

## **Rutgers Around the World - Episode 14: Dr. Sackey – Food Insecurity**

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**HOST:** The following is a production of Rutgers Global.

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**HOST:** Welcome to Rutgers Around the World: The podcast with the finger on the pulse of all things Global at Rutgers.

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**HOST:** Today we are pleased to welcome Dr. Joachim Sackey to Rutgers Around the World. Dr. Sackey is an internationally renowned nutritional epidemiologist with interests in food insecurity, HIV related co-morbidities associated with poor diet, as well as racial and sexual minority health. Dr. Sackey's research achievements have been a profound global impact on the field of nutritional epidemiology, both in the US and abroad. Dr. Sackey currently conducts research in Newark, Botswana, and Senegal. He is currently an assistant professor in the Department of Clinical and Preventative Nutrition Sciences at Rutgers University School of Health Professions and Rutgers Biomedical and Health Sciences. He is also affiliated with the Department of Urban Global Public Health at Rutgers School of Public Health and is a core faculty member of Rutgers Global Health Institute.

In this episode, Carlo Santoro, a senior international faculty and scholar advisor at Rutgers Global, will be speaking with Dr. Sackey about his work. Here's Carlo.

**CARLO SANTORO:** Dr. Sackey, perhaps you can start out with the outline, and then maybe I'll begin with a question.

**DR. SACKEY:** So here's an outline of the presentation, I'll speak a bit about my journey and how food security, which is the main topic, is defined and measured. And then I'll speak about some statistics related to food insecurity on the global, federal, and local levels, go into some solutions to address this issue and then end with like a couple of studies we've done among some vulnerable populations, subgroups.

**CARLO SANTORO:** Dr. Sackey, you have a very impressive resume reflecting diverse experiences that have brought you to where you are today. Tell us a bit more about the journey from your origins to your current position as a renowned expert on food insecurity.

**DR. SACKEY:** Studying traditional Food Science, and then went on to do Dietetics for my Master's, and then after a while I wanted to get more into those areas, that side of things. So, I got a chance to go to Tufts to study Nutrition Epidemiology and I did my M.S. and PhD there, and then a few years after I completed my PhD, I joined Rutgers in the School of Health Professions, where I'm on the teaching track, and then I'm also an adjunct at the Tufts School of Medicine and I also teach in the School of Public Health.

And here are some courses I teach in America. I teach in statistics and nutritional epidemiology courses. I also teach global and public nutrition, as well as other research courses and I give some lectures to the infectious disease fellows in the New Jersey Medical School as well. And in terms of research, my research also revolves around food insecurity and how it impacts cardiovascular diseases, social factors, as well as genetic, and I study groups, people with HIV, those who identify as LGBTQ+, college students, and I started a pantry at Rutgers that I'll speak about too.

**CARLO SANTORO:** So, Dr. Sackey, many of us are familiar with the term or have heard the term food insecurity, but perhaps we may not know the actual definition of the term, and especially the reality of the issue. Can you please provide some clarity on this topic?

**DR. SACKEY:** I have two definitions of food security like the UN definition, as well as the US Department of Agriculture definitions. So, the UN's definition speaks about how all people at all times having access and access could be physical, it can be economic, it could be social, sufficiency, and nutritious food, that meets their preferences and dietary needs, and the USDA definition is somehow similar and also speaks about having food in a socially acceptable way.

So those speak about the dignity of how a person acquires food, and there are four main dimensions of food security. So having availability of food, being able to utilize their food safely, so like some safety issues, and then having access, not just physical access, but economic access to food, and then having all these dimensions in a stable manner so that you don't have to worry about any of them. In different parts of the world, all four pillars have issues that should be dealt with, but in the U.S., food insecurity is mainly an issue of economic access, it's a poverty issue. It also applies globally, but in the U.S. it's only a poverty issue. And in terms of how food security is measured in the U.S., the United States Department of Agriculture, is the Household Food Security Survey model to measure food insecurity. In other parts of the world, the HFIAS, the Food Insecurity Experience Scale, and the Household Hunger Scale. Having your scales or questionnaires or tools that are used to measure food insecurity.

