

A close-up, profile view of an elderly woman with short, wavy grey hair. She is looking off to the right with a thoughtful expression. The background is a soft, out-of-focus indoor setting.

## **Why Are Native Americans Losing Limbs Faster Than Others Living With Diabetes?**

This 2023 comprehensive report unravels the complex diabetes dilemma behind this alarming trend.





## BACKGROUND:

**Podimetrics** is the creator of the Podimetrics Remote Temperature Monitoring System and an integrated clinical care services provider. Founded in 2011, this patient-centric company aims to help save the limbs and lives of patients living with complex diabetes — especially the most vulnerable populations. That’s why we wanted a deeper understanding of the Native American community’s experience living with type 2 diabetes.

Surveying over 400 people, this comprehensive study aimed to explore the impact of this condition on their lives, understand the obstacles they face, and delve into their perspectives on their care experiences as heard from them.

### *What we set out to learn:*

- 1 Native Americans’ experiences with medical emergencies, complications, and amputations
- 2 What support Native Americans receive for their social determinants of health (SDOH)
- 3 Native Americans’ attitudes and adaptability toward technology, such as remote patient monitoring devices to manage their health
- 4 Their perception of healthcare and access to quality care

## EXPLORING THE DIABETES EXPERIENCE: *Why it matters*

Over 37 million Americans live with diabetes, with type 2 diabetes accounting for 90%-95% of all cases.<sup>1</sup> Even more shocking, it's estimated that **over 1.3 BILLION PEOPLE will have diabetes by 2050.**<sup>2</sup>

These numbers become even more concerning when considering specific populations. Untreated or uncontrolled diabetes can lead to debilitating complications, such as diabetic foot ulcers and infections that can result in amputations. Plus, it increases the risk of more severe conditions, including cardiovascular disease, end-stage renal disease, and even death.

Gaining a deep understanding of the well-being of Native Americans managing diabetes helps us understand their daily challenges more clearly. Armed with these valuable insights, healthcare providers and payors are empowered to offer patients more personalized approaches to care to address their distinct needs and enhance their overall quality of life.

### NEARLY 1 OUT OF 6

American Indians/Alaska Natives has diabetes.<sup>8</sup>



Native Americans are **2X MORE LIKELY** to experience diabetes-related complications.<sup>9</sup>

## UNVEILING THE DIABETES DISPARITIES: *Native Americans at highest risk and seeking solutions*

The prevalence of diabetes varies significantly among different races and ethnicities, with Native Americans having the highest risk of diabetes compared to other racial groups. **Native Americans have the highest diabetes rates among all racial groups in America, at 14.5%.**<sup>3</sup>

“Native Americans have a greater chance of being diagnosed with diabetes than any other racial group,” says Dr. Janet Simon, executive director of the New Mexico Podiatric Medical Association and a podiatric physician who has served Native Americans in New Mexico for nearly 30 years. “Massive challenges related to poor access to care, a growing healthcare provider shortage issue, and long-standing lack of prioritization specific to identifying patient challenges — like lack of transportation or homelessness — only further compound an already dire situation that is leaving far too many Native Americans living with diabetes without the care and support they deserve.”

The impact of this problem on overall health is tremendous. Diabetes is also the most significant cause of kidney failure for Native Americans.<sup>4</sup> This same population is at a greater risk of developing peripheral arterial disease (PAD)<sup>5</sup> and experiencing a lower-extremity amputation (LEA).<sup>6</sup> Remarkably, previous peer-reviewed studies have shown that the occurrence of LEAs among Native Americans with diabetes can be up to 160 times higher than those without diabetes.<sup>7</sup>

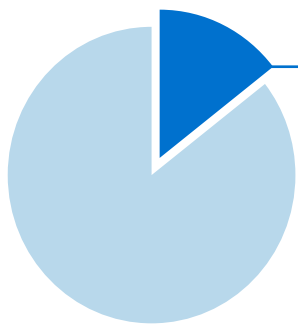
The Indian Health Service (IHS), an agency within the Department of Health and Human Services, provides federal health services to American Indians and Alaska Natives. Over 85% of hospitalizations for LEAs in IHS are among patients with diabetes.<sup>7</sup>

Although the IHS has implemented a population- and group-based approach to assist Native Americans, yielding some positive impact, disparities persist within the Native American population compared to other groups.

With the advancement of technology and the improvement of clinical coordination services, we are better equipped than ever to tackle the challenges this population faces — and we owe it to them. However, to develop smarter approaches and allocate resources effectively, we need a deeper understanding of the needs, challenges, and preferences of Native Americans.



