REALTIME FILE

Public Health Institute
Mainstreaming Produce Prescriptions
A Policy Strategy Report
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12:30 P.M.

>> Murlean: Welcome to mainstreaming produce prescriptions, a policy strategy report. My name is Murlean Tucker and I'm here with my colleague, Jeff Bornstein. Together we will run this dialogue 4 health forum. Thank you to today's partner, the Rockefeller foundation.

Now it's my pleasure to introduce today's moderator, Sarah Downer. Sarah is the associate Director of Whole Person Care at the Center for Health Law and Policy Innovation at Harvard Law School. Welcome, Sarah.
>> Sarah: Thank you so much, Murlean. And thank you to the public institutes dialogue 4 health program for hosting us. I'll pull up my slide and we will get going. All right. So we are incredibly excited to be here today and to be launching this report which has been a year in the making. And, as you will hear today, mainstreaming produce prescription, a policy strategy report, what we are doing is laying out a framework for institutional and policy change. That's to expand access to an intervention that we really believe is critical. Produce prescription. You will hear our panelists today talk more about this later, but just for a definition, when we use the term produce prescription, we are referring to the distribution of food like fruits and vegetables, or the financial support to purchase these foods, mediated through healthcare providers or health insurance plans. That means there are referrals for these interventions from the healthcare system itself. And the express purpose of produce prescription is either preventing or helping to manage a health condition. So, on this slide, you are going to see an official definition of produce prescription which has been developed as a national produce prescription collaborative. And that's comprised of a range of different groups who are operating Produce Prescription Programs or involved in evaluating these programs or working to generally advance the integration of food and nutrition into healthcare.
And the center for health law policy innovation is focusing on this report in produce

prescription, but that's one of a range of nutrition interventions that respond to this critical connection between food and health. And so what you can see on this slide is some of the other interventions that we have seen deployed really effectively to address food insecurity and health challenges within the context of healthcare. There's a range of possible responses to food insecurity and to affected health conditions based on acuity of need and intensity of intervention. We see all of these as really important for ensuring that our healthcare system and broader food programs are equipped to appropriately respond to the food aspect and health outcomes that we see today. Today we will be hearing from a range of speakers on the history of and next steps for Produce Prescription Programs and I am going to turn things over first to Robert Greenwald and Devon Klatell to provide opening remarks then we will hear from Michel Nischan and Steven Chen. You can find full bios on the website. I'll introduce everyone briefly, but these are absolutely distinguished folks in all of their fields and we are privileged to have all on the call. Robert Greenwald is a clinical Professor of law and the wonderful faculty director at the Center for Health Law and Policy Innovation and Devon is the managing Director of food initiative at the Rockefeller foundation without who generous support we could not have put out this report today. So Robert, I'll hand it over to you.
>> Hello, everyone. Thank you, Sarah, for the introduction. It's truly a pleasure to have the opportunity to kick off today's launch of mainstreaming produce prescriptions, a policy strategy report. Before I turn things over to the speakers, I want to just take a few minutes to briefly highlight the broader context that surrounds this report in our conversation today. While vaccine rollout is accelerating, we are still very much in the midst of the COVID-19 pandemic. And we continue to see the impact it is having on the need for basic services, including a broad range of food and nutrition services. The COVID crisis has placed a financial strain on households across our nation, leading to rising rates of food insecurity. According to estimates from Feeding America, roughly one in six adults and one in four children experienced food insecurity in 2020. These are some of the highest rates of food insecurity since recordkeeping began. The COVID crisis has also shone a harsh light on the impact that diet related health conditions can have on overall health outcomes. Research has established that individuals living with diet-related health conditions experience a far greater risk of poor health outcomes from COVID.
And this has serious racial justice implications. With Black and Latinx being twice as likely to die from COVID as white counterparts. The past year has brought home the importance of food as medicine services both as part of the COVID response and as part of an overarching strategy to establish more equitable and effective health and food systems in the United States. As you will hear about today, we have made some real progress toward expanding access to food is medicine services. States such as North Carolina, Massachusetts and Oregon have received approval of waivers that expand the range of nutrition services available to Medicaid participants. Recent legislative and regulatory changes have provided Medicare advantage plans, increased flexibility to provide meals, food, and produce to chronically ill enrollees. And the most recent farm bill set aside up to 10% of the funds in the Gus Shoemaker incentive program, otherwise known as Gusnip to create programs, creating First Federal program

specifically dedicated to this intervention. So there is progress. Yet, we are still nowhere near where we need to be in supporting sufficient access to produce prescriptions and the other food is medicine services for all who need them. The good news is, as a nation, we are moving in a direction of change. Emergency orders in response to the COVID pandemic have allowed for increased flexibility in the provision of food and nutrition services. This has created advocacy opportunities for us to ensure that new flexible access points remain a part of our health and food systems throughout the COVID pandemic and beyond. There should be no turning back from increased access to much-needed food is medicine services and other essential services. Also, we have a new president and Congress. This, too, creates opportunities to advance food as medicine laws, policies and programs, that recognize the vital role that these essential services play in improving health outcomes, reducing health inequities, and reducing healthcare costs. So, it is in this context that we are thrilled to be launching the policy strategy report today. It provides a road map for federal, state, and institutional policy reforms that will mainstream a critical food as medicine intervention produce prescriptions. So finally, we are incredibly thankful to the Rockefeller foundation for the support we have received in researching and producing this report. The foundation is a leader in the field and truly understands the urgency of this effort. I now have the pleasure of inviting Devon Klatell, managing Director of the food initiative at the Rockefeller Foundation to say a few words about how this report fits into the broader food initiative work of the Foundation. Thank you.
>> Thank you so much, Robert. Let me just start by expressing my deep appreciation and gratitude for your team and the larger community of stakeholders that I know you all engaged over the last year or so as you put this report together. It represents a tremendous amount of work and focus on an area where we see a lot of opportunity and we are so thankful that you all invested the time and excited to be releasing the report today. At the Rockefeller Foundation, our food initiative seeks to build a food system that nourishes both people and planet. I think as Robert just described so well, it's clear that we have a lot of work to do to get to a food system and a health system that are really nourishing people. And in particular, we focus on work that can increase diet quality around the world and can increase equitable access to healthy food for all households and families here in the U.S. and globally. And, as we looked at the domestic landscape here in the United States in particular, we felt that frankly, we are past due for integrating nutrition incentives and nutrition into the health and healthcare system here in the United States. Leaders in the health and healthcare space have a unique opportunity and a unique motivation and frankly a unique responsibility to take an active role as partners in increasing access to healthy food. Particularly for communities and households that have been disproportionately affected by the negative cost of the food system and suffer from diet-related disease. And so, as we set out to take on this work, we looked at a number of programs and made the decision to focus on produce prescriptions in part because we thought they had the potential to really reach a broad swath of the American population to reach millions of households. And were perhaps under researched compared to other more mature programs in the field including medically tailored meals which as Sarah noted are a key part of increasing

