

# ASSESSING DIFFERENCES IN TECHNOLOGY USE, AMPUTATION AWARENESS & CLINICAL TRIAL PARTICIPATION AMONG ADULTS WITH DIABETES

Spring 2022 SURVEY SUMMARY REPORT

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THRIVABLE & THE AMERICAN DIABETES ASSOCIATION

thrivable



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# STUDY DESIGN & METHODOLOGY

- Thrivable conducted an online survey in partnership with the American Diabetes Association (ADA) using the Thrivable proprietary Health Panel Database
- All responses were collected between Apr. 12 and Apr. 27, 2022
- These national survey results are based upon the responses of 2,958 U.S. adults with type 1 or type 2 diabetes
- All US States were represented

# KEY FINDINGS: Technology Use

- **Access and low cost technology is critical to improving diabetes care**
  - While just over ½ of respondents use an insulin pump and/or CGM), they overwhelmingly report (>90%) that these tools are **critical for their diabetes management**
  - Income greatly influences diabetes technology utilization
    - Those in the highest income bracket were about twice as likely to use diabetes technology as compared to those in the lowest income bracket, with a clear trend observed across all income ranges
  - Non-white participants are less likely to use diabetes technology
    - Insulin pump: 26% of Black/ African Americans v. 50% of White/ Caucasians
    - CGM: 38% of Black/ African Americans v. 56% of White/ Caucasians

# KEY FINDINGS: Amputation Risk Awareness

- **Few respondents believe that they themselves will face amputation, despite over half believing that diabetes accounts for the largest portion of amputations**
  - 40% know of someone who has faced amputation
  - Older patients more likely to report knowing someone with an amputation and more likely to believe that diabetes patients account for the preponderance of amputations
  - Higher income respondents less concerned about amputation risk (and less likely to know someone with an amputation)
  - There is considerable lack of knowledge about peripheral artery disease, critical limb ischemia, the signs and symptoms, and the ability to lower the amputation risk by treatments

# KEY FINDINGS: Clinical Trials Participation

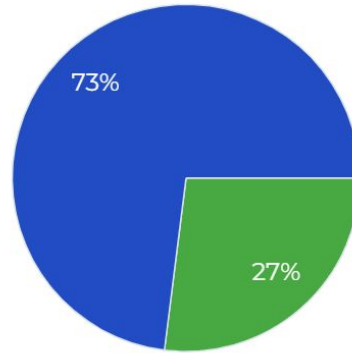
- **While 79% of participants indicated willingness to participate in a clinical trial for a device or drug that could improve their diabetes or related condition, only 15% of respondents have previously participated**
  - Asians disproportionately participate in more clinical trials and have clinical trials suggested more frequently to them by healthcare providers
  - The primary reason for discomfort in participating in a clinical trial: “Concern over side effects or negative reaction.”
  - Primary barrier: “Lack of information availability.”

# Demographics

- 44% of adult participants had type 1 diabetes, and 56% had type 2 diabetes
- While the participants were mostly female, there were few appreciable differences across survey responses provided by males vs. females
- All 50 states were represented
- N = 2,958