Native American adults have **TWICE THE RATE** of diabetes compared to white Americans.<sup>10</sup>



**At 14.5%,** Native Americans have the highest diabetes rates among all racial groups in the U.S.<sup>3</sup>



**“Native Americans have a greater chance of being diagnosed with diabetes than any other racial group. Massive challenges related to poor access to care, a growing healthcare provider shortage issue, and a long-standing lack of prioritization specific to identifying patient challenges — like lack of transportation or homelessness — only further compound an already dire situation that is leaving far too many Native Americans living with diabetes without the care and support they deserve.”**



**Dr. Janet Simon,**

the executive director of the New Mexico Podiatric Medical Association and a podiatric physician, serving Native Americans for nearly 30 years



Age-adjusted diabetes mortality rates in Native American communities are **3.2 times greater** than those of the U.S. as a whole.<sup>11</sup>







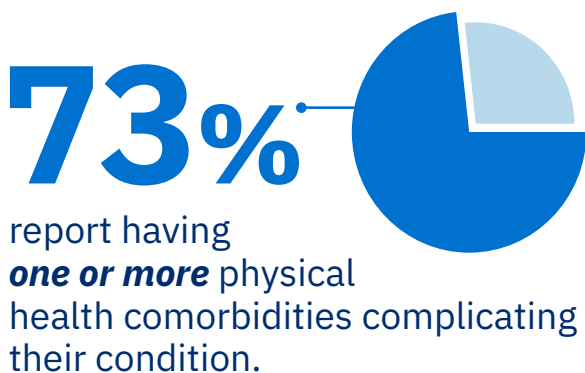
## UNLOCKING HEALTH EQUITY:

### *Native Americans navigate racial disparities and wellness challenges*

Many Native Americans report poorer health and are acutely aware that they face racial disparities and challenges in accessing quality care compared to other races and ethnicities. This study found only 26% of Native Americans with type 2 diabetes perceive any improvement in their health over the past year, while 38% have reported worsening health.

Nearly half — **45%** — of the Native American respondents believe it's harder to access high-quality care than other races and ethnicities. Only 31% feel the U.S. healthcare system is designed to improve their health.

Despite pessimism about the U.S. healthcare system, there is hope among this population. The study found that 67% of respondents believed their health would improve in the next 12 months.



#### *Among that group, the most commonly reported comorbidities included:*

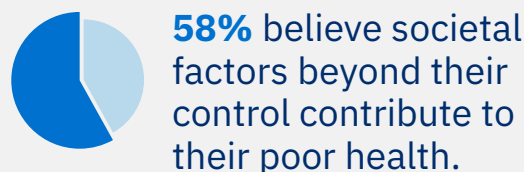
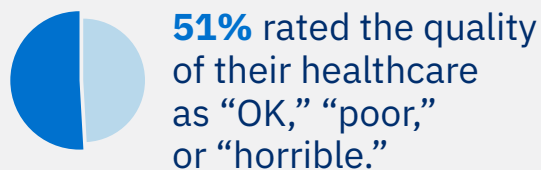
- 62%** Obesity
- 49%** Arthritis
- 41%** Asthma
- 24%** Heart disease

# 57%

report living with a chronic behavioral health condition.

#### *The most common within that group were:*

- 76%** Depression
- 65%** High levels of anxiety
- 25%** Bipolar disorder
- 22%** Thoughts of self-harm, hopelessness, or suicidality









## SUPPORTING SOCIAL DETERMINANTS OF HEALTH IN THE NATIVE AMERICAN COMMUNITY

Because of disparities and economic challenges faced by many Native Americans, 40% report receiving support from various groups that address nonclinical, social-care aspects of their health. Nutrition assistance is the most common, accounting for 61% of that group receiving support.



### Other forms of social care support included:

- 48%** receive free, durable medical equipment.
- 41%** receive in-home diagnostics or health assessments.
- 40%** receive transportation assistance to healthcare appointments.
- 38%** have virtual healthcare visits.
- 24%** receive housing assistance.



### Who is providing support?

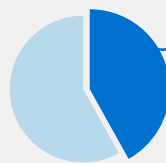
- 56%** receive help from their providers.
- 53%** receive support from their health insurers (commercial insurance, Medicaid, or Medicare).
- ~30%** receive support from a government agency (other than CMS).
- 15%** receive support from tribal leadership.
- 14%** receive help from a nonprofit or charity.