diet quality here in the U.S. And, as we looked at the produce prescription space, I think we know from years of working on different kinds of solutions and with different communities, that to make programs like this scale and succeed, particularly programs that involve partnership between such a diverse set of stakeholders, healthcare, community based organizations, retail partners, households, community organizers, that to help those programs succeed, you need sort of a full ecosystem behind them supporting them and building up a field which has been growing for more than a decade here in the U.S. So, from -- as we look at sort of Rockefeller's portfolio, we have really invested in three areas. The first is better evidence. And one thing we hear from a lot of stakeholders is that if we are going to really be successful at scaling these programs, we just need better data. We need to understand what elements of program design are both successful, what's the efficacy of these programs on healthcare outcomes and healthcare costs. So we are supporting a number of researchers that are looking at present and past programs and trying to answer some of those questions, including Dr. Price who I know will be part of this conversation later today. The second area we are trying to support is what we call better infrastructure. And that's partially supporting programs that are operating produce prescription initiatives on the ground, doing that incredibly hard work of making these programs, executing these programs day to day. We know that without those programs we wouldn't be reaching anyone or have any data to analyze. We are incredibly grateful to those partners. Also, communities of practitioners that are starting to come together and think about how to overcome some of the bottlenecks to scale. And I know that some of these issues are touched on in the report that we will be discussing later today. And then lastly, but, you know, perhaps most importantly for the long term, we really wanted to support better policies. Policies that did a better job of supporting the integration of nutrition incentives and nutrition education into the healthcare system. And, that's where I think this report and the work that you've done, represent as huge step forward in the policy of regulatory tools that exist today to support some of these programs and some of the changes that we can make in the future as this field continues to grow and scale the so again, I just want to thank everyone for joining today. I want to thank everyone who contributed to this report and I am excited to hear from the panelists and to have folks read and benefit from and really take in all the work that's being presented today. So thank you and I will turn it back over to Sarah.

>> Sarah: Thank you so much, Devon. And, you know, so much gratitude to Rockefeller for all that you have done to support this. And now we are going to turn it over to Michal Nichon and then Dr. Steven Chen. We will hear from Michal regarding the origin and incredible growth of the produce prescription movement. He is a chef, an author, and food equity advocate and the co-founder and board chair of Whole some Wave. He's had an opportunity to work with an array of Produce Prescription Programs and so he has a really nice bird's eye view and in-the-field view of what's happening on the ground in terms of strengths and challenges. Then we will turn it over and hear from Dr. Steven Chen who will give an overview of the current research and healthcare case for produce prescription. He is the chief medical officer in Alameda County where he's leading an initiative across the county health systems and food systems. Without

further ado, Michal, you can take it away.
>> Thank you, Sarah. I appreciate that awesome introduction. Tremendous thanks to you and the team and to Rockefeller for bringing real life to something that we have seen sometimes as a movement that's been growing over the last decade. I co-founded Wholesome Wave in response to my own journey as a father with two of my children living with diabetes. As a chef with both knowledge and income, you know, the lifestyle changes necessary to ensure their best chance for health and longevity were achievable for me and my family. But for the family of four who runs out of SNAP benefits mid-month and has $3 for dinner for all four people, it wasn't so achievable. So Gus and I cofounded Wholesome Wave on the belief that poverty should not be an obstacle to people making healthier food choices. We started by doubling SNAP for fruits and vegetable when it was actually illegal but we had the late great Gus Shoemaker to help us. And created a movement by working with community based organizations that already had trust of their communities in the place that they both called home. And really kind of launched these concepts. It was during that journey that we launched the concept of produce prescriptions based on utilizing the existing infrastructure and stakeholder relationships for drug prescription programs. But to replace the drugs with food. We all know about the food insecurity we face today now over 60 million Americans if we include those that are undocumented, one in three Americans are obese, diet has long surpassed smoking as the number one killer of Americans and diet related disease cost at last count, cost our economy $1.4 trillion in treatment, therapy and lost productivity. So we loved this idea of the produce prescription, and really decided to launch it with the full power and infrastructure of the existing system. The idea, if we provide food and professional medical advice in advance of a diet-related disease, can we prevent it? Or can we improve the management and reduce the risk of expensive therapies and death for those who already have a diet-related disease? So we piloted with eight federally qualified community health centers in the greater Boston area with CAVU in 2010 and between 2011 and 2015 -- next slide please -- we were able to proliferate by providing seed funding and technical assistance into 10 states, Washington DC and the Navajo nation through talented groups like DC Greens, COPE and so many others. You know, what we saw in the early days that we could collect a variety of health outcomes that we could see that people reduced BMI, that they reduced hemoglobin A1C, increased fruits and vegetables, a lot of the challenges were donor led. If a donor didn't want to measure for A1C, we didn't measure for A1C. If they didn't believe BMI was a reliable source of data to prove that an intervention was working, we wouldn't measure that. As you will see in this excellent report that they have prepared, a lot of these challenges of lacking unified focus on research and metrics is something that continues to be faced today. But no matter what, over that five-year period, we saw consistent results where we were measuring whatever the donor was asking us to measure. As we fast forward to now, in 2020, this is a map of a recent field scan that Daisa Enterprises made that show close to a hundred produce prescriptions that meet the definition, in over 30 states. And many in BIPOC communities led by BIPOC organizations, and in the Navajo nation. As we move forward with this work, in the light of everything that's