And a lot of studies have shown that being food insecure is associated with so many health outcomes. So, this is a graphic from Feeding America, which shows being food insecure impacts that growth of children, is actually associated with higher healthcare costs and utilization, and also missed workdays and lower income, so there are health implications and financial implications.

**CARLO SANTORO:** Many international organizations have addressed the issue of food insecurity, including the Food and Agriculture Organization of the U.N., The International Fund for Agricultural Development, UNICEF, and the World Health Organization. Can you give us a snapshot of food insecurity on the global level?

**DR. SACKEY:** Before the pandemic even happened, the COVID-19 pandemic happened, the world wasn't on track to meet its commitments to end world hunger, and unfortunately, the COVID 19 pandemic worsened things and has made this goal more challenging, so hunger has increased, and it's estimated that about 800 million people in the world were hungry in 2020.

And food insecurity is you might not have the food you want or enough of what you want, but hunger is hunger, meaning that you have nothing to eat, and in less resource parts of the world, hunger is a huge issue that we are dealing with. Most of them are in Asia, followed by Africa, and in more resource parts of the world, like North America, is just a tiny proportion of people who are undernourished, and over 3 billion people in the world could not afford a healthy diet, and even though this is 38.3% of the world, there is a lot of disparity. So, throughout my talk, I'll speak about disparity on a global level, federal level, and local level. Also, if you look at it by continent, about 74% of people in Africa could not afford a healthy diet compared to just 3.7% in northern America and Europe.

And if you think back to the dimensions, when I mentioned poverty being the main driver, when the world is grouped, countries grouped by income levels, you realize that it's not like it's not an Africa issue. It's a poverty issue because low-income countries, 86% of people can't afford a healthy diet compared to high income countries, where it's just 3%, so it's like the disparities is a resource issue. To solve food insecurity of food issues, we can't just give food, like there are other factors that need to be to be to be tackled alongside, so the environment is very important. In many parts of the world where farmers rely on their rain, changing climate is causing a lot of problems, social protection issues, later I'll speak about how food insecurity is not just a food issue, it goes beyond food. Health is key, and in the U.S., a lot of people have bankrupted or become food insecure when they incurred medical debt, so addressing health systems will have an impact on our food as well.

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**CARLO SANTORO:** Well, this is a very complex and multifaceted issue. I mean, these are all very compelling statistics. Dr. Sackey. Can you elaborate on the issue of food insecurity and perhaps the contributing factors in the United States?

**DR. SACKEY:** So, in the United States, as I mentioned previously, the USDA, the most recent data showed that there was a non-significant drop in food insecurity prevalence from 10.5 to 10.2% between 2020 and 2021. But when you look at households with children, there was a significant drop from 14.8 to 12.5%, and part of this is due to the various measures that the

federal government put in place during the COVID 19 pandemic, including making school meals free universally, social initiatives that helped reduce food insecurity in households with children.

8.3% of people living in New Jersey were food insecure, or in some counties like Cape May, Cumberland, Essex County where Newark is, the prevalence is 10.7% and above, and there are other counties within the state where the prevalence is as low as 5.2%. And because I'm based primarily in Newark, I just wanted to spotlight this report by the New Jersey Economic Development Authority put out, looking at communities that might be food deserts, which could get some targeted interventions, and after ranking them, all parts of Newark in New Jersey, where I am located, four is in the top ten of food deserts. So, every part of Newark is in a food desert, so that shows you the kind of people who need to help and if we are thinking of targeting resources, we need to look at communities like Newark.

**CARLO SANTORO:** Wow, we have food insecurity right in our own homes, which is very eye opening. So, Dr. Sackey, we're getting the sense that there are many different factors contributing to food insecurity. Can you please elaborate on some of the other causes and perhaps touch on possible solutions?

