RICHARD BONNIE: Hello, everyone. I'm Richard Bonnie, and I am on the faculty of the law school and of the medical school, and Director of the Institute of Law, Psychiatry, and Public Policy. I want to welcome you all to the 18th P. Browning Hoffman Memorial Lecture in Law and Psychiatry. I want to extend a special welcome to faculty and students from the School of Medicine and other schools of the University, and to our friends and colleagues who serve our community by providing mental health services and working in law enforcement and correctional systems.

The lecture is a tribute, as you can tell, to the memory of Browning Hoffman, a psychiatrist who joined the UVA faculty in 1971, held joint appointments in the schools of medicine and law, founded the Institute of Law, Psychiatry, and Public Policy, and helped lay the groundwork for other programs in law and medicine at the university that we now take for granted. He did all this with extraordinary energy and creativity until his work was cut tragically short by a sudden death in 1979. The period of Browning's work, essentially the 1970s, was a time of intellectual ferment in both of the domains of policy and practice that lie at the intersection of law and psychiatry and the allied subspecialties, of course, in psychology.

First, a body of mental health law that protects the rights and interests of people with mental disabilities in hospitals, prisons, workplaces, and other walks of life. And secondly, a body of legal rules governing the use of psychological and neuropsychiatric evidence in the courts, especially in criminal adjudication. This excitement, at that time, spawned a new generation of scholars working at the intersection of law, ethics, and behavioral sciences. Among this new generation of scholars were Browning, myself, my colleague John Monahan that you'll be hearing from shortly, and most of the previous Hoffmann lecturers, all of whom are listed in your program.

I'm very happy to say that this year's Hoffman Lecture will be delivered by Professor Jennifer Skeem, Professor of Public Welfare and Professor of Public Policy at the University of California Berkeley. Before John introduces Dr. Skeem, I want to say a few words about Browning. Browning had a passion for ideas and awesome intellectual energy. On literally hundreds of occasions over the five years that we worked together, he would come into my office, he would plop down in an easy chair that I had in there at the time saying, I need to rattle your cage. And off he would go into his latest effort to solve what might have appeared to everyone else to be an intractable problem.

Browning was a man with a mission, genuine collaboration across disciplines of law and psychiatry and other behavioral sciences. And he viewed his own assignment at UVA as building bridges in the university and with the state to make that happen. His immediate aim was to connect the training and professional activity of lawyers, psychiatrists, and psychologists in a common cause, better informed public policies, and improved administration of the law in everyday practice. The fundamental challenge, as he saw it, was putting all of these professionals in the same classroom at the same time. He had a clear vision of the possibilities for such joint educational activities, and he put many of them in place here at the University of Virginia within a few years.

And I ought to say just as a bracketed matter, in many places, it's just not possible to do that because the schools are separated by miles even if it's in the same city. But we always felt we had the opportunity to do it here, although I admit, parking is a bit difficult. But it was possible to do this and even by walking and so on. So it was a time of really considerable excitement in doing this. So the activities that I mentioned include the forensic psychiatry clinic, a practicing clinic in the medical school, although actually now it's located 10 minutes from the law school, a 10-minute walk essentially from the law school, postgraduate fellowships in each of the pertinent disciplines, and a portfolio of training and continuing education for practitioners in law and the mental health disciplines.

He also planted the seeds for a partnership between the university and state government in Richmond that has helped shape mental health policies in the Commonwealth for nearly five decades. Now, as I said, this was only in the 1970s that he initiated many of these activities, and think of what was accomplished during that period of time. For me and all his friends and colleagues, Browning's death was made especially tragic by the sense of promise unfulfilled, yet Browning himself had a different view. He told me in his hospital bedside that he felt that he had already accomplished most of what he set out to do. I have no doubt that imminent mortality had scaled down his ambitions, but he did, in fact, accomplish a remarkable amount in his eight years here as I've indicated.

Browning left an enduring legacy for which hundreds of students and residents in the schools of law and medicine at UVA owe him a great debt. The fellows and junior faculty whom Browning personally trained in our program now serve on faculties of law, psychiatry, psychology, and public health throughout the country, and are among the leaders in the field. I have been emphasizing Browning's contributions to law and psychiatry, but his creative vision and intellectual curiosity ranged across the life span and touched all of what I will call the sciences of human well-being. We could just as easily have called this lecture series, the Hoffmann Lecture in Law and Human Behavior, or the Hoffmann Lecture in Law and Medicine.

Over the past decades, the topics addressed by our distinguished lecturers have ranged from ethical issues at the end of life to psychiatric genetics. Our most recent lecturers have focused on contemporary social issues, including, for example, Dr. Laurence Steinberg on the implications of recent advances in science and in the science of adolescent, and connections between adolescent development and criminal punishment. This year, a special treat, both for the subject matter, the growing challenges by people with mental illness in the criminal legal system, and by the opportunity for you to meet the outstanding scholar and long-term friend whom we have invited to deliver the 18th Hoffman Lecture, Professor Jennifer Skeem, and John will now introduce her.