happened with the deaths and the hospitalizations faced by BIPOC community members, relative to COVID-19, that we need to make sure that we are focusing this work with a real racial equity imperative moving forward. How can we say that this is going to be an intervention that's going to be able to improve the lives of millions in America through existing healthcare system and innovation, innovative use of public funds, if it's not providing services for those who are the most in need in ways that meet them where they are at. So, I think the report speaks to all of this. It's exceptional. You will be really excited to see these results. Again, I want to thank Rockefeller, I want to think CHLPE for their exceptional work. This will be transformational and we are looking forward to this movement to become reality for everybody who lives in this country regardless of race or income. Thanks again. I'll turn it become over to Sarah.
>> Sarah: Thank you so much, Michel. And, you know, we are always inspired by the work of Wholesome Wave, giving us information for the report and connecting us to other folks in the network who are doing this work on the ground. Thank you so much. Now I'll turn it over to Dr. Chen who will talk with us a little bit about the medical reasons that we would want to scale access to produce prescription.
>> Thank you so much, Sarah, thank you to the Rockefeller Foundation and to CHLPE for coming out with this policy report. Very important. I'll be sharing my screen. And, begin my presentation. I'm a family doc by training and function as the chief medical officer. My presentation will be on the healthcare case for produce prescriptions. I'll answer three questions in the time I have. Why is food an essential part of healthcare? What does the research show us about fruit and vegetables specifically and health outcomes? And then the research -- or what does the research show us about produce prescription interventions that wrap around fruits and vegetables and health outcomes? Let's begin. Why is food central to healthcare? Well food is a bridge between the upstream factors and the downstream issues that we deal with. Upstream being the social and structural determinants of health, food policy systems and food insecurity, certainly. And then the downstream work that I do in clinic as a family doc, and that nutritionists and nurse practitioners do every day in terms of taking care of patients. On the downstream side, food is an underutilized piece of our work that we can provide for our patients. We don't have the training, most of us. And that's the case 20 years ago when I trained and is currently the case with the residents that I talk to now that come out of training. Why is that the case in terms of the role of food? How does food actually mechanistically impact our health or disease at each stage of life? Historically, we thought our DNA determined our future, our DNA left us to becoming diabetic and losing a foot or becoming an Olympian and being in great health. We know that's not the case. Our DNA is receiving information. Minute by minute. And that information in the form of food is powerful information. What you ate for breakfast this morning, what you ate for lunch, is sending signals to your DNA to express certain proteins that are either pro inflammatory or anti-inflammatory. This is happening day by day. You accumulate this impact, this dosage, two meals a day, three meals a day, whatever, across your life cycle, for that patient, this is a live time impact. Some of us focus on taking care of our prenatal patients and some on elderly patients. When I am in clinic -- this is me and my medical assistant. We are trained to essentially wait 20 years for our

patients to develop their diabetes or their obesity and then make the intervention with the pill. That's what most of our training is as healthcare providers. So we are mopping the floor downstream. We are unable, sometimes, or fail to, because of our busyness, see the overflowing faucet that's sending us patients. The social determinants of health at midstream piece around food insecurity specifically but the others that are bundled for our patients and what they face, is sending us more and more patients. We know there's a dynamic interplay. Further upstream are the structural determinants. Policies around food, housing, systems of racism. And sexism and all of these pieces that are interlocking. This work impacts our patients' day to day. Food plays a role throughout this dynamic. And there's a great opportunity here with produce prescription in particular. Just to take one of the social determinants of health, food insecurity. Food insecure patients have a two-fold risk of developing diabetes. 200%. If I am food insecure in the blue line, versus food secure, over 11 years there's a 200% increase. There's a direct relationship. It's not just an upstream issue with no consequences on my patients. It is clear and present to their physiology and their health and disease conditions. Food itself is killing too many of us. This is an important opinion paper that was put out, but it was based on this science of 26 years looking at data to say, of the various risk factors, dietary, tobacco, what's the impact on mortality? And we are showing through this, or this study is showing that dietary risks top tobacco use and are killing 500,000 people a year. So food insecurity, nutrition insecurity, a key piece to this for some of the epigenic reasons and also the structural reasons. So let's just focus then on just the research. What does the research show us about fruit and vegetable intake? I'm going to just take a few interesting studies to put forth for the audience today. I do want to say this caveat, something I learned in my fellowship from one of my Professors, Andrew Weill. The greater the potential of a treatment to cause harm, the stricter the standards it should be held to for efficacy.

So if I am going to take a medication that has great harm, something like a Vioxx that can cause G.I. bleed, bleeding in the belly or stroke in the brain, then I want that double blinded trial. I don't need that for broccoli and if I am going to make that recommendation for my patients. We have to contextualize the research piece and where we want to place funding. I appreciate Devon's point about funding the research around design. And how to make this doable. In our communities of need. So I want to share another piece of research. This is a systematic review, two pieces of -- two papers here. Around dosage. The more fruit and vegetable intake, the fewer deaths. So two, three, four servings a day, you will see a drop off in mortality. When you pool these studies together, that is saying with one serving, a half cup a day of fruit and vegetables, you can decrease mortality by 5%, all cause mortality by 5%. What that translates into is 30,000 lives across the U.S. per year. Just by this intervention alone. So this -- there is a scalability piece here that has not been powered and I am so pleased to see that there's this convening with multiple people coming to make this powered and scaled fully. The other piece is this. The type of produce actually may matter. This is two papers here.

One showing just fraught intake a day at one serving a day, you can decrease diabetes risk by 7%. With kind of the general category of vegetables, same thing, one serving a

day, 10%. But if you actually get into leafy greens, look at the dosage. Only .2 servings a day and you already get 13% reduction. Another showed 11% reduction in cardiovascular. Your strokes, heart attacks, high blood pressure. Just by produce alone. So, type of produce may mat in your interventions when you work with your patients. And I'll close out with a few points on the interventions themselves. When you bundle all of this work in real-life settings and are making this work with your communities of need, we have a number of studies that are happening, that are showing various impacts on health and outcomes. Studies that show that diabetes improvements up to 3.1%, that's significant. On par and in fact stronger than medications alone. Blood pressure dropping of 16 points. Certainly the DASH diet study in 19 the 7 showed blood pressure changes by fruits and vegetables alone within two weeks. We are seeing it now happen in the community. Obesity, as well, dropping. Preterm birth for those who take care of pregnant mothers, 37% reduction. Even mental health impacts. Produce prescriptions are important in and of themselves but also the wrap around services connected to them. And then I want to close with a health savings argument. This is a study in 2019 that said what would happen if we subsidized fruit and vegetables at 30%? We would see potentially 1.93 million prevention of cardiovascular events. That's a lot of lives. A lot of money. A lot of pain and suffering. So $40 billion in healthcare savings. What does 30% actually mean? It would -- that subsidy would translate into an intake of .4 servings per day of vegetables and .4 servings per day of fruit. Similar to what the study showed earlier. I want to close with this. The power of the produce prescription. At the root of the prescription and what a prescription is, it is a recommendation with authority. And with that power and recommendation, you got great responsibility. Right? And also great questions. So I want to foreshadow a few parts of the following conversation just to ask -- how can we provide clinically relevant nutrition or nutrition training for healthcare staff like my colleagues? Where does the produce come from? How was it grown? What's the impact on that in our physiology, on the planet? And then how do we center equity to ensure BIPOC communities, communities of color, have access to this powerful prescription? Thank you very much for your time. I'll pass it on.

>> Sarah: Thank you so much, Dr. Chen. That was wonderful. And, you know, for all of the reasons that Michel and Dr. Chen described, produce prescriptions have incredible potential as a strategy for improving health outcomes in the U.S. and doing it in a cost-effective way. But despite the growth in experimentation and use of these programs that Michel described, there are still a lot of areas in the country. You saw the map that he showed on the slide, where the access to produce prescriptions is limited or is nonexistent or even if it's there, it's not really reaching certain populations in that community. To address these gaps, we really set out over the last year to develop the produce prescription report.

