**Moderator:** Illinois State Senator Mattie Hunter, Midwestern Regional Director, WIG Board of Directors

**Panelist:** Dr. Debra Sierka, PharmD., Head of Dermatology, US Medical Affairs, Sanofi Genzyme

**Panelist:** Dr. Gary Puckrein, Ph.D., President, National Minority Quality Forum (NMQF)

**Panelist:** Kenny Mendez, CEO and President, the Asthma and Allergy Foundation of America (AAFA)

**Voiceover:** Welcome to the Women In Government Podcast. Whether discussing important issues or policies of the day, this is the place where lawmakers and decision-makers unite to get the conversation started.

**State Senator Mattie Hunter:** People living with type 2 inflammatory diseases often feel limited by unpredictable symptoms and isolated in their experiences. For example, the condition can contribute to the debilitating itch of atopic dermatitis or AD, and sometimes life-threatening asthma attacks, or the loss of smell and taste associated with chronic rhinosinusitis or CRS with nasal polyps. Living with these chronic diseases and searching for control, people have looked for answers and found few. I know this because I suffer with asthma myself as well as CRS.

Hi, I’m State Senator, Mattie Hunter from Illinois. Thank you for listening to the latest Women In Government Podcast, *Type 2 Inflammation: Health Disparities and Impact on Minority Populations*. Last year, we examined how people can have more than one type 2 inflammatory disease. This time, we’re shedding some light on the health disparities of this chronic condition, the disproportionate impact on minority populations, and the prevalence of this disease across the country.

Joining the conversation is Dr. Debra Sierka, Head of Dermatology, U.S. Medical Affairs at Sanofi. She has spent 20 years developing and leading medical strategies across multiple disciplines and organizations resulting in impactful medical and commercial outcomes.

**Dr. Debra Sierka:** Thank you for the introduction, Senator. Sanofi is honored to be partnering with Women In Government to continue to bring awareness to type 2 inflammation. Furthering the conversation to help inform public policy and positively impact the lives of patients who live with type 2 inflammation is an important shared goal.

**State Senator Mattie Hunter:** We also have Dr. Gary Puckrein, Ph.D., President, National Minority Quality Forum or NMQF. The organization’s mission is to reduce patient risk by assuring optimal care for all.

**Dr. Gary Puckrein:** Hi everyone, this is Gary Puckrein, National Minority Quality Forum. Glad to be here.
State Senator Mattie Hunter: Kenneth Mendez, better known as Kenny, is also on our panel. He’s CEO and President of the Asthma and Allergy foundation of America or AAFA. Since joining AAFA, he has led the organization in establishing a new multi-year strategic plan that emphasizes dramatically reducing the impact of asthma and allergies on the underserved and tripling the size of the organization’s online asthma community.

Kenny Mendez: Hi. It’s good to be here and thanks for having me.

State Senator Mattie Hunter: Finally, I want to take a moment to thank everyone who is listening and remind you to like or share our podcast. You can also connect with us by visiting womeningovernment.org

The lack of awareness of type 2 inflammation means people may not fully understand their disease or diseases, how they’re connected, and the therapy options available to them. Dr. Sierka, as we begin the conversation, now would be a great time to get an overview of type 2 inflammation. What is it and where does it come from?

Dr. Debra Sierka: Well, type 2 inflammation is a normal part of the body’s immune system. It’s key in fighting off certain kinds of infections. In some cases, though the exact mechanism is not really understood, genetic factors and environmental triggers lead to a kind of overactive immune response in the body. This overactive response results in excessive type 2 inflammation which manifests as an increase in the production and activation of white blood cells and other types of immune cells, production of certain kinds of allergic mediators like histamine which can lead to itch, and ultimately inflammation in specific tissues of the body. These processes are all components of type 2 inflammation and are the basis for a range of chronic inflammatory diseases.

State Senator Mattie Hunter: As the doctor said, type 2 inflammation is a normal part of the body’s immune system and is important in fighting off certain kinds of infections. It’s the overactive response which may lead to disease. What diseases fall under type 2 inflammation?

