



Diabetic Retinopathy: A Call for Global Action

Online event

26 March 2024
15:00-16:30 CET





DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

WELCOME FROM THE MODERATOR



PROF SERGE RESNIKOFF MD PHD

President of the French Organisation for the Prevention of Blindness (OPC)
Conjoint Professor SOVS, University of New South Wales

Australia

WELCOME FROM IAPB AND IDF

- 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 April 15.
- **Please use the Q&A function to post your questions to speakers and panellists.**



DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

WELCOME FROM THE IAPB CEO AND THE IDF PRESIDENT



MR PETER HOLLAND

Chief Executive, IAPB

United Kingdom



PROF AKHTAR HUSSAIN

IDF President

Bangladesh/Norway



DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

WHO WORK ON DIABETES AND EYE HEALTH



DR BENTE MIKKELSEN

Director, NCD department, World Health Organization

Norway

Setting the scene





DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

THE IAPB-IDF JOINT POLICY BRIEF



DR COVADONGA BASCARAN

International Centre for Eye Health, London School of Hygiene & Tropical Medicine

United Kingdom

DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

Editorial team

Dr Covadonga Bascaran, Junu Shrestha, Beatriz Yáñez Jiménez, Justine Evans.

Expert contributors

Prof Serge Resnikoff, Associate Prof Dr Raba Thapa, Dr Fariza Ngah, Prof Enayet Hussain, Prof Sehnaz Karadeniz, Prof David Owens, Dr Rebecca Thomas.



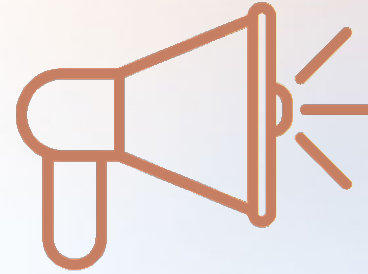
Diabetic Retinopathy: A Call for Global Action

A policy brief by the International Agency for the Prevention of Blindness and the International Diabetes Federation



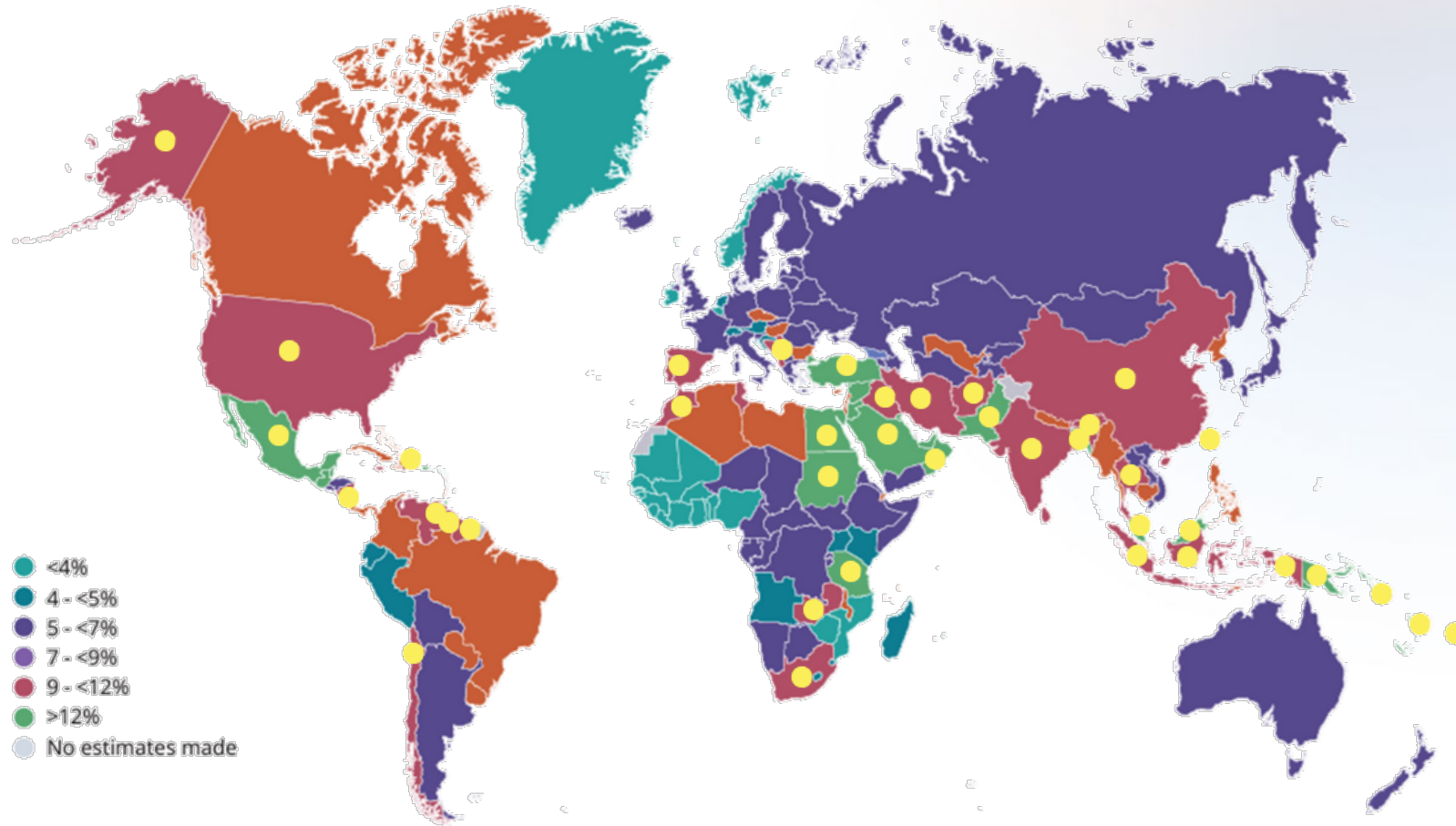
OBJECTIVE

Provide recommendations to effectively prevent and manage diabetic retinopathy to avoid vision loss in people with diabetes.



Download the policy brief!

ESTIMATED AGE-ADJUSTED COMPARATIVE PREVALENCE OF DIABETES IN ADULTS (20-79 YEARS) IN 2021



537 million adults

75% LMICs

>1/10 adults has diabetes

ESTIMATED PREVALENCE OF DIABETIC RETINOPATHY IN ADULTS WITH DIABETES (20-87 YEARS) IN 2020 BY IDF REGION

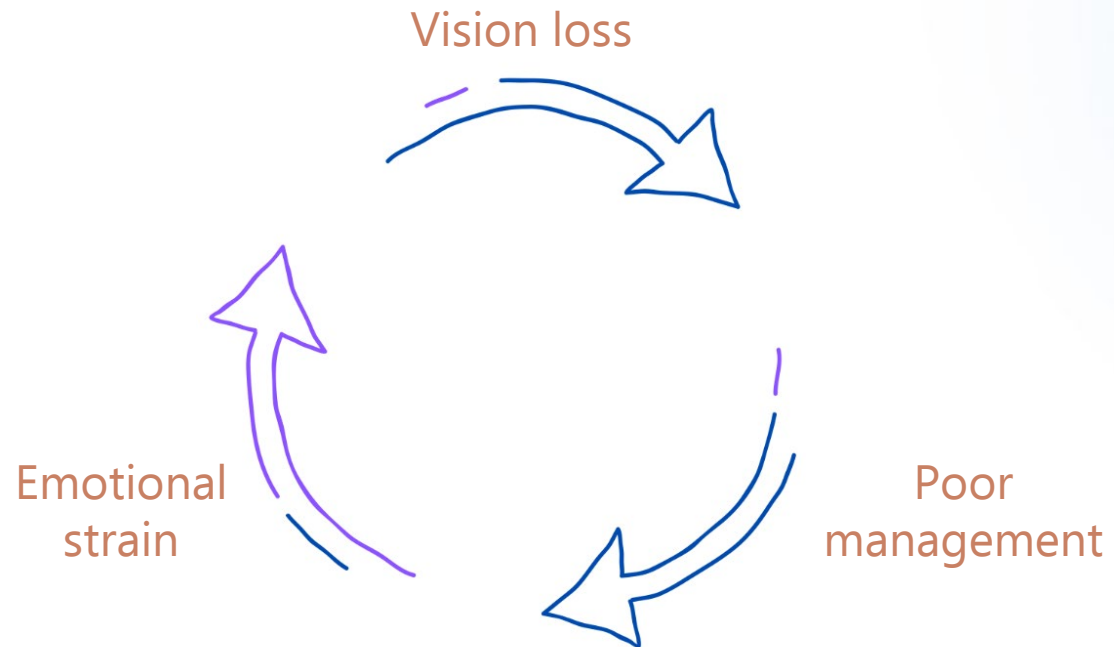


Global DR prevalence 22%

> 100 million people

THE SOCIAL AND ECONOMIC IMPACT OF DR

DR is one of the five **leading** causes of blindness globally and the only one that has continued to **increase**.