JOHN MONAHAN: As Richard just mentioned, Jennifer Skeem is a psychologist and a professor at the Goldman School of Public Policy, and the School of Social Welfare at the University of California. She directs the Berkeley Risk Resilience Lab, which creates interdisciplinary teams of scholars to work on policy relevant research to improve risk assessment in the criminal and juvenile justice systems. Jennifer holds the Milton and Florence Mack endowed chair at Berkeley. She won the Distinguished Scholar Award of the Harry Frank Guggenheim Foundation. Jennifer is a former President of the American Psychology Law Society.

She served on the United States Attorney General's Independent Review Committee for the First Step Act. She's delivered congressional briefings on work and consults with local and federal agencies, community corrections, and prison reform and relationship to mass violence. Jennifer has authored over 150 articles and chapters, and edited several books. Her work has been cited, I wrote this down yesterday, a remarkable 19,070 times. I wasn't sure about that, so I went back again this morning and looked to see if it was there. No, I was wrong. It's been cited 19,595 times. She has been cited 25 times since yesterday night, OK? I mean, that is very impressive, I must say. At this rate she will hit 20,000 citations sometime tomorrow I think.

I first met Jennifer 23 years ago. I'd been asked by the John D. and Catherine T. MacArthur Foundation to chair a research network on mandated community treatment. My first task was to choose the members of the network. Some choices were easy, Richard, but other choices were more difficult. In particular, I wanted some younger people on the network. People who could bring new ideas and energy to the field. I asked Ed Mulvey at the University of Pittsburgh who had gotten his PhD in psychology here, and I knew well he was going to be on the network.

And I said, what do you think? Do you know anybody who would be good for this? He said, John, I think I've got just what you want. He went on to tell me about this new postdoc he had at Pittsburgh, Jennifer Skeem. So I invited her to join the network, and it's been one of the best decisions I've ever made. Since that time, Jennifer and I have co-authored 14 academic articles or chapters, and are about to get the 15th one done any day now. I give you now, What Works for Justice-Involved People with Mental Illness? Jennifer.

[APPLAUSE]

JENNIFER SKEEM: Thank you, John and Richard. It's a pleasure to be here. I'm honored to deliver this lecture. I will probably do it in a clumsy way because my notes are here, and the slides are there, but bear with me. I'd like to talk today about what we've learned over the past couple of decades about what works and what doesn't for people who have serious mental health problems like schizophrenia, bipolar disorder, and major depression, who are also involved in the criminal legal system.

So this is a topic that is familiar to you, I am sure, given your backgrounds, but it's also a topic that's very familiar to the public. Although most of the recent public discourse has focused on police responses to people who have serious mental illness, there are also larger correctional issues that I will focus on more today. So these are just a couple of headlines from major outlets that really show that the involvement of this population in the justice system has captured a lot of public attention. So this from the *Wall Street Journal,* this from *The New Yorker.*

These stories typically get part of the problem right. And that starts with one very fundamental fact, which is that people with mental illness are, in fact, overrepresented in the criminal legal system. So, again, people with serious mental illnesses-- and by that I mean illnesses like schizophrenia, bipolar disorder, major depression-- are disproportionately found in the criminal justice system compared to out in our neighborhoods and communities. The prevalence of serious mental illness in the correctional population is about three times higher than in the general population.

I like simple statistics, and those from Steadman's article indicate that if you use good measures, the prevalence of these disorders is about 5% in the general population among our friends, neighbors, relatives, et cetera. But if we step into a place like a jail in a major city, we find the prevalence increases pretty dramatically. So it's about roughly one in five people who are in the correctional population who have some kind of serious mental illness. Odds are more likely than not that they will also have a co-occurring substance abuse problem. So about three of four of each person who has a serious mental illness in the justice system also has a co-occurring substance abuse problem which complicates a lot of things.

This takes on new importance when you consider the context where these people are located. We have a massive criminal legal system in the United States. So this shows the population disaggregated by where you actually find them under correctional supervision. So you see that the total correctional population is about 7 million. It hasn't changed that much over time, though we saw a dip with COVID, which is kind of encouraging. So the total correctional population is huge. If you zoom in on where you find the most people, though, you will also understand what is coming next. Why I focus on correctional supervision in the community.

The workhorse of the correctional system is really probation. About 70% of people who are supervised in the correctional system are found in the community on probation. So they report to a probation officer, but they're otherwise in the community. There are also some people on parole as well who are supervised in the community after a prison term. So I focus a lot on probation-- you will see that in what is to come-- for two reasons. First, it's where you find a lot of people, and second, it's where we really have an unrealized opportunity to do a lot better.