Dr. Debra Sierka: The diseases related to type 2 inflammation are characterized by an immune dysregulation and dysfunction of epithelial barriers, like the skin or airways in the lungs or nose, which can lead to swelling, itching, pain and mucus production depending on the part of the body that’s effected.

The most common diseases resulting from excessive type 2 inflammation are a kind of eczema called atopic dermatitis or AD, asthma, and chronic rhinosinusitis with nasal polyp. More recently, emerging science around type 2 inflammation assumes that it is a component in the development of other chronic inflammatory skin diseases. Specifically chronic spontaneous urticaria or CSU, and prurigo nodularis. And even a gastrointestinal disorder known as the Eosinophilic esophagitis or EOE. We also know that these diseases often coexist. For example, about 75 percent of patients with EOE have at least one other type 2 inflammatory disease.
Senator, I recall you mentioning that you have at least two type 2 inflammatory diseases; asthma and chronic rhinosinusitis. So, you know first-hand what it’s like to live with these diseases.

State Senator Mattie Hunter: Wow, I’m learning a lot myself. So, Dr. Sierka, I know it’s complicated to answer in a holistic fashion given the wide range of diseases, however, what types of therapies exist for those living with these chronic conditions?

Dr. Debra Sierka: That is a complicated question. Traditionally the more mild forms of these diseases have been treated with therapies that aim to address the signs and symptoms of the disease in a local manner. For example, topical creams or ointments for AD, or an inhaler for asthma. These therapies are typically not effective for patients with the more moderate to severe forms of disease which in the past have been treated by adding systemic medications that would suppress the immune system in a broad manner.

More recently, advanced therapies like biologics have been developed to target type 2 inflammation without broad immunosuppression. Prescribing of these therapies is often limited by insurance though to a specialist. And they also require patients to step through or fail two or more different therapies before their covered. For example, a patient with moderate to severe atopic dermatitis may need to fail two different topical therapies before they would have coverage for a biologic. As you can imagine this practice can lead to delays in treatment and result in increased patient burden, and sometimes negatively impacts patient outcomes.

Kenny, I understand that AAFA is doing some work to address this issue. Can you tell us a little bit about that?

Kenny Mendez: Sure, as we said in the introduction, health equity and health disparities and asthma disparities is something that we’ve tried to amplify and focus on going forward. Black Americans are still three times more likely to die from asthma, five times more likely to be treated in an emergency room. Black women still have the highest prevalence of asthma mortality so that’s something that we have been working on and trying to partner with other organizations like Dr. Puckrein in order to create an asthma index for example, where we can target specific communities based on the data that he’s collected through the NMQF and put an asthma overlay on top of that so we can find those populations.

State Senator Mattie Hunter: Dr. Sierka, since we’re discussing health disparities of type 2 inflammation, can you tell us a few of the challenges in diagnosing patients in minority populations?

Dr. Debra Sierka: Certainly. In addition to some of the statistics that Kenny mentioned, we do know that some type 2 inflammatory diseases occur more commonly in certain minority populations. For example, African American children are 1.7 times more likely to have atopic dermatitis then their white counterparts. And blacks are 42 percent more likely than whites to have asthma.
Research has also shown us that there are differences in minority populations that can lead to challenges in diagnosis or how the disease presents. For example, there are definite racial differences in how patients present with AD. In addition to the overwhelming itch that’s really the hallmark symptom of atopic dermatitis, patients with skin of color often present with different signs of the disease. They come to the doctor with thickened or lichenified skin, dark circles under their eyes, and patches of hyperpigmented or darker colored skin. The severity of atopic dermatitis can also be underestimated in black patients.

One of the key characteristics used to assess the severity of disease is the amount of erythema or redness that’s present. Erythema as you can imagine is more difficult to assess in patients with darker skin tones than in those with lighter colored skin. It can appear more violet or grey-ish rather than red or pink. Because of this, the degree of erythema can be underappreciated and that can lead to a prevention of early diagnosis or underestimation of the severity of the disease, and ultimately, potentially lead to a delay in access to advanced therapies.

