

TSET Better Health Podcast Transcript

Episode 39: TSET's Investment in Research Reaps Healthy Dividends

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Summary: TSET has invested millions of dollars into cancer, tobacco cessation and wellness research – and Oklahomans are reaping the benefits. From the OU Health Stephenson Cancer Center's (SCC) renewed recognition as a National Cancer Institute Designated Cancer Center, to the scores of tobacco- and wellness-related studies currently underway at the TSET Health Promotion Research Center (HPRC), TSET's research funding is improving Oklahoma's long-term health and economy. Learn how in this TSET Better Health Podcast episode from SCC Director Dr. Robert Mannel and Dr. Darla Kendzor, co-director of the HPRC.

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[Theme music]

James Tyree: Hello and welcome to Episode 39 the TSET Better Health Podcast. This is your host James Tyree, senior health communication consultant at TSET.

Dylan Jasna: And I am Dylan Jasna, a TSET Health Communication manager.

Better health starts closest to home, within our own households, schools and communities. Living, working, learning and playing in places that offer clean air, healthy foods and safe and inviting physical activity opportunities go a long way toward helping Oklahomans enjoy longer and healthier lives. That's why TSET funds a variety of community-based wellness grant programs that include the TSET Healthy Living Program, incentive grants for Certified Healthy communities and schools.

J. Tyree: But TSET also funds medical and scientific research that, quite literally, has the objective of saving lives through tobacco cessation and the prevention and treatment of cancer and cardiovascular disease. What's more, the Stephenson Cancer Center, TSET Health Promotion Research Center and Oklahoma Center for Adult Stem Cell Research have leveraged the financial support they have received from TSET over the years into well over \$500 million in research grants.

D. Jasna: That is an astounding fact. TSET's investment in research is clearly paying dividends, but how, exactly, and in what other ways? What treatments and programs are being studied, and how does all this research actually affect Oklahomans, including those who live far from Oklahoma City where the centers are headquartered? For answers to that and more, the TSET Better Health Podcast recently had conversations with directors of two of the research centers that were both interesting and informative.

J. Tyree: Indeed, our guests today are Dr. Robert Mannel of OU Health's Stephenson Cancer Center and Dr. Darla Kendzor of the Health Promotion Research Center. Both have been on the podcast before in separate episodes quite some time before, but so much has happened within the respective centers since then, so we wanted to catch up with them so they can tell us all what is new.

Let's first visit the Stephenson Cancer Center and find out what is so significant about its designation as an NCI-designated cancer research center in Oklahoma.

R. Mannel: Hi, I'm Dr. Robert Mannel, and I'm the Director of the Stephenson Cancer Center. (00:50) 50 years ago, in 1972, President Nixon declared a war on cancer. And as part of that process, he started the idea of the National Cancer Institute, which is a part of the National Institute of Health, designating lead academic cancer centers throughout the country to lead the charge against cancer in our nation.

Over the next 50 years, we now are up to 72 NCI designated centers. Now, that sounds like a lot, but when you think there's over 5,500 places in this country where people get cancer care, you start realizing that 72 is a fairly elite club. So what does it mean? What does it mean to be part of that system, part of the NCI designated cancer center system? Well, what it means is that you are a national leader in not only taking care of patients with cancer, complicated cancers, but also, most importantly, a national leader in research.

J. Tyree: What kind of outcomes are we seeing from research conducted at NCI-designated centers?

R. Mannel: The reality is one out of two men and one out of three women are going to get cancer sometime in their life. So that's a pretty big deal. Of those, one out of three will die from their cancer even today. So only way we're going to change those numbers is through research. When the NCI systems began, there was about a 50/50 chance of dying from cancer. We've reduced that to a two-thirds chance of living, but we still have a ways to go. So being an NCI designated cancer center basically is you are showing to a outside agency, the NCI, that you are committed to research-driven patient care. And what I mean by research-driven is you're trying to move the needle, trying to reduce the morbidity and death from cancer.

J. Tyree: Every NCI-designated research center does extraordinary work that saves lives. What makes the Stephenson Cancer Center unique among them?

