivering BSI in the schools.

ANN SCHENSKY: All right, our next question is, which SBIRT tool do you recommend? And how can we get more primary doctors in rural areas to screen for drugs, alcohol, and mental health?

RICHARD BROWN: Yeah, well, I'll take the second part of the question first. How can we get more so do the screening? You know, it's easy to do screening. It's easy to ask a receptionist or a medical assistant to give patients a piece paper and have them fill it out.

The hard part is, what do we do for patients who screen positive? Because then someone has to spend a fair amount of time with them to conduct further assessment, and deliver intervention, and ideally deliver follow up services, whether it's at repeat visits or phone calls. So that's why we don't really see much benefit to just helping practices do screening, unless they're willing to hire health coaches who actually have the time and the rigorous training to actually work with patients who screen positive.

As far as which questionnaires to deliver, I believe that the best questionnaires initially are questions that focus on quantity and frequency of drinking and drug use, a separate question on alcohol, a separate question on marijuana, and a separate question on other drugs. And then for assessment questionnaires, I especially like the short index of problems for alcohol and drugs. It was developed by folks at the University of New Mexico, where motivational interviewing was developed.

And those questions especially get at common psychosocial consequences of alcohol and drug use, regardless of whether people are-- regardless of their family structure, whether they have kids, regardless of whether they work. So that identifies whether somebody might be in the problem use category, and then I especially like the severity of dependence scale developed by the World Health Organization, the SDS. Those five questions can help us realize whether patients might be dependent using the old DSM terminology. That's what really decides if patients really ought to be referred to treatment, or whether we should just deliver brief interventions.

ANN SCHENSKY: Great. We have time for a couple more questions. But I also wanted to let people know that, if you submitted a question and we didn't get to it, we will answer any questions that we weren't able to get to in writing and post them on the website as well.

RICHARD BROWN: And I want to emphasize the reason I have my email address up there in red is that I'm glad for you to write me yourself with any questions that you did not send in or get answered today.

ANN SCHENSKY: Fabulous. We appreciate that. We have time for just another quick one. You mentioned comparison of effectiveness for bachelors versus master degree health coaches. Has there been any review of sub-bachelor degree health coaches? I'm thinking of a developmental role for bachelor or social work students.

RICHARD BROWN: Yeah, I haven't seen any research on that. My personal experience having hired and trained bachelor's level and sub-bachelor's level coaches is that bachelors level coaches tend to be able to learn motivational interviewing better. Now, I say that as a rough tendency. I am sure there are people without bachelor's degrees that can learn motivational interviewing.

However, I would look for people whose primary reason for not going to college was lack of opportunity. Because there's lots of smart people out there who just never made it to college, because they couldn't afford it. Or they were dealing with difficult family situations. But people who had the opportunity to go to college financially, family wise, who didn't end up there maybe because of lack of interest or lack of aptitude, I think, tend not to be able to learn motivational interviewing as well as those who graduated from college.

ANN SCHENSKY: Excellent. We have time for one more quick one. Where do you recommend training for health coaches?

RICHARD BROWN: Gee, you know, there's a variety of people across the country for motivational interviewing training. There is motivationalinterviewing.org. That lists a bunch of very qualified motivational interview trainers.

And then within that group, some people are well versed in the kind of screening and intervention that I've talked about today, but some are not. But I guess I would start with motivationalinterviewing.org. Also, I would recommend in your six state area, if you're looking for a resource, by all means, speak to people that the TTC who are running this webinar. And they will probably know of resources in your six state area.

ANN SCHENSKY: Excellent. We are at the top of the hour, so I want to respect everyone's time. And thank you very much for a fantastic presentation. I want to thank everyone for spending some time with us today.

And again, if you submitted a question and we were not able to get to it, we will do an FAQ on the website so that all the questions can get answered. And we will have that up probably in a week or 10 days. So be sure to check back there, and again, thank you very much, Rich. And thank you everyone else for your time.

RICHARD BROWN: Bye, everyone.