And I am just going to pop my slides back up and -- ok. All the slides in the deck. The slides will also be available, Steven's amazing and, Dr. Chen's will be available after the webinar today.

>> So our goal in developing this report really was to create a series of policy recommendations to expand access for individuals who need them most. Right? So

people who are living with or at risk for chronic conditions and then have some resource challenges. But to do so, we first needed to understand a little better what the barriers are that are currently limiting access and growth. At the center for health law policy intervention, our bread and butter is really looking at law, at regulation, at all of these policy-specific barriers. And then, so we did that. We also set out to then tap into the huge amount of experience and knowledge that has built up around produce prescriptions over the past decade. So on this slide, you can see the process that we used to gather insights from a range of stakeholders. So we did our analysis of the laws, regulations and all of the guidance that's come out from various government entities. Then we conducted over 62 interviews to gather insight on the common barriers and experiences in the field of produce Rx from different stakeholders. Finally, once we put our recommendations together, we went back to that group and an expanded array of folks that we had been contacted by or had learned about in the course of this process to talk about these recommendations and to really fine tune them to make sure that they were speaking to the challenges that we saw in the field. And so, you know, from this, we identified five core challenges. This is all really unpacked in this report. There's an executive summary that gives you the bite-sized version but we do go in depth and address these issues as comprehensively as we can in this report. The most prominent challenge for produce prescriptions, the one that everybody talks about, is funding. So, the vast majority of the programs in the field as you heard are grant funded. Grants are often time limited and even if you think you might get grants repeatedly, grants cover the program cost, they often just cover the program costs. This is not really money that will allow you to invest and make the capacity and infrastructure investments that you need in order to sustain these programs in the long term. And in addition to that, the success of Produce Prescription Programs really depends on having a robust investment in our federal food assistance programs that address population health. So that we are looking at those needs, those food insecurity needs being met by SNAP, WIC and other programs and building prescriptions on top of those. The next task to scaling produce prescriptions is the need for research. We have an increasing amount of data about the efficacy of produce prescription, but more research would address questions that are critical, it would help produce prescriptions have a broader more equitable reach into communities and promote integration into the healthcare system. So we will have some of our panelists speak more about this later today.

Then the next two challenges on the slide are really about how these programs are implemented in the field. So how are we handling patient data for example? The vast majority of produce prescriptions are going to be redeemed outside of the healthcare setting. At a grocery store or community nonprofit or farmer's market. There's a lot of trepidation in the field about how we will prepare all of these nonhealthcare entities to deal with some of the legal and administrative complexity that might visit them upon trying to provide services like these that are meant to improve health. And second, to truly scale produce prescriptions, you need to build out the infrastructure within the system. So you need knowledgeable clinicians, they need to be able to identify the issue, make an appropriate referral, and then you know for the patient, it has to be really

easy to utilize that referral and they have to feel comfortable doing so. And then finally, what we also repeatedly heard in our interviews was this desire for guidance on how to stand up a program, what works, what resources, you know, is entailed to do that. These are dynamic questions with evolving answers but there's a very deep hunger in the field for more information on how to create and sustain these programs and so this report is the first offering in that. And there's lots of other work going on that we hope to be part of moving forward. And so, at the end of the day, you know, when you look at these five core challenges, what we try to do in this report is really respond to those and our report has 20 recommendations for institutional and policy change that are going to achieve the future that we hope to see. And so that future is, you know, we want produce prescriptions to be widely available and accessible. Sustainably funded, offered in addition to some of the more broad programs that help people stay food secure, supported by this really robust body of research grounded in the principles of equity, especially racial equity, and then operating within an infrastructure that is well established enough that access to produce prescriptions is seamless and comfortable for the individuals that are going to be participating in these programs. And that the programs really have the flexibility to meet patients' access needs. So for this part of the webinar, we are going to dig into those challenges and recommendations through a conversation with three experts. So these are my colleagues, Katie Garfield and Emma Scott, lead authors it of clinical instruction at our centers, health law policy and food law and policy respectively. We are also joined by Ashley Price, the lead research administrator for the Department of family medicine and community at the Duke University school of medicine. I'll stop the share for a moment and I am going to turn to our wonderful panelists, and ask them to turn their videos on. There they are. And I am just going to say, you know, let's start with funding, which was the challenge that came up most often and I am going to throw this question to Katie, first. We heard that this is the single largest barrier to access to produce prescription. How are we going to pay for it. Based on your research -- what role is the healthcare system currently playing and what role could it play in establishing secure funding for produce prescriptions?
>> Absolutely, thank you, Sarah. And thank you to all of our presenters so far who have spoken so powerfully on these issues. So, as Dr. Chen laid out so beautifully, there's this really strong healthcare case for connecting patients to affordable healthy produce. Right? We know that rates of chronic disease like diabetes, hypertension and cardiovascular disease are high across the country and particularly high in our Medicaid and Medicare populations. And we know that those conditions are driving health outcomes, patient experience and healthcare costs. So for example, according to the American diabetes association, the annual cost of diabetes in the United States is $327 billion. So that's one in every seven healthcare dollars being spent on diabetes and diabetes complications. So there's a real incentive here to tackle that connection, that deep connection between nutrition, food access, and health many but the problem that we have generally seen is that our healthcare system historically hasn't been well designed to connect patients to services that address health-related social needs. And star a if you will pop up that quick slide -- so, as you see on this slide, we started to talk about this problem using the metaphor of a house. So, in the slide, you see our

