DR Barometer
Shifting the needle

The Diabetic Retinopathy Barometer Report

Mexico

IFA IAPB International Diabetes Federation BAYER

Contents

Introduction: Global Study **3**
- Goal 3
- Background 3
- Study Populations 4

Introduction: Mexico Study **5**
- Demographic Characteristics 5
- Diabetes Profile 5
- Study Populations: Mexico 5

Mexico DR Barometer Findings: Adults with Diabetes **8**
- Key Demographic Characteristics 8
- Knowledge and Management of Diabetes 10
- Nature and Information about Complications 11
- Information about Diabetic Eye Disease and Diabetic Macular Edema 12
- Screening for Diabetic Eye Disease 13
- Treatment of Diabetic Eye Disease and Diabetic Macular Edema 14
- Impact of Diabetic Eye Disease and Diabetic Macular Edema 16
- Self-reported Quality of Life 18

Mexico DR Barometer Findings: Health Care Professionals **19**
- Key Demographic Characteristics 19
- Clinical Practice Characteristics 20
- Patient Education Information 21
- Guidelines and Protocols 22
- Screening Protocols and Barriers in the Care Pathway 23

Mexico DR Barometer Findings: Ophthalmologists **25**
- Screening 25
- Treatment and Challenges 25

Mexico DR Barometer Summary **27**

References and Acknowledgement **29**

Appendices **30**

For detailed information regarding methodology and limitations of the study please refer to the DR Barometer Global Results Report which can be found at **DRBarometer.com**

Introduction
Global Study

The International Federation on Ageing, the International Diabetes Federation, and the International Agency for the Prevention of Blindness undertook a comprehensive, two-phase, multi-country study to investigate the global and specific country issues surrounding diabetic eye disease (DED) primarily, diabetic retinopathy (DR) and diabetic macular edema (DME).

This report describes the specific findings from information gathered from adults with diabetes and health care professionals in Mexico.

All people with type 1 and type 2 diabetes are at risk of developing DR, which can lead to loss of vision and eventually to blindness. DME is a type of DR that is particularly associated with vision loss. DR is preventable by prompt diagnosis and appropriate management of diabetes.

Vision loss is preventable if DR is identified in its early stages by screening, as effective treatments are now available to prevent progression. Despite the serious risks of DR, little has been published regarding the global awareness of the risks and prevention and effective management of diabetes associated vision impairment.

This research was made possible with support from Bayer AG. Bayer has funded and facilitated this research, acted as an advisor and will assist in the dissemination of the research findings.

Goal

The DR Barometer Study sought, in broad terms, to assess the awareness of DED, and access and barriers to diabetes management, including screening for DED and timely treatment.

This new information from forty-one countries is vital to understanding the barriers to improved outcomes and the actions required to overcome such barriers.

Initiatives that address the gaps in the care pathway are essential to preventing unnecessary blindness and visual impairment so as to enable people with diabetes to maintain their health and ensure that the contribution that they can make to family and community are not compromised.

Background

The DR Barometer Study used a mixed methods approach. Phase I was a qualitative study comprising 120 semi-structured interviews with a small sample of people with diabetes (n = 9 per country) and health care professionals (n = 6 per country) in each of eight countries: Germany, Saudi Arabia, Japan, Romania, Mexico, Argentina, Uganda, and Bangladesh. The countries were purposively selected for variation across income level and region, as delineated by the World Health Organization (WHO) and the World Bank Income Groups (WBIGs).

Phase II was a multi-country quantitative study conducted in 41 countries to investigate the current level of awareness of the risk of DR and of the need for prevention, screening and management to prevent vision loss. The study also sought to better understand the nature of health services and supports available and the social and economic burden of the disease through a systematic literature review.

In the quantitative component of the study, both adults with diabetes (patients) and health care professionals (providers) were surveyed. The patient survey consisted of 46 questions divided into four sections covering awareness and knowledge, current care for diabetes and eye complications, screening and treatment of DR and DME and quality of life.

The provider survey comprised 43 questions covering provider and practice characteristics, and specific information from ophthalmologists. Globally, the patient survey had a total of 4,340 respondents and the provider survey had 2,329 respondents.

In the global analysis, respondents from each country were grouped into regions as defined by the World Health Organization (WHO) and into World Bank Income Groups (WBIGs).

Study Populations

The people with diabetes who participated in the patient survey were self-selected, predominantly from patient organisations. Therefore, this population group comprises people who are more likely to be engaged and motivated in the management of their diabetes. Likewise, the provider respondents were self-selected and the same principle should be applied when interpreting the results.

Even though the sample is not representative of the broader population of people with diabetes and health care professionals, the findings illustrate important trends, and highlight areas of concern.

The results from this survey provide new evidence reflecting concerns from the voices of thousands of people with diabetes and health care professionals around the world. This study provides a rich resource for generating unique insights into the real-life experiences of people living with diabetes, and as such is a powerful tool to help improve the lives of current and future generations of people with diabetes.

