



# Diabetes among Indigenous Peoples

**IDF Online event**

August 24, 2023  
4:30-6:00 pm CEST





# DIABETES AMONG INDIGENOUS PEOPLES

## WELCOME FROM THE MODERATOR



**MS COURTNEY FISCHER-CLAUSSEN, MPH**

Indigenous Health PhD Candidate, University of North Dakota

*United States*

# WELCOME TO THE WEBINAR

- This webinar will be recorded.
- You can activate Zoom-generated subtitles for this webinar by clicking on the closed caption (cc) button at the bottom of your Zoom window. Please note these subtitles are not 100% accurate.
- The recording, slides and feedback questionnaire will be sent to all registrants in a few days.
- Participants who attend at least 80% of this event live will receive an attendance certificate only if they complete a feedback questionnaire. Please check your spam folders if you have not received them by August 4.
- **Please use the Q&A function to post your questions to speakers and panellists.**



# DIABETES AMONG INDIGENOUS PEOPLES

## WELCOME MESSAGE FROM IDF PRESIDENT



**PROF AKHTAR HUSSAIN**

IDF President

*Bangladesh/Norway*



# Setting the scene





# DIABETES AMONG INDIGENOUS PEOPLES

## DIABETES AMONG INDIGENOUS PEOPLES – IDF ATLAS REPORT



**MS COURTNEY FISCHER-CLAUSSEN, MPH**

Indigenous Health PhD Candidate, University of North Dakota

*United States*

## DIABETES IN INDIGENOUS POPULATIONS SPECIAL INTEREST GROUP



**Mrs. Courtney Fischer-Claussen** MPH, *Cheyenne River Lakota*, PhD Candidate, University of North Dakota, USA



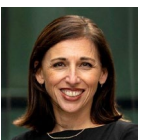
**Dr. Emily Papadimos** Menzies School of Health and Research, Charles Darwin University, Darwin, Northern Territory, Australia



**Prof. Anthony Hanley** (Senior Author), University of Toronto, Canada



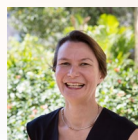
**Dr. Elizabeth Barr** (Senior Author), Menzies School of Health and Research, Charles Darwin University, Darwin, Northern Territory, Australia / Baker Heart and Diabetes Institute, Melbourne, Victoria, Australia



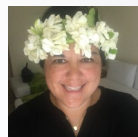
**Prof. Dianna Magliano** Baker Heart and Diabetes Institute, Melbourne, Victoria, Australia



**Dr. Donald Warne** *Oglala Lakota*, School of Medicine and Health Sciences, University of North Dakota, USA



**Prof. Louise Maple-Brown** Menzies School of Health and Research, Charles Darwin University, Darwin, Northern Territory, Australia



**Dr. Cheri Hotu** University of Auckland, New Zealand



**Prof. Alex Brown** *Wadi Wadi People of the Yuin Nation*, South Australian Health and Medical Research Institute, University of Adelaide, North Terrace, Adelaide, Australia



**Dr. Odette Pearson** *Eastern Yalanji and Torres Strait Islander*, South Australian Health and Medical Research Institute, University of Adelaide, North Terrace, Adelaide Australia