So people with serious mental illness compared to their relatively healthy counterparts are about two times more likely to a fail on community supervision. Which means that they return to custody, they go to jails and prisons, where they also tend to fail in the sense that they're more likely to have behavioral problems and be placed in segregated housing units, the hole, as we call it colloquially, and they're a lot less likely to be paroled. So that's gotten a lot of attention yet, jails, but I think probation and community supervision is a place we should also consider upstream.

So we've got these two issues a lot of people with serious mental illness found in the correctional system, and a correctional system where they are failing at a rate of about two times more often than those without mental illness. So this has captured a lot of policy attention, and not all of it is new. In 2002, the Council of State Governments said in one of a landmark policy pieces that, "The current situation not only exacts a toll on the lives of people with mental illnesses, their families, and the community in general, it also threatens to overwhelm the criminal justice system," which by the way, was never built to respond to these kinds of issues.

So a lot has happened over the past 20 years since 2002 when that statement was made, and a lot hasn't happened at the same time. So there have been a lot of efforts to create specialty programs for people who have mental health problems in the criminal legal system. And based on mixed and not always great success, we have a new initiative to step up those efforts, to do better, especially in reducing the number of people with mental illnesses who are in our nation's jails. So this shows just a depiction of the stepping up initiative. You can see that 565 counties have vowed to do something better, different, to try to really move the needle on this problem that is a wicked problem, and has been slowed to respond.

So if we think about this for just a second, you have to wonder why is it that we find people with mental illness so often in the criminal legal system. You probably all have your ideas, anybody want to share? They're probably much more nuanced than where I will start, so I will just go ahead and start. So the perceived root of the problem was actually summarized pretty well 20 years ago by the Council of State Governments. The idea is that it's mental illness is the reason. So people on the front lines every day believe too many people with mental illness become involved in the criminal justice system because the mental health system has somehow failed. They believe that if many of the people with mental illness received the services they needed, they wouldn't wind up under arrest in jail or facing charges in court.

This is the direct cause model, as I refer to it, or the criminalization model. It is one form of a criminalization model. It's readily apparent in the news stories that I shared earlier, those news stories from today, right? So 20 years later, we're still approaching the problem with much the same intuitions about where it comes from. Typically, there's some kind of link that we make in a smart sensible way to deinstitutionalization. The problem goes back to when we emptied the state hospitals, and we didn't have the appropriate community supports in place.

The problem is that there's not a lot of support for this model, which I'll come back to in just a second. The reason that we're focusing on this model is because it drives still a lot of policy and a lot of programs. If criminal justice involvement is the direct product of mental illness, what's the key to solving it? Some or better or different psychiatric services. So most of the models that you find in the community are really built on the idea that what we need to do, the key to all of this is linkage with mental health treatment or services.

So there are lots of criminal justice programs available for justice-involved people with mental illness, they have a lot of different forms. You're probably familiar with mental health courts which have spread like wildfire. It's really hard to find a jurisdiction without a mental health court at this point. But there's also specialty mental health probation, which I'll talk about later, it's been around a long time, and a whole raft of jail diversion programs, like, crisis intervention teams, which is a police-based response where you're trying to keep people out of the system at the outset. So all of these models are different, they have different actors, but they're really-- if you strip it down-- underpinned by a similar logic model, which goes something like this.

You use the event, which may or may not be an arrest, to sentence or require as an alternative agreement some kind of treatment or an involvement in some kind of program. That is the means by which you get people who otherwise may not choose to do much treatment into psychiatric services, and it's also a way that you can mandate the system to provide those services. The idea then is that we're controlling the problem. So we're controlling symptoms that are getting people involved in the justice system in the first place, and that is the means by which we prevent re-offending. Again, this is stripped down, but the idea is that you're trying to replace involvement in the criminal legal system with more or different or better attachment to the mental health system.

Now, I'm going to focus on recidivism, reoffending as the major outcome here. That is because it's an important first outcome to achieve with this group. There are many others that we could focus on, including public health outcomes, homelessness, substance abuse, et cetera, but we're going to focus on this one first because it's also what drives a lot of these programs. OK. A couple of problems with this model. Number one, symptoms uncommonly cause arrest in any direct way. I'll come back to this later with more evidence. Here, I'll just show you one of my favorite simple examples.

Junginger and his colleagues trained some really smart research assistants to camp out in the Honolulu jail because they had just started a diversion program, and they could only have their most seriously mentally ill people attached to it. So they carefully selected these 113 people who had very serious mental illness. And what they did was simple, very shortly after the person was brought to jail for booking, they interviewed the person, and they were trying to really answer just one question, to what extent is the reason that the person was being booked that day linked with mental illness and substance abuse? They also reviewed police reports to come up with these reliable ratings of the reason for appearance that day, the reason for booking.