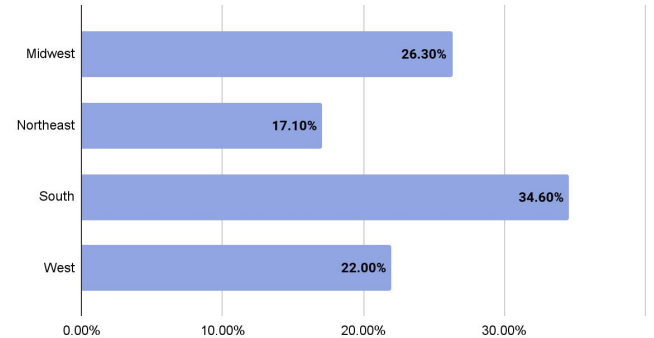


■ Type 1 44% ■ Type 2 56%



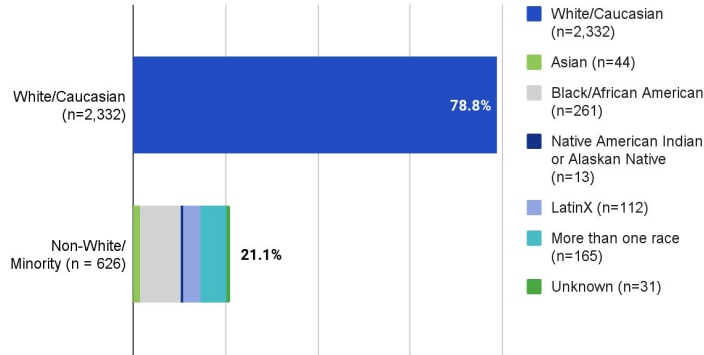
■ Male 27% ■ Female 73%

Participants by Region

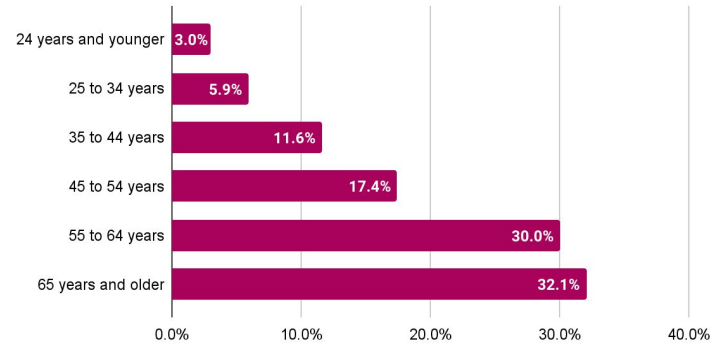


# Demographics

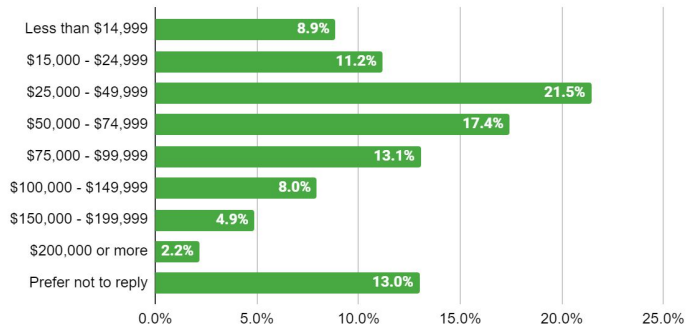
Race/Ethnicity



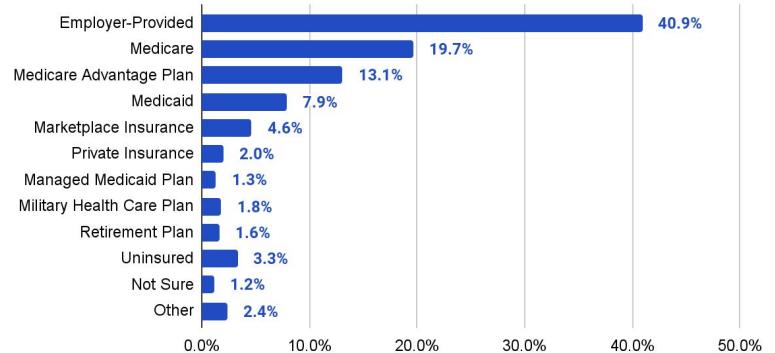
Age Distribution



Annual Household Income

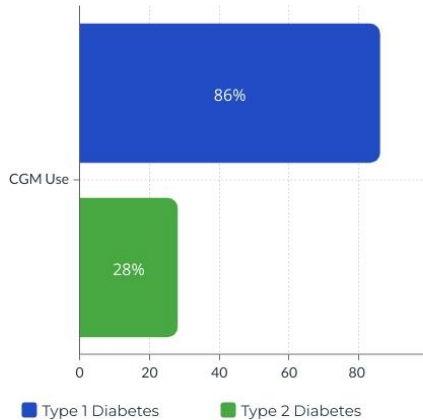


Insurance Type

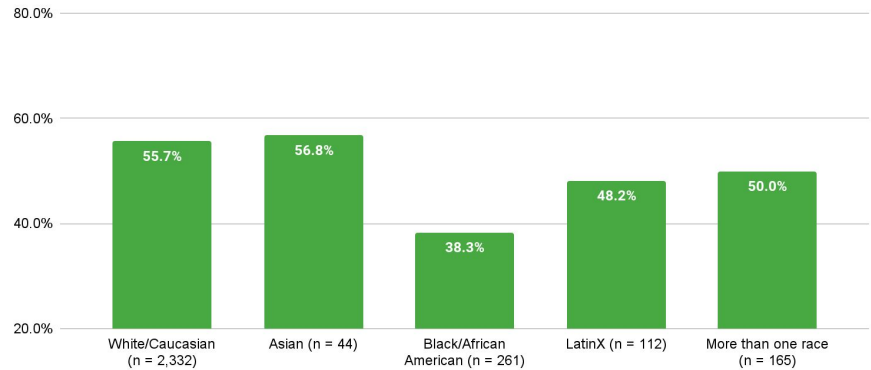


# Diabetes Technology Use: CGM

- 54% of respondents use a continuous glucose monitor (CGM)
  - Those with type 1 diabetes more likely to report using a CGM as compared to those with type 2 diabetes
  - Black/African American respondents least likely to report using a CGM



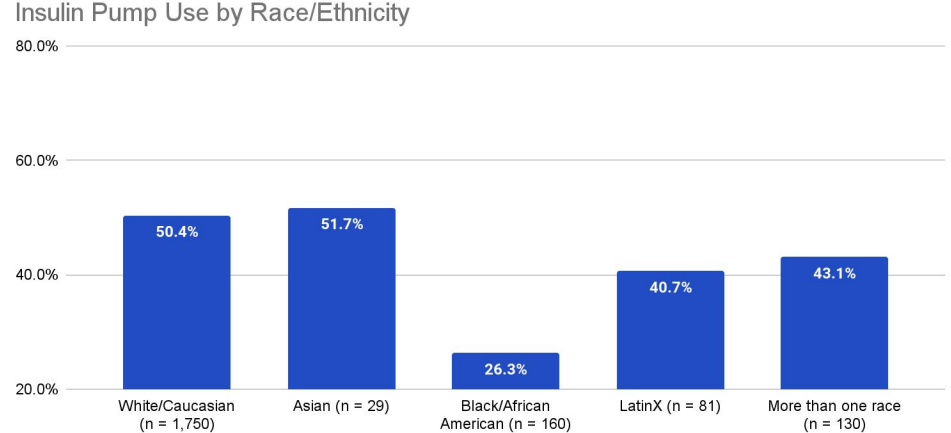
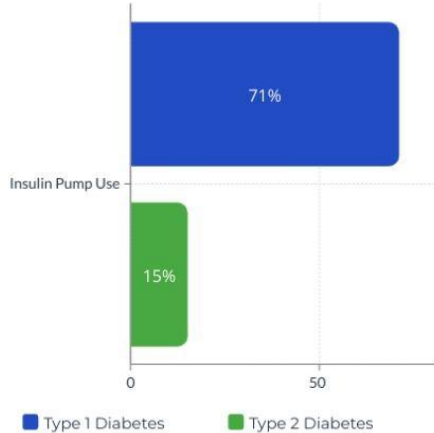
CGM Use by Race/Ethnicity





# Diabetes Technology Use: Insulin Pump

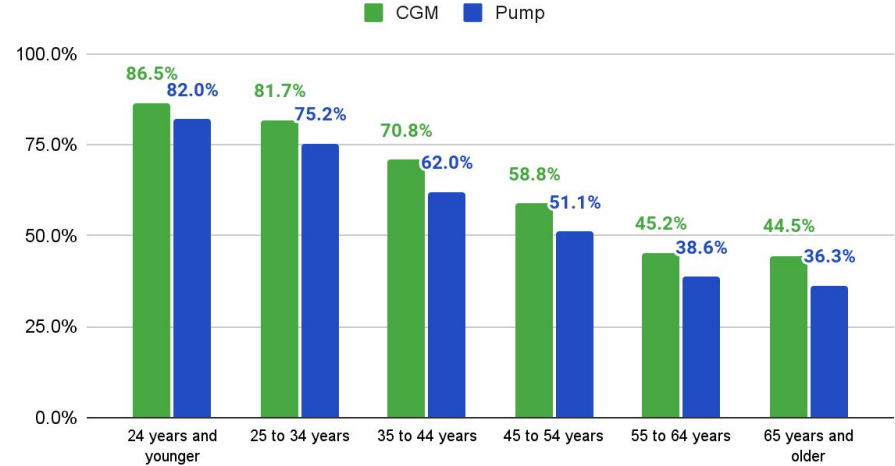
- 48% of those who use insulin use an insulin pump
  - Those with type 1 diabetes are more likely to report using an insulin pump as compared to those with type 2 diabetes
  - Black/African American respondents least likely to report using a pump



# Diabetes Technology Use Varies by Age Group

- Young people are considerably more likely to use diabetes technology, including CGMs and insulin pumps, than older adults
- Those under age 25 are about twice as likely to use technology as compared to older adults (over 65 years)