**Dr. Baiju Shah**, University of Toronto, Canada



**Ms. Hiliary Monteith** University of Toronto, Canada



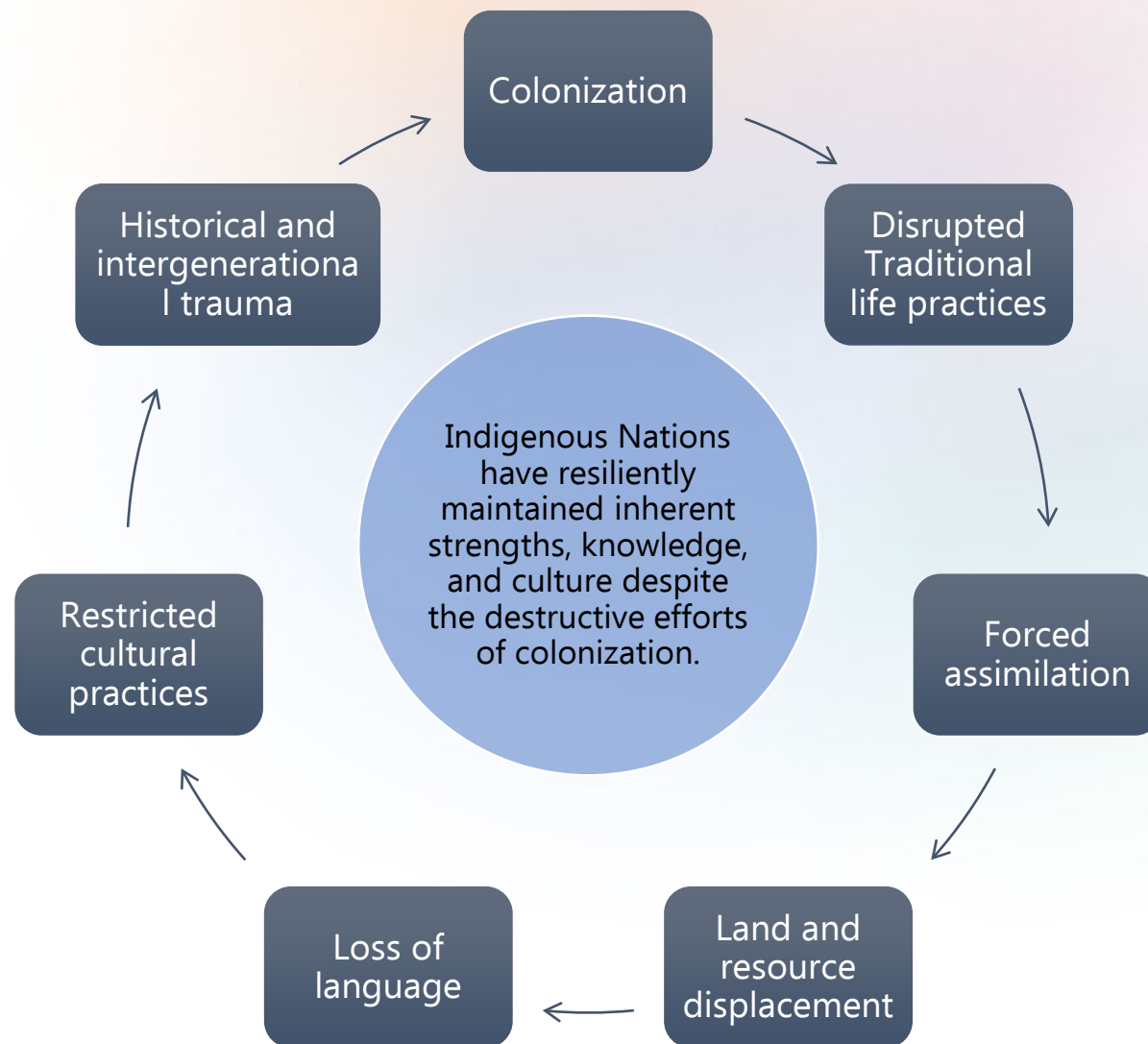
**Dr. Laercio Joel Franco** University of Sao Paulo

## BACKGROUND

6.2% of the global population<sup>1</sup>

476 million; 90 countries; 5,000+ distinct groups<sup>1</sup>

No single definition for Indigenous Peoples





## REPORT AIMS



Our aim: To systematically review the literature to understand the prevalence of T2D among Indigenous Peoples worldwide



Preliminary Findings

### Adults ( $\geq 18$ years)

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70% of all studies reported prevalence above 10%

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Most studies (76%) reported higher prevalence for Indigenous women compared to men

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**Recent** T2D prevalence data is limited

### Youth ( $\leq 18$ years)

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Few studies report T2D prevalence among Indigenous children and adolescents

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T2D is uncommon in children  $< 10$  years