So what you can see is that with this group of pretty seriously mentally ill people who had been booked into jail, four, four of them had been booked because they were experiencing hallucinations or delusions. For example, they might have thought that someone meant to harm them falsely, and they engaged in a pre-emptive strike. So that was four. If we also consider the indirect effect of mental illness-- so, for example, someone is so depressed that they cannot get out of bed or function, let alone go report to their probation officer which results in a warrant, we see an additional 4%. So about 1 in 10 of that group of seriously mentally ill people were booked into jail in a way that we could link directly or indirectly to the illness itself.

Substance abuse played a role more often. You can see here that one in five of them, 21% were intoxicated or drunk at the time that they were booked, and another 7% were booked for some indirect link to substance abuse, like, maybe robbing someone to support a drug habit. So these authors concluded that people with serious mental illness may be overrepresented in jails and prisons, but it's hard to offer a lot of evidence that it's the illness that got them there. I want to be very clear that it happens. There are definitely incidents of violence and other crime that are directly and indirectly linked to mental illness. It's just that it happens less often than we believe. Those instances stay very fresh in our minds, and we tend to exaggerate how often that is true.

The second fact that throws a wrench into the works for the simplified model of what works for people with mental illness is that psychiatric services rarely prevent re-arrest. It could be the case that even though symptoms are tenuously linked to offending, psychiatric services help in some way. So it's important to take this on as a separate issue. We'll just go right for the gusto and skip community-based vanilla mental health services which are overburdened, overtaxed, et cetera, and go right to evidence-based state of the art models that have been shown to be effective for various mental health outcomes, right?

So assertive community treatment is one example, one of the oldest and best validated comprehensive treatment programs for people with serious mental illness. I think most people here know what it is, but just as a sketch, these are multidisciplinary teams of a, like, psychiatrist, nurse, caseworker, that are available to people with serious mental illness, very small caseloads, they're available to them 24/7. They take treatment out to people in the community. It's called assertive for a reason. So Clark, Ricketts, and McHugo is one example of a rigorous RCT of sort of community treatment. They happened to focus on people with serious mental illness and co-occurring substance abuse disorder, our population.

They found that assertive community treatment worked as advertised for the outcomes it's validated for. So people who were in assertive community treatment were much less likely to have recurring hospitalization, and they functioned better. The problem is there were no differences between the treatment and control group in their contact with the police or in their arrests. So over the course of about a year and a half, 40% whether you were in regular treatment, or assertive community treatment, had some kind of contact with the police and were arrested. So those mental health outcomes can't be counted on to translate to criminal legal outcomes.

Second point, we have looked, we spent a long time looking at evidence-based treatment for mental health outcomes for this population at first. And then we started making adaptations of them. So there is forensic assertive community treatment, which puts a probation officer on the ACT team and tries to pay attention to arrest as an outcome as well. The evidence on these is distinctly mixed. Sometimes they work, sometimes they don't. More importantly, when you look under the hood and try to understand why they work, when they work, it's not for the reasons that we assume based on that direct cause model.

I'll show you one example from a specialty probation study that John and Richard helped support, and that we learned a tremendous amount from. So this was a matched trial where we had two different jurisdictions. One, a traditional probation jurisdiction, another, specialty mental health jurisdiction, and we used TMLE which is really cool. It's a causal inference approach that helps to rigorously control for covariates at both the treatment assignment and outcome level to further approximate an experiment. So we had 360 probationers with serious mental illness in this study, and we followed them over time.

The two programs that we're considering here is traditional probation, where if you have serious mental illness, you are assigned to some officer as part of a large general caseload like everybody else. There's an emphasis typically on surveillance as opposed to treatment, that's just the way that traditional probation is in most districts. And we compared it with specialty mental health probation, where if you have a serious mental illness, you're assigned to a specialty officer who has some interest, training, or background in mental health, who manages a caseload that's about 40 people instead of hundreds, at least, a hundred if not 200, and has a rehabilitation emphasis, specifically linkage with psychiatric treatment. That's really where the main focus is. We had a lot of matching variables.

I can talk all day long about the cool statistics here, but I'm just going to go right to the punch line, which is that this program worked remarkably well if you stack it up to other studies and programs that you look at in this field. So this shows you a survival curve of how long people who were on specialty probation were able to stay in the community without a re-arrest, compared to those who were on traditional probation. So we went out up to five years with some of this follow up. By that time, about 62% of people on specialty probation compared to only 36% of those on traditional probation were still in the community without a re-arrest. So these are really exciting effects.