healthcare system pictured as a house. And typically, medical services are welcomed through the front door of that house. Right? They are expected guests. So that means that the healthcare system is able to prepare for their arrival and guide them thoughtfully throughout the rooms of the house, making sure they reach all appropriate sections of the healthcare system. However, that front door has historically been locked for services that address health related social needs and for a variety of reasons, including those that Sarah just described, interventions like produce prescriptions have not been able to access the healthcare system using that traditional pathway. Instead, what we are really seeing most recently and over a -- particularly over the last decade, is that these services are starting to enter the healthcare system, but not through the front door, but sort of through the windows. So these windows are the pockets of opportunity that do exist to cover and fund produce prescriptions and similar services in the healthcare system. On this slide, you see a couple of those windows called out and we describe them in a lot more detail in the report. So these include things like Medicaid section 1115 demonstration waivers. As you heard at the outset of this webinar from Robert Greenwald, a number of states have received approval of demonstration waivers to cover a range of interventions. States like Massachusetts, North Carolina, Oregon and others. These windows also include regulatory flexibilities in both the Medicaid and Medicare systems. So in Medicaid, we see things like in lieu of services, value-added services, and activities that improve healthcare quality, all of which are sort of regulatory flexibilities that let Medicaid-managed care organizations choose to cover additional services like produce prescriptions. And similarly in the Medicare advantage system, we are seeing new flexibilities like special supplemental benefits for the chronically ill that allow plans to choose to cover additional services like produce prescriptions. And those windows are all really critical first steps. Right? They are providing new funding and partnerships for Produce Prescription Programs and similar services. I think it's really important to acknowledge that they have serious limitations. They are limited to specific plans, specific states and often small pots of money. And as a result, relying on these windows and these windows alone is creating a fragmented landscape in our healthcare system. Access can depend on geography, health plan and healthcare provider. So given that landscape, and what we heard in our data gathering, we really decided to put forth two fundamental sets of recommendations about the role of healthcare and expanding access to produce prescription services. First, we do think it's fundamental that more health plan states and healthcare providers take advantage of those windows by encouraging uptake of things like in lieu of services authority, we can make important progress in expanding access. However, we also recognize that if we want to create the sort of widespread equitable access that we have been talking about today, produce prescriptions ultimately will need to go in through that front door. So, we also recommend that produce prescriptions be built into baseline benefits for programs like Medicaid, Medicare and the VA. And so the first two recommendations of our report really outline a number of pathways to try to achieve that goal, including regulatory change, legislative change, or utilization of largescale demonstration projects to achieve that goal.

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>> Sarah: Thanks, Katie. I'm he sorry for everyone who had a little trouble seeing that slide. This is the challenge of Zoom webinar and I couldn't make it bigger. So, but, you know, hopefully you got enough of the point about the way that we are sort of developing and evolving the healthcare system over time. And that it's not ideal. And then, you know, thinking about the healthcare system and how it interacts with all of these other systems that we have in place, I am going to turn to Emma, because we already invest quite a bit of money in nutrition assistance for certain populations in the U.S. So how do produce prescriptions fit into those programs and are there opportunities to really advance access to produce prescription through some of those channels as well?
>> Sure. I'll start with talking about the two opportunities to support produce prescriptions through food assistance programs that are administered by USDA and that we highlight in the report. So the first as was mentioned earlier is the Gus Shoemaker incentive program which is the only dedicated source of federal funding for produce prescriptions programs. This program has been around since the 2018 farm bill and it's made about $4.5 million available for projects each year. So this funding we see is providing an opportunity to really jump-start or level up Produce Prescription Programs. So, in the report, we do recommend that funding for this grant program should continue. And although in the long term, we do want to see the healthcare system provide more sustainable funding as Katie was just talking about, we are not quite there yet. And, um, I think we are unlikely to see that full transition completed in the next year and a half, which is about the window that we are being looking at for policy makers will be deciding what goes into the next farm bill. But as we continue this funding, we want to make sure that it's strategic. So while this opportunity continues to exist, we want to be thinking smart about how the money is invested. So, in the report, we also recommend increasing funding for the program, but then focusing that funding in two ways. First, the grants need to be larger to really support the robust research and evaluation that are needed to move the field forward. Currently, the grants are up to $500,000 and they are stretched over three years. And then of the grant, only 25% can be spent on administration which includes evaluation and we really heard in our stakeholder interviews that this amount is not really sufficient to cover their research activities. So, we recommend that the amount increase to help support the kind of impactful research that is needed in the field. The second way we were thinking about targeted funding is for programs that are reaching patients that otherwise wouldn't have access to these programs. So for example, some programs will set up mobile clinics or mobile markets, which are really great solutions to reach patients that otherwise wouldn't have access to these services. But these kinds of solutions can be really expensive and so more money should be available to fund these kinds of projects. And I think this is also really important to ensure that we are evaluating programs that are designed for these harder to reach communities as we are thinking about scaling up and really making these kinds of programs mainstream. So, a second key opportunity that we highlight in the report is the WIC program which provides supplemental foods and other services to lower-income women, infants and children. So, in the report, we call out this program as already operating as a Produce Prescription Program. So you have a participant

interfaces with a healthcare provider to enroll in WIC and then is prescribed a food package that includes a cash value voucher to purchase produce which really fits under the umbrella of what we are talking about with a Produce Prescription Program. But then once we named that benefit as a produce prescription, we raise the question of whether it's enough to see the kinds of health impacts that we would hope to see from a produce prescription. Currently, the federal amount for the voucher is $11 a month for moms and $9 a month for children. Which really isn't that much. We know it needs to be around $40 to support just half of the recommended amount of fruits and vegetables for an individual under the dietary guidelines. And there's already some indication that Congress is aware of this because they just temporarily increased that amount to $35 in the most recent COVID relief bill. I would also like to highlight that we have new research that shows that a program which provided pregnant WIC participants with a $40 produce prescription on top of their WIC voucher improved food security, increased fruit and vegetable intake and decreased the odds of preterm birth. So based on kind of all of this data, our report recommends that the cash value voucher in WIC should increase to $50 a month so that it can actually do the work of a produce prescription. And we also note that there's an opportunity here to think about broadening WIC coverage. WIC could be a pathway to connecting more mothers and children for produce prescriptions. Since the infrastructure for Produce Prescription Program is really already in place. And then finally, just to go back to your original question of how produce prescriptions kind of relate it other food programs, I think as you kind of previewed, Sarah, we really view them as a complementary intervention and important tool for addressing health conditions, but they need to sit on top of a really supportive base that addresses food security and supports population health more broadly and so this is where we see the importance of SNAP and other nutrition incentive programs. And we also heard from stakeholders working in the fields that it's really critical to have an off ramp or a landing pad once someone cycles off of a produce prescription. So, these -- so like SNAP and nutrition incentive programs can help provide that kind of support.

And then the final thing I'll say is that even though we have this kind of baseline, we do note in the report that the current SNAP allotments really aren't enough to support a household's fruit and vegetable needs. And that nutrition incentive programs also aren't available in every community. So we do recommend increasing that general SNAP allotment so that it better reflects a household's food spending needs and also that we work on making nutrition incentives available to all SNAP participants.