R. Mannel: (3:41) One of the things that the National Cancer Institute realized was that the challenge of cancer is different for different regions of the country. And Oklahoma, unfortunately, has some very significant challenges. We rank in the bottom 10 in a number of different very important categories. With regards to health, we rank in the bottom 10 with regards to obesity, with regards to tobacco use, with regards to diabetes, with regards to lack of physical activity and lack of consumption of fruit and vegetables. All those things are risk factors for cancer. We also have what are known as social determinants of health, which we rank in the bottom 10 for. Those include very

important things like access to healthcare. We're still a very rural state and we have access problem. Things such as poverty, those types of things lead to decreasing efforts to get screened. So we are in the bottom five of screening for cancer for all the major cancers, colon cancer, lung cancer, breast cancer, cervix cancer.

(5:02) So you put all that together and there's no wonder that Oklahoma ranks number four in the nation in cancer deaths per population. So the NCI has charged us, the OU Health Stephenson Cancer Center, with making a difference in those statistics. Now, those statistics and what we're going to battle in this state are going to be different than MD Anderson battles or what Memorial Sloan Kettering battles. And you're absolutely right, James. There are great cancer centers throughout this country, but our center is laser focused on the problems facing Oklahomans. How do we turn around some of these social determinants? How do we increase access to care and screening? How do we take care of our rural and American Indian population?

J. Tyree: Those are great questions. Simple questions that don't have easy answers.

R. Mannel: **(5:56)** Let me give you a couple of statistics to give you an idea which keeps me awake at night. All right. I told you we ranked number four in the nation on the bad side as far as cancer and mortality. Indeed, Oklahomans have about an 18% chance, greater chance of dying from cancer than the nation as a whole. But if you look at our African American and our rural population, that jumps to 25% higher. And if you look at our American Indian population, that jumps to an astonishing 73% increase in cancer mortality. That is one of the greatest disparities that is anywhere in the United States.

(6:42) So the National Cancer Institute has said, the Stephenson Cancer Center, your catchment area is the entire state of Oklahoma. Even if we don't take care of the patient with cancer, we are there for everybody who has cancer, and we are there to prevent cancer. So you're going to see over the next few years, the Stephenson Cancer reaching out throughout the state in partnership with other healthcare delivery systems in order to make a difference in some of those very daunting statistics that I just mentioned.

J. Tyree: That is comforting to know. Can you share with us an example of some promising research that's happening now at Stephenson?

R. Mannel: **(8:14)** Yes, absolutely. One of the most exciting things about cancer treatment right now is we've had an absolute revolution in the way we treat patients over the past five to 10 years. A lot of this has come about through a better understanding of how to activate a person's own immune system so that the person's own white blood cells, part of the immune system, attack the cancer. Now, if you think about it, what keeps most of us from getting cancer is that we have a strong immune system that when it sees an abnormal cell, it attacks it and removes it from the body. That might be a virus, it might be a bacteria, or it might be a cancer cell. And what happens sometimes is the cancer cells learn how to hide themselves and make themselves invisible to our immune system. And when that happens, then the cancer grows and people then get diagnosed with cancer and ultimately leading to their death.

(9:28) Well, within the past decade, there's been some phenomenal research on how to activate the body's immune system, but this is very complicated, and some of these require advanced treatment called CAR T. CAR T treatment basically is taking your body's immune cells out of your body, exposing them and changing them in a way that they are re-injected back into your body and can find your particular cancer and attack it. We're the only place in Oklahoma that does this type of advanced work. This requires an incredible team. We're the state's only bone marrow transplant center. We're in the state's only place that does advanced cellular therapeutics. These are bringing lifesaving therapies to countless numbers of Oklahomans. And this is increasing. We are a major research center looking at how to expand this incredible new technology to a variety of different types of tumors. All this started, James, in 2019. Our first designation was in 2018, and we're already a national leader here just a few years later.