We had assessed people three times during the first year of their supervision, though. We had specifically used a validated measure of mental health symptoms to measure their symptoms at baseline, 6 months later, and 12 months later. So we were able to look under the hood, get into the black box, and determine whether it worked because the people in specialty probation got more treatment, they did get more treatment. The short answer is that it didn't work because of symptom control. So we basically calculated slope scores to show us how much symptoms decreased or increased or stayed the same for each probationer, and then we mapped that by whether or not they were rearrested over the time period.

And you can see that you can definitely find people, if you look at this access, who had really big improvements, like, they came down by minus 3 in their symptoms during that year of supervision. The problem is you can also find people who were arrested, right? So this is the not arrested group. There's no difference in symptom change between the arrested and not arrested group. So you can find people who also had lots of symptom improvement and were arrested nonetheless. We're not the only ones to observe this. So there have been similar findings in multi-site jail diversion and mental health court evaluations, where you find things like failed prescriptions don't translate into reduced recidivism.

OK. So there's more, but we'll just stick with those two things. Symptoms rarely lead directly to arrests. They do sometimes, but not often. And two, psychiatric services don't translate into reduce recidivism. And when we have forensic programs that work, it's not for the reasons we assume necessarily. So this might cause you to take a step back, it certainly does me, to say, OK, if it's not the mental illness, then why, again, are people with mental health problems so disproportionately found in the criminal legal system.

This is an alternative perspective from Bill Fisher. It's not mine necessarily, but it encourages broader thinking. So people may, "engage in offending and other forms of deviant behavior not because they have a mental disorder, but because they're poor. Their poverty situates them socially and geographically, and places them at risk of engaging in many of the same behavior displayed by persons without mental illness who are similarly situated." Now, I am not-- I think that you could say this is just as reductionistic as the other model, right? You're swapping one uniform cause mental illness for another, poverty, but it does lead us to thinking more broadly about the problem.

So it could be that the relationship between mental illness and violence and other criminal behavior is largely an indirect one. So it could be that mental illness is the culprit upstream because it relates to other variables, like, substance abuse, or neighborhood disadvantage. And those in turn become the foundation for general risk factors that people with mental illness share with their relatively healthy counterparts. I don't have time to go into this in a lot of detail, but I really think of this model as developmental. The onset of mental illness happens during adolescence or early adulthood when people are just beginning to establish attachments to prosocial peers, or romantic relationships, they begin shaping career trajectory, school, et cetera. So that can create a lot of disruption in supports and the social fabric that keep a lot of people from offending.

So just a couple of data points that are consistent with but do not prove this model. When we started wondering, OK, if it's not mental illness, then what is the problem, we started looking at general risk factors for re-offending, and how often they could be found in the subpopulation who had mental health problems compared to those without them. So this is one simple study that we did with parolees who had been released in California in this case.

So we used a general risk assessment tool called the Level of Services Inventory, which gets at strong, robust risk factors for everybody that come up study after study. And what we found is that the parolees with mental illness had actually significantly greater numbers, levels, of those general risk factors than did their relatively healthy counterparts. So that's part one, they have criminogenic risk factors, too. Part two is that those factors predict their re-offending a lot more strongly than the stuff that we sometimes get overly attached to as psychologists with risk assessment tools that measure things like treatment compliance.

So these are the kinds of risk assessment-- these are basically the risk factors that the LSI measures. They're called the Central Eight. There's nothing holy about them, it is just that these are the kinds of factors, especially the top four, that come out very strongly study after study as very predictive of reoffending. So history of criminal behavior, not surprising to anybody that that's the lead. But also, having an antisocial personality pattern, which people in the mental health system can approach as the kiss of death, it doesn't have to be. Antisocial cognition, antisocial peers.

These are the kinds of risk factors that that measure captures. I am showing you this not only because it tells you where people with mental illness had higher scores, but also because every one of those risk factors can be reconceptualized as a treatment need. The correctional system has been doing this for a long, long time. So if the problem involves things like, impulsivity, or poor anger control, et cetera, then we could approach that with maybe some cognitive behavioral approaches that build problem-solving skills, right?

So this is the implicit model of what works if we're taking kind of a uniform, it's all about mental health, approach. We can make a couple of tweaks to this. I have to say that, when I started this research, we kept finding things like, wow, that is so cool. It's so different. And then I realized, nope, that's another element that is already represented in the correctional services model that we just don't think about that often for this population.

So the only difference here in updating the model of what works for this population is that we're looking at a new evidence base in tandem with the evidence base for psychiatric services. So the idea here is that we're going to expect that most of the reduction in recidivism is going to come from this side of the services path, but I will make a strong argument that psychiatric services needs to stay here too. Maybe I don't need to make that argument with this group, but I have had to make that argument with others.