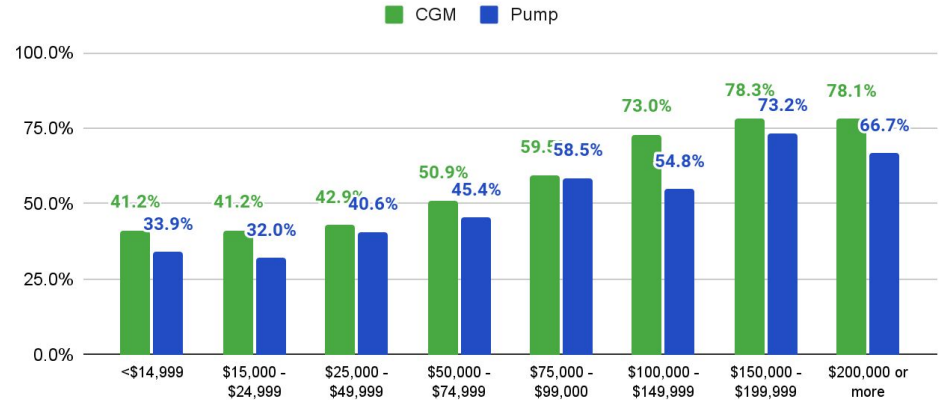
Technology Use by Age



# Diabetes Technology Use Varies by Income

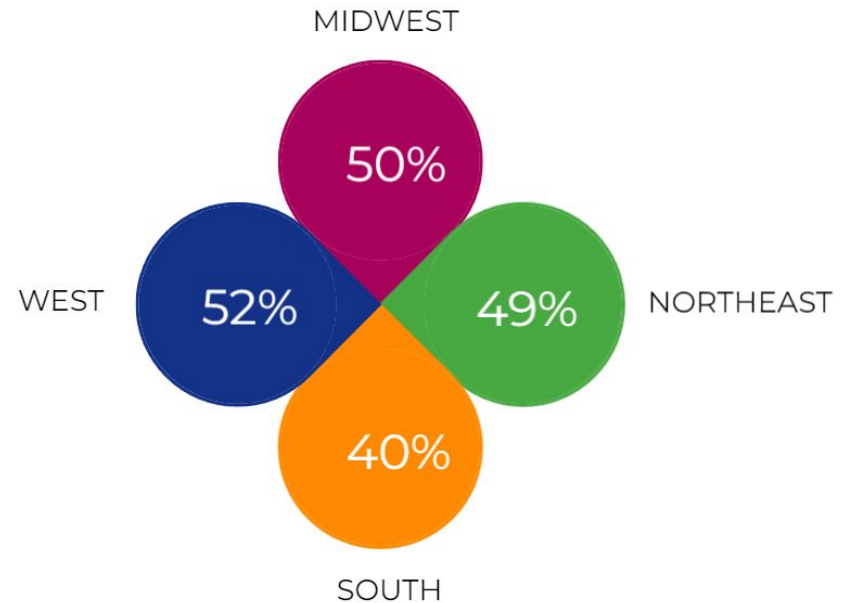
- Income level affects diabetes technology utilization
- This is likely a results of the high cost of supplies
- Those with an annual household income of over \$150,000 are about twice as likely as those in the <\$25,000 income bracket to use technology

Technology Use by Income



# Insulin Pump Use Varies Slightly by Region

- Those living in the South are somewhat less likely to report using an insulin pump as compared to other regions
- Insulin pump use in other regions is consistent, with about 1 in 2 people who use insulin reporting pump use
- This corresponds to findings on race and income effects, with those in the south more likely to be people of color, as well as of lower income



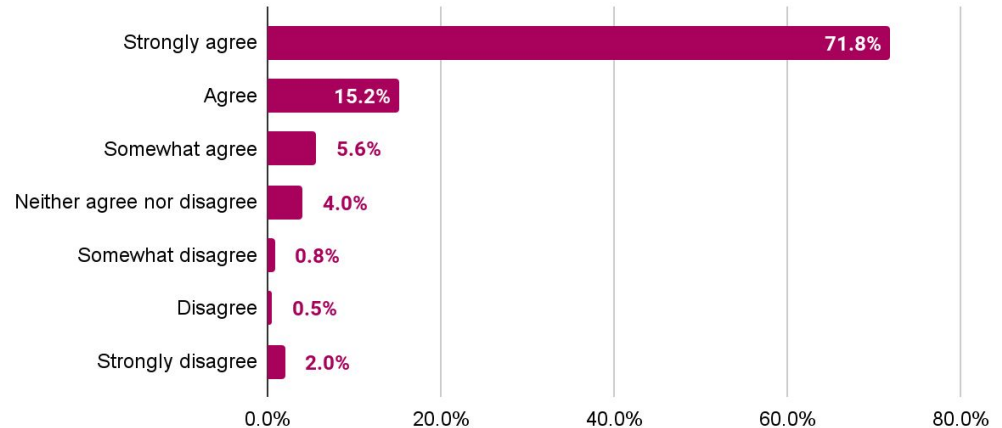
# Users Overwhelmingly Agree on Diabetes Tech Benefits

n = 1,669



**9 in 10 people** surveyed who use diabetes technology agree that these tools are **critical to their diabetes management**

"Insulin Pump or CGM is Critical to Managing Diabetes" \*



\*Respondents with type 1 diabetes were more likely to “Strongly Agree” than those with type 2 diabetes (79.7% v. 53.2%)

# Amputations

- More than half the sample believe that people with diabetes represent the largest portion of amputations yearly

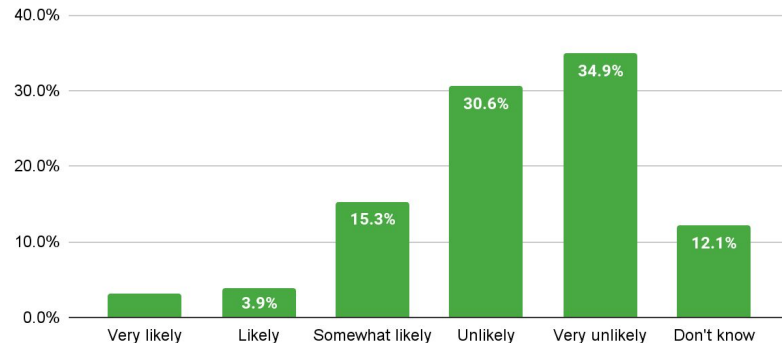
- Consistent with this finding is the sizeable percentage of respondents with a family member, friend, or colleague with diabetes who has had an amputation
- However, relatively few believe that they themselves are likely to face amputation

55%

of respondents agree that people with diabetes account for the largest portion of amputations each year



Likelihood You Will Face Amputation



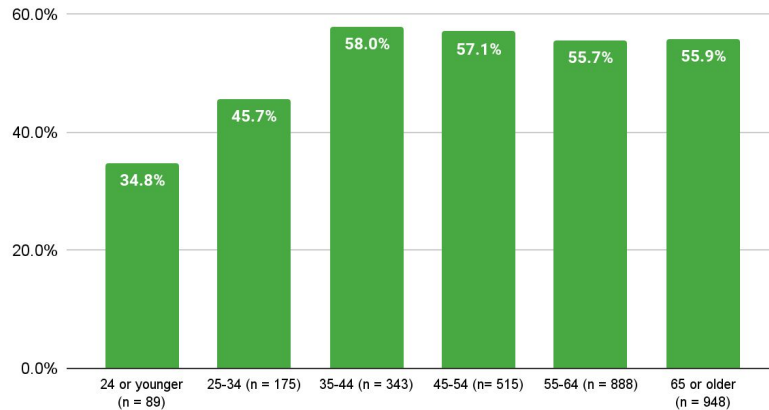
42%

Know someone who has faced amputation

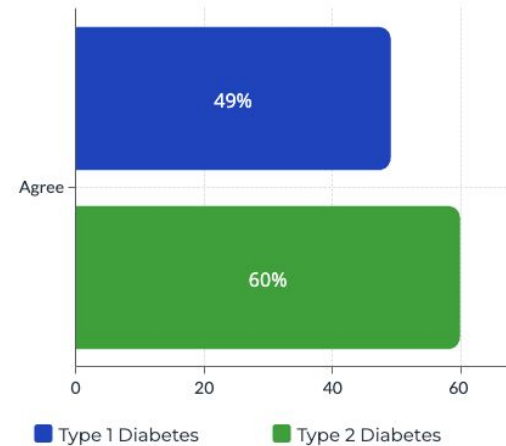
# Amputation Knowledge by Diabetes Type and Age