J. Tyree: That's some exciting work, Dr. Mannel, and it's happening right here in our state.

R. Mannel: (10:57) Yeah, it's just an incredible time right now. And I just see this increasing more and more in the future. And Oklahoma is, I think, very fortunate to have such a well-known clinical research center such as the Stephenson Cancer Center. We're one of the nation's leader in putting patients on National Cancer Institute trials and bringing in some of the most novel and innovative therapies through our Phase 1 system. By the way, that's named our TSET Phase I Center, due to the incredible support from the TSET program to provide these life-saving trials to the citizens of Oklahoma.

J. Tyree: The Stephenson Cancer Center is located in the heart of the OU Health Sciences Center campus in Oklahoma City. Patients and their families come in from all over the state, but does Stephenson, in turn, go out to different parts of Oklahoma?

R. Mannel: (12:13) Well, this is one of our visions for the next five years. The Stephenson Cancer Center is actually a relatively new center. It started in 2011. And our first goal was to create a program of cancer care and research that was worthy of NCI designation. That was a very big lift and took us ensuing eight years to 10 years to get to that point. We worked really hard recruiting unbelievable physicians and PhD scientists into the state of Oklahoma and building great teams. What we have decided over the next five years, it's time for us to do exactly what you asked. It's time for us to reach out into the community.

And so, we're going to do this in a couple of different ways. One is we're going to start partnering with other healthcare systems throughout the state to bring Stephenson level cancer care and research and access to clinical trials to more and more Oklahomans. We have already started this process as we've extended and partnered with the Norman Regional Health System, and that is now a Stephenson Cancer Center care delivery site.

J. Tyree: That's a pretty good start to Stephenson's outreach.

R. Mannel: (13:38) We are in the process working with the state legislature and community leaders in the philanthropic community of opening a cancer care delivery site in Tulsa to serve

not just Tulsa, but the surrounding rural communities. That corridor of Oklahoma that typically either sees their doctors in Tulsa, or if it's a complicated case, goes to Tulsa, represents a third of the state's population. And so we want to have a presence in that community bringing the latest cancer care to Tulsa just like we did to central Oklahoma in Oklahoma City. So that is one thing that we're going to be doing over the next five years, is partnering with existing healthcare delivery systems and extending our network.

The second thing we're doing is we're creating an alliance for cancer prevention and screening. This alliance is working with rural FQHCs, with American Indian Tribal Nations, other rural communities and rural hospitals and healthcare delivery systems, as well as minority urban centers, areas which have traditionally had low access to things such as screening. We're bringing screening on wheels to all those sites. We're bringing lung cancer screening with a mobile low dose CT scan. We're bringing mammography screening for breast cancer. We're also bringing home DNA testing for cervical cancer, as well as colorectal cancer. And we'll be educating people that show up how they can take charge of their life.

J. Tyree: That last thing you said about educating people reminds us that we as regular people also play a key part in cancer prevention and treatment.

R. Mannel: (15:38) This is something that's important for us all to remember. 50%, half of all cancers and all cancer deaths are preventable if we exercise, eat the right diet, avoid tobacco products, and get recommended screening. So for us, we need to get that message out to the people of Oklahoma. We need to get the message out that they have control over their future and their health, and we're going to do that through these mobile units in partnership with the various communities throughout the state of Oklahoma. So this is something we're extremely excited about. The name of this network is the Oklahoma TRUST Network. TRUST stands for Tribal Rural Urban Screening Trials. So we're going to reach out to those historically underserved communities, and we're going to partner with them to make a difference in their lives.

J. Tyree: You mentioned TSET a little earlier. Can you explain a little more how TSET supports cancer research and prevention programs in Oklahoma?

R. Mannel: (18:03) Well, I think State of Oklahoma has been blessed with some farsightedness in taking some of the proceeds from the tobacco settlement and creating this Tobacco Settlement Endowment Trust known as TSET. TSET clearly is keeping to its mission statement, and that has soon prove the lives of Oklahomans and to address healthcare issues and to invest in cancer research. We view ourselves as a partner with TSET and one that can actually use the capital to make a difference in some of these areas which are so incredibly important to the state of Oklahoma. TSET has understood and continues to support our research efforts both in the laboratory because that's where the big discoveries are made, the ability to ask questions and to come up with answers that lead to new drugs into new treatments.