All right. So what should we tweak? I'm going to give you two things from the correctional services side that I think are pretty bankable. How am I doing on time? OK. So these two things are about what to target in services, and how to do it. So this first thing is what to target in services. And the what is those strong risk factors for re-offending, right? So you need to explicitly target antisocial features. The bread and butter of effective correctional treatment is cognitive behavioral programs. They come in many different flavors and forms, but the generic ones when well implemented are every bit as good as the brand name ones.

What they're doing basically is applying cognitive behavioral therapy. It's built on an assumption that cognitive distortions are learned, things like antisocial attitudes, and they're not inherent. So we can disrupt antisocial attitudes, we can come up with better coping skills and problem-solving skills for anger control. The idea is that we're going to really try to change people's patterns of thinking and feeling to get them to new habits in essence. So this has been around forever, and it had never been applied and studied until we decided to do it.

So the last five years of my life that I will never get back was spent doing a huge randomized controlled field trial in California. We had two sites. One in San Francisco, where a lot of the people that we recruited were from behavioral health courts and probation, and one in a Sonoma Day Reporting Center where people were referred because they were in danger of flunking out entirely. They were mainstreamed there, but we screened them for mental health problems, so we did this big field trial. And the essential question was to determine whether adding one of these cognitive behavioral programs that targets antisocial features adds value to psychiatric treatment as usual, which is what people with serious mental illness usually get in reducing the likelihood of re-arrest.

So what did we find? It's complicated, and it's not at the same time. I'm showing you the results for the San Francisco site for a reason, not just that the results are similar there, but also because in San Francisco, we had a prototypic treatment model. Clinicians delivered the services. Everybody in the group had serious mental health problems, and they had much better treatment fidelity than they did at the other site. So what we found here is what you can see. We looked at re-arrest rates for-- like, these are for nonminor offenses over a two-year period. And you can see that if you were in the control group, more than half were re-arrested within two years compared to 44% in the interventions or cognitive behavioral group.

So this is exciting, and it's in the range of what we see for the general offender population if in the lower end of it. So basically, if you were randomized to the control group, you were 1.49 or like 50% times more likely to re-offend. The second and important finding here-- I mentioned these are years that I will never get back-- the tail end of this was with COVID where we were moving all of our treatment to virtual, never get back. Even without the pandemic, one of the lessons that we learned is it is hard to deliver seven months worth of treatment to people with serious mental health problems in the community.

They spin out. They get re-arrested. They don't come. So it was really hard, so I'm really proud that we found these effects. But we also take-- we took great care to do rigorous analysis of the relationship between dose, treatment dose and response. Why? Because even in the San Francisco group, one out of five people randomized to the treatment group who are represented there-- it's an intent to treat analysis-- one of five of them did not get a single session. They didn't even make it. The modal amount of treatment was about 40% of what they should get.

We didn't screen them this way, by the way, but everybody was moderate to high risk on the LSI, so they got very little dose of this. But we did a dose response effect with TMLE as statistical controls and found really strong effects at both sites if people got adequate doses of this. So that's hot off the press. We are waiting for the last 40 people to pass their follow-up mark, and we will get this out into the world in all of its detail. But this adds a lot of oomph to the basic idea that CBT clearly adds value. This was a good RCT. And we are seeing that addressing-- targeting the things that are continuing to get people in trouble, though, it doesn't always occur to us is actually a really good strategy for this group.

Second, this is probably the thing I'm most proud of of the work that I've done so far. And it was supported by the MacArthur group years ago, it was birthed there. So if the first thing is what you do in treatment, target antisocial features in addition to the mental health, the second thing is paying attention to how you're providing services. So, again, I thought this was something that we discovered, and we did, we discovered a way of operationalizing it, but the idea that you need to have firm, fair, and caring relationships with people who are receiving correctional services is part of the core correctional practices model. But we discovered it slowly, and we operationalized it.

So we developed, with MacArthur support, a measure of dual role relationship quality. When you are a probation officer, or you're even a clinician working with someone who doesn't get to choose whether they're there or not, you have dual roles with that person regardless of whether you were warned in graduate school never to have one or not. So you have simultaneously one role that's partly about surveillance and public safety that is about working with a third party, and another role that's about caring, problem solving, helping the person get better.

So we developed a dual role relationship quality instrument from the ground up that we have found is not the same as the therapeutic alliance, as important as that construct is in regular therapy. It seems to really correspond well to process. So when we code what's going on in a meeting between an officer and a supervisee and we see things like admonitions, or support, or reactions in certain ways from the client, that tracks very well their reports of their description on the dryer of the relationship and the extent to which it's firm, fair, or caring.