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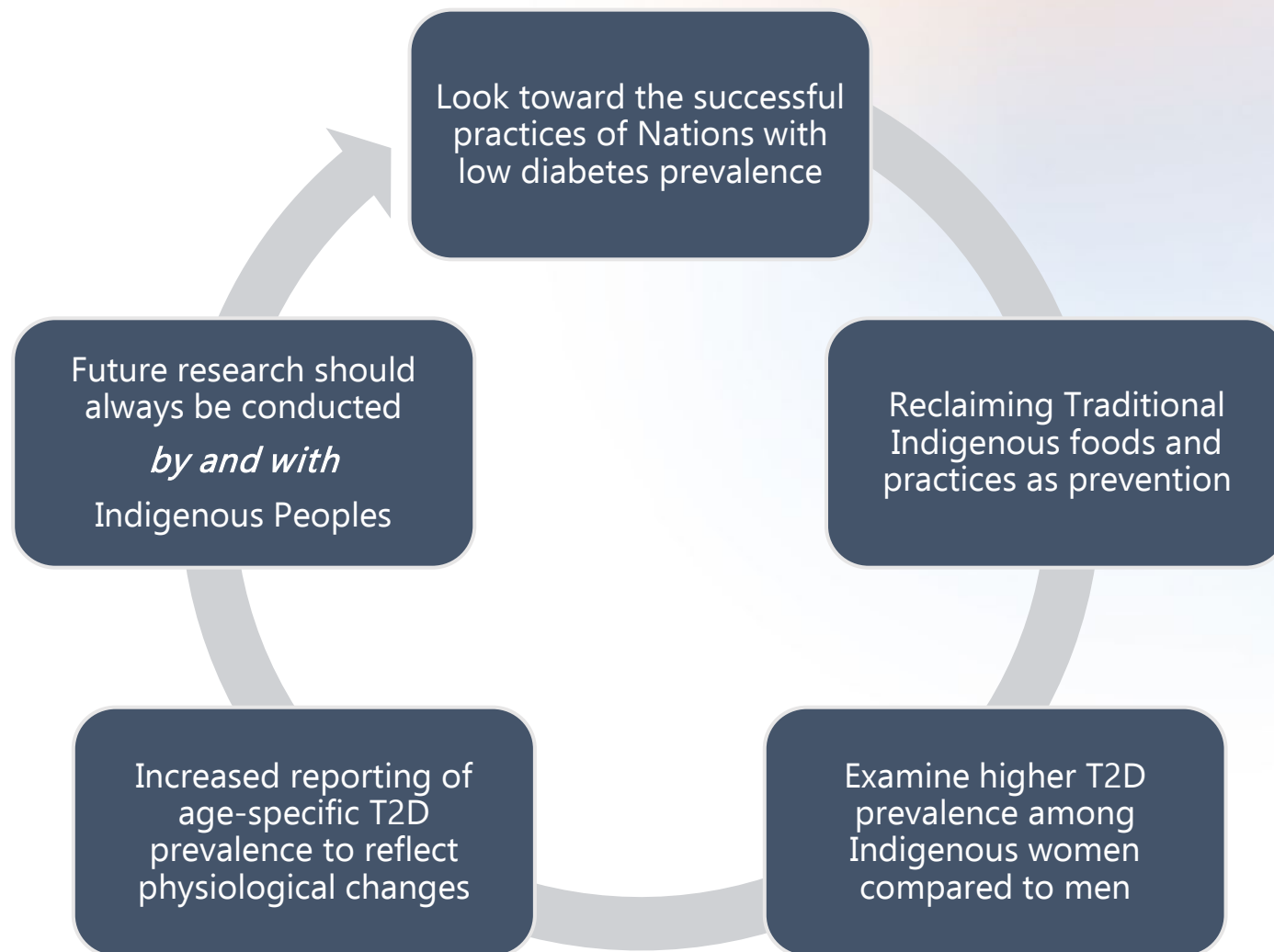
T2D prevalence increases with age

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## LIMITATIONS

- Variable diagnostic criteria & definitions
- Self-reported diagnosis (bias)
- Multiple geographic locations and jurisdictions
- Prevalence of all diabetes types combined

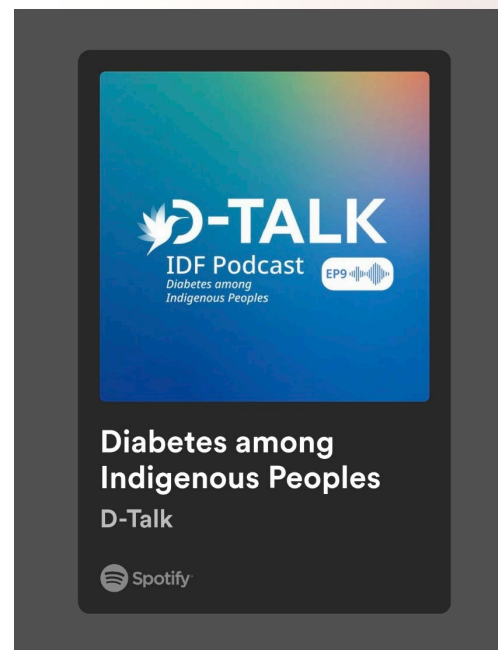
## FUTURE RECOMMENDATIONS



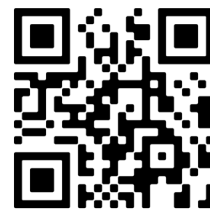
## LEARN MORE



<https://diabetesatlas.org/atlas/indigenous-2022/>



<https://open.spotify.com/episode/3Nq7mED9jbhfvC513iycBm>



Upcoming  
Manuscripts for  
Youth and Adult  
sections

# Pilamayaye! Thank you!

Courtney Fischer-Claussen, MPH

Indigenous Health PhD Candidate, University of North Dakota

[courtney.fischer.1@und.edu](mailto:courtney.fischer.1@und.edu)