**DR. SACKEY:** So, like I said, food insecurity is not just food, and there are other things that are related to it, and to solve food insecurity, all these other issues have to be addressed as well. Just, I want you to visually focus on the states with food insecurity, prevalence above the national average, a lot of these states have the lowest minimum wage as well, so a lot of these states with higher food insecurity also have higher obesity levels, these levels are in the 35 to 40% range. And a lot of these same states with high food insecurity levels also fall in the fourth or bottom quintile in terms of access to healthcare, so food insecurity is linked with health, it's linked with income, it's linked with obesity, it's linked with so many other things, and all those things need to be considered as we think of solutions.

So, there are some direct policy solutions that can be taken on a federal level to solve food insecurity. One is strengthening the federal assistance programs, primarily SNAP, which is like the first line of defense. So improving SNAP, expanded SNAP benefits, and COVID, which was very unfortunate, but it provided the grounds for a huge natural experiment where it showed that when all children were getting meals free, like it improved happiness, it improved their learning, it's reduced food insecurity, so that is something that we've shown that it works, now its gone back, it's something we need to advocate for us to be interested in health, and then improving SNAP and other programs like the existing nutrition programs will also directly improve food insecurity. We also need to advocate to the federal government and to those in Washington to direct like investments better.

Currently, the housing insecurity, like increasing the rent, inflation, for all those things, and needing to make that difficult decision of do I pay my bills or do I buy food? If I'm buying food, I have to buy what I can stretch my money to get a lot, that will last a long time, and that's

where people aren't ready to consider fruits and vegetables and other healthy foods as they should.

And then things like universal health care when you wouldn't be the medically indebted and that's the impact of food insecurity. Fiscal access is an issue, so when a community is not safe, businesses are not going to invest there, and then they don't have access to healthy food. If we have safe communities, people will be more active, they go out to walk, businesses would invest in more, grocery shops would open, and it would help the food security issue.

And then on an individual level, there are things we can all do as individuals. So, for those who work in like health facilities, screening clients, screen patients who come to the hospital for food insecurity, and then having resources to either provide them food or refer them to nearby food pantries or soup kitchens, would help food insecurity. We can organize food drives on Rutgers, or wherever it is we are, or wherever we work, and donate it to various food pantries, or we can, for clinical settings, we can have food packages that we can give out to our clients who are food insecure.

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**CARLO SANTORO:** Could you elaborate a bit more on food waste and how this relates to food insecurity and what kind of synergies can be created between the two issues to find solutions?

**DR. SACKY:** Food waste is a big issue because you have even in Newark, which like I said, all of Newark is in the food desert, where the restaurants and grocery store shelves throughout where lots of food that is healthy, that people would eat and they don't have access, so there's always a food safety issue, and after a while, it might be safer to throw away even when people could eat that food, so I know the food bank gets a lot of donations from various industries and grocery shelves, for example, where the things are almost expired and they donate it to the food bank, and the bank donates to like food pantries. And then there are also food rescue initiatives. I think there might be one in Rutgers–New Brunswick even where, for example, events are held as food that's not always used, and instead of it being wasted, it's rescued and delivered to nearby kitchens, or a lot of these are happening on like a local level. By having stronger policy to streamline things, we'll be healthier

**CARLO SANTORO:** How can individuals and communities explore solutions to the food desert issue on a state level?

**DR. SACKY:** We need to advocate to their mayors, to those on the various city councils, to those in trying things like laws are passed to improve this. And at the same time, if, for example, a community is not safe, like I said, it's very difficult to encourage businesses or grocery stores or food shelves to come and open up there. So, that aspect of it too has to be addressed, but all we can do is to advocate, advocate, advocate, advocate. There are some

communities where they come together to do that, like start an urban farm or a small community garden, and then they sell it to like farmer's markets in open places, and then they graduate to like physical grocery stores. But those are all individuals that look out there that people that advocate and there's more resources that are invested in massive communities, that's what would help a lot.

**CARLO SANTORO:** Dr. Sackey, Is food insecurity more prevalent among certain groups in our society? And if so, how does it affect these specific groups?