>> Sarah: Awesome. So hearing a lot of themes from Emma and from Katie that we want these programs to reach the people that need them most. And that there are a variety of ways that we are doing that. Maybe not the best, maybe in not the best ways. And then from Emma in particular you mentioned evaluation a lot throughout your remarks. And so, turning to our research expert on the panel, Dr. Price, we have heard over and over again that research can play an important role in promoting these policies and supporting access. We heard from Dr. Chen a little bit about the initial research and we know that you know it very well. As we do more work to expand this evidence base, what questions do you think researchers should be prioritizing as they build that

evidence business for produce prescriptions?
>> So I think early research was really focused on this idea of proof of concept. Right? Like we want to know whether or not if you provide access and increase purchasing power to patients, will they actually go buy nutritious foods? I think that's an important metric that's going to stay critical as we evaluate these programs on a bigger scale. But in part I think as we talk about funding for research and just the structures of these programs, what's happened is we have a lot of research projects an many different types of programs which all have a variety of design. So thinking about program design and evaluating and researching sort of what are the best practices in program design are going to be really important. There's no problem, research and live doesn't exist in a vacuum. Addressing how many may need to implement them differently is a critical part of the research. It means we have to start asking questions both about the mechanism of delivery, some of these programs are tied to grocery stores or maybe they are food boxes or they are farmers' markets. You know, -- farmers' markets. Those may work in certain communities and may not work in other ones and we have to figure out what is the best mechanism for the delivery of the program itself. And then Dr. Chen mentioned dosage and I think that's a critical piece that, because of the kinds of evaluations being smaller scale and several individual ones we haven't pinpointed what is the dosage piece? How much of an incentive is enough to see some kind of change. And then I do think along with program design, we need to sort of think about what are the concepts that are needed as far as education? So, research on produce prescriptions also suggests that just because someone buys more fruits and vegetables doesn't necessarily mean it's going to have an impact on health outcomes. We also know that the diversity of the fruits and vegetables that a person actually consumes matters for health outcomes. And so, you know, how do we provide education and within the program limits to -- and is that necessary for the programs themselves? I think those are things from a program design perspective that we really need to start asking a lot of questions about. And then of course, you know, payers and clinics themselves, this is occurring in a healthcare setting.
So we are interested in health outcome components. But there's not a standardized approach to what are the health measures that we are saying at least the minimum that we need to see change? And how long does it take for those to occur for funders to still see this as an investment. And I think that that's going to be a really important piece that is sort of, you know, one part of this that I think research has -- we are going to have to start asking questions about is food is a household item. Right? And so, we are taking individual health metrics for household spending. Plenty of research on food assistance for families suggests that especially -- we see these mothering concepts. So like you have now provided more food, but I am only going to give it to my children, not necessarily giving it to myself. Well if the measurement of this program or how we are deciding whether it's effective, is just about the health outcomes of those individual patients, you know, that's -- we aren't going to see it in the data. So I think we will have to think critically about how we think about the health outcomes as it's related to something that is sort of this household impact. And I think that's going to be a challenge for research. But I think it's sort of an opportunity, too.

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>> Sarah: Just to follow up a little bit, because this has constantly tripped up health systems and the community based programs that want to do this work, about the data piece. Right? Because you mentioned a little bit about, you know, this is what health systems want to see, what metrics should we be collecting. Do you have concerns about that data piece both from the perspective of, you know, what patient data is floating around out there, but also, you know, how do we really get the data we need to evaluate the efficacy of these programs?
>> I think when we are looking at evaluations of these programs, there are a couple sort of barriers to I guess the most robust kind of programs that we could have out there. You know, a lot of these right now are implemented by community-based organizations and paired with smaller clinics, or even if they are paired with bigger clinics, there's a huge administrative burden to collecting a wide swath of health outcomes data and it looks different from clinic to clinic. If you are implementing that's across health systems, what can we identify the standard metrics that reduce the evaluation burden, if, for instance, we don't have enough NIH funding to have sort of big-scale evaluations, randomized control trials, and I think there's an ethical question whether this fits into randomized control trials anyway, so those are things that I think we have to sort of tease out. Identifying what kinds of patients this might be most effective for. We talk about individual comorbidities, individual health conditions and outcomes, are there ways to scale our evaluations that allow us to reduce the research burden on the clinics themselves so we can still collect the information that we need.
>> Sarah: I love what you said and I also heard a call in there for research funding from the NIH on this. So let's just note that. In the takeaways from Dr. Price's remarks for sure. And then, you know, in addition to this research piece and please continue to talk about that as we go forward, because I think it really infuses everything that we will talk about from here on out, but the policy strategy report also highlights the importance of really establishing this infrastructure that we need to support access to Produce Prescription Programs.
And so here we are really talking about three things it. So we need clinicians who understand the value of referring patients to Produce Prescription Programs and when I say clinicians I'm saying it broadly, talking about physicians but not only physicians, I'm talking about everyone that someone encounters in the course of their healthcare treatment, dieticians, social workers. And accessible food retailers and places to redeem these and also these easy and efficient and you know I think you spoke powerfully to it Dr. Price, how do they need to receive these benefits in order to best use them? So, what do you all see as sort of the biggest opportunities to establish that infrastructure that we need? To access, for folks to access produce prescriptions? I'll let anybody take that who would like to.
>> Well I can July' in and speak on the food accessibility piece. And so that question is once a participant has a prescription in hand, is it easy for them to go use it? Is there quality produce that's easily accessible to procure with that prescription? And, you know, in some areas of the country, many areas of the country, the answer is still unfortunately no. And so, then we on our team are asking -- so what role can policy

play in changing that? And so under prior presidential administration, there was a big focus on eliminating food deserts that culminated in the creation of the healthy food financing initiative. And so, parts of that program still exist, but it's been deprioritized and not all projects under that initiative were successful. But we did learn a lot through that initiative and since that initiative about how to better ensure that these types of projects are community driven and really set up for success. One of the things we do is highlight eight programs across federal agencies that provide financing that could provide support for more healthy food retail and recall on the administration to bring these programs together in conversation with food industry researchers, retailers, and other stakeholders to really reimagine what a coordinated response to this need can look like at the federal level.
And we also want them to collaborate with produce prescription practitioners to determine how this growing field can be a part of that endeavor, both as a beneficiary, but also as a driver of change. And then I guess the second piece is how are participants actually redeeming their prescription? So, and I am thinking a little bit more of the, like the transaction mechanism. So is it a physical voucher that they take to a store? Is it tied to a loyalty card? Is it a bar code that gets scanned in? And these are design questions that are going to impact a participant's experience with the program. But will also determine the kinds of transaction technology that's needed, which retailers are able to participate in the program, and so this is something that we highlight as an area for additional research on the design front. And think it's a good opportunity for Produce Prescription Programs to work with retail partners in the community to figure out what's going to work in their stores and with their clientele.
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>> Yeah, one thing I would say about the design and delivery piece is that this is part of why it's important to have sort of community engaged research pieces here. You know. The participant experience is incredibly valuable. You know, the reason why the modernization of SNAP was successful it because this idea that you reduced some of the stigma associated with SNAP previously. Well, if we set up a system for these kind of incentive programs that again adds some kind of stigma because either a grocer, a grocery store clerk doesn't know how to use the mechanism, they are calling people over the phone, those are missed opportunities from a research perspective if we don't pay attention to this patient experience part. And I think when we think about scaling the infrastructure, that's going to be something that, you know, funders are going to have to incentivize researchers to care about that kind of piece. So I think that's sort of a challenge when we think about the greater research approach to these programs, too.
>> I'll just jump in to round things out because I think we have heard about the retail side, about the patient side. And I want to call out some of the infrastructure needs on the healthcare side. So I see the healthcare system as really having two big infrastructure needs with respect to produce prescriptions. First one that we heard a bit about from Dr. Chen earlier today with is this idea that we need healthcare providers who are -- who really understand the value of produce prescriptions and receive adequate nutrition education. And then we also need systems in place that allow healthcare providers to successfully partner with and make referrals to produce