# DIABETES AMONG INDIGENOUS PEOPLES

## GLOBAL POLICY INSTRUMENTS FOR ADVOCACY



**MR GEOFFREY ROTH**

Vice-Chair and Expert Member

*United Nations Permanent Forum on Indigenous Issues (UNPFII)*

# INTRODUCTION



## Diabetes among Indigenous communities globally

- United Nations agencies: Over 50% of Indigenous Peoples over 35 years old suffer from type 2 diabetes
- Diabetes is now affecting Indigenous youth between 10 and 25 years old
- Diabetes has reached the epidemic status in many Indigenous communities worldwide

## Two current opportunities:

- Taking advantage of the momentum- 76<sup>th</sup> World Health Organization's resolution on Indigenous Health (May 2023)
- Use existing Indigenous evidence-based practices and tools as knowledge springboards for national advocacy

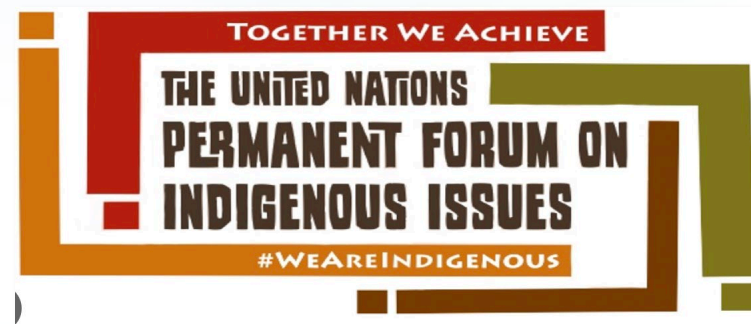
# SEIZING THE CURRENT MOMENTUM ON INDIGENOUS HEALTH

## Tools to assist in global and national advocacy efforts fighting diabetes

- The Indigenous Determinants of Health Study-- UN Permanent Forum of Indigenous Issues
- The Special Diabetes Program for Indians – U.S. Indian Health Service

## UNPFII proposal to assist in the WHO resolution's Indigenous Health Global Action Plan

- Indigenous Advisory Group to work with the Director General Office
- Use of the Indigenous Determinants of Health (IDH) Study as conceptual framework
- The IDH Study includes 33 risk and protective factors holistically connected to Indigenous health in all aspects connected to diabetes, including:
  - Intergenerational Healing
  - The Health of Mother Earth
  - Decolonizing and Re-Indigenizing culture





# SPECIAL DIABETES PROGRAM FOR INDIANS

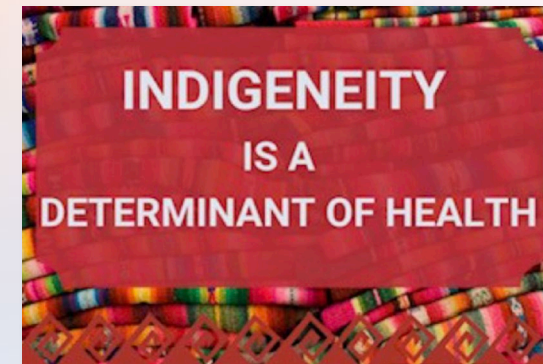
## U.S. Indian Health Service



### Special Diabetes Program for Indians (SDPI)-1997- current

- Grants for Native communities, who develop culturally competent evidence- based services
- In 2017, for the first time, diabetes prevalence in AI/AN adults decreased – and did it consistently for 4 years, dropping from 15.4 percent in 2013 to 14.6 % in 2017.
- Diabetes-related mortality for AI/AN people decreased 37 percent from 54.2 per 100,000 in 1999 to 34.4 per 100,000 in 2017.
- Diabetes-related kidney failure dropped by 54 %in AI/AN adults between 1996 (57.3 per 100,000) and 2013 (26.5 per 100,000. Recent research shows that these improvements have been sustained.
- SDPI has generated savings of up to \$520 million over 10 years