(19:16) In addition, TSET has really promoted our outreach. We now have a center at the cancer center called the TSET Health Promotion Research Center. This group of individuals looks at very real everyday issues that Oklahomans face that lead to increased risk of cancer, whether that's use of tobacco products, substance addiction, sedentary lifestyle or obesity, poverty, lack of access to healthcare. All these issues, what we need to do is have researchers that look into this and then work with the communities to make changes, to make a difference. That can be individual one-on-one counseling, or it can be health policy, innovative ideas like our screening system to bring that on wheels to communities. So none of this could've happened without the incredible support from TSET.

(22:23) I hope a few years from now, James, we could talk about some of the successes of some the programs that we've been talking about. They're just getting up and started, and we're really excited about them.

[Music]

D. Jasna: What an amazing place the Stephenson Cancer Center is! I'm glad we got to learn more about it and how it has grown in such a short time to save and benefit so many lives in Oklahoma and beyond. Dr. Mannel mentioned the TSET Health Promotion Research Center, or the HPRC, during the interview we just heard. Let's meet its co-director and hear more about that dynamic research center.

D. Kendzor: (0:08) My name is Darla Kendzor. I am the co-director of the TSET Health Promotion Research Center. I am also a professor in the Department of Family and Preventive Medicine at the University of Oklahoma Health Sciences Center.

(0:22) The HPRC is a research center. It's in Oklahoma City. It's on the University of Oklahoma Health Sciences Center campus. The center supports 15 faculty investigators. They're across four academic departments, also supports their research staff. So we are a pretty large group at this point. I think we are in the seventies at this point. Maybe even a little bit higher than that.

D. Jasna: Can you tell us a little more about your center's researchers and the work you do?

D. Kendzor: (1:00) Our faculty are behavioral scientists. They have backgrounds in psychology like myself and public health and health communications, and then a variety of other social science or related fields. Our research focuses on trying to understand the preventable and behavioral causes of cancer and cardiovascular disease. And then to a lesser extent, some of our work focuses on secondary disease prevention and trying to understand and improve quality of life amongst those with cancer and other health problems. To date, a lot of our focus has been on tobacco use and cessation, but we are working now to expand our focus to include obesity related research.

D. Jasna: That is pretty interesting. The TSET HPRC recently was awarded a \$3.1 million grant involving people using smartphones to help them quit smoking. Can you tell us a little more about that?

D. Kendzor: (2:04) The grant you mentioned is funded by the National Cancer Institute. It will support a five-year randomized trial to evaluate an automated smartphone-based intervention to incentivize people for achieving smoking abstinence. This will allow us to offer an incentive-based intervention across Oklahoma and beyond without requiring people to come into the clinic to prove their abstinence. The study is recruiting low-income adults, so those earning less than 200% of the poverty threshold. I can say a little bit more about the system if you're interested.

D. Jasna: Absolutely! How does it work?

D. Kendzor: (2:48) The system will allow participants to provide daily breath samples. It's a little device that connects with the phone via Bluetooth, so they can just kind of blow into that monitor and we can tell whether they've smoked recently. And so, then when they submit their breath samples, their image is captured via facial recognition software on their phone and then compared to a baseline photo. And then that allows us to actually know that the person submitting the sample is who they say they are and not their family member who doesn't smoke or their friend or something like that.

(3:23) And so then if the breath sample is negative for smoking and their identity checks out, then they automatically earn an incentive to their study credit card. So in the beginning weeks of the study, they can earn incentives that way every day and they never have to come into the clinic. And then all of our participants also receive telephone counseling and mailed nicotine replacement therapy through our tobacco clinic here at the center. And it's a randomized trial, so we'll just follow kind of both groups. The group that receives just kind of that standard care, and then the group that receives both the standard care and the incentives' intervention. We'll look at their smoking outcomes after six months to see if they did any better.