prescriptions. So, in the report, we address both of these items and we strongly recommend that healthcare providers receive more formal nutrition education. And we suggest that that education needs to not only include just an understanding of the role of nutrition in driving disease, but also on practical skills. How does the healthcare provider do something about it? So, this means making sure that across the healthcare team, there's an ability to screen for food insecurity and nutrition issues, provide basic counseling and make referrals to responsive services like produce prescriptions. And just to give a quick example here, we know that the vast majority of medical schools do not provide even the minimum 25 hours of nutrition education over the course of four years. And we see similar trends across the spectrum of healthcare providers. Among dentists and others. And so, many healthcare providers end up feeling poorly equipped to address these issues. And there are a lot of different pathways for change here that we call out. Things like changing accreditation standards, making sure that licensure testing exams include questions about these items and that continuing education modules are available or requirements are in place to really incentivize bringing more attention to nutrition issues. And additionally, there's that healthcare systems piece. So, training healthcare providers is an important first step. But we also need to make sure that we create an environment that lets them effectively partner with and make referrals to social service providers. And as we heard a little bit about earlier, a big barrier to this can be current confusion around things like the application of HIPAA and other privacy laws to social service providers. There are literally thousands of pages of regulatory guidance around HIPAA but so, so little of that information specifically talks about partnerships between healthcare providers and social service providers. We also recommend that they provide guidance to support healthcare partners that they try to navigate those really, really complex healthcare compliance issues.
>> Sarah: Thanks, Katie and I want to follow up on that particular piece of the, you know, making this all, making access to produce prescription depend on this complicated healthcare system, working appropriately to get access it these services to patients who might need them most. And, you know, think about it in the, over the last year, the COVID-19 crisis has shown this spotlight -- as shone a spotlight on the inequities in the U.S. healthcare and food systems. When we think about produce prescription, what do we have to be most concerned about here? If we are extending access based on health insurance or access to a particular provider, we are going to leave some folks out and also, is there a risk in sort of depending on this provider patient relationship to deliver these services? And do you all have concerns about that? And if so, what are you thinking about this?
>> I think from a Republican perspective we are going to have to tease out health authorities to -- create different effects for this mechanism. The idea of produce prescriptions is that you can also sort of exploit the interpersonal relationship between a provider and a patient. Well, if health inequities means there's a differential relationship based on who someone is or someone's identity, then, it has differing effects on different people. I think, thinking in a health equity lens about how we ask the questions about what makes this program effective is going to be something that's really important. The other piece is for instance tying these programs to a federal benefit like SNAP. One of

the things we saw was very low uptake among Latinex individuals despite the clinics serving a large number of Latinex individuals. Part of that we think is because, it's a, you know, a mixed citizenship house households, further questions about SNAP are things individuals might be concerned about. Do you have to be thoughtful of not leaving out a community because the most efficient way to deliver the program does sort of also exploit an already existing health equity question.
>> And I'll just jump in to expand on that when we think about not only the federal system like SNAP and the direct patient provider relationship. I think we also have to think about insurance coverage issues that could come into play as well. And think about how those policies could impact access and so make sure that we are thinking broadly when we talk about policies to improve access to produce prescriptions. So for example, we know over the last four years we have seen a lot of attempts to erode coverage especially within the Medicaid system. This has taken the form of punitive policies like work requirements and lockouts, lockout periods which have the effect of limiting Medicaid coverage for low-income populations. And so, I think as we move forward, we need to keep an eye on those policies and remember that they are impacting access to services and so, we need to be promoting policies, particularly within Medicaid and Medicare, that maximize access instead of eroding that over time.
>> I think just one more thing I would add is that it's important to recognize the role that produce prescriptions play in the food system and how they can impact local economies because they are effectively increasing dollars that are available to spend within a community. So, I would love to just call out some research that was published last month from Colorado State University and several other partners that estimate for every $1 invested in healthy food incentive programs, there's $3 in economic activity generated. And so while that's a study focused on nutrition incentive programs, which isn't quite the same thing as produce prescriptions, I think it is helpful in that it shows the impact that these programs can have on the economy and so we want to be thoughtful about where those dollars are being funneled. And so, with that, I think there's an opportunity for programs to work with local retailers to maximize community benefit. And that could mean supporting local agriculture or community, smaller community stores or businesses that have a broader mission of creating sustainable jobs locally. And so, like produce prescriptions aren't going to do it all and solve all of our problems. But I'm just saying this these programs can be designed to account for some of these factors and partner with organizations and Enterprises that support community-centered work.
>> Sarah: And I want to follow up on that and I want to bring back Dr. Chen and Michel, you can turn on your videos and hopefully join us for this part. I would love to throw this yes out to anyone. There's been a number of questions I think in the chat, about the upstream downstream, that I think Dr. Chen you really spoke to. And where we should be focusing efforts. So why are we focusing on this and not farm subsidies for example? So, to anybody who wants to speak to that, where does produce prescription in this push fit in this broader, these broader reform efforts that we have to undertake?
>> Well, I think when it comes to the question on farm subsidies, when Gus and I noodled the original ideas around nutrition incentives, it really was to create the on