**DR. SACKEY:** So even before the pandemic happened, those identified as LGBTQIA+, were found to have higher risk of food insecurity compared to the rest of the population, and in the last study conducted in 2017, but this report was in 2020, they found a prevalence of 26.7%. So if you remember, the federal prevalence this year is 10.2, but before then it was 10.5, so this was more than double. And even within LGBTQIA+, there are various disparities. There's a disparity by age rise, with the prevalence of food insecurity among those 18 to 34 being more than twice that of those who are 65 or older, compared to the young people, where some of them, when they come out as LGBT, and some of them lose their support and their families, some of them lose housing, some of them with relative stigma and things, and some of them drop out of school or they struggle to get back into the workforce, and so they are more vulnerable to food insecurity. And then there are also like racial-ethnic disparities, and so, for example, the prevalence was highest in non-Hispanic blacks and followed by non-Hispanic multiracial people. So in the study, we found that 40% of the sample were food insecure and that was even higher in the trans study, where it was like 56%.

And in terms of cardiovascular disease risk factors, the sample in both studies were young, about 30 years of age, but their body mass indexes were quite high, so if you look if you combine overweight and obese, over 50% of participants in both studies were overweight or obese, which increases the risk of cardiovascular disease and then LDL cholesterol, or low density lipoprotein.

**CARLO SANTORO:** Dr. Sackey, do you see any problem of food insecurity affecting other groups that we may not even suspect?

**DR. SACKEY:** So that's next, the food insecurity among college students, who are another population that my research focuses on, where people have this idea of a college student, you know on campus, and they're having fun, but there's a lot of food insecurity in this population as well, and before the pandemic happened, food insecurity prevalence was consistently higher among college students compared to the rest of the country, so just remember the USDA prevalence of 10.5 or 10.2% here. Here, this has a couple of reviews that were published in 2017 and 2019 that shared a prevalence of food insecurity about 40% among college students, like almost four times the national prevalence, and the studies supposedly shows when college students are food insecure, it's impacts academic work, it impacts their financial independence, and it impacts that health as well.

So, I've also done a couple of studies in RBHS in 2020 and 2021, where we looked at food insecurity. The prevalence in 2020 was almost 30%, which was slightly lower in 2021 by 22%, but still double the national average of 10.2%. And in the last study in 2021, like 15% reported how the pandemic had increased their level of food insecurity. So, both studies we did in RBHS, as one shared with the Office of the Chancellor, and he gave approval for us to start a food pantry for the RBHS campus. This is Rutgers–Newark has the student food pantry, Camden has the student food pantry, New Brunswick, where I am now, has a student pantry, but RBHS in Newark did not have anything.

So, we opened in 2021, once a week and as of September, we had given out 105 pounds of food. We had saved about 13,000 individuals and given out a lot of diapers and wipes and non-food products. We also assist with SNAP enrollment, so if a student is food insecure and might be eligible for SNAP, we work with them and then we refer them to experts at a community food bank who help them apply for SNAP.

And we are open to all students, faculty, and staff, like you don't need to prove need. Just come, come get food. Everyone needs help sometimes. This pantry run at Rutgers–Newark, then in New Brunswick, there is a Rutgers student food pantry on College Ave, and then Camden has Raptor pantry. And so, with this quote from Martin Luther King, when he was accepting the Nobel Peace Prize long ago, where he had been destined to believe that people everywhere would have three meals a day for the bodies and education important for their minds.

If you just focus on the three meals a day, that is very sad that it's 2022, and that this is America. More food than is needed is produced. A lot of food is wasted, and yet for some people their three meals a day is not a reality, it's not a consistent reality. So that's just food for thought for us to think, like in the United States, food insecurity is very solvable.

**CARLO SANTORO:** Dr. Sackey, that was just an amazing presentation. You've given us so much information, so much food for thought. We thank you from the bottom of our hearts for this very successful and very impactful presentation. I think we're all going home a little bit richer because of what we learned today. Good evening, everyone.

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**HOST:** That's all for this episode of Rutgers around the world. Be sure to visit our website at [global.rutgers.edu](http://global.rutgers.edu) for episodes and more information on everything global at Rutgers.

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