- Older diabetes patients and Type 2 diabetes patients are more likely to agree that diabetes accounts for the largest portion of amputations

Agree Diabetes Accounts for Largest Portion by Age

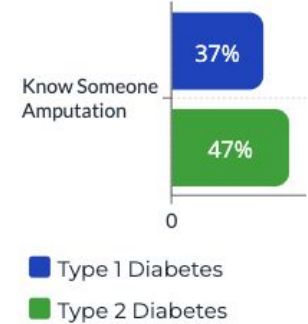


Diabetes Largest Portion of Amputations

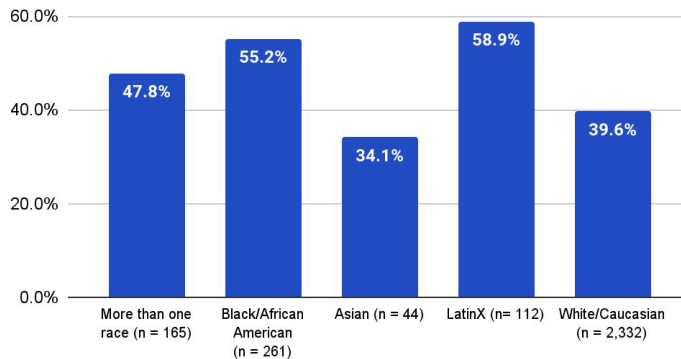


# Know Someone with Amputation by Race, Type, Age

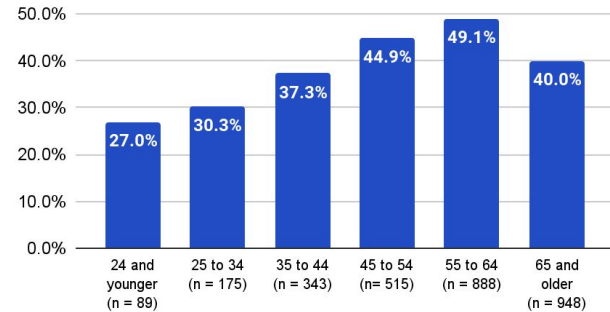
- Type 2 diabetes patients are more likely than type 1 patients to know of someone who has faced amputation
- LatinX and Black/African American respondents are more likely to report knowing someone, while Asian and White/Caucasian respondents are less likely to do so
- And the youngest patients are the least likely (27% of those age 24 or younger versus 49% of those age 55-64)



Know Someone with Amputation by Race



Know Someone with Amputation by Age

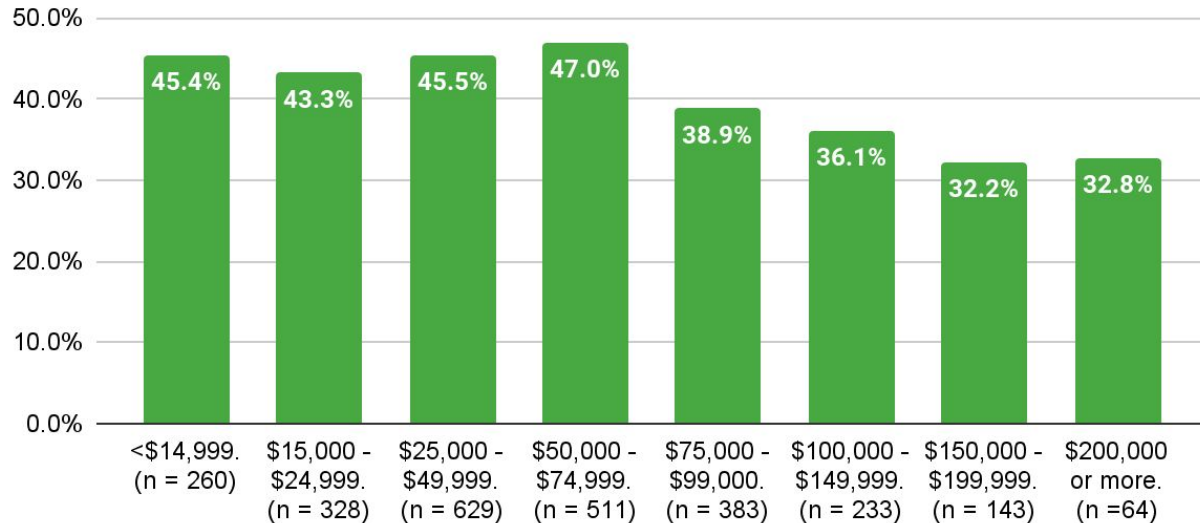




# Know Someone with Amputation by Income

- Household incomes below \$75k were more likely to know someone who previously had an amputation than incomes \$75k and above

Know Someone with Amputation



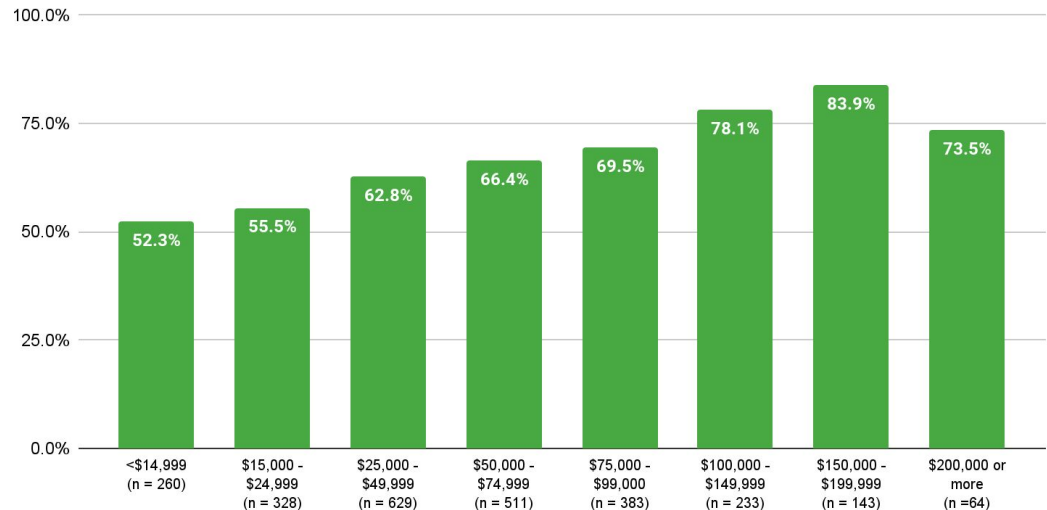
# Amputation Findings by Income

67%

Over 2/3 of the patients with the highest income don't know anyone who has faced an amputation

- Diabetes patients from the highest income levels tend to feel safer about facing amputation than those patients from the lowest income levels
- Other amputation findings follow a similar trend:
- Belief that diabetes patients account for the largest portion of amputations (58.5% of those earning \$15K-\$25K versus 42% of those \$200K or more)
- Not knowing a patient with an amputation (67.8% of those \$150K-\$200K versus 53% \$50K-\$75K)