**State Senator Mattie Hunter:** Many people living with type 2 inflammation experience substantial impacts on their everyday lives, which increases with disease severity and in the presence of multiple coexisting diseases. For example, around 162 nights of sleep per year are disturbed in people with severe AD. Up to 67 percent of people with CRS with nasal polyps have impaired sense of smell, and up to 50 percent of people with severe asthma have symptoms of depression. Dr. Puckrein, the National Minority Quality Forum has robust data on the prevalence of asthma across the country. Can you briefly explain the work you’re doing to identify areas most affected by asthma?

**Dr. Gary Puckrein:** The National Minority Quality Forum, we have been collecting health data now for about 20 years. We have a database of over 5 billion patient records, we collect data on about 160 million lives per year. We got started because what we understood, there are roughly 38 thousand zip codes around the country where people live. 70 percent of African Americans lived in 25 hundred zip codes. And so, what we wanted to understand was what was happening in those 25 hundred zip codes, particularly for a disease like asthma and what we find is that if you take the Medicare fees and service program, an African American beneficiary with asthma is 73 percent more likely to be hospitalized or have an emergency room visit then their white counterpart.

This has been going on for years, and the challenge is that programs like Medicare have not interceded. They’ve not organized and tried to understand, why are we seeing these disproportionate outcomes in minority populations? And so, we take our data, and we aggregate it up by congressional and state legislative districts and we partner with groups like Kenny’s because we try to bring an end to these disparities and the only way that we can do that is to localize them, try to understand why these patterns exist, and look for ways to break them.

**State Senator Mattie Hunter:** Five billion patient records. That’s a lot of research. What does your data show with regards to asthma?
Dr. Gary Puckrein: What the data is really telling us is that the outcomes that we see in minority populations are really a function of the care that’s being given in these programs. When you take an African American with asthma for example, and then you apply step therapy or prior authorizations, all you’re going to do is elevate their risk. To give you an example of what that risk looks like, again Medicare fee-for-service about 200,000 African Americans were being treated with asthma, they have 600,000 hospitalizations in emergency rooms each year. And that’s a function of how the system is performing.

And so, what we’re trying to do is to help members of congress understand what’s happening to their constituents as well as state legislators because these are the fiduciary agents. They have the people who can bring change to these programs, and what we’re trying to do really is to see how we can eliminate these disparities.

Kenny Mendez: Can I just chime in there to add to what Dr. Puckrein said? Asthma costs the healthcare system each a billion dollars annually and if we know that there’s health and equity in black populations, underserved populations are more likely to be hit by asthma. Then that’s a win-win situation if we can improve outcomes in those communities, and then also save money for the healthcare system so, I just wanted to add my two cents in that.

State Senator Mattie Hunter: Dr. Puckrein, what are the biggest challenges from the data you’ve collected?

Dr. Gary Puckrein: Well, first of all I think one of the biggest challenges is not really in the data, it’s really creating the will to try to do something about these outcomes. Particularly in minority populations. We actually have the science. I mean we’re getting smarter and smarter. We have the capabilities of bringing down these numbers, but we’re not doing it and so part of the pressure that needs to be brought that there’s really advocacy and certainly working with organizations like Kenny’s that are going into the community and trying to do something about these problems.

We’ve spent a lot of time looking at these numbers and going to a lot of meetings and these numbers are always called up and kind of admired and shocked. But at the end of the day, we really have to do something about them. So, I think the place to start is really the collective will to say, “Okay, enough is enough. We need to go in these communities and find out exactly why we have these elevated risks and how do we reduce the risk?” Because the point of healthcare is to reduce risk. That is its point. And so much of the time we end up talking about financial risk and what things cost, that we lose sight of the patient. And really for healthcare the most important thing is reducing the patient’s risk.

State Senator Mattie Hunter: The majority of our listeners are people in a position to create change and help communities live healthier and happier lives. How can policymakers use this data to address asthma concerns in their districts?
Dr. Gary Puckrein: What we try to do with policymakers is help them understand what's happening to their constituents. All politics is local and it’s important that they understand the impact of policy and the practice of medicine in their district. They can create change, they can set programs and policies in place that reduce the risk that these patients are experiencing, and we really do encourage them to do that. We are coming to the place now where these outcomes are controllable. There’s no reason why an African American with asthma has a three times higher risk for a hospitalization or an emergency room visit, then a white beneficiary. They have nothing in the gene pool that’s doing that, and the excuse about social determinants; that doesn’t explain it. What explains it is, we’ve decided for whatever reason that we’re not going to put policies in place that effect change and that’s what we’re encouraging the legislators to do.