## NATIVE AMERICANS FEAR AMPUTATIONS AND EXPERIENCE MULTIPLE ER VISITS

This study reveals that most — **85%** — of Native Americans with type 2 diabetes know the connection between unmanaged diabetes and the risk of amputations. And while **88% believe they are preventable**, 41% still worry they may need an amputation in their lifetime.

# 17%

have already experienced a lower extremity amputation.



**42%** have visited the ER because of a type 2 diabetes complication.



**Of that 42%,** two-thirds have been to the ER 3 or more times.



# MANY NATIVE AMERICANS DESIRE AUTOMATIC INCLUSION OF REMOTE PATIENT MONITORING DEVICES IN THEIR CARE

As technology advances, remote patient monitoring (RPM) devices have become crucial tools in enhancing care for individuals with type 2 diabetes. They've helped extend physicians' reach beyond their clinics, offering the chance to improve health and lower the total cost of care for one of the most costly conditions — diabetes.

Despite strong support for including RPM devices in their care, many Native Americans with type 2 diabetes have not yet used this technology. This study uncovered that only 42% of respondents used an RPM device connecting them to their doctors. At the same time, **81% of respondents believe routine type 2 diabetes care should automatically integrate RPM devices.**

This survey revealed that respondents preferred using RPM devices to improve their health even more than affordable medications.

## WHAT IS RPM?

**Remote Patient Monitoring (RPM)** is a type of telehealth in which healthcare providers monitor patients outside the traditional care setting using digital medical devices, such as weight scales, blood pressure monitors, pulse oximeters, and blood glucose meters.<sup>12</sup>

### *The strategies respondents preferred for improving health:*

- 48% RPM devices
- 47% Affordable medications
- 36% Expanding access to telehealth
- 35% Increasing clinical care touch points in-between visits
- 18% Greater access to behavioral health resources
- 17% Increasing nonclinical social care support

### *For those who reported using RPM devices, those included:*

- 63% Smart glucose monitor
- 61% Smartwatch or bracelet
- 37% Smart scale
- 24% Smart mat
- 11% Other form of smart RPM device


### *Who enabled patients' access to the RPM device?*

- 43% Providers
- 24% Insurer
- 12% Paid on their own
- 12% Government agency
- 5% Tribal council or leadership
- 4% Charity or nonprofit



Clinical services with RPM devices are crucial in maximizing health benefits. However, 32% of respondents reported lacking clinical support services for their RPM devices in-between doctor's appointments.

*Survey respondents broadly support including clinical services with RPM devices.*

**65%**  said it would help ensure medication adherence.

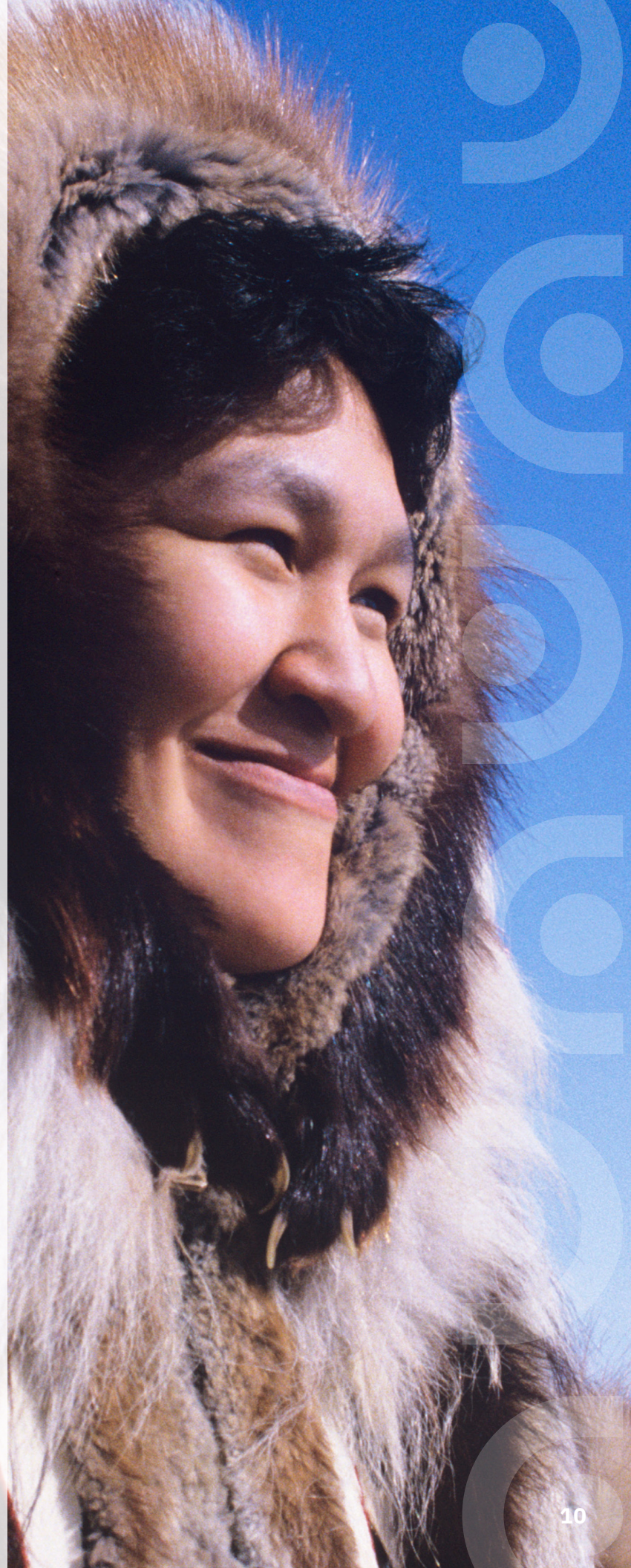
**54%** said it would help inform health risks.