For the purpose of understanding the impact of the progression of DED responses to the patient survey, beyond "all respondents" are reported by the three following subgroups:

- Without DED: people with diabetes without any reported form of DED
- With DED: people with diabetes with reported DED but not DME
- With DME: people with diabetes with reported DED and DME

As reported by 4,340 adults with diabetes who responded to the survey, 20% reported to have been diagnosed with DED and a further 7.6% with DME.

Of the health care professionals who responded to the survey (n = 2,329), 37% were ophthalmologists, 17% were diabetes specialist providers and 16% were primary care providers. The remaining respondents were optometrists, nurses, health educators or other types of professionals.

Introduction
Mexico Study

Demographic Characteristics

Mexico is estimated to be the second most populous country in North America and Latin America with an estimated population of approximately 123.1 million inhabitants[1]. According to most recent statistics, it is estimated that 27% of the population is under the age of 15 years and 11% over the age of 60 years[2].

By 2050, the population distribution in Mexico is expected to drastically change with a 22% population increase, but with the country actually ageing. Approximately, two in three Mexicans (30%) will be over the age of 60 years, while some one in six will be aged 15 years and under[2].

In just 34 years, the population 60 years of age and over will reach an all-time high of some 45 million[2]. This is not surprising as the birth rate will decrease by about 7% and life expectancy is expected to increase to an average of 83 years old with the average age being 40 years in 2050, at the moment it is 27 years[2,3].

Diabetes Profile[4]

There are 415 million people with diabetes in the world and approximately 44.3 million people in North America and Caribbean. By 2040 this number is expected to rise to 60.5 million.

Twenty-eight countries comprise the IDF North American and Caribbean Region: United States of America, Mexico and Canada as well as 25 Caribbean countries and territories. The United States Mexico and Canada comprise most of the regions adult diabetes population and this region has the highest age-adjusted comparative diabetes prevalence rate of any region described by the International Diabetes Federation.

Mexico is the 6th country in the world for the number of adults living with diabetes with some 11.5 million (6.2-13.7‡). By 2040 this number is expected to increase to 20.6 million (11.4-24.7‡). It has been predicted by 2040, Mexico will be the 5th country in the world for the number of people (20-79 years) with impaired glucose tolerance. It is important to note that Mexico in 2040 is also predicted to be the 8th top country in the world for diabetes-related health expenditure at $19 billion USD.

In the North American and Caribbean region, Mexico has the second highest number of people with diabetes accounting to ~26% of people living with diabetes. The diabetes national prevalence in Mexico (20-18 years) is 14.7% (7.9-17.6‡) and diabetes age-adjusted comparative prevalence is 15.8% (8.6-18.9‡).

Deaths attributed to diabetes in Mexico in 2015 were 76,298, which accounts to ~24% of diabetes related deaths experienced in this region. The estimated number of undiagnosed cases was 3.9 million (3,199.6-7,104.6‡).

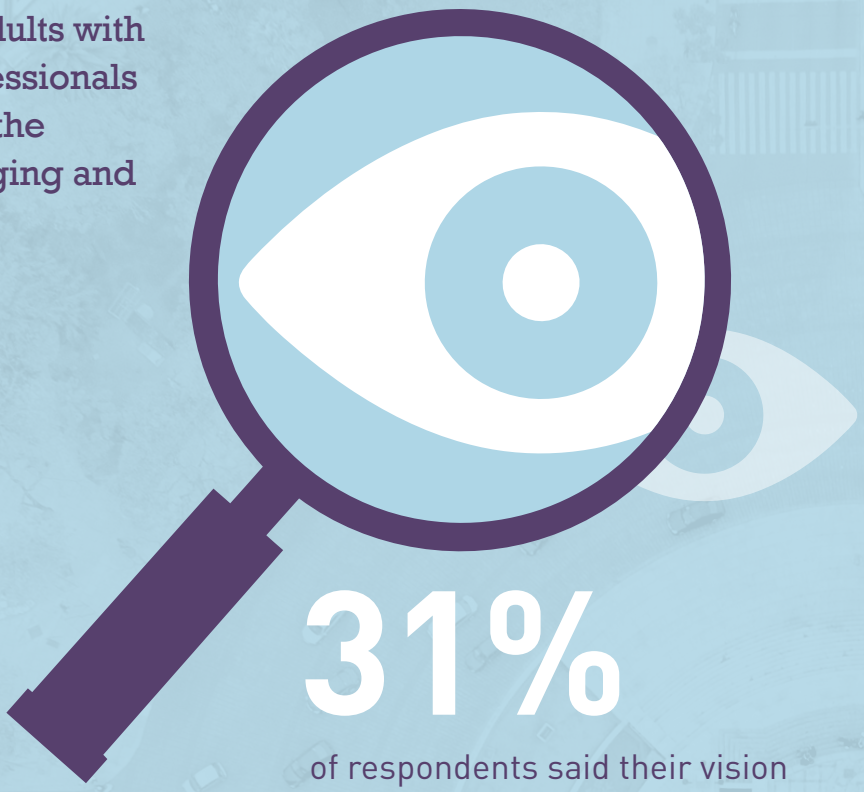
Study Populations: Mexico

As reported by 307 adults with diabetes in Mexico, 11% have been diagnosed with DED and a further 2.6% with DME.