Likelihood of Amputation by Income (Percent Said Unlikely and Very Unlikely)



# Foot Health

- Respondents tend to be concerned about foot health
  - The vast majority of the sample (72%) report that they check (or have a caregiver/family member) regularly check their feet for open sores
    - Older respondents are more likely than younger to check daily
    - Younger respondents are more likely than older respondents to not check regularly
    - Few report never or almost never having their feet checked by a healthcare provider (9.7%)
    - However, a larger percentage report never or almost never getting a foot pulse check from their healthcare provider (22.8%)

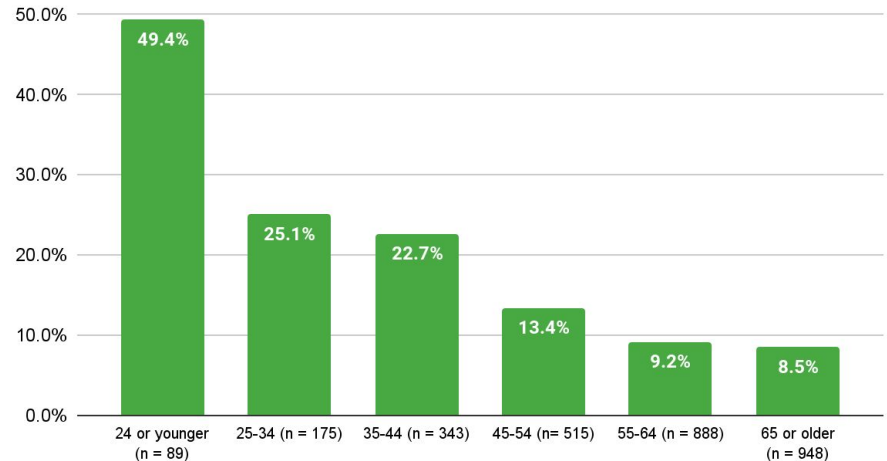
**72%**

of respondents report checking their feet weekly or daily

**80.3%**

of respondents report having their feet checked by a health care professional at every visit or occasionally

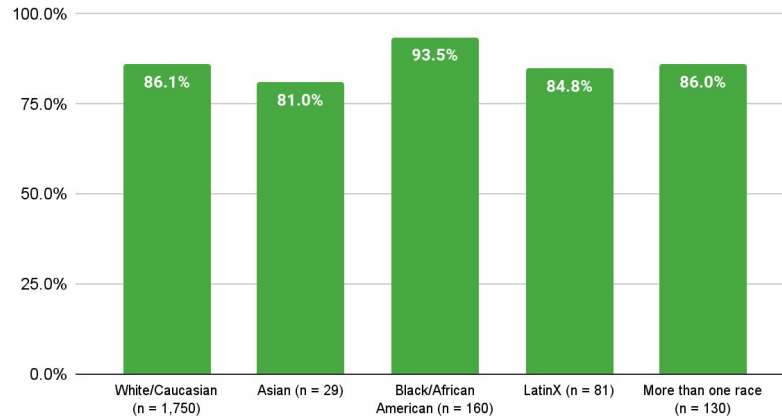
## Do Not Check Feet Regularly by Age



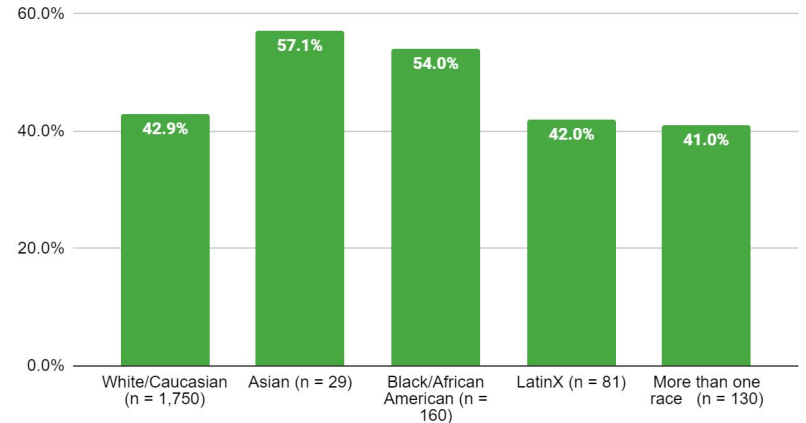
# Foot Health

- Over 81% of all races check their feet at least once per month or more.
- More Black/African Americans check their feet daily than more than one race, LatinX and White/Caucasian

### Check Feet Regularly

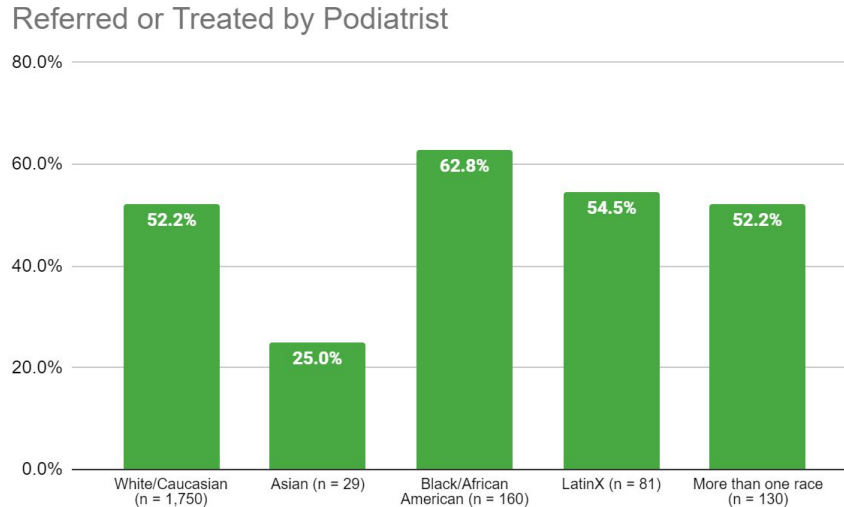


### Check Feet Daily



# Referred to or Treated by a Podiatrist

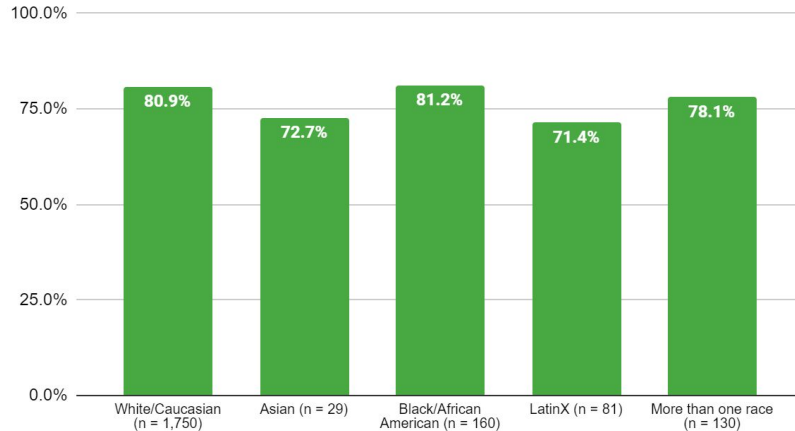
- Black/African Americans are referred to or treated by a podiatrist more often than more than one race, Asians or White/Caucasians



