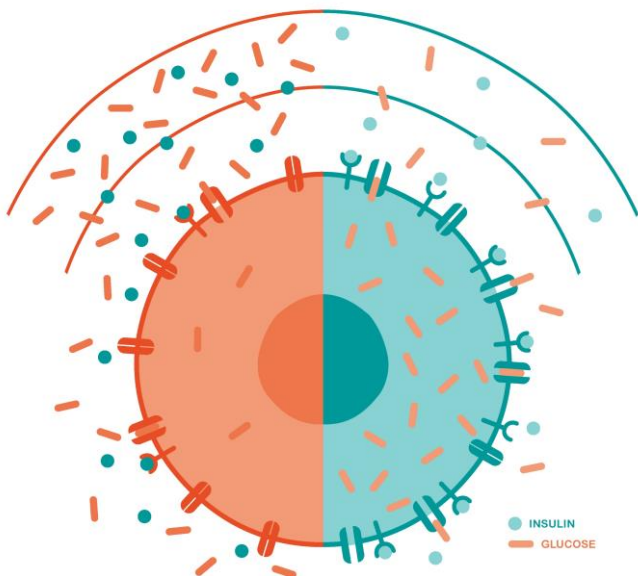


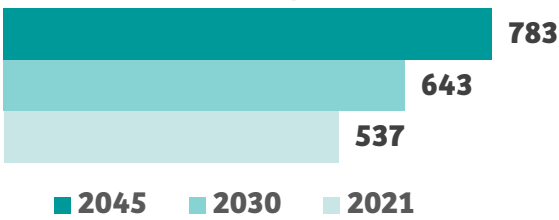
# DIABETES

## FACTS AND FIGURES

**SYMPTOMS INCLUDE<sup>1,2</sup>**  
**FREQUENT URINATION**  
**EXCESSIVE THIRST**  
**CONSTANT HUNGER**  
**FATIGUE**  
**WEIGHT LOSS**  
**VISION CHANGES**  
**SLOW HEALING WOUNDS**



**Global prevalence of diabetes in adults (20-79 years) in millions<sup>3</sup>**



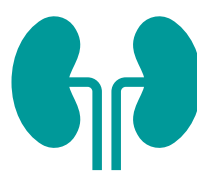
**COVID-19**

**People with diabetes are more likely to have serious complications from COVID-19<sup>5</sup>**

**6.7 million deaths due to diabetes in 2021 worldwide<sup>3</sup>**



**3 in 4 adults with diabetes live in low- and middle-income countries<sup>3</sup>**



**Diabetes is a leading cause of kidney disease ~1 out of 3 adults with diabetes has kidney disease<sup>6</sup>**

### RISK FACTORS<sup>4</sup>

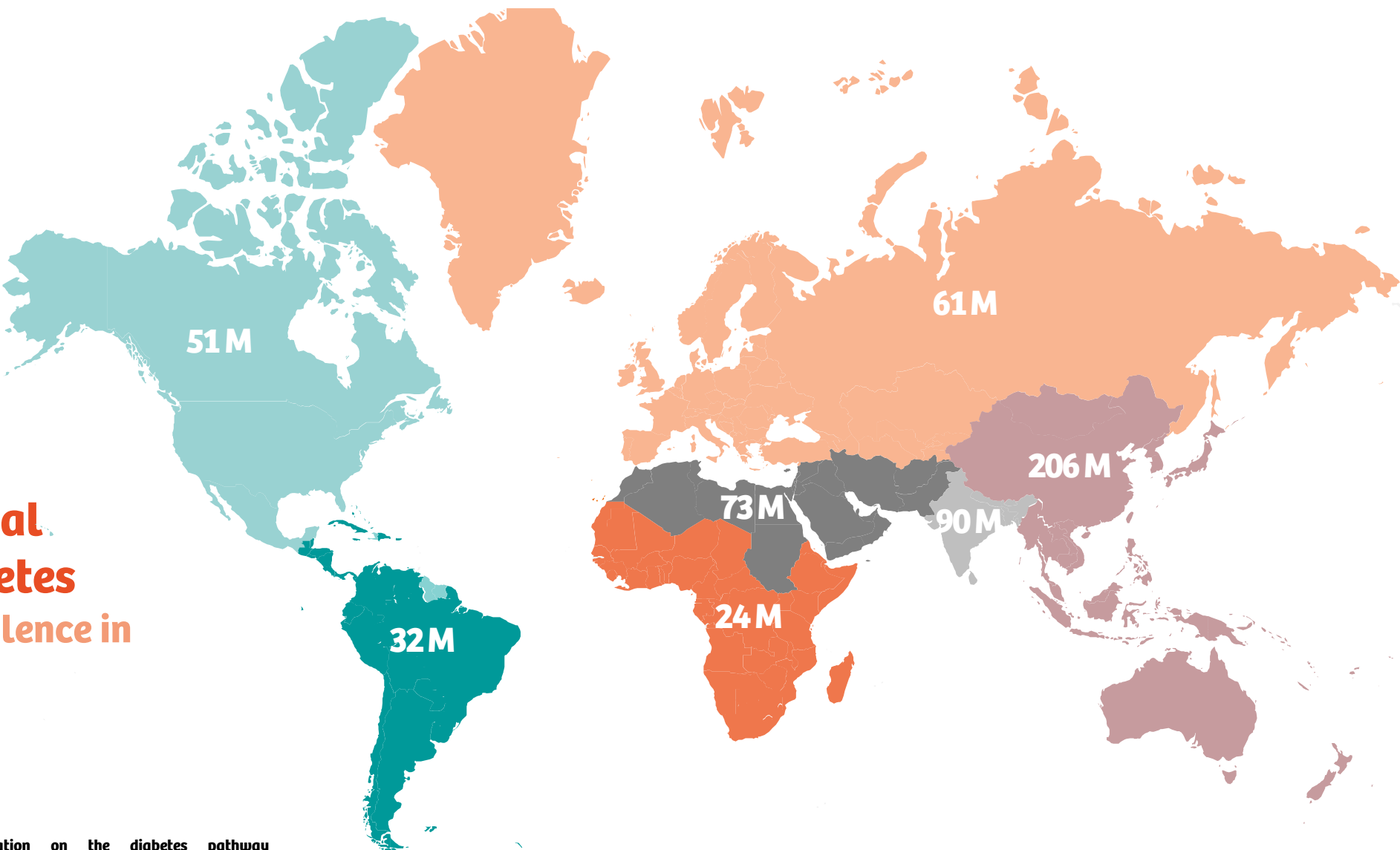
- ✓ Family history
- ✓ Race or ethnic background
- ✓ Age
- ✓ Gestational diabetes
- ✓ Obesity
- ✓ Physical inactivity
- ✓ High blood pressure
- ✓ Cholesterol levels
- ✓ Smoking
- ✓ Alcohol
- ✓ Stress