Diabetes care is 12% of total global health expenditure

Visual impairment is associated with annual economic productivity loss of US\$ 411 billion

ADDRESSING DIABETES AND DIABETIC RETINOPATHY

PREVENTION

1. Prevention of diabetes: lifestyle modifications:

PHYSICAL FITNESS
WEIGHT CONTROL

2. Prevention of DR development and progression:

GLYCAEMIC CONTROL
BLOOD PRESSURE CONTROL

MANAGEMENT

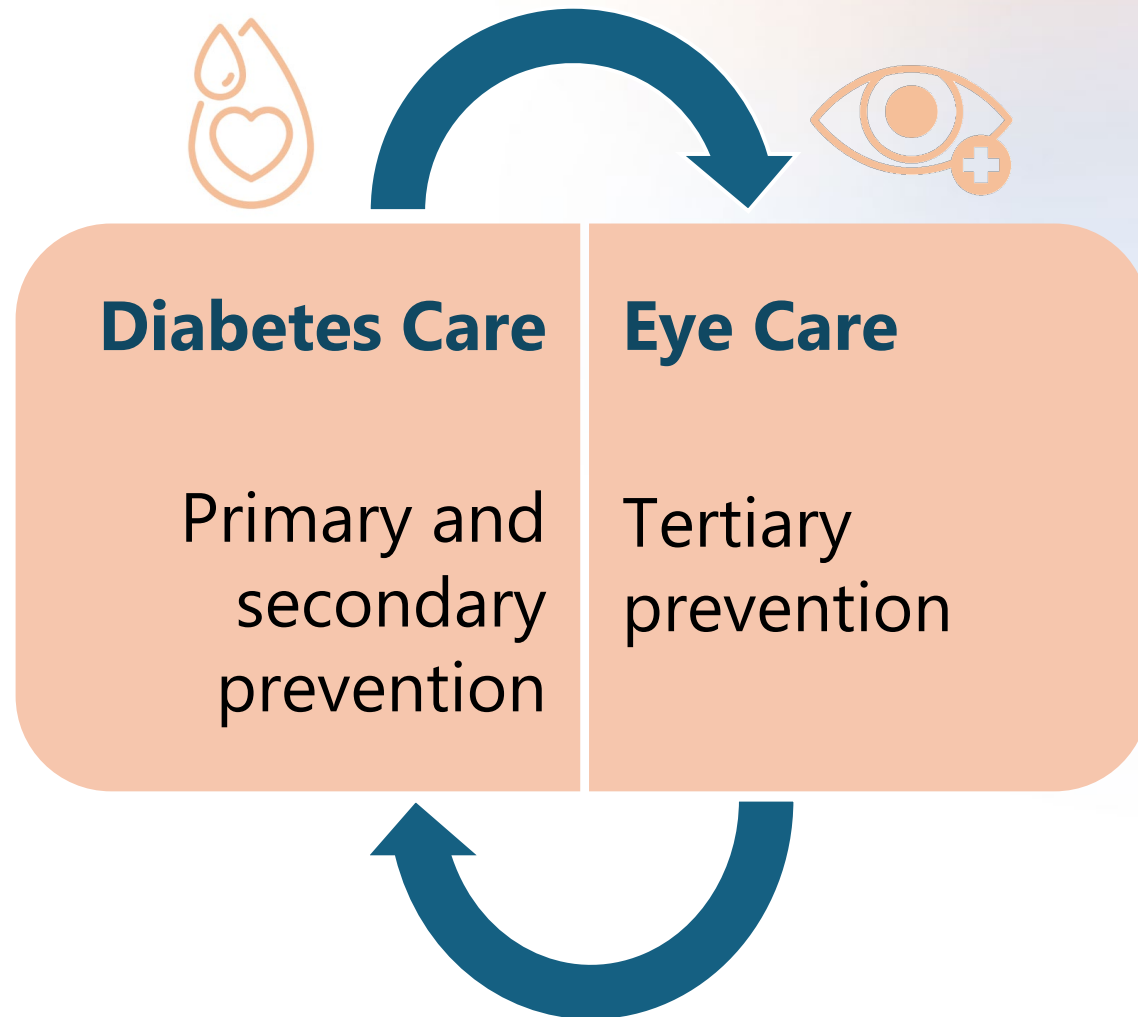
1. Early detection:

DR SCREENING

2. Treatment:

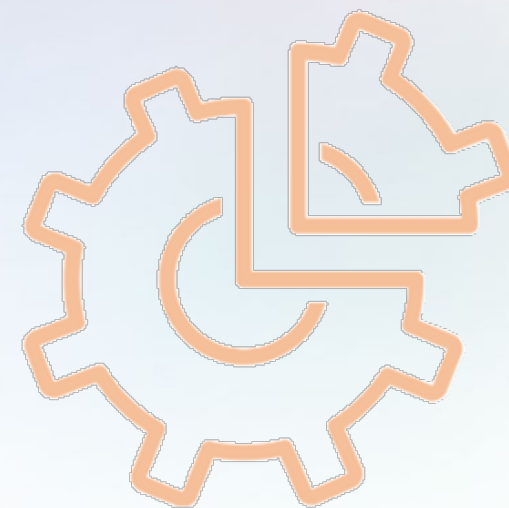
LASER
INTRAVITREAL INJECTIONS
VITREORETINAL SURGERY

DR VISUAL LOSS PREVENTION AND CONTROL



POLICY RECOMMENDATIONS

1. Promote intersectoral collaboration to **integrate** DR care into all diabetes policies and national health strategic plans so that people with diabetes receive a continuum of interventions encompassing promotion, prevention and treatment of DR.



POLICY RECOMMENDATIONS

2. Strengthen and improve **access** to diabetes care at all levels, to adapt and respond to the rapidly changing population needs, including the projected growth in the number of people with DR.



POLICY RECOMMENDATIONS

3. Develop and implement screening and treatment **interventions** for DR that are **contextually appropriate** to needs of different populations and to the resources available in different countries' health systems.



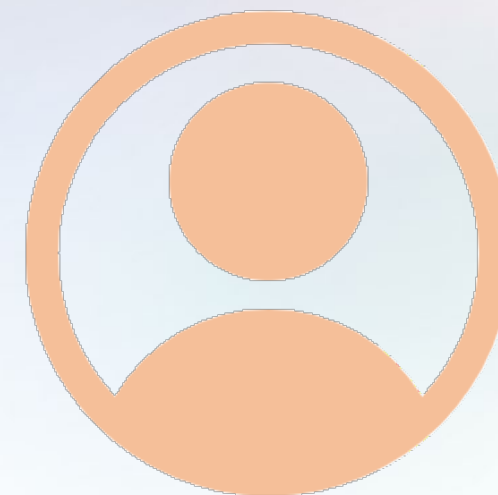
POLICY RECOMMENDATIONS

4. Provide **universal coverage** for interventions that reduce the risk of VI in people with diabetes, including screening, the treatments and the drugs required to achieve this.



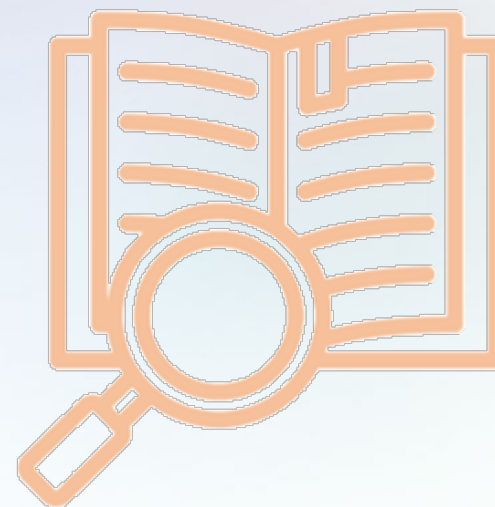
POLICY RECOMMENDATIONS

5. Advocate for **people-centred** diabetes and eye care, engaging people with diabetes to participate in the development of policies that address their DR needs.



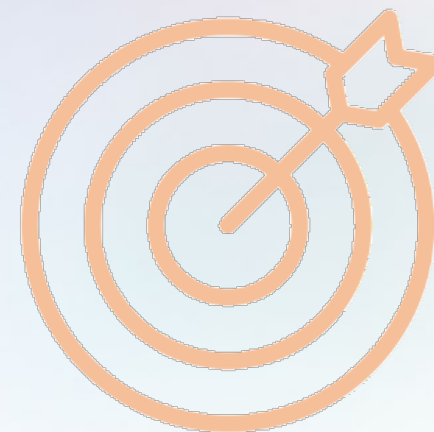
POLICY RECOMMENDATIONS

6. Promote and fund a global research agenda for diabetes and DR including health systems and technological innovations research to maximize the impact of the research into practice.



POLICY RECOMMENDATIONS

7. Include DR in the global diabetes **targets** and promote and fund the collection of population level **data** on DR and DR-related VI.



POLICY RECOMMENDATIONS

8. Strengthen national capacity to collect, analyse and use services data on the burden and trends of diabetes, DR and DR-related VI, to **monitor** and **evaluate progress**.





DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

WHO'S WORK ON DIABETIC RETINOPATHY AND EYE HEALTH



DR STUART KEEL

Technical Officer | Vision and Eye Care Programme, Department of Noncommunicable Diseases, World Health Organization

Switzerland

2020: WHA RESOLUTION 73.4

SEVENTY-THIRD WORLD HEALTH ASSEMBLY

WHA73.4

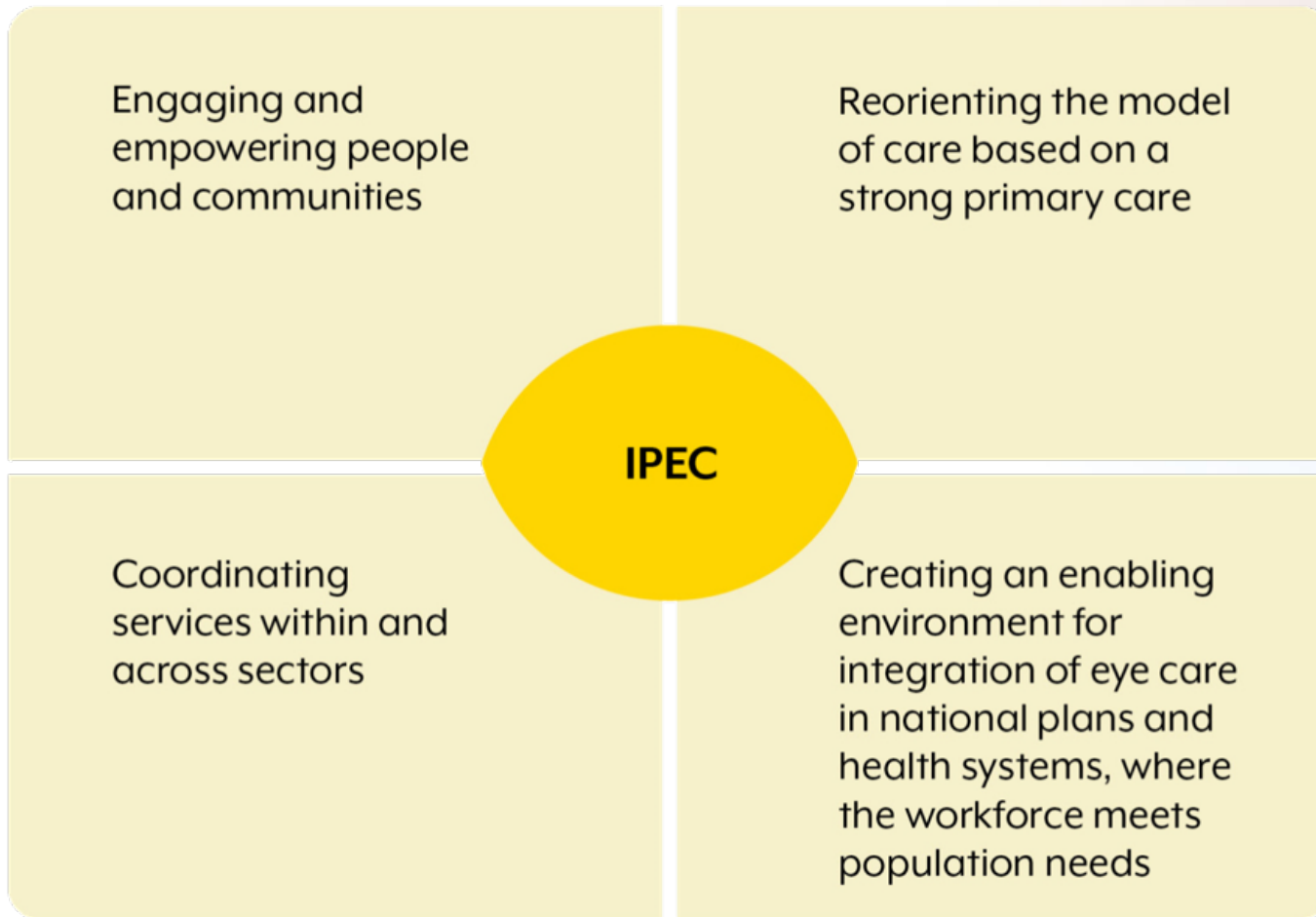
Agenda item 11.7

3 August 2020

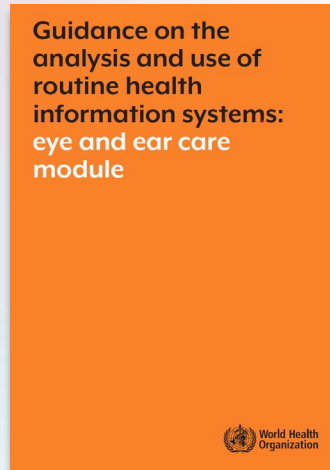
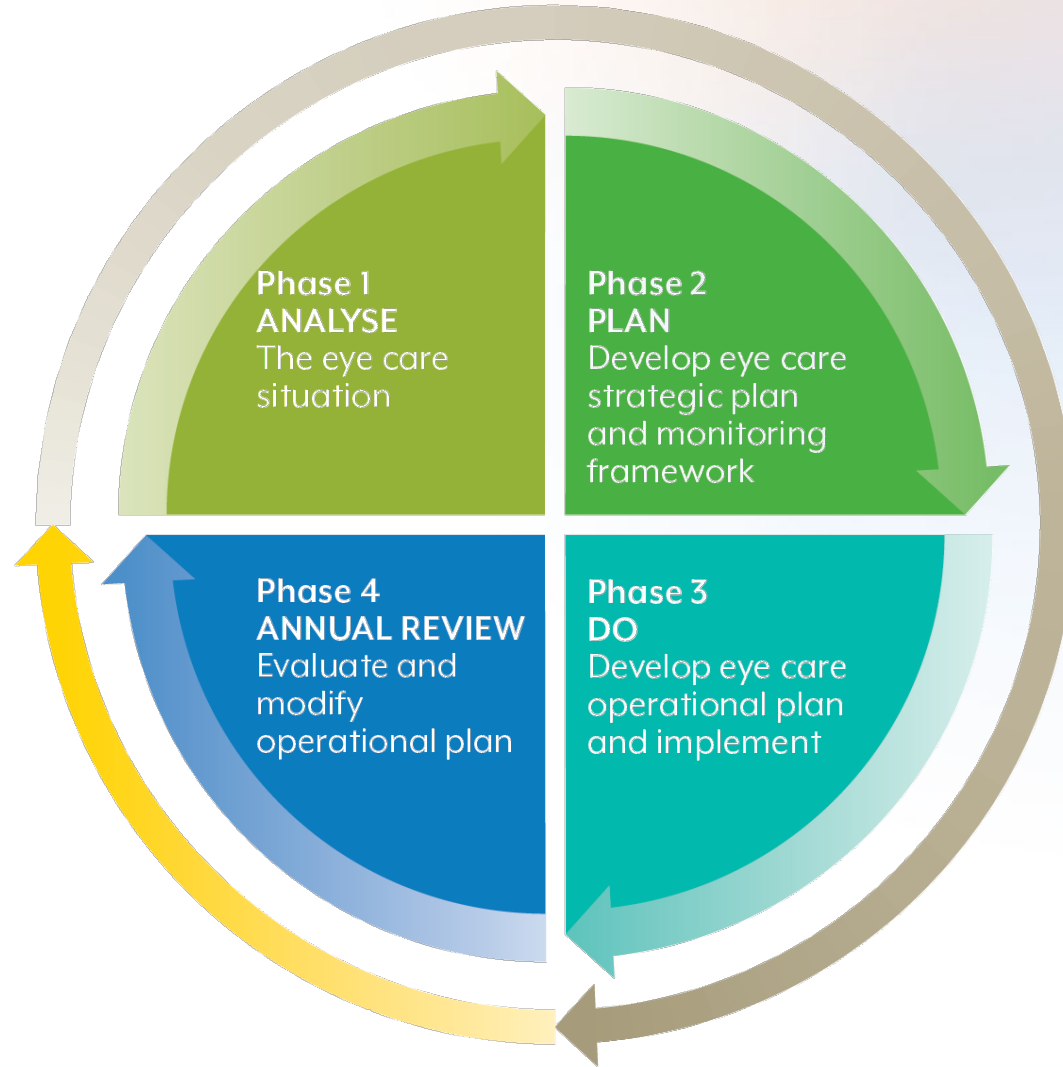
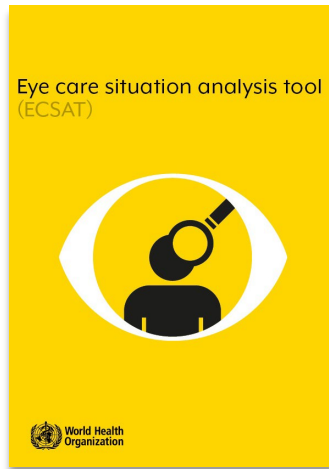
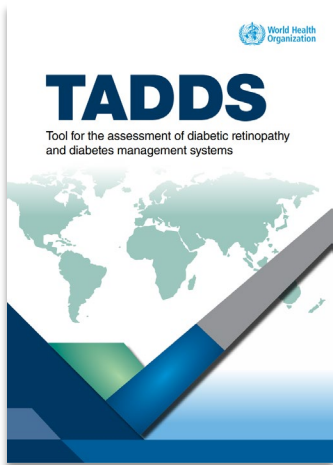
Integrated people-centred eye care, including preventable vision impairment and blindness

... urges Member States to implement
IPEC in health systems ...