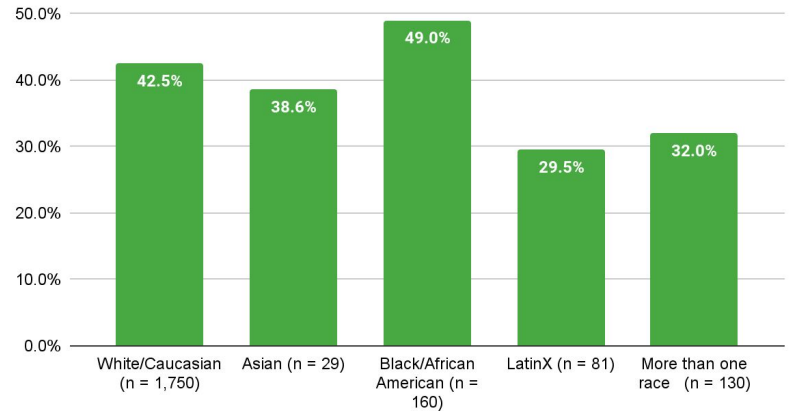
# Feet Checked by Healthcare Provider

- Over 71% of all races get their feet checked by their healthcare provider occasionally or every visit.
- More Black/African Americans get their feet checked by their healthcare provider every visit than more than one race, LatinX and White/Caucasian

Feet Check by Healthcare Provider



Feet Checked by Healthcare Provider Every Visit



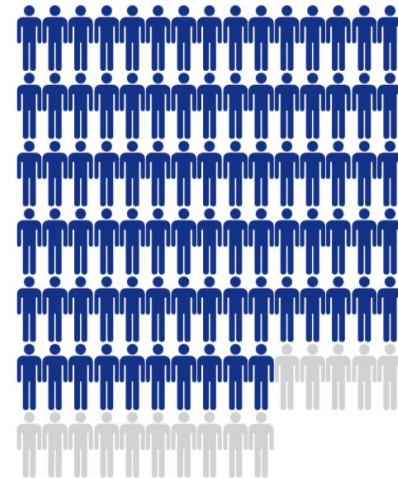
# Peripheral Artery Disease and Critical Limb Ischemia

- Almost half of respondents state they do not know what PAD is. Lack of knowledge is particularly true for younger patients
- The vast majority (84.6%) do not know CLI
- Only 1 in 4 know the signs and symptoms
- LatinX patients are more likely to be unaware that these conditions can be treated (70.5%)

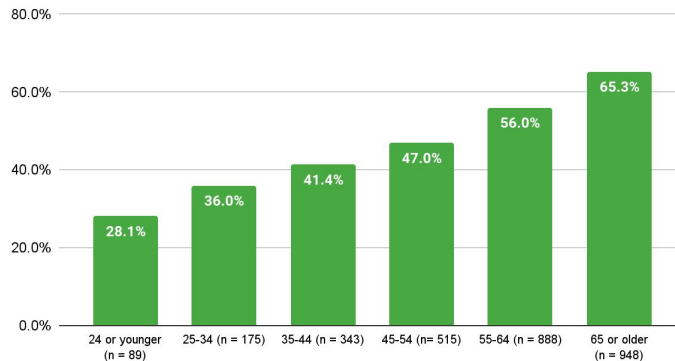


of respondents are not aware that these conditions can be treated to reduce amputation risk

85% do not know what CLI is



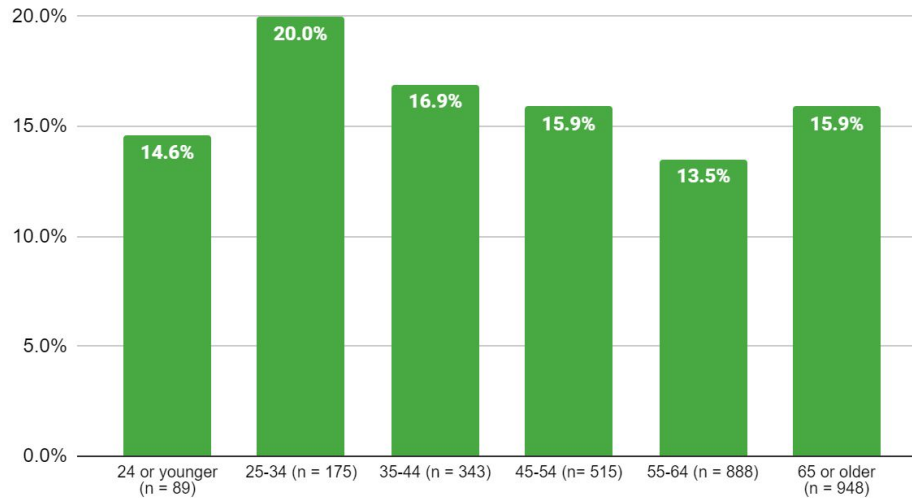
Knowledge of PAD by Age



# Critical Limb Ischemia

- Participants 25-34 years old were more likely to know what CLI is than 55-64 years old.

Knowledge of CLI by Age



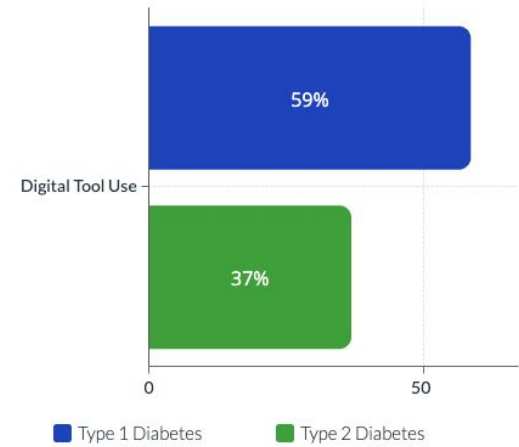


# Digital Tool Utilization

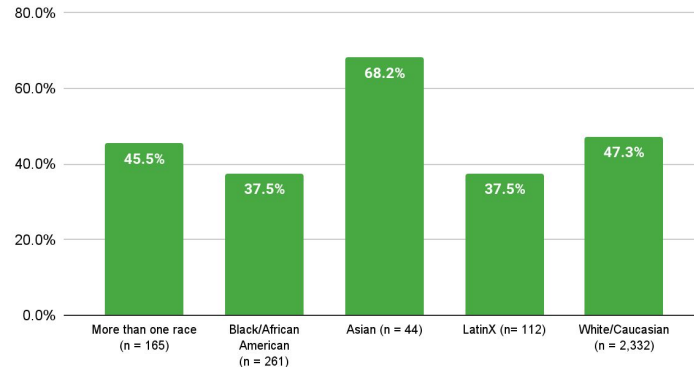
- Just under half of the sample (46%) reports using digital tools, like apps, for diabetes management
  - Type 1 respondents more likely than type 2 to report using digital tools
  - Black/African American and Latin X respondents less likely than White/Caucasian respondents to use digital apps, while Asian Americans the most likely to use
  - Higher income individuals much more likely to use (68.8% of the highest income bracket versus 35.4% of the lowest)
  - Digital tool use also varies by age (66.3% of those 24 and younger and 38% of those 65 and over)
  - Male respondents more likely to use (53%) than their female counterparts (44%)