State Senator Mattie Hunter: Recently, the National Minority Quality Forum partnered with AAFA. The goal of the partnership was to provide data to help reduce asthma disparities among minority groups. The organizations previously worked together on the Asthma Disparities in America report. Kenny Mendez, CEO and President of AAFA joins the conversation. Health disparities are a major strategic focus of this organization. Can you tell us about AAFA?

Kenny Mendez: Sure, the Asthma and Allergy Foundation of America or the acronym is AAFA, we’re the oldest and largest non-profit patient organization for the 65 million people with asthma and allergies in the United States, and we’re dedicated to saving lives and reducing the burden of disease through education advocacy research and support. We've got a very large and active online community, so that’s part of the programmatic work that we do. But as we mentioned earlier; health equity, asthma disparities is very much a focus of our organization since I’ve been there. And as Gary said, “We want to stop admiring the problem and actually do something about it.”

State Senator Mattie Hunter: On the surface, AD; a chronic skin condition, and asthma; a respiratory disease, may not appear to have much in common, but both are driven by type 2 inflammation. What type of policy work have you been doing to help asthma and patients with AD understand their chronic health condition?

Kenny Mendez: Our guiding principles for chronic conditions impacting our community type 2 AD, asthma; we want to promote access to affordable quality healthcare for diagnosis treatment and management. That’s a no-brainer. But then continue funding for basic clinical preventative and health services research and promoting prevention screening and lifestyle interventions that help people with chronic conditions. So, we could talk about some policy issues but for example, home visits for people with asthma. You could get upstream interventions by removing some of the indoor triggers like mold, dust mites, other things by going into those communities and trying to have those things fixed so people don’t have asthma attacks.

State Senator Mattie Hunter: I understand some gaps remain the same with regards to asthma, when compared to what they were about 15 years ago. The numbers speak for themselves. Black Americans are three times more likely to die. Black Americans are five times more likely to be treated in an
emergency room. Black women have the highest mortality rate from asthma of any ethnic group. What are the challenges for patients to access specialists and treatment?

Kenny Mendez: Yes, thanks for amplifying that. It really is access to specialists is one of the key criteria we look at. We’ve published an allergy capital and an asthma capitals report and access to specialists is really critical in that. And to the extent that there are these deserts and places where specialists aren’t available, then the care suffers. So, then you have to have specialty clinics where people can go and then identifying people who have asthma within those clinics and feeding them into a program to get supported hopefully by strong policies that encourage reimbursement for home visits as I just mentioned and other aspects that try and prove health outcomes.

State Senator Mattie Hunter: Do you have any special programs that assist patients who have health challenges that fall under type 2 inflammation?

Kenny Mendez: One of our primary offerings is our free moderated online community. So, if you go to our website aafa.org/join, you can join for free, where anyone who’s newly diagnosed can find others to support them from the community members within AAFA and then we also have AAFA staff there. We also have AAFA allergist area of our website where our medical scientific counsel of practicing clinicians can answer questions that are just submitted to them. And then we also have programs like online learning programs, asthma care for adults where users can take courses and learn more about their chronic conditions. We do webinars as well with respect to AD and other type 2 chronic conditions.

State Senator Mattie Hunter: AAFA ranks the states that have the best public policies for people with asthma, allergies, and related allergic diseases in U.S. elementary, middle, and high schools. The State Honor Roll report provides an overview and comparison of state-level, school-related asthma and allergy public policies and highlights areas where educators, families and legislators can improve policies and practices. Can you tell us which states top the list and what they’re doing right? How about the states that could use a little help, what can they do better?