D. Jasna: Has the HPRC conducted similar research in the past on the effects of using incentives to help people quit tobacco?

D. Kendzor: (4:09) We have done clinic-based work in the past because there's the burden on the participant to actually prove that they've quit smoking because money is being offered. We've done this in the clinic and it works really, really well. The effect of incentives on smoking cessation is really great, but the problem with it is it's hard to disseminate if you need people to actually come into the clinic at regular intervals to give breath samples or other types of proof. So, this will allow us to offer this really effective intervention in a way that can reach people where they are and not add that travel burden for them. So we're excited.

D. Jasna: Well, that is one research study happening at the center. About how many total do you have going on right now?

D. Kendzor: (5:40ish) Right now we have 87 projects ongoing. So our 15 investigators, they lead projects here and they also collaborate on other projects here in Oklahoma and then across the country. That's just our current situation. So if you look across time, it's likely to be hundreds, but I'm not sure of the exact number.

D. Jasna: How has TSET helped the Health Promotion Research Center attain the funding it needs to conduct all of those studies?

D. Kendzor: (10:05) Since we've started tracking in our current way since 2016, our faculty have been awarded \$2.47 in additional grant funding for every dollar that the TSET has given to support the center. And so, all of that money goes towards research that will help us to reduce the burden of disease in Oklahoma by addressing modifiable health risk factors like tobacco use, sedentary lifestyle, poor diet, risky alcohol, and other substance use through our research, our intervention development, and the dissemination of our findings. So I think there's a nice return on investment there that overall has accumulated to about \$73 million in grant funding to our faculty at the center, and then our faculty affiliates around the state since 2016. So I think TSET, the center supported a more basic level, it has helped us to bring in 11 new faculty members over the last seven years from across the country, from highly respected institutions.

(11:19) We're getting experts to bring their expertise to Oklahoma and do their research here. So, I think that's a really important thing that TSET has helped us to do. And then once we get them here, we're able to support their preliminary research, which allows them to be really competitive for NIH and other funding when they apply for those grants. So it just, we are able to keep recruiting people, keep bringing people here who are doing great work and who bring in additional dollars from the NIH and other funding organizations. And ultimately that work results in interventions and informs policies that help Oklahomans.

[Music]

J. Tyree: You know, Dylan, I think the studies that are going on at the TSET Health Promotion Research Center, do a great job of complementing the types of cancer research and trials happening at Stephenson. It was great to hear from Dr. Darla Kendzor exactly how TSET's investment in the HPRC benefits all of us.

TSET also funds medical research at the Oklahoma Center for Adult Stem Cell Research, or OCASCR, which is also at the OU Health Sciences Center. We will revisit the great work happening there in a future episode.

D. Jasna: You know, cancer and wellness research is critical for improving the health and longevity of Oklahomans, yet it is only one of major area of TSET funding. TSET also invests in wellness programs, incentive grants, health system initiatives and strategic communication interventions that inform Oklahomans.

As an aside and speaking of investment, I want to recognize and thank Sam Carrillo for the time he invests in the audio production of these podcast episodes. We strive to make the podcast as informative and thought-provoking as possible, but it cannot get to you, our listeners, without his audio wizardry.

J. Tyree: Great point. Along those lines, I want to thank Cate Howell, the podcast's originator, and you, Dylan, because both of you did a great job with audio production in past episodes. And of course, many thanks to our guests today, Drs. Robert Mannel of the Stephenson

Cancer Center and Darla Kendzor of the TSET Health Promotion Research Center. So where can Oklahomans and anyone worldwide listen to the podcast?

D. Jasna: Well, that would be at the TSET website at Oklahoma.gov/tset, and then click on the podcast tab under the Public Information menu. You can hear this or any past episode at our website or anywhere you normally listen to podcasts such as iTunes, Spotify and Amazon. Thank you for joining us and, until next time, this is Dylan Jasna ...

J. Tyree: And James Tyree wishing you peace ...

D. Jasna: And better health.