68.8%  
of the highest income bracket  
use digital tools, like apps



Digital Tool Use by Race

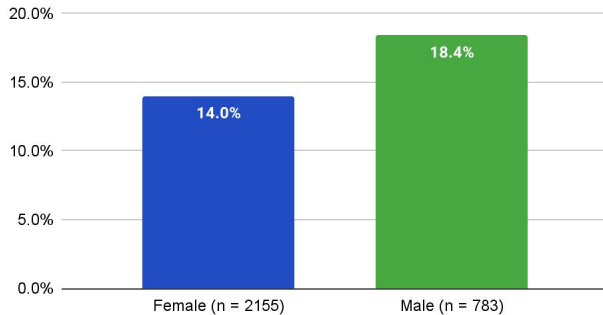


# Clinical Trials

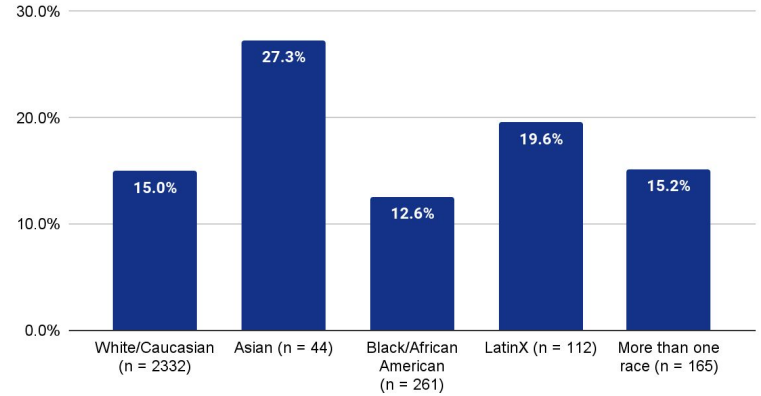
**15%** of respondents have previously participated in a clinical trial

- A higher proportion of males participated in clinical trials than females
- A higher proportion of Asians participated in clinical trials than Black/African Americans and White/Caucasians
- There was a positive trend in income and clinical trial participation

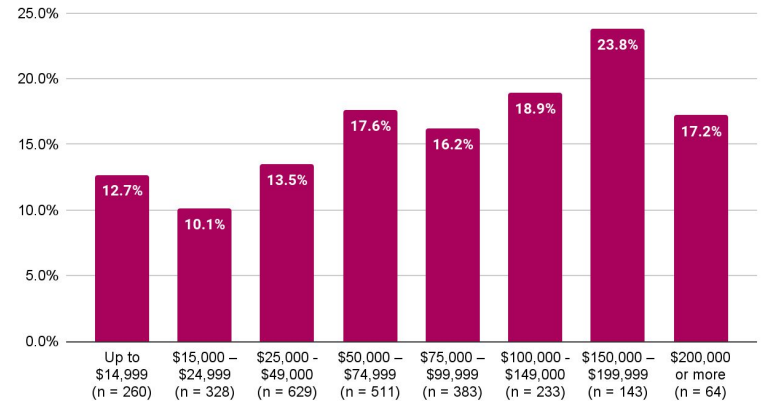
Participation in Clinical Trials



Participation in Clinical Trials



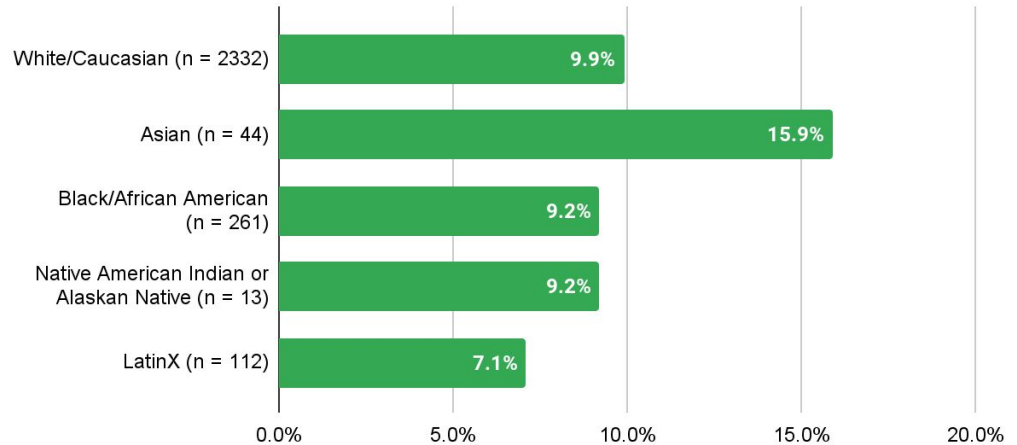
Participation in Clinical Trials



# Clinical Trials

- Asian respondents trended towards having clinical trials suggested more often than any other race

Physician Suggestion of Clinical Trials

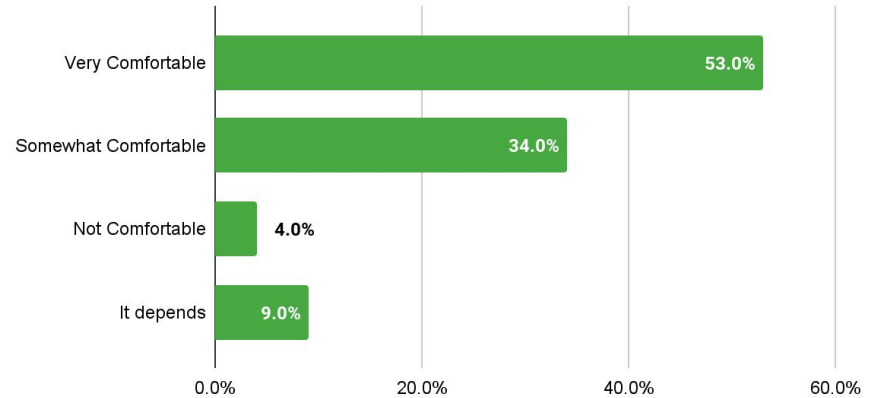


# Clinical Trials

**86%** of respondents have trust in clinical trials

**79%** indicated they were likely to participate in a clinical trial for a device or drug that could improve their diabetes or related

Comfort Participating in Clinical Trials



Primary reason for discomfort in participating in clinical trials:  
***“Concern over side effect or negative reaction.”***

Primary reported barrier:  
***“Lack of clinical trial information.”***

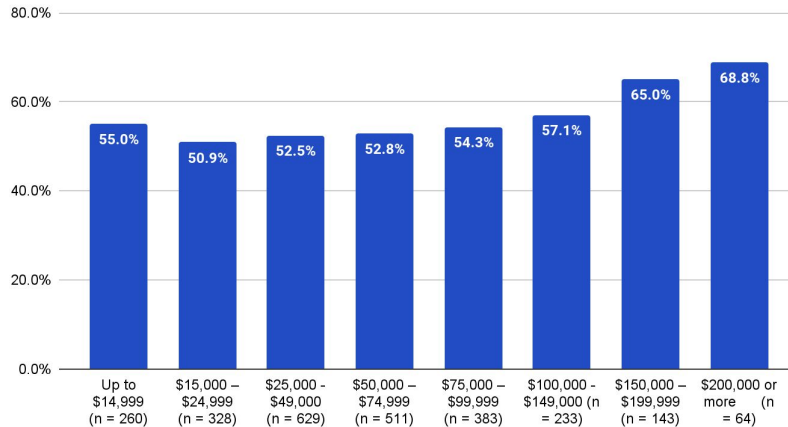
# Clinical Trials Barriers by Age and Race/Ethnicity