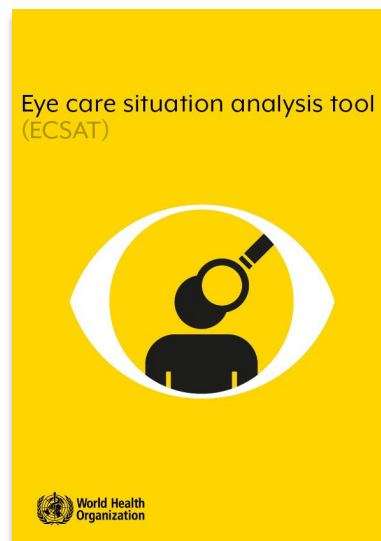
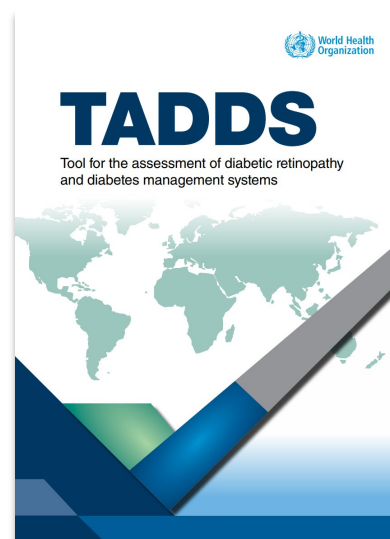
INTEGRATED PEOPLE-CENTRED EYE CARE (IPEC)



WHO'S SUPPORT TO MEMBER STATES

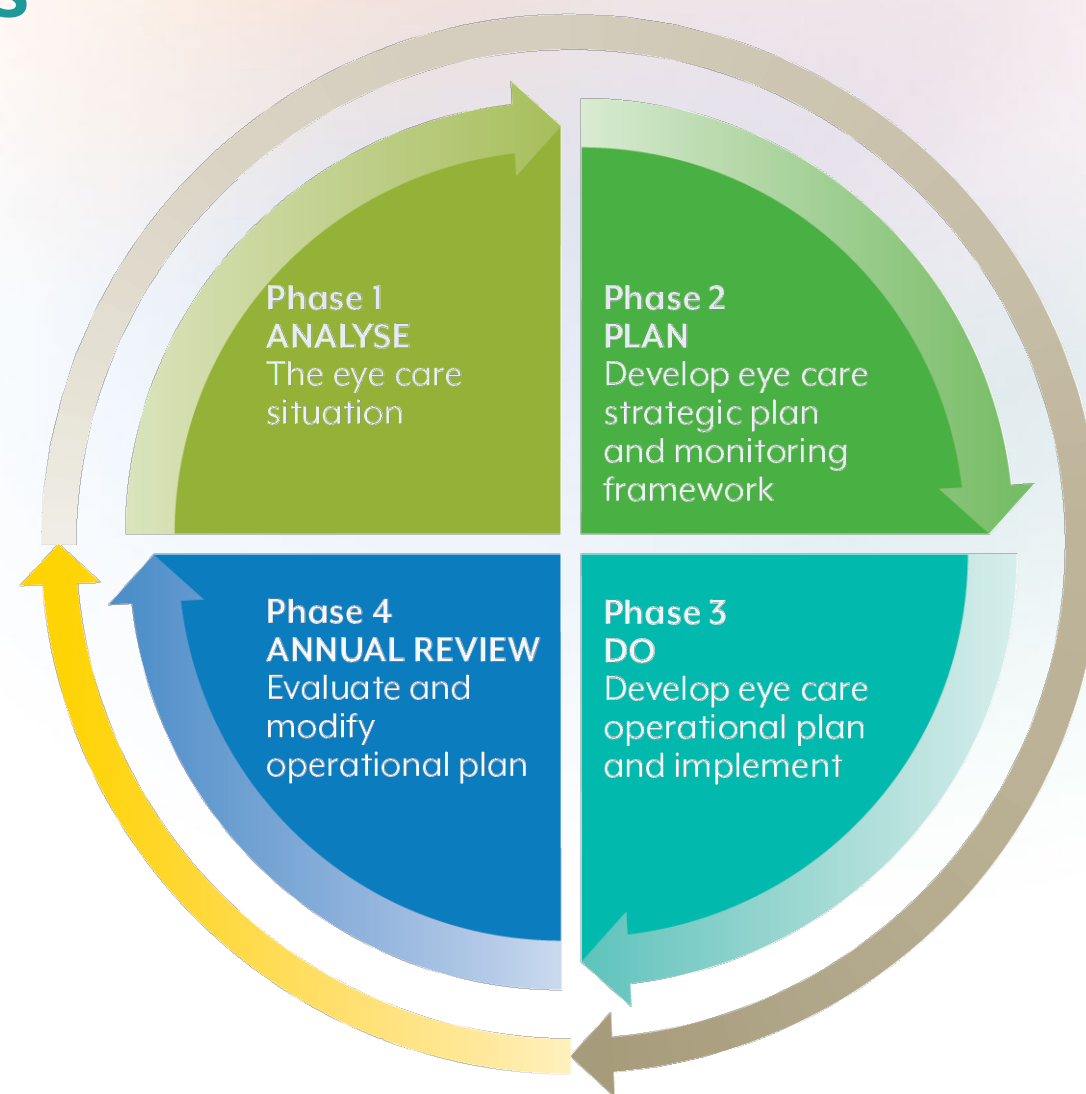


WHO'S SUPPORT TO MEMBER STATES



Designed to answer:

- What is the **current situation**?
- What **priority areas need to be addressed** in strategic planning?
- What are **possible activities to address gaps**?



KEY PRIORITIES BASED ON ANALYSES OF TADDS RESULTS FROM 83 COUNTRIES



Need for DR **clinical management guidelines that are** MOH-endorsed and aligned with DM guidelines,



Improved integration **of DR screening in DM service delivery,**



Improved affordability and access to DR **treatment (technology and medicines),**

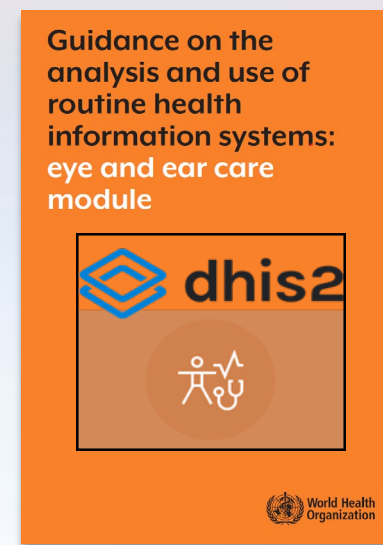
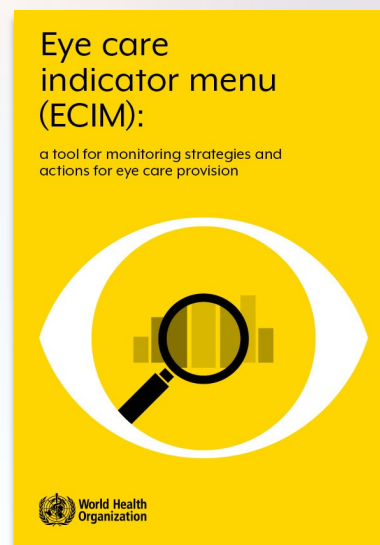
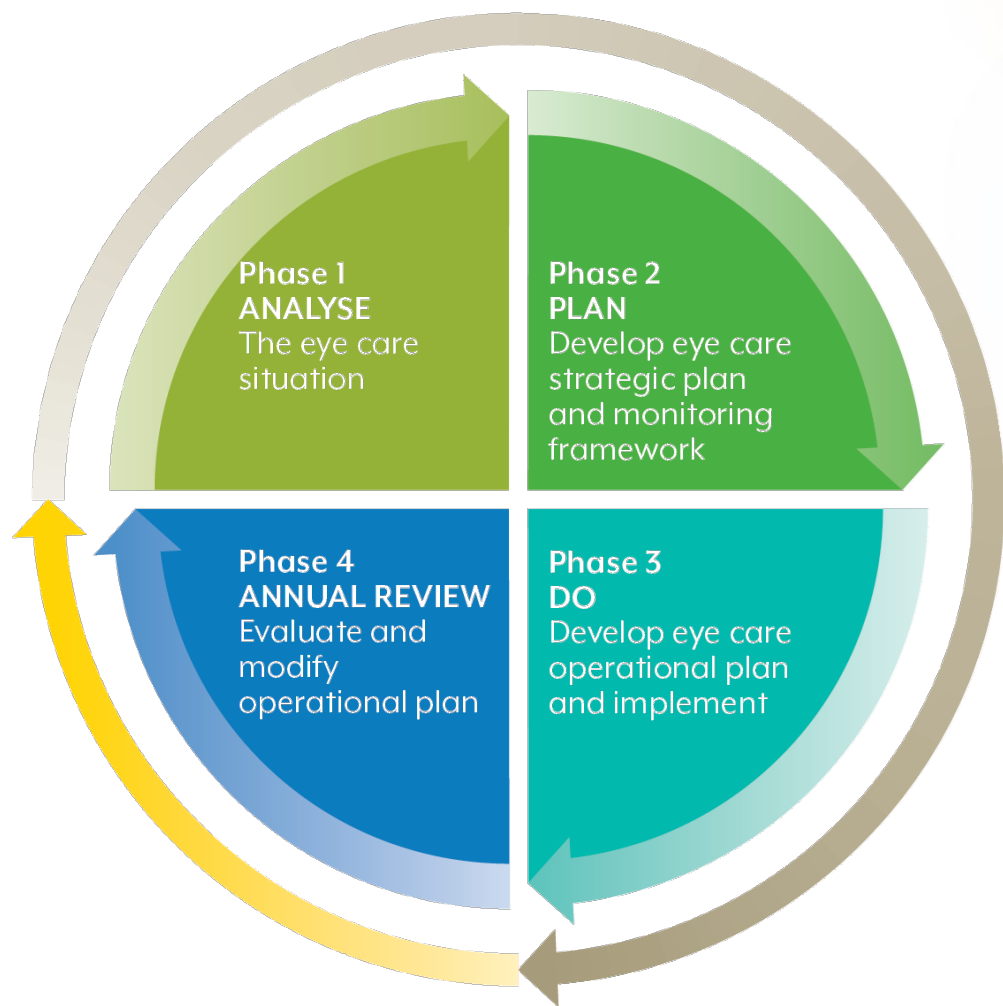