So we found, as I already suggested, that this generalizes to clinical relationships in mandated treatment. We've also seen now that it protects against recidivism in all kinds of ways in different populations. So whether people are high risk or low risk, I mean, it's not as fun to work with high-risk people, but good relationships can be established, and they are as protective as lower risk ones. It matters whether you're a young person, an adolescent, or an adult, and it also matters whether you have mental health problems or not. It's just that those with mental illness may be more sensitive to these issues.

We also found more recently-- do any of you work in state forensic facilities, or-- yes, so we did-- this is so exciting. We did a big study recently at Napa State Hospital where we assessed 26 units and followed them over time. And we found that the units where patients had rated that relationships were more firm, fair, and caring than authoritarian were much less likely to have high rates of violence in the year of follow up. So it matters. What does this look like? In some of our early studies, people were telling us, it's the relationship stupid, and we started to listen. And we heard descriptions of two different types of relationships which are captured by the dryer.

One is sort of tough and authoritarian, which is captured by these sorts of quotes which I'm not going to read, and the other which-- the other of which is more authoritative, right? So here we have something that looks like procedural justice. People have voice, they are treated with respect and caring, and for that reason, they may perceive the person they are working with as much more legitimate. And we see fewer rule violations, too, by the way. All right. In other words, it's an issue. What this does-- it's not easy to do this, but what these people are doing when they establish firm, fair, and caring relationships is they're balancing the controlling and caring aspects of what they have to do. And it's all about process, she talks to me the right way.

So remember the specialty probation study I told you about earlier where we found that symptoms were not the reason that it worked, dual role relationship quality explained a lot of the variance. Not all of it, but quite a bit. So in specialty probation supervision, we first find that people are less likely to recidivate. And we find that-- a fair amount of that relationship, right? So we go from a significant to nonsignificant relationship once we pay attention to the fact that those in specialty programs established much better relationships with their clients, and that translated to a lesser likelihood of re-arrest.

I'm just going to show you this quickly, yeah. as added-- it's just a different way of thinking about it that may drive the point home. Paparozzi and Gendreau did this really cool study where they had intensive supervision parole. The old kind, the bad kind, where it was all about tail 'em, nail 'em, jail 'em surveillance. But they had a lot of differences within their group about the extent to which the officer personally ascribed to more of a surveillance model, rehabilitation model, or treatment model, or really had kind of a hybrid of the two. They fell somewhere in the middle.

So if you think about those parolees, and they had an officer that was surveillance treatment or hybrid-oriented, who was most likely to be revoked do you think? Can you guess? Yep. And who is next? Treatment. This is why I'm showing this. Because especially as mental health professionals, we would often assume that-- oh, sorry, you got it right. I wasn't processing correctly. So to back up and correct my error, the highest rates of revocation were among surveillance, the next highest rates were among treatment. The lowest rates of revocation, the best outcomes were among the officers who practiced a hybrid approach that blended both their surveillance role and their caring role. What is often found with people who are just clinically-oriented is that a lot of minor problems go unchecked, and then there is a major transgression.

OK. So we've said-- I'm going to do the second part relatively quickly. I think we're pretty good on time. What we've said so far is that the way to step up our efforts to reduce the involvement of people with mental illness in the justice system is to add some correctional services approaches. Number one, what you target, antisocial features. Number two, how you do it, in a firm, fair, and caring way. We also, though, need to continue psychiatric services as part of this model. We cannot expect it to translate to reduced re-offending all the time, but it fulfills a number of other really important purposes. I'm going to tell you about three of those.

So the first reason to keep psychiatric services is that it meets public health goals. This is a group who has serious mental health problems, and we would do well to actually provide treatment that is responsive to their most visible characteristic. The second reason is that we can, if we provide good psychiatric services, prevent what is unpredictable, and that's what I'm going to show you now. There are some symptom-based crimes as we said earlier. It's a minority of crimes, but what I'm going to share with you now is some information about how I was happy to prove myself wrong. It's why we do research.

So originally, we had this idea that there would be two groups of people with serious mental illness. There would be a large group of people who basically offended for reasons that had to do with general risk factors, it didn't have much to do with their mental health problems. And there would be another smaller group who had offenses that were linked with their mental illness time after time. So we thought, in other words, that there would be a small, direct relationship group about 10% of this SMI population, and a larger, indirect or independent group, 90%. So we were wrong, and we have two studies to show that.

So the first study is this one that's depicted here that was done by Jill Peterson and us where we sampled a group of people in prison who had lots of offenses in the past and had serious mental illness. And we did interviews and reliably coded the extent to which each of their crimes was related to their mental illness. Much like Junginger, but a little bit more nuanced. So you can see here that for the majority of crimes, these are crimes, they were completely or mostly independent of the mental illness. But some of them, some of those crimes were related to mental illness. The problem is there is no person effect in there. So we don't find any clustering by person. It's not that we find that these direct crimes are mostly concentrated in a subgroup.