- The primary reported barrier for clinical trial participation, regardless of race or age, was lack of information
- When broken down further, >40% expressed the following as barriers:
  - Lack of Transportation:
    - 25-34 Asian
    - >65 Asian
  - Lack of Information
    - All ages, all races except 55+ Asian
  - Time off work
    - 35-64 Asian
    - 25-34 LatinX
  - Trust in trials or device:
    - None
  - Afraid of something bad happening to them
    - 25-34 More than one race
    - 45-64 More than one race
    - 25-44 Black/ African American
    - 45-54 Asian
  -

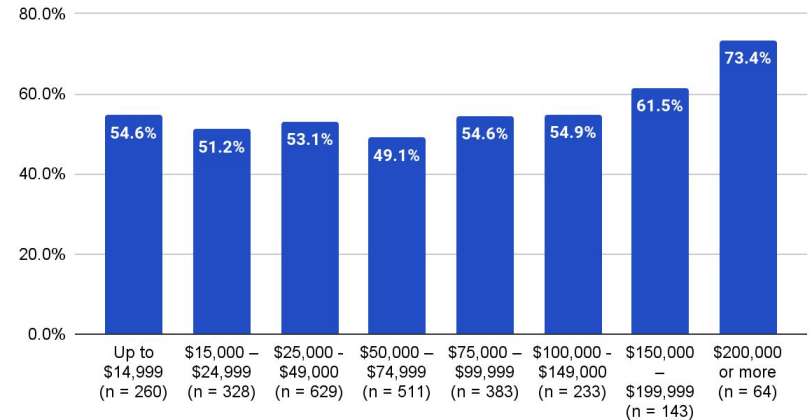
# Clinical Trials

- Those of higher income (>\$150,000 annual household income) were more likely than the other income brackets to feel comfortable and report high level of trust in clinical trial participation

Comfort Participating in Clinical Trials



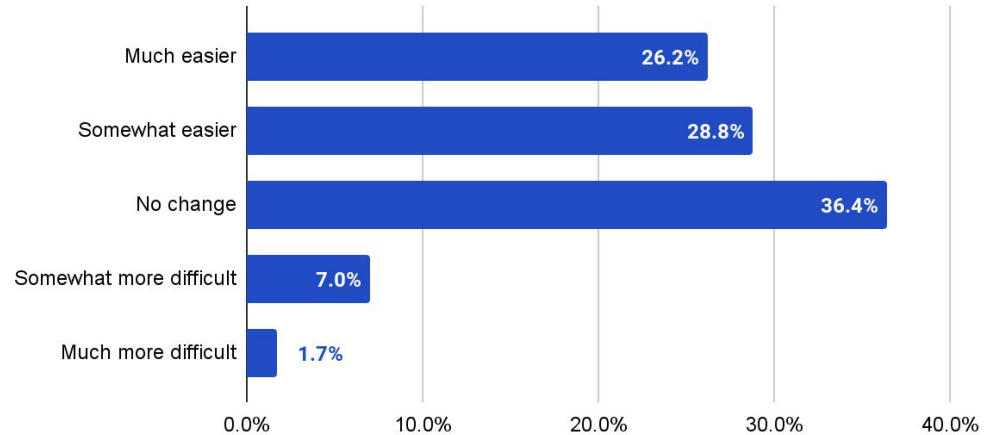
Trust of Clinical Trials



# Telehealth Utilization

- 69% of respondents say they have had a telehealth visit in the past year
- More than half say telehealth makes management at least somewhat easier

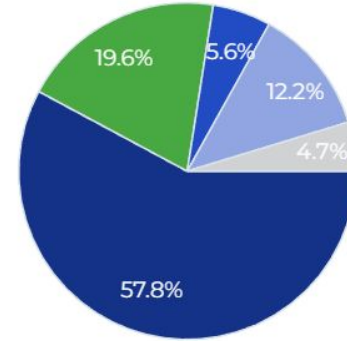
Telehealth Effect on Health Management



# Telehealth Utilization

- What services do respondents primarily use telehealth for?
  - Routine health appointments and prescription refills were the top two selections

**33%** >>>>>> plan to continue to use telehealth **as much as possible**  
 of current telehealth users



<span style="color: #004a99;">■</span> Routine Appointments	57.8%
<span style="color: #4caf50;">■</span> Refills	19.6%
<span style="color: #004a99;">■</span> New Diabetes Technology	5.6%
<span style="color: #90caf9;">■</span> Other	12.2%
<span style="color: #bdbdbd;">■</span> Do not use	4.7%



# Telehealth Utilization Drawbacks

- 45% of telehealth users said there are services they are not getting by having telehealth appointments

- A sizeable percentage of these respondents noted specific types of medical issues that can't be effectively evaluated through teleconferencing, such as eye checks, foot checks, blood pressure, listening to lungs



The doctor is not able to check my feet or my eyes when visiting by phone.



Hard to perform laboratory tests in a telemedicine setting.

- Others noted the inability to do lab work/blood work
- Still others commented on a general inability to connect or effectively communicate



The doctors don't listen as well in telemedicine, they are prepared to talk. At me not with me...



Difficult to feel like you are getting a solid attention for your concerns – hard enough to get that in person, even more difficult when it's through a screen



The rapport that builds between doctor and patient can be hampered by telemedicine...



In person visits with medical providers requires them to see 'you' as a person rather than as a file...

## About the American Diabetes Association

Every day more than 4,000 people are newly diagnosed with diabetes in America. More than 122 million Americans have diabetes or prediabetes and are striving to manage their lives while living with the disease. The American Diabetes Association (ADA) is the nation's leading voluntary health organization fighting to bend the curve on the diabetes epidemic and help people living with diabetes thrive. For nearly 80 years the ADA has been driving discovery and research to treat, manage and prevent diabetes, while working relentlessly for a cure. We help people with diabetes thrive by fighting for their rights and developing programs, advocacy and education designed to improve their quality of life. Diabetes has brought us together. What we do next will make us Connected for Life. To learn more or to get involved, visit us at [diabetes.org](http://diabetes.org) or call 1-800-DIABETES (1-800-342-2383). Join the fight with us on Facebook (American Diabetes Association), Twitter (@AmDiabetesAssn) and Instagram (@AmDiabetesAssn)

## About Thrivable

[Thrivable](#) connects patients and companies to create better products and services for the next generation of health care. Our real-time market research platform makes it easy for patients to be their own advocates by sharing their insights, stories, and perspectives via surveys, interviews, focus groups, and usability studies. Health care companies turn to Thrivable to ensure the voice of the customer drives important business decisions every day. Learn more at [thrivable.app](http://thrivable.app) today.

The logo for Thrivable features the word "thrivable" in a blue, lowercase, sans-serif font. A small green leaf icon is positioned above the letter 'v'.

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