**53%** said it would help with healthy lifestyle choices.

**49%** said it would help ensure device usage.

**38%** said it would remind them to see their doctors regularly.

**30%** said it would improve communication on environmental or social care needs.





# INSIGHTS INTO WELL-BEING:

## Exploring generational and gender perspectives



### GENDER

**At 52%**

men were more likely to be worried about experiencing an amputation in their lifetime than women (36%).



**At 37%**

women were less likely to report using an RPM device connected to their doctors than men (51%).



### ACCESS TO QUALITY CARE

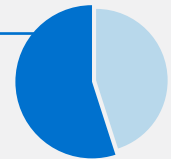
**45 and older**

33% of respondents report they believe it is harder to access high-quality care.



**Younger than 45**

over half of respondents report the same (55%).



### WHERE THEY LIVE



29% Urban area

37% Rural area

7% Tribal lands

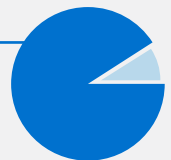
27% Suburban area



### FREQUENCY OF CARE

**91%**

are seeing a doctor for their type 2 diabetes.



**Of that 91%**

most see their doctor quarterly or monthly.



• 34% Monthly

• 35% Quarterly





## KEY TAKEAWAYS:

Many Native American patients living with complex diabetes experience multiple complications, including diabetes-related comorbidities, preventable amputations, compromised mental health, and even loss of life. This survey reveals the disproportionate impact on Native Americans living with complex diabetes. They continue to grapple with insufficient quality care, limited access to adequate resources, and inadequate preventive measures that could significantly enhance their well-being and overall health outcomes. Still, many have persistent hope and want RPM devices to support their care.

***Based on the data gathered from these patient respondents, it is imperative to:***

- Provide access to quality healthcare and integrate digital health tools such as RPM devices into routine diabetes care.
- Emphasize equipping healthcare providers with the necessary resources and tools to assist patients and aid in clinical strategy.
- Develop SDOH-focused care that appropriately addresses Native Americans' unique challenges and needs.
- Advocate for health equity.
- Help patients avoid converting from prediabetes to diabetes by implementing early interventions, including having them see a specialist early.
- Follow American Diabetes Association (ADA) guidelines regarding eye, kidney, and foot health.

In 2022, Podimetrics joined forces with the ADA to launch the Amputation Prevention Alliance, an initiative that aims to tackle the distressing issue of racial and ethnic minority communities facing disproportionately high rates of diabetes-related amputation and deaths. We are driven by hope and conviction, aiming to enhance our ability to empower and support these patients with the accessible and high-quality care they rightfully deserve and urgently require.



***To learn more about Podimetrics, scan the QR code or visit [WWW.PODIMETRICS.COM](http://WWW.PODIMETRICS.COM).***

## METHODOLOGY:

Podimetrics conducted this study in collaboration with independent market research firm PureSpectrum, using its platform to survey 402 Native Americans with type 2 diabetes in the U.S. in July 2023.

For more information on PureSpectrum's methodology, visit [purespectrum.com](http://purespectrum.com).









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