**Adults with diabetes are nearly twice as likely to have a heart disease or stroke as adults without diabetes<sup>7</sup>**

**Health expenditure due to diabetes in 2021: USD 966 billion<sup>3</sup>**

**Global diabetes prevalence in 2021<sup>3</sup>**



**Disclaimer:**  
This publication on the diabetes pathway framework was updated on 17.04.2023. It cannot be taken as a recommendation for the readers, especially not as a guideline for treatment, and it is not a medical document. There is no guarantee for completeness or global correctness, the various pain points, solutions, and statistical data are examples only. Sources are multiple, such as public statistics, expert opinions, open innovation workshops, research, own data and many more (see references). The products and features mentioned may not be available in all countries and their future availability cannot be guaranteed. Some products mentioned are planned and under development.

1. World Health Organization. (2021). *Diabetes*. Retrieved February 08, 2023, from [https://www.who.int/health-topics/diabetes#tab=tab\\_2](https://www.who.int/health-topics/diabetes#tab=tab_2)  
2. Centers for Disease Control and Prevention. (2022, December 30). *Diabetes Symptoms*. Retrieved February 08, 2023, from <https://www.cdc.gov/diabetes/basics/symptoms.html>  
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4. American Heart Association. *Diabetes risk factors*. Retrieved April 10, 2023, from <https://www.heart.org/en/health-topics/diabetes/understand-your-risk-for-diabetes>  
5. American Diabetes Association. (2021). *How COVID-19 impacts people with Diabetes*. Retrieved February 08, 2023, from <https://diabetes.org/coronavirus-covid-19/how-coronavirus-impacts-people-with-diabetes#>  
6. National Institute of Diabetes and Digestive and Kidney diseases. (2017, February). *Diabetic Kidney Disease*. Retrieved February 08, 2023, from <https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/diabetic-kidney-disease#>  
7. National Institute of Diabetes and Digestive and Kidney Diseases. *Diabetes, heart disease, & stroke*. Retrieved April 10, 2023, from <https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/heart-disease-stroke>



Disease pathway analysis with pain points and solution examples

An extensive research-based analysis from 40+ scientific articles and journals in combination with hospital workflow experience allowed the identification of pain points and solutions.

These solutions were proposed based on AI, IoMT, AR/VR, biosensors, nanorobotics and smart wearable technologies.

THROUGH THIS CAREPLAN WE HIGHLIGHT DATA FROM A COLLECTION OF

89 pain points

141 solutions

16 connected to different stakeholders

Solution categories

- Existing healthcare sector
- Ongoing research in healthcare
- Futuristic solution (may or may not be implemented)

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**\*Atellica CH Enzymatic Hemoglobin A1c assay (SHS):** The products/features (mentioned herein) are not commercially available in all countries. Due to regulatory reasons, their future availability cannot be guaranteed.

**<sup>®</sup>DCA<sup>®</sup> HBa1c Reagent Kit<sup>®</sup> for DCA Vantage<sup>®</sup> Analyzer & DCA<sup>®</sup> Microalbumin/Creatinine Urine Test (SHS):** The products/features shown on this web page are not commercially available in all countries. Due to regulatory reasons, their future availability cannot be guaranteed.

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**<sup>®</sup>DCA<sup>®</sup> HBa1c Reagent Kit<sup>®</sup> for DCA Vantage<sup>®</sup> Analyzer (SHS):** DCA HBa1c test kit 10698915 (an aid to diagnose diabetes and identify patients at risk for developing diabetes) is not available for sale in the U.S. Product availability varies by country.

**<sup>®</sup>DCA<sup>®</sup> Vantage<sup>®</sup> Analyzer (SHS):** The products/features (mentioned herein) are not commercially available in all countries. Due to regulatory reasons their future availability cannot be guaranteed.