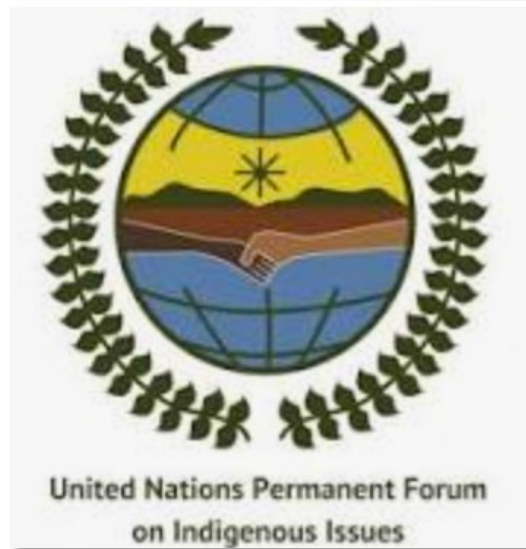
# GLOBAL AND NATIONAL COORDINATION OF OUR MESSAGE AND ADVOCACY EFFORTS



## Use of the Indigenous Determinants of Health at National and local levels

- A framework discussing all diabetes-related risk and protective factors, as well as incorporating culture-related health outcomes
- Referencing the DH Study would also expand the culture-driven synergy indigenous leaders have been trying to foster across the UN system
- Tribes and Communities in the US and the Americas interested in using it as their community health framework
  - Including a resolution by the Indian Health Board
- Feedback, suggestions and comments encouraged!

# THANK YOU



Geoffrey Roth,  
Vice Chair and Expert Member



# DIABETES AMONG INDIGENOUS PEOPLES

## THE WORK OF MEMBER STATES WITH INDIGENOUS PEOPLES: THE CASE OF CANADA



**MEMBER OF PARLIAMENT SONIA SIDHU**

Brampton South, Ontario. Chair of the All-Party Diabetes Caucus

*Canada*



# DIABETES AMONG INDIGENOUS PEOPLES

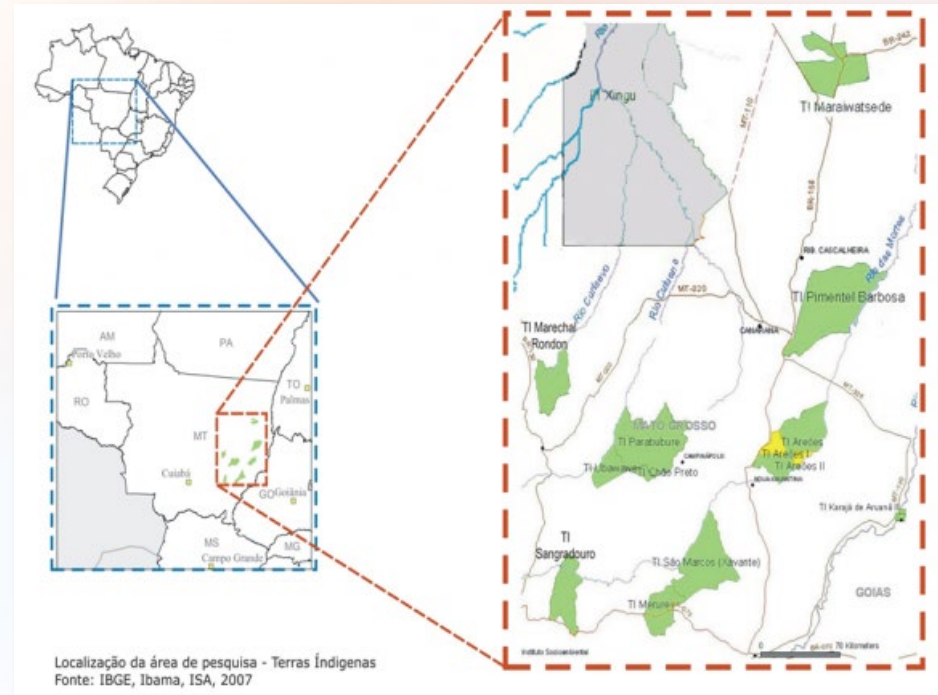
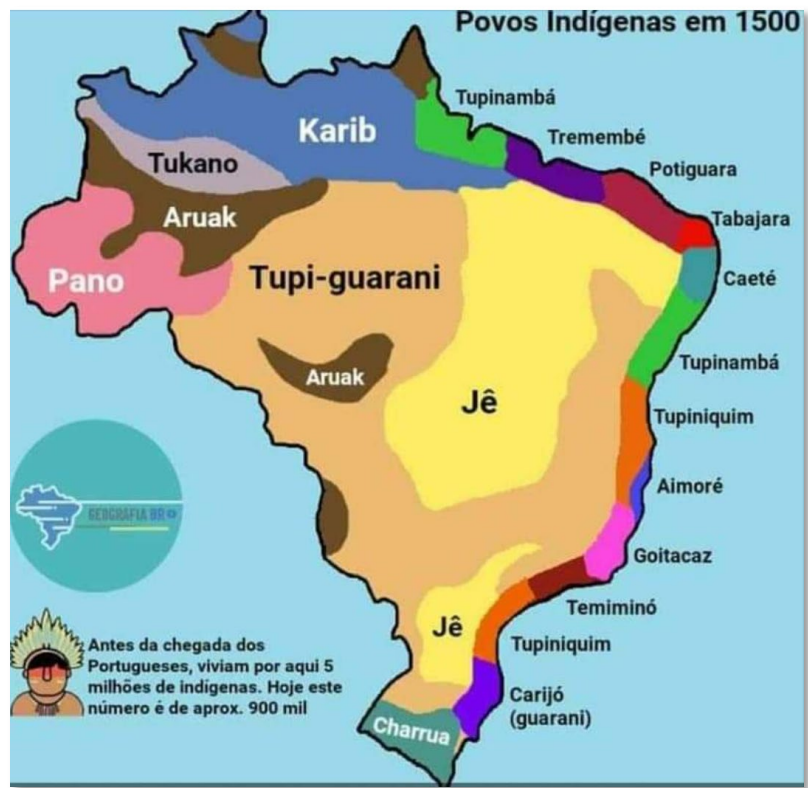
## THE CHALLENGES OF PROVIDING DIABETES CARE TO INDIGENOUS PEOPLES IN BRAZIL