We found something similar when we looked-- we've drawn here-- at the MacArthur Violence Risk study, and we focused on people-- these are all people who have serious mental illness-- who were repeatedly involved in violence. So there, we found something similar, 89%. So, like, only 10%, again, of the incidents were related to hallucinations or delusions. There was only a little bit of clustering in that study. So there were some patient effects, there was some clustering of those direct relationships, but not a lot. Nobody ever understands this, but I'm just going to try to do it anyway.

So this is the way I think about the results of that MacArthur study. It's not the case that you have one group, huge group of people who have serious mental illness and exclusively nonsymptom-based violence, and then this other small group of people who have exclusively symptom-based violence. Instead, really what we have is like 80% of the sample who just, like, none-- their symptoms are not really related to violence, any one of them. And then we have another group, like 20%, where there's a smattering of those symptom-related crimes amid others that you can't really draw a line to the mental illness for.

So why does this matter? Here's the upshot. It's really hard to predict when someone with a serious mental illness is going to have a symptom-based crime, so why not just preventively provide psychiatric treatment to everybody to prevent what we can't really predict? And it also, again, addresses a public health problem. So it saves money to also provide psychiatric services as part of the model. This one's compelling even to people who don't care about the other stuff.

So in the study of specialty probation that we did, we also did a cost analysis to basically see whether specialty probation was cost effective or better compared to traditional probation. Why? Because on the surface, specialty probation costs a lot more. You have a specially-trained officer there doing 40 cases instead of a hundred, blah, blah, blah. So we tracked people over time, and we looked at all the costs that were associated with their supervision and their outcomes.

And the bottom line is that-- this shows in dollars what it costs the first year, second year, and total for specialty probation in blue, and traditional probation in red. So it's good. It's cost effective. And most of the cost savings come not from the criminal justice side where you break even, so the extra money that you're spending on supervision is more than accommodated by the reduced arrest, instead, most of the advantage comes in the behavioral health domain. Specifically, saving on really expensive inpatient and emergency department visits.

OK. So that is-- it is 5 o'clock. So that's it. To bring this together, the essential point is that there are some simple but very important things, I think, we could do if we want truly to step up our efforts to reduce the number of people with mental illnesses in jail and in the correctional system as a whole for that matter. The first as we've always said is you should continue psychiatric services. It's doing some goods, even if those goods do not include reducing recidivism.

And second, add a deliberate focus on evidence-based correctional services. So that comes in two flavors. Number one, what to target. It is often more important to pay attention to the fact that someone is hanging out with a drug-dealing cousin than the fact that they're not taking their medication. So what to target, and how to do so. So not in an authoritarian way, and not even in a completely therapeutic hands-off way. But instead, in a manner that is firm, fair, and caring, and balances those two roles.

And just as an added bonus, I still like this model. You can't really carve nature in this way, but you can think of this wicked problem as a partly solvable if you really think about what we understand about what works and for what outcomes. So basically, we have two evidence bases. We have evidence-based treatment for mental health, it has been shown in a lot of studies to yield better mental health outcomes, and we have an evidence base for corrections, which has been shown to yield reduced recidivism. So they're separate literatures, but they can be brought together by shared risk factors and the fact that everything in nature is really dimensional.

So we can also think about people in terms of how much criminogenic risk they have. How high a score would they get, for example, on that LSI with those major eight risk factors? And we can simultaneously, as we already do, think about them in terms of how ill they are or how acutely ill they are, and then you can array services in a sensible way. We don't do this, but we could. So if we have a group of people who are relatively low in their criminogenic risk, there's not a lot of offending, there's not a lot of history, and they are having pretty serious clinical needs or acute risk factors, something like a sort of community treatment would do just fine.

If, instead, we have someone who has a fair number of general risk factors for re-offending, like, antisocial attitudes, or peers, then we might instead do something like fact. Notice I don't say just fact because fact, there's no thing-- there's not a thing, there's not really a model of forensic assertive community treatment. But we've been exploring a model that explicitly follows risk-need-responsivity principles. So you're focusing on high-risk cases, you're targeting those antisocial risk factors, and you're doing in a way that's responsive to the mental health. If they are low risk and low need, leave them alone. Maybe provide some good community treatment. And if they're high risk but low in their criminogenic needs, you can just have sort of standard psychiatric treatment and try to do really well with the evidence-based correctional supervision.

All right. So my hope is that some people will take this up, and there are some groups that we're working with that are doing this, but I'm going to stop there and look forward to lots of questions. And I also just want to thank my lab, who is amazing in helping with all kinds of things, and my students, and also the funding support that we've gotten, and because they're right here, John and Richard, for all of their help over the years. Thanks.

[APPLAUSE]