Kenny Mendez: The way that honor roll works is we look at 23 core policies and I’ll give you an example of a few of them in a second. But there are a limited number of states; Connecticut, Delaware, the District of Columbia, Illinois; your state Senator, Indiana, and then Massachusetts, Mississippi, New Jersey, New Mexico, New York, North Carolina, Rhode Island, Vermont, Washington, and West Virginia. So, those are the ones that meet all the 23 core policies that we have. So, there are 50 states as you can see, there’s a big gap there.

And we include the core policies under medication and treatment. That’s one big area. The other is the school environment and those are the two main areas, and I’ll give you an example of specific policies within them. One is the self-administered prescribed asthma medication in the classroom, self-carry and self-administer prescribed anaphylaxis medication, having policies in the schools like that are really important in the State Honor Roll report. And then in the school environment, having indoor air quality management policies for example are what get you on that list. Having HVAC systems and other
important asthma and allergy management systems are part of some of their 23 core criteria that we include in that honor roll report.

**State Senator Mattie Hunter:** What other policy tools do you recommend to help patients address challenges related to type 2 inflammation?

**Kenny Mendez:** Well, in addition to visiting our website and getting educated on what some of the key issues are, we have an advocacy tool on our website that allows users to write their legislators, to directly support key issues for our community. There’re specific acts like we talked about step therapy, the safe step act. Other legislation advances premium tax credits which limit patients out of pocket costs. Continuous eligibility for benefits. Those are kinds of things that we advocate for, and you can visit our website and engage with us and then write your congressmen and your legislators directly.

**State Senator Mattie Hunter:** As we wrap up, I’d like to pose one final question to everyone on the podcast. How do you think legislators can shape policy to address this issue? Dr. Sierka, let’s start with you.

**Dr. Debra Sierka:** I think educating your colleagues and constituents about type 2 inflammation and the impact it has on communities of color and other underserved populations. It’s really important. But it’s also key to expand that dialogue to include access to advanced treatment options beyond topical therapies for AD and inhalers for asthma. As Kenny mentioned, there are disparities in access to specialists. And this can impact the ability to a patient to actually have that therapy that they need. Many states but not all have enacted legislation that addresses step therapy or fail first policies by insurance companies, that ultimately lead to delays in access to appropriate treatment and can negatively impact patient outcomes.

Educating yourself about your state stance on these policies and addressing them through legislation can help patients have access to the therapies they need to treat the moderate to severe forms of type 2 inflammatory diseases.

**State Senator Mattie Hunter:** Dr. Puckrein?

**Dr. Gary Puckrein:** I think one of the things that everyone ought to do is what we call precision policy, which is to get familiar with the numbers in your district to try to understand the hospitalization rates, the ER visits, the mortality that is occurring in your district for people living with asthma, and then take those numbers and see how you can improve them. Healthcare now is merely by the numbers, we have the capability to improve outcomes of the therapies that(?) are(?) there, but when you’re putting policies in place that limit access to therapies it may make financial sense but it’s not going to make any sense to the patient’s lives and to the lives of your constituents.

So, the answer is really, know your numbers and then use those numbers to really inform the policy. Because what you want to do is drive those numbers down, improve the quality of life while lowering
the risk for the patient in your constituents. Go to the hospital, go to the emergency room. We think that that’s good policy.

State Senator Mattie Hunter: Kenny?

Kenny Mendez: I’m going to take a little bit of a bigger picture approach and oriented towards health equity since that’s the major strategic focus for us. And there are four key areas in which I would really emphasize. Organizations like the CDC and funding for that is really important. They’ve got a national asthma control program, so increasing funding for that program which provides grants to states that for the State Honor Roll Report, various states can qualify for these grants if they adopt those policies. So, it’s a carrot and a stick thing there. And then there’s the Elijah Cummings Family Asthma Act. This bill was named in honor of its original co-sponsor Elijah Cummings, and it would create programs to better educate families on asthma management and prevention.

Then there are two more; the Improving Social Determinants of Health Act. That would allow the CDC to create a program to approve health outcomes that reduce inequalities in that public health system. And then the final one I just want to point out here is the Black Maternal Health Momnibus Act. That’s actually a set of 12 bills aimed at addressing the maternal health crisis and ending maternal deaths and closing the racial and ethnic disparities in maternal health outcomes. So, not quite type 2 but it does address the health equity issues that we’ve been talking about on this podcast.