### **DR FERNANDO KORN MALERBI**

Affiliate Professor of Ophthalmology – Federal University of Sao Paulo  
Coordinator of the Ocular Health Department – Brazilian Diabetes Society

*Brazil*





# XAVANTE'S HIGH PREVALENCE OF DIABETES AND OBESITY

Likely related to recent change in food habits and physical activity



> *Rev Assoc Med Bras* (1992). Jan-Mar 1996;42(1):61.

## [Diabetes Mellitus Type II Emergency Among the Xavantes]

[Article in Portuguese]

J P Vieira Filho

> *Ethn Dis.* Winter 2014;24(1):35-40.

## High Prevalence of Type 2 Diabetes Mellitus in Xavante Indians From Mato Grosso, Brazil

Amaury L Dal Fabbro, Laércio J Franco, Anderson S da Silva, Daniela S Sartorelli, Luana P Soares, Luciana F Franco, Patrícia C Kuhn, Regina S Moisés, João Paulo B Vieira-Filho

PMID: 24620446

OPEN ACCESS Freely available online



## Genome-Wide Analysis in Brazilian Xavante Indians Reveals Low Degree of Admixture

Patrícia C. Kuhn<sup>1</sup>, Andréa R. V. Russo Horimoto<sup>2</sup>, José Maurício Sanches<sup>2</sup>, João Paulo B. Vieira Filho<sup>1</sup>, Luciana Franco<sup>1</sup>, Amaury Dal Fabbro<sup>3</sup>, Laercio Joel Franco<sup>3</sup>, Alexandre C. Pereira<sup>2</sup>, Regina S. Moises<sup>1\*</sup>

<sup>1</sup> Disciplina de Endocrinologia, Escola Paulista de Medicina, Universidade Federal de São Paulo, São Paulo, Brazil, <sup>2</sup> Laboratory of Genetics and Molecular Cardiology, Heart Institute, Medical School of University of São Paulo, São Paulo, Brazil, <sup>3</sup> Departamento de Medicina Social, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, Brazil





# PROOF OF CONCEPT

- Telemedicine
- Portable Devices
- Screening



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Contents available at [ScienceDirect](#)

Diabetes Research  
and Clinical Practice

journal homepage: [www.elsevier.com/locate/diabres](http://www.elsevier.com/locate/diabres)