Integrate **indicators for DR** into national HIS general frameworks, and



Strengthen **health promotion and prevention** for DM and DR.

WHO'S SUPPORT TO MEMBER STATES



Comprehensive set of indicators, to **facilitate the monitoring of strategies and actions for eye care.**

Facilities indicators integrated into



M&E TOOLS | KEY CONTENT RELATED TO DR

Eye care indicator menu (ECIM)

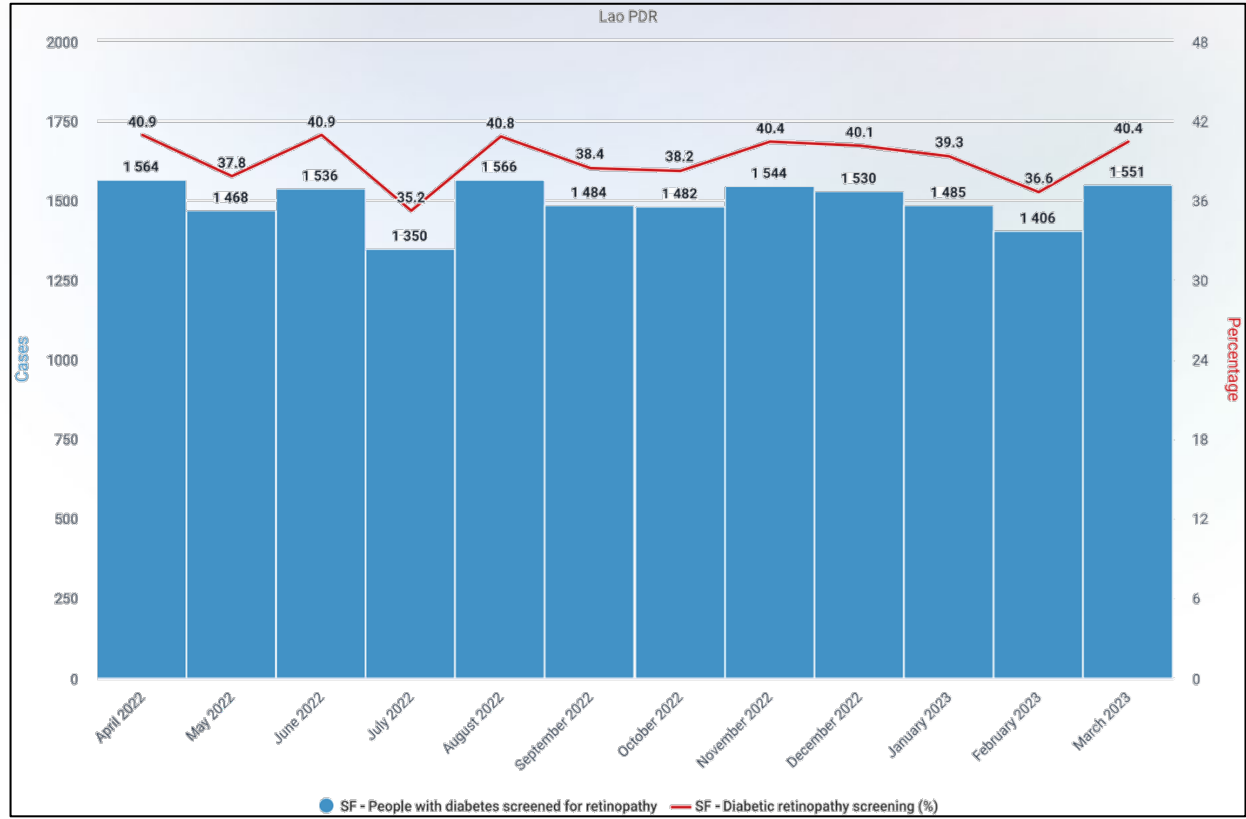
Expanded Indicator 4
Financial risk protection for diabetic retinopathy (DR) laser treatment

Indicator domain
Input and Processes – Eye Care Financing

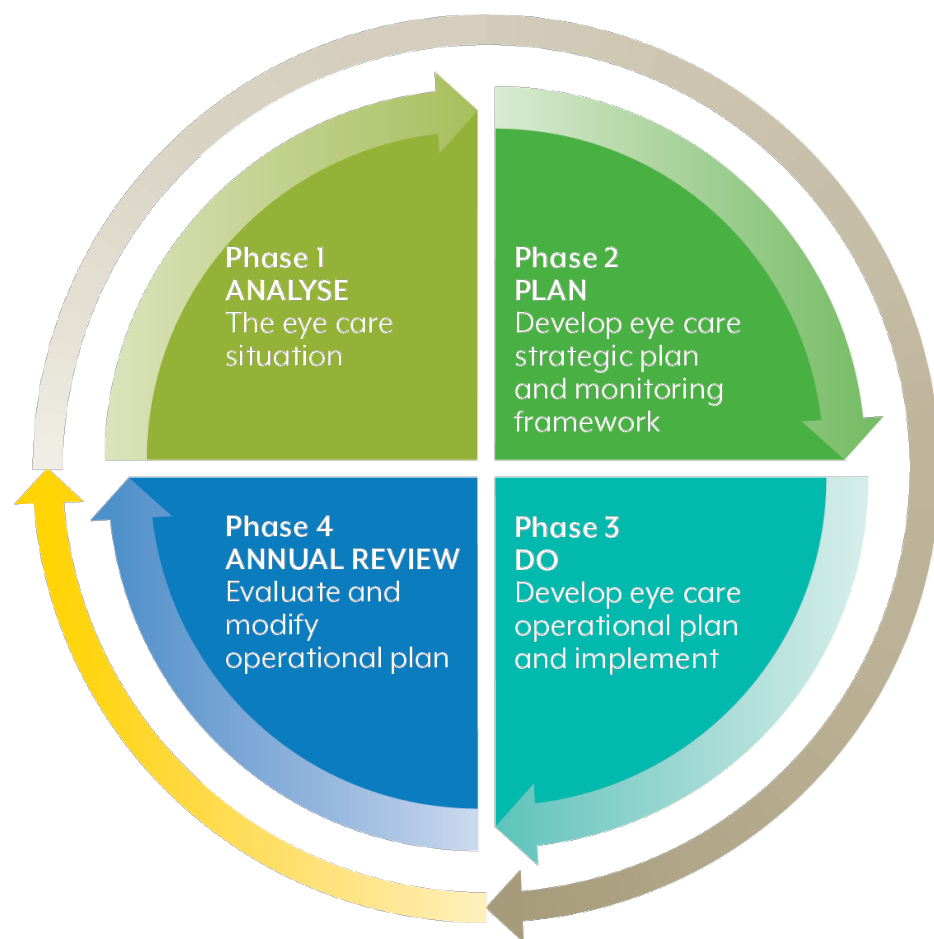
Core Indicator 10
Retina screening coverage for people with diabetes

Indicator domain:
Outcome – Eye Care Coverage

RHIS: sensory functions toolkit (DHIS2)