State Senator Mattie Hunter: As for me, I got House Bill 158 signed into law back in April. My health care and human services pillar is primarily focused on creating a more equitable and inclusive health care system in Illinois. It will put a temporary halt to hospital closures, reform Medicaid managed care organizations, take steps to reduce maternal and infant mortality, improve access to mental health care and substance abuse treatment, and train medical providers to recognize and overcome implicit bias.

Now this may sound easy, but it was quite difficult and a major challenge for myself, my health sponsor to get this House Bill 158 passed. We had to bring together all of the advocates in those different areas. We had to talk to a hospital association. We had to work with our HMOs, and our managed care companies, the state healthcare, finance, and the Medicaid department. And we had to bring everyone to the table, and we had to hold numerous, numerous, numerous hearings during the pandemic. And it was quite challenging trying to figure out how to get all of these persons on board. But we managed with the help of our wonderful staff, we were able to overcome all of the obstacles that it took to draft this process.

We were able to accomplish this three-year goal within nine months, and it was quite an awesome process. So, we’re really happy about our accomplishments here in Illinois. Now, I’d like to provide some time for closing statements. Dr. Sierka, can we start with you?

Dr. Debra Sierka: Thank you, Senator. First, I would really like to thank you for involving Sanofi in this conversation. I’d also like to remind our listeners that type 2 inflammation can occur in several parts of
the body, and result in a range of diseases that on the surface may seem to be unconnected. But they actually are connected by that underlying pathology type 2 inflammation.

These chronic inflammatory diseases can impact patients and their families significantly, especially if not treated adequately. Sanofi is committed to working with legislatures, patient advocacy organizations and others to foster access to healthcare for underserved populations. This includes supporting research to address existing data gaps impacting minority populations, as well as the efforts to ensure all patients have access to advanced therapies. Addressing the topics we have touched upon today will help to mitigate known health care disparities related to type 2 inflammation.

**State Senator Mattie Hunter:** Dr. Puckrein, any final thoughts?

**Dr. Gary Puckrein:** I will close with this thought. Health policy is now a branch of medicine. It determines access for patients, or your constituents and the decisions you make follow the patient into their clinical setting with their doctor. And so, you need to think long and hard about the policies that get presented. But even more importantly, what you want to try to do is bring about improvements to help your constituents live longer, healthier lives with asthma. And your policies and the policies that you consider will have a dramatic impact on their lives. So, think of yourself as part of that healthcare continuum and you’re really setting up the environment around which people living with asthma can find appropriate care.

**State Senator Mattie Hunter:** Kenny, how about you?

**Kenny Mendez:** Sure, I’d say first putting in a plug again for the listeners here, visit our website to learn more about type 2 conditions; asthma and allergies. There are 65 million Americans with asthma and allergies, and we’ve got a lot of great information there so people could help manage their chronic conditions. But getting back to health equity, I would say partnerships. We can’t do it alone. This is a heavy lift for us and again as Gary said, “We can’t just admire the problem, we have to have the political will to do something about it.” Which is one of the reasons why Gary and I have partnered together to do this asthma index. (Music) So, I think to the extent that we can all work together and try and push forward to make changes in the system, I think we’ll all be better off, and we’ll actually improve costs in the healthcare system.

**State Senator Mattie Hunter:** Genetic, environmental, and other physiological factors play a role in the presence of type 2 inflammation. Many of its diseases can affect both physical and mental health, with the severity of burden increasing when diseases are coexisting. People with inadequately controlled moderate to severe type 2 inflammatory diseases commonly experience frequent and debilitating disturbances and mental health issues. When we factor in health disparities, we see the overall impact on minority populations. Now’s the time for policymakers and industry leaders to get to work and support measures to address type 2 inflammation.
I’d also like to thank all the listeners for taking the time to hear this important discussion. Don’t forget to subscribe to, like, or share our podcast. You can find more information by visiting womeningovernment.org.

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