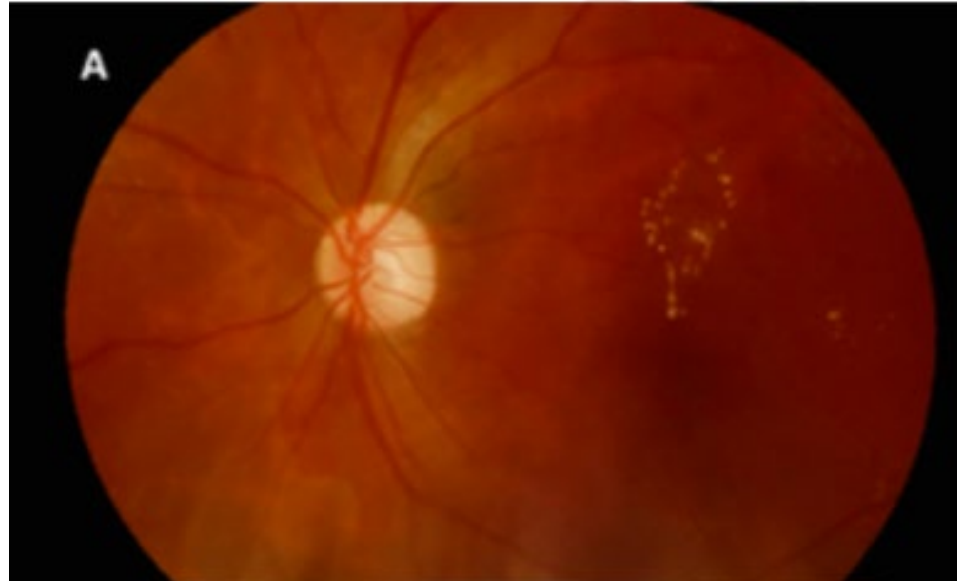
International  
Diabetes  
Federation

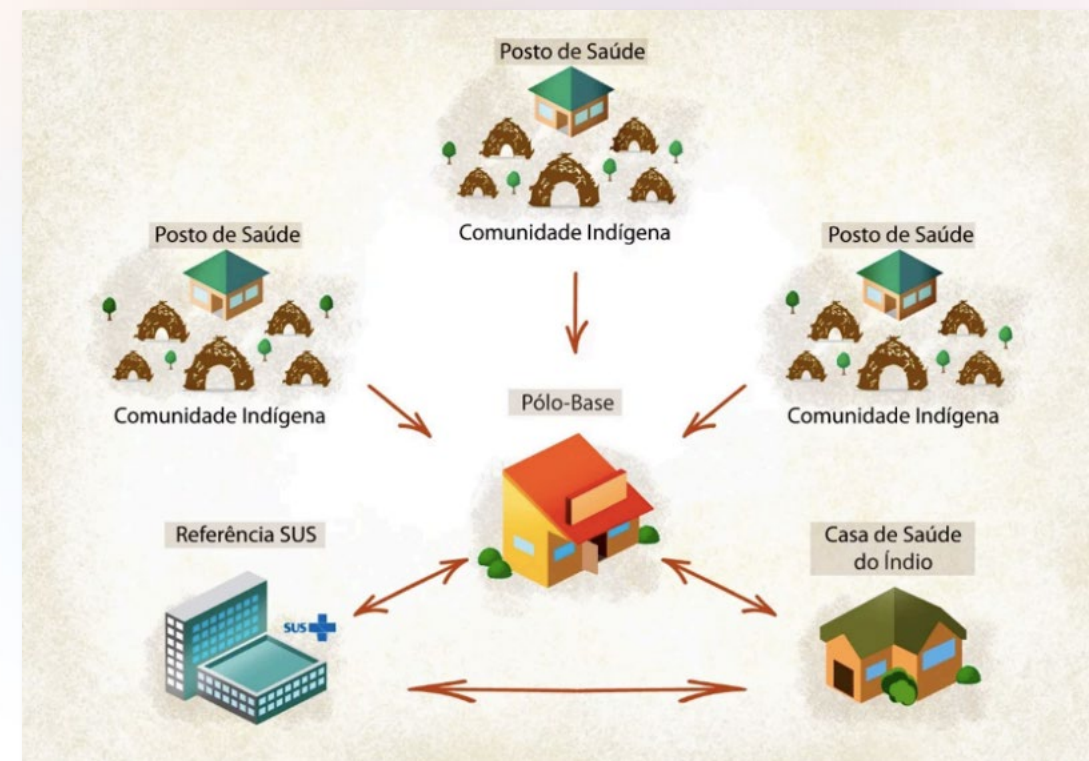


## The feasibility of smartphone based retinal photography for diabetic retinopathy screening among Brazilian Xavante Indians