ramp/off ramp effect to reimagine how support subsidies might be used away from cereal and oil seed crops or other price supports to healthier forms of eating.
A lot of the arguments previously for just simply unplugging money from one sector of the agricultural economy and plugging it into another is disruptive. Especially economically. And we always felt that privately funded incentives would really give us the opportunity to create the economic argument. So that policy makers could actually imagine that there could be maybe even a better economic impact by changing the way some of those subsidy dollars get invested. So, the intention of the program originally was to open that conversation up. But I think to effectively look at that as something that can actually happen, more investment needs to be made into what the economic impact and enhancements can be around changing the way that those subsidies are made. So it's not disruptive to the overall agricultural system. It needs to go beyond the $1.79 increase in GDP when for every SNAP dollar spent. Think we need to see a significant investment and real economic impact in the difference between specialty crop production and oil seed production. It's a great potential source of financial support because it can be anywhere between $6 and $12 billion depending where crop insurance lands each year.
>> I would just say one piece about where to put your energy. And I think this movement is growing. So we have to address all levels downstream midstream upstream. When I as a clinician am downstream with all my clinicians, we can make upstream happen in the exam room by utilizing food. We don't have to wait 20 years to get the pharmaceutical medicine. That's an example of upstream work happening in the context to the points that Michel made about policy in the farm bill. We need folks doing all of this, would and probably people are and think the power potentially is similar to what's happening today. It's ensuring convenings and connection so that there's larger strategy happening among these potentially siloed work that happens. We all get very focused on our work. It takes so much energy to build things on the ground and that's the importance of bringing folks together and part of what makes us really strong as a nation is to have these type of connections and thoughtful strategy.
>> Sarah: And then you know, there are some questions also that we received about what these programs look like, so this is all sort of policy change, what this program looks like on the ground. And I know folks have been involved with programs on the ground. Could you speak to something that was transformative that you have seen and how that operated in a program that you were part of.
>> Well I think the most transformative are those few that have been as close to fully funded as what we would like to imagine. When we look at an intervention and the potential power of food is prevention, it requires more than just the food itself. The original concept was what happens when you take the power of the advice of a medical professional. The power of the knowledge base of a nutritionist or a dietician. The incredible ability and passion of a community health worker. You know, all of those components that exist in an environment where medications are being distributed, the way the system currently works, once somebody is diagnosed with a disease, the doctor has a tool kit of medications that can be prescribed and therapies. But for those relationships to continue how things need to be tracked. Things are measured, advice

is changed and altered. That exists in the medical world. Doesn't exist in the food world right now. So, the imagined concept was -- what if we could just instead of waiting 'til somebody gets diagnosed and it's too late, and now you get the medicine and all of those other services, what happens if we combine those with food? But so many of those services are not included if there isn't a disease related diagnosis. So, the programs that have worked the best are the ones where community health workers are fully funded to help people understand the retail environments where the benefits are used, that when they go there, they are going to be welcomed. That it's a seamless experience, that if they have any questions, they can speak to whether it's about the food that they are choosing, if they are choosing enough of it, that those questions can get answered. And in many cases, you know, relative to why I think the prescription and that relationship between the doctor, the nurse practitioner, the nutritionist and physician is so important, is that it's private. It's not, the recipients of these programs don't feel like Guinea pigs, they feel like they are medical professionals trying to help them be more well.

So that's -- that's -- it's one of the reasons why we think health policy is the most important part for these conversations to happen. If you look at the farm bill over 10 years has an economic value of about $970 billion with all subsidies and SNAP included. Medicaid alone is $670 billion a year. Far more resource within health policy to support these types of interventions than in agriculture policy. It's one of the reasons why we believe that's where the opportunity is and we are so excited about these report recommendations because they actually ladder in that direction.

>> Sarah: Fantastic. We are going to go around with, a lightning round, so people really have to keep it short and sweet. What is the biggest immediate opportunity on the horizon for, you know, out of all the things that are in this wonderful report, where are you going to start personally? What would you focus on?

>> 1115 waivers, you know. If those could actually be standardized, because it is funded by Medicaid, if those could be standardized, and we can see language in there that would encourage supporting these types of programs, that would have an immediate impact.

>> Sarah: Just to contextualize, looking at the Medicaid program that supports some of the low-income, provides insurance for low-income folks across the country, making sure that every state is using their waiver capacity to cover produce prescriptions. Got it.

Who wants to go next?

>> I'll go. I would say I'm most excited about, personally, moving forward with WIC, because right now we have child nutrition reauthorization being discussed, as I mentioned earlier in the most recent American rescue plan, we had an authorize for an increase to $35 for the cash value benefit. That is temporary. But it really does kind of lay the groundwork for the kind of really even bigger increase that we are recommending to make sure that the WIC CVB is operating as a produce prescription and is effective.

>> Sarah: So we have Medicaid, we have child nutrition reauthorization and WIC. What else?

>> I think I'm going to sort of echo Emma and Michelle. I think both of those opportunities are amazing and maybe what I'll do is broaden a little bit on what Michel had said. I want us to go at least in the short-term for all of those healthcare windows. So in addition to the waivers, would I really love to see more uptake of the flexibilities in Medicaid-managed care in lieu of services is a really really exciting opportunity that lets care organizations provide services outside of this state plan in lieu of those services, they are a sort of cost effective and appropriate substitute and we are seeing some efforts particularly in California right now to really leverage that opportunity to build in funding for nutrition services into their Medicaid system and I think that's really innovative and really exciting and I would love to see that more moving forward. And then of course my big exciting long-term goal is of course that baseline benefit, go in the front door, Medicaid and Medicare.
>> Sarah: Awesome. Opening the door to all the healthcare opportunities. Dr. Price or Dr. Chen?
>> I'm really excited about the focus on health outcomes as long as I think we sort of take advantage of the opportunity to make those community engaged research projects and I think that is going to be where we will find the happy medium that allows us to both talk about the benefits of these programs in a way that funders will appreciate and policy makers will appreciate and doesn't leave participants out of the sole purpose of the research that we are doing.
>> Sarah: Fantastic. And Dr. Chen?
>> I'll just speak to my earlier point. We need all fronts. Where I am putting my work in and think as a healthcare provider on the front lines, is the how-to. How do we engage health systems to think and work alongside food systems. How do we engage food systems work and healthcare. And so it's really the road map, the recipe, the implementation practice of how to do this. Knowing that policy's going to take time but building the infrastructure on the ground takes time. Building an understanding and a mindset shift among healthcare leaders takes time. And it's a decision at the end of the day not only about dollars, but it's about vision. And decision making and leadership. Because you can make the value proposition, the ROI as we try to do in healthcare in our county, and some organizations will buy it and some won't. Because, you know, it just kind of where is your mindset? So opening the mindset so that you can do the implementation on the ground is an important opportunity.
>> Sarah: Well we have been so lucky and fortunate to have all of you on the call with us today. We hope that you all can see on the slide here, the links to the report, they are available for download. You can also connect with us online. You can sign up for our listserv. We are going to be sending out to the mailing list all updates about how these recommendations are taken up, implemented, what are the discussions around these topics as we move forward. And we are just so grateful for everybody who has joined us in this either in providing some of our -- some of the information that has come -- that has been so valuable inputting these recommendations together and then also in committing to actually implementing and doing the work that everybody on this call mentioned today. We have a lot to do. And I think we have a great group of folks and so for all of you who have been evangelized today to join us, there are lots of ways to

do that and we will make sure we keep you informed of all of them. Thank you so much. Thank you to Rockefeller and to my wonderful colleagues on this call for their remarks today. And we hope that you have a wonderful rest of your day and that you will see produce prescriptions in your become yard very shortly.