WHO'S SUPPORT TO MEMBER STATES

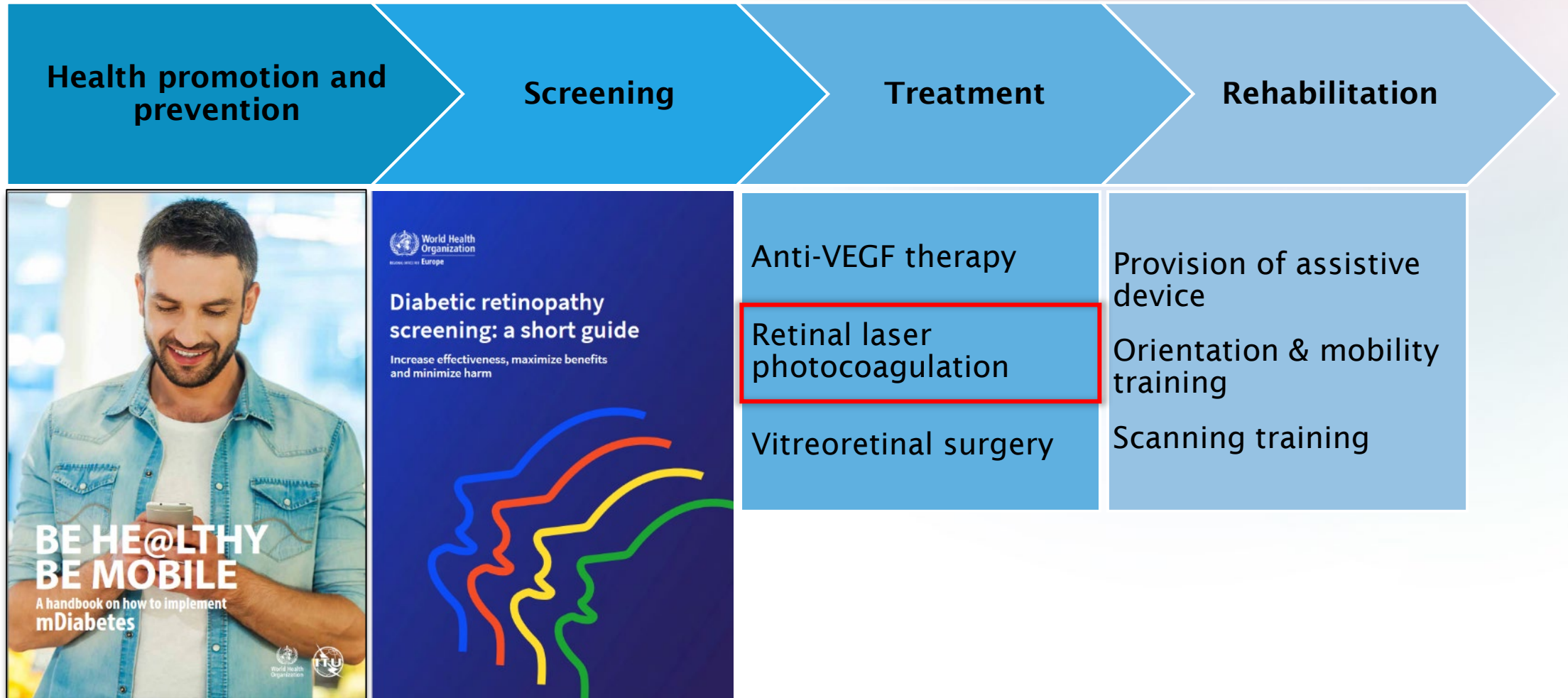


Recommended, **evidence-based interventions, including the material resources required**, across the **continuum of care** and **all levels of the health system**.

Facilitate countries' decisions on which interventions to **prioritize**, how these can be **budgeted** and **integrated**.



SERVICE PLANNING: PECI | KEY CONTENT RELATED TO DR



SERVICE PLANNING: PECI | KEY CONTENT RELATED TO DR



Intervention

Retinal Laser Photocoagulation

Life-course

Early adulthood to later adulthood



Level/s of care for delivery

Secondary and tertiary care

Links to health programmes

Non-communicable Disease; Diabetes Care



Equipment, Medicines and Consumables

Laser equipment

Medicines and Consumables (general list)

Stuart Keel

Technical Officer
Vision and Eye Care Programme
World Health Organization
Headquarters | Geneva, Switzerland

Visit the Vision and eye care webpage



#EyeCare4All



DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

DIABETIC RETINOPATHY LANDSCAPE IN BRAZIL



DR. FERNANDO K. MALERBI

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

Brazil

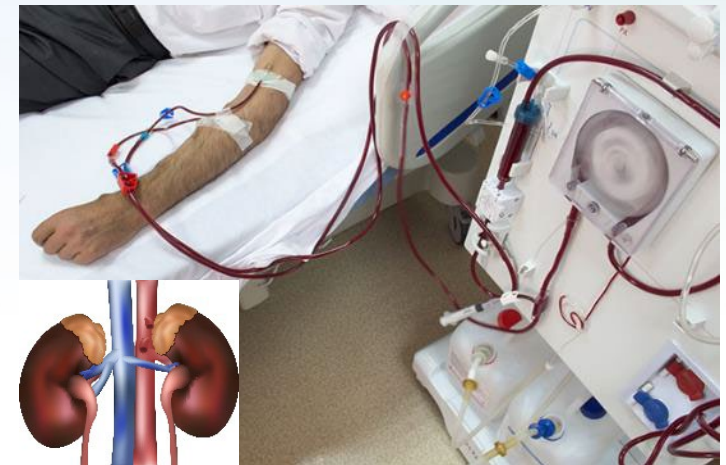
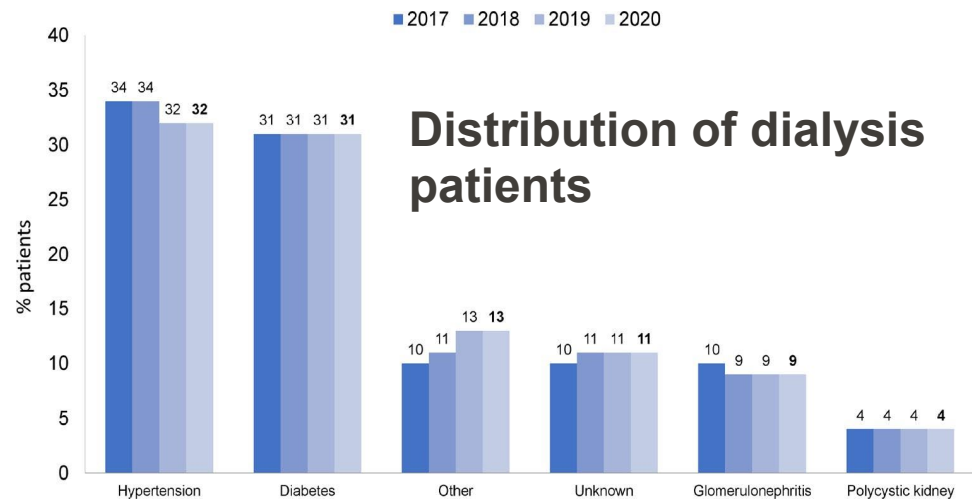
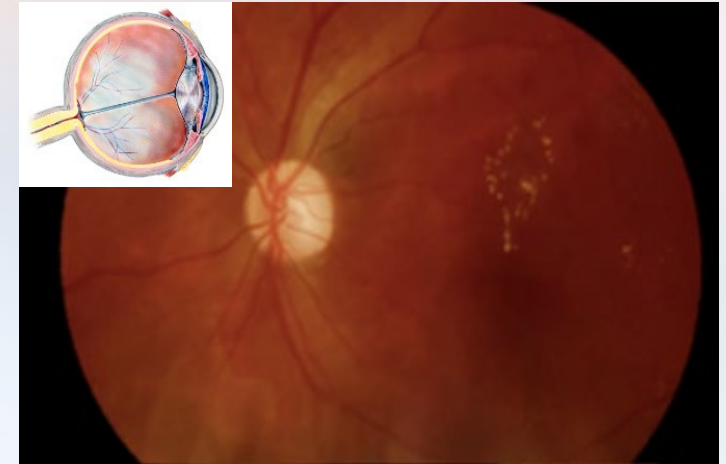
BRAZIL: #6 IN THE WORLD (ADULTS WITH DIABETES)