Fernando Korn Malerbi<sup>a,b,\*</sup>, Amaury Lelis Dal Fabbro<sup>c</sup>, João Paulo Botelho Vieira Filho<sup>b</sup>,  
Laercio Joel Franco<sup>b,c</sup>







# DIABETES AMONG INDIGENOUS PEOPLES

## THE CHALLENGES OF PROVIDING DIABETES CARE TO INDIGENOUS PEOPLES IN NEPAL



**MR BHAKTA BAHADUR**

Person living with diabetes. Public Health Professional at Abt Associates Inc.  
Strengthening system for better health activities

*Nepal*

## DIABETES IN NEPAL

- Diabetes is becoming one of the biggest killers in Nepal
- In 2020, the prevalence of T2DM in Nepal was 8.5%
- The prevalence of prediabetes and diabetes gradually increased with increasing age and was more prevalent among males and urban residents.



# DIABETES IN NEPAL EXPERIENCESA: CHANGE IN FOOD HABITS AND PHYSICAL ACTIVITY

- High burden of DM in Nepal in 2019 with a steep increase in the proportion of deaths attributable to DM in Nepal which could pose a serious challenge to the health system
- Primary prevention of DM requires collaborative efforts from multiple sectors. Meanwhile, the current federal structure could be an opportunity for integrated, locally tailored public health and clinical interventions for the prevention of the disease and its consequences.
- Earlier, more carbohydrate food used to be but now more portentous food used to be consumed
- Very conscious in taking food items- sugar free items are more consuming
- Earlier No/Less physical activities but now regular physical activities



परिस्थितिले कहिले काहीं सिंहलाई पनि  
यसरी भाग्न बाध्य बनाउछ, त्यसैले कसैले  
पनि आफुलाई सर्वेसर्बा नठानी ।

## DISCUSSION AND CONCLUSION

- Unhealthy behaviors, such as energy-dense food choices and a sedentary lifestyle, both of which are established risk factors for diabetes, are common and increasing among Nepalese adults
- Targeted interventions to higher risk groups as well as prevention and control of other associated biological risk factors might help to reduce the prevalence of DM in Nepal.
- Dalit (marginalised group of people, with relatively lower socioeconomic and education status)
- Disadvantaged Janajatis (disadvantaged group of people and also indigenous, with relatively lower socioeconomic and education status)



# DIABETES AMONG INDIGENOUS PEOPLES

## DIABETES EDUCATION SESSION WITH INDIGENOUS WOMEN IN GUATEMALA

### HOSPITALITO ATITLÁN

An initiative supported by the World Diabetes Foundation

*Guatemala*



# Discussion panel and Q&A







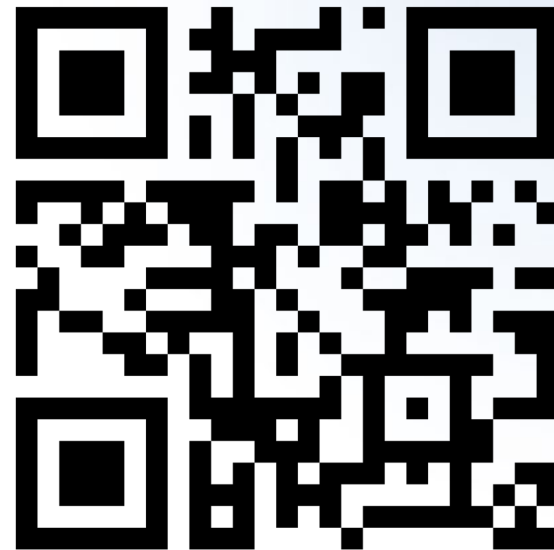
# Closing remarks and thanks



# IDF ATLAS REPORT: DIABETES AMONG INDIGENOUS PEOPLES



<https://diabetesatlas.org/atlas/indigenous-2022/>



## CLOSING REMARKS AND THANKS

- The recording, slides and feedback questionnaire will be sent to all registrants in a few days
- Please respond to the feedback questionnaire to help us improve future IDF online events
- Send any questions you may have to [advocacy@idf.org](mailto:advocacy@idf.org)