10

DIABETES RESEARCH AND CLINICAL PRACTICE 183 (2022) 109119

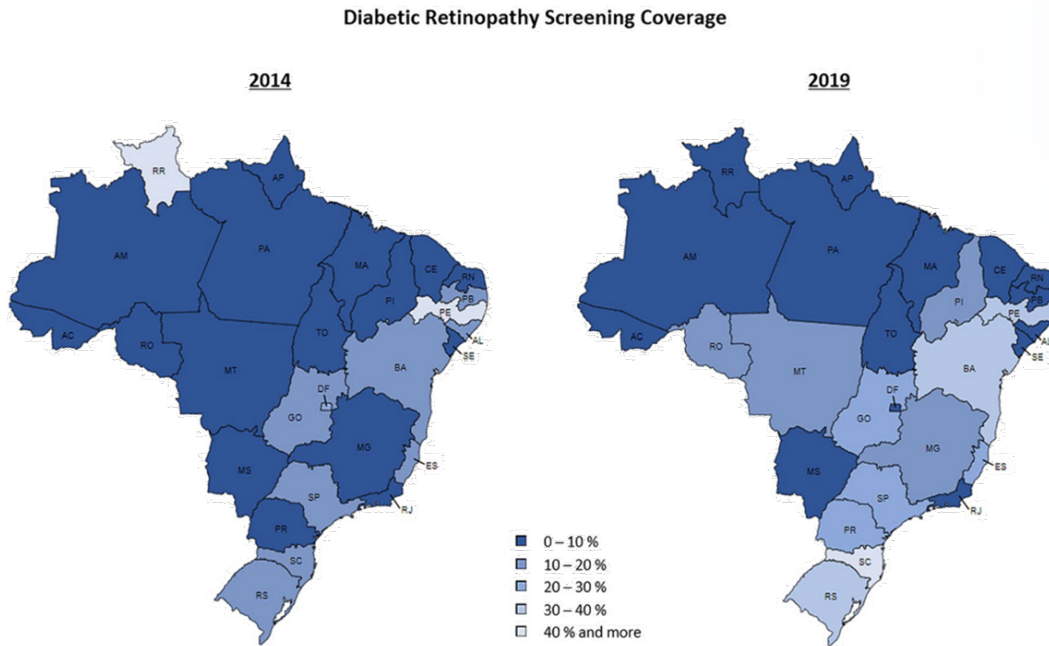
Table 5 - Top 10 countries or territories when ranked by the number of adults (20-79 years) with diabetes in 2021 and 2045.

2021			2045		
Rank	Country	Number of people with diabetes (millions)	Rank	Country	Number of people with diabetes (millions)
1	China	140.9	1	China	174.4
2	India	74.2	2	India	124.9
3	Pakistan	33.0	3	Pakistan	62.2
4	USA	32.2	4	USA	36.3
6	Brazil	15.7	6	Brazil	23.2
8	Bangladesh	13.1	8	Mexico	21.2
9	Japan	11.0	9	Egypt	20.0
10	Egypt	10.9	10	Turkey	13.4



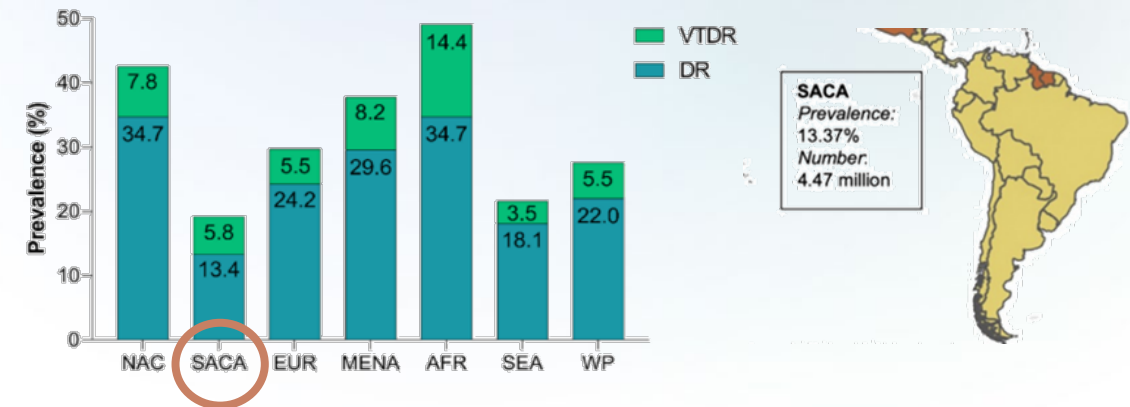
Sun H et al. *Diabetes Res Clin Pract.* 2022; Malerbi et al. *Diabetes Res Clin Pract.* 2022; Nerbass FB et al. *Braz. J. Nephrol.* 2022

DR SCREENING COVERAGE AT SUS: HETEROGENEOUS



DR PREVALENCE IN BRAZIL? PLANNING OF HEALTH STRATEGIES

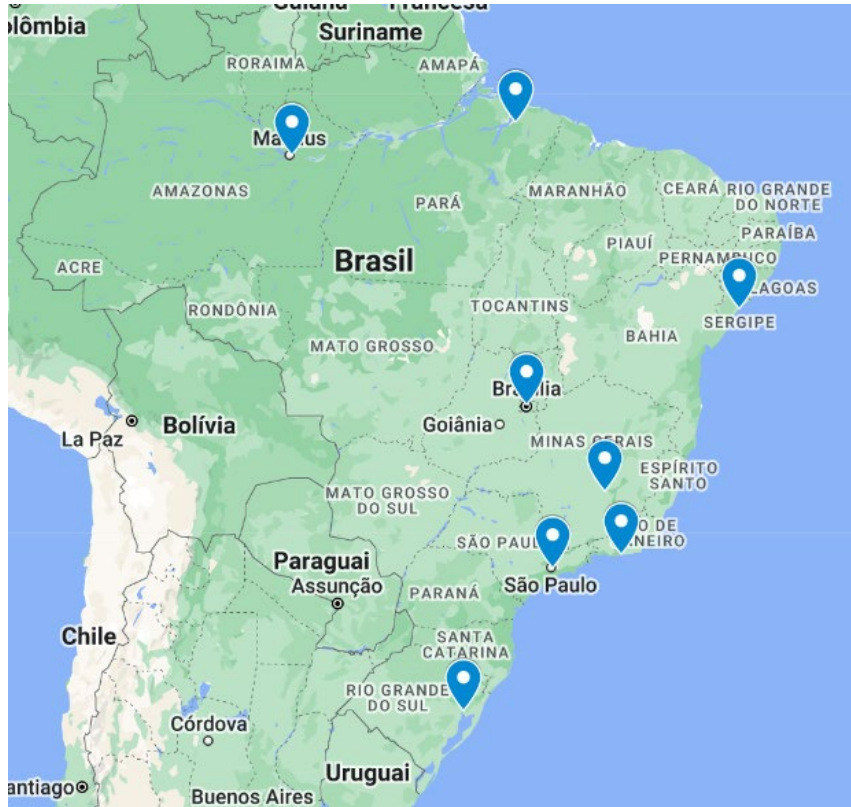
- Limited studies on DR prevalence.
- Continual need for high-quality population-based studies of DR.



Sources: Fernandes et al Scientific Reports 2022; Teo et al 2021; Taha et al 2024



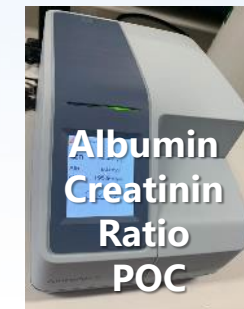
RETREND
Brasil



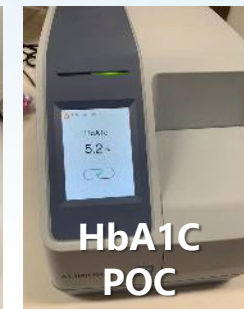
Team Training



Fundus Photographs



Albumin
Creatinin
Ratio
POC



HbA1C
POC



Creatinin
POC

Pilot Study: Porto Alegre, Southern Brazil
Sample = 261. DR = 38.1%; VTDR = 13.8%

DR SCREENING INITIATIVES IN UNDERSERVED REMOTE AREAS: TELEMEDICINE, AI



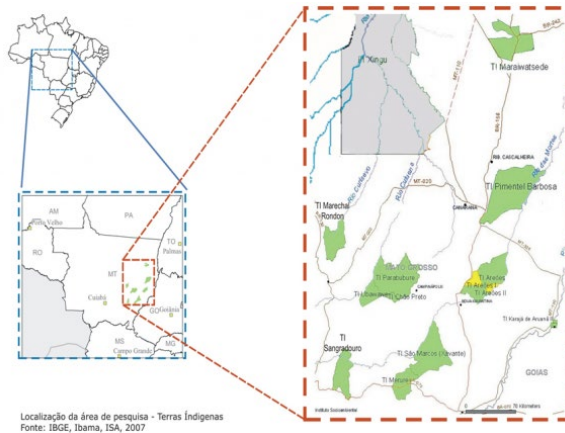
Contents available at [ScienceDirect](https://www.sciencedirect.com)
Diabetes Research and Clinical Practice
 journal homepage: www.elsevier.com/locate/diabres



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



Fernando Korn Malerbi^{a,b,*}, Amaury Leles Dal Fabbro^c, João Paulo Botelho Vieira Filho^b, Laercio Joel Franco^{b,c}

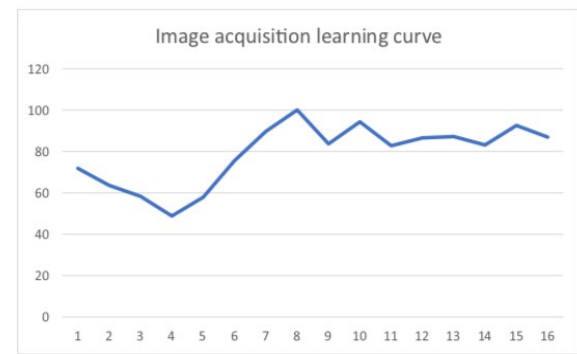


Acta Diabetologica
<https://doi.org/10.1007/s00592-020-01585-7>

ORIGINAL ARTICLE

Diabetic retinopathy screening in urban primary care setting with a handheld smartphone-based retinal camera

Márcia Silva Queiroz¹ · Jacira Xavier de Carvalho² · Sílvia Ferreira Bortoto¹ · Mozania Reis de Matos² · Cristiane das Graças Dias Cavalcante² · Elenilda Almeida Silva Andrade² · Maria Lúcia Correa-Giannella¹ · Fernando Korn Malerbi^{3,4}



X axis: day of exam; Y axis: rate (%) of patients whose exams allowed a clinical decision



PUBLIC POLICY AT THE FEDERAL LEVEL (SISTEMA ÚNICO DE SAÚDE – SUS)

Challenges:

- Raising awareness about DR.
- Tailoring screening systems to local settings.
- Cost considerations / Fundings.

Others local initiatives:



Lessons from the field

Feasibility of screening for diabetic retinopathy using artificial intelligence, Brazil

Fernando Korn Malerbi^a & Gustavo Barreto Melo^a



BRAZILIAN DIABETES SOCIETY: MAIN VOICE ON DIABETES ADVOCACY BRAZILIAN LEGISLATIVE



Brazilian Regulatory Agency – ANVISA
Discussions on the legal framework of AI in
Health



Special Session in the Federal Senate
Diabetes Awareness and Education

Congress hearing on the impact of diabetes
complications – to be scheduled soon!

Thank you for your kind attention!

Send any questions you may have to fernando.malerbi@diabetes.org.br.



DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

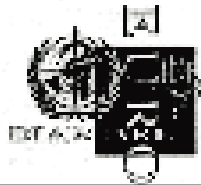
THE PERSPECTIVE OF DIABETES ASSOCIATIONS



SEHNAZ KARADENIZ

Professor of Ophthalmology, Former Chair of IDF Europe, Board Member of the Turkish Diabetes Foundation

Turkey



Istanbul



Единый реестр

United Nations



General Assembly

Original: English

Sixty-sixth session
Agenda item 117
Follow-up to the outcome of the Millennium Summit

Draft resolution submitted by the President of the General Assembly

Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases

The General Assembly,

Adopts the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases annexed to the present resolution.

Annex

Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases

European Parliament
2014-2019



**Diabetes Care and Research in Europe:
The St Vincent Declaration
1989**

Representatives of government health departments and patients' organisations from all European countries met with diabetes experts under the aegis of the WHO Regional Office for Europe and the International Diabetes Federation (IDF), European Region, in St Vincent, Italy, on 10-12 October 1989. They unanimously agreed on the following recommendations, and urged their presentation in all countries throughout Europe for implementation.

Diabetes mellitus is a major and growing European health problem, a problem at all ages and in all countries. It causes prolonged ill health and early death. It threatens at least 10 million European citizens.

It is within the power of national governments and health departments to create conditions in which a major reduction in this heavy burden of disease and death can be achieved. Countries should give formal recognition to the diabetes problem and deploy resources for its solution. Plans for the prevention, identification and treatment of diabetes, and in particular its complications - blindness, renal failure, gangrene and amputation, aggravated coronary heart disease and stroke - should be formulated at local, national and European regional levels. Investments now will earn great dividends in the reduction of human misery and in massive savings of human and material resources.

The general goals and five-year targets ... can be achieved by the organised activities of the medical services in active partnership with diabetic citizens, their families, friends, and workmates and their organisations; in the management of their own diabetes and the education for it; in the planning, provision and quality audit of health care; in national, regional and international organisations for disseminating information about health maintenance; and in promoting and applying research.

*Unanimously adopted at the 1st Meeting of
The St Vincent Declaration Diabetes Action Programme
St Vincent, Italy, 10-12 October 1989*

Parliamentary Assembly
Assemblée parlementaire



Parliamentary Assembly
Assemblée parlementaire



2016

(2011)¹
Children and young people from obesity and type 2 diabetes

2016/61/L.39/Rev.1

importance of safeguarding the health and well-being of Europe and elsewhere, in obesity and type 2 diabetes (a metabolic disorder, an preventable, life-shortening cardiovascular disease and cancer); they negatively affect health-care systems. The Assembly thus considers that it is critical.

in diet, physical activity and health of the World Health Organization's initiatives to decrease risk factors and to member states to implement the European Charter on External Conference on Counteracting Obesity, held in 2009.

vention of obesity from the perspective of the right of

Children and young people are at the dangers posed by the increasing prevalence of obesity and type 2 diabetes.

Health expenditure in the next few years will be substantial.

and obese, and to assist those who are obese.

set of guidelines to encourage physical activity, such as

2009 - 2014

Plenary sitting

De

- B7-0145/2012 }
- B7-0146/2012 }
- B7-0147/2012 }
- B7-0148/2012 } RC1

JOINT MOTION FOR A RESOLUTION

in accordance with Rule 110(4) of the Rules of Procedure

replacing the motions by the following groups:

- &D (B7-0145/2012)
- LEDE (B7-0146/2012)
- PE (B7-0147/2012)
- UE/NGL (B7-0148/2012)

addressing the EU diabetes epidemic

ROLE OF NGOs IN CREATING MOMENTUM FOR A POSITIVE CHANGE

- Development / designing the policies
- Raising awareness
- Mobilizing the community
- Implementation of policies
- Monitoring
- **Long-term commitment**

BREAKING THROUGH A BETTER FUTURE FOR ALL

Some of the priority actions for equipping governance and institutions for sustainable and inclusive transformation:

 2023

The Sustainable Development Goals Report
Special edition

 United Nations



Take monitoring, follow-up and review of the Sustainable Development Goals to the next level by boosting independent evaluations of implementation, strengthening engagement with parliament and civil society, centring voluntary national reviews on national commitments to transformation of the Goals, establishing official registration systems of voluntary local reviews and supporting the further development of Goals indicators with disaggregated data.



Invest in public sector capacity and infrastructure to identify trade-offs and drive large-scale change, enable complex decision-making, leverage digital technologies and boost implementation partnerships.

NGOs are the lifeblood of our society, working tirelessly to improve the lives of those most in need

Ban Ki-moon

Former Secretary-General of the United Nations

Thank you!



Diabetic Retinopathy: A Call for Global Action

A policy brief by the International Agency for the Prevention of Blindness and the International Diabetes Federation





DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

THE PERSPECTIVE OF PEOPLE LIVING WITH DIABETIC RETINOPATHY



MS CHIMEZIE UDOCHUKWU ANYIAM

Goodly Heritage Initiative Founder, IDF Blue Circle Voices member

Nigeria

LIVING WITH DIABETIC RETINOPATHY: A PERSONAL JOURNEY

- Vision challenges and diagnosis
- Impact on personal life
- Challenges in Nigeria
- Gendered stigma
- Support and encouragement



Discussion panel and Q&A





DIABETIC RETINOPATHY: A CALL FOR GLOBAL ACTION

CLOSING REMARKS AND THANKS



PROF SERGE RESNIKOFF MD PHD

President of the French Organisation for the Prevention of Blindness (OPC)
Conjoint Professor SOVS, University of New South Wales

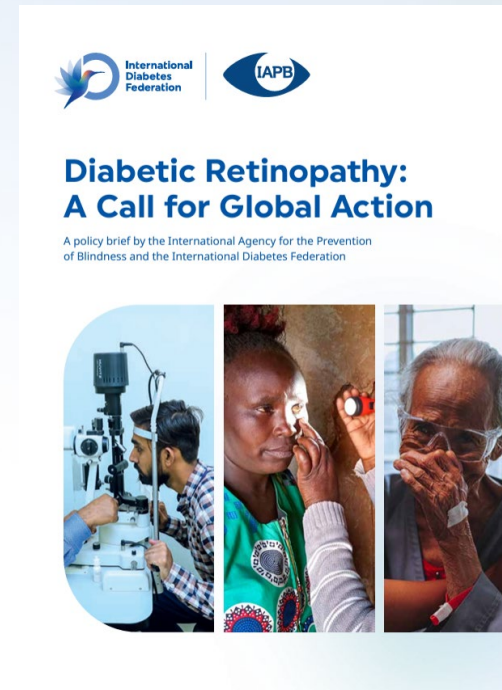
Australia

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 and IAPB online events.
- Send any questions you may have to advocacy@idf.org and communications@iapb.org.



Download the policy brief!





**REGISTER
NOW!**

IAPB'S GLOBAL EVENT

2030 IN SIGHT

LIVE

MEXICO

25-27 JUNE 2024

MEXICO CITY AND ONLINE



**SCAN
TO REGISTER**





Shape the future of diabetes



IDF World Diabetes Congress

Bangkok, Thailand, 7 – 10 April 2025

Why attend

- **10** programme streams
- **130** hours of scientific sessions
- **250** international speakers

Key dates

- **1 Apr 2024** Registration opens
- **15 Jul – 15 Sep 2024** Abstract submissions
- **31 Oct 2024** Early rate deadline



Thank you!