Fifty-seven health care professionals completed the survey in Mexico. Of these, nine were diabetes specialist providers (16%), 26 were ophthalmologists (46%), and 12 were primary care providers (21%). The remaining respondents were optometrists, either nurses, health educators or other professionals.

The DR Barometer Study: **Mexico Overview**

The DR Barometer study was conducted in 41 countries. In Mexico, 307 adults with diabetes and 57 health care professionals provided new information about the experiences of living with, managing and treating diabetes, DR and DME.



70%

of patients said that **cost** was a barrier to eye exams

31%

of respondents said their vision impairment due to DR or DME made it **difficult to manage their diabetes**

39%

of all providers **did not have written protocols/guidelines** for detection and management of diabetes-related vision loss available

DR: Diabetic Retinopathy
DME: Diabetic Macular Edema

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94%

of patients with vision loss due to DR or DME said that their condition made everyday activities, **such as driving**, working and completing basic household tasks difficult and in some cases impossible

100%

of those with DME experienced days of **poor physical and mental health**

46%

of patients either **never discussed eye complications with their doctor** or did so only after the onset of symptoms

10%

of ophthalmologists **had not received specific training** in the treatment and diagnosis of DR and or DME

Mexico
DR Barometer Findings:
Adults with Diabetes

Key Demographic Characteristics

Three hundred and seven adults with diabetes (patients) completed the patients' survey in Mexico: 59% were female and 41% were male. Ninety-four percent lived in an urban setting and 6.4% in a non-urban setting (see Appendix Table 4.2).

The education levels of all respondents were as follows: 2.4% did not complete primary school, 6.4% were educated to a primary school level, 26% to a secondary school level, 23% to a college/university level and 42% to a graduate or post-graduate level (see Appendix Table 4.3).

Fifty-seven percent of all respondents were working in paid employment, 11% were retired, and 14% stated they were not working (see Appendix Table 4.4).

Most respondents (60%) were aged between 40 and 59 years (22% were aged 18-39 years, 17% were aged 60-79 years and 0.7% were aged 80 years and over). Eighty-two percent were of traditional working age (18-59 years) (see Table 1).

Of the respondents in Mexico, 14% had been diagnosed with type 1 diabetes and 80% with type 2 diabetes. A further 6.5% were either unsure of or did not know their type of diabetes (see Appendix Table 2.1).

Eleven percent of respondents (n=35) reported being diagnosed with DED and a further 2.6% (n=8) with DME.

Eleven percent of those surveyed were diagnosed with diabetes within the last year, 1 - 5 years ago (29%), 6 - 10 years ago (23%), 11 - 15 years ago (15%), 16 - 20 years ago (12%) and 21 years ago or more (9.8%) (see Appendix Table 2.2).

A younger population was more likely to be associated with type 1 diabetes, which was the opposite for those with type 2 diabetes, which tended to be an older population. Amongst 18 to 39-year-olds, 38% had type 1 diabetes and 52% had type 2 diabetes. In the 40-59 age group, 6% had type 1 and 89% had type 2 diabetes, 9.4% of 60-79-year-olds had type 1 diabetes and 85% had type 2.

In people aged 18-39 years, 5.9% had DED and 2.9% had DME. This increased to 10% for DED and 3.3% for DME in those aged 40-59 years and 23% in the 60-79 year age group had DED.

An important trend noted in the findings was that generally, the longer the time since diagnoses the greater the likelihood to have DED. In those diagnosed between 1-5 years ago, 4.5% had DED. This increased to 13% 11-15 years since diagnosis, 19% 16-20 years since diagnosis and to 23% for respondents diagnosed 21 years ago or longer.

While 52% respondents said that their diabetes was well controlled a staggering 43% felt that their condition was not well controlled. For the subgroup of respondents who felt their diabetes was controlled, 11% had DED and 3.3% had DME. In contrast, patients who reported that their condition was not controlled 15% had DED and 2.4% had DME.

Table 1: Summary of key characteristics of adults with diabetes

Group	Subgroup	All Respondents	Type 1 diabetes	Type 2 diabetes	With DED	With DME
All respondents		307 (100.0%)	42 (13.7%)	245 (79.8%)	35 (11.4%)	8 (2.6%)
Gender	Male	101 (40.6%)	11 (10.9%)	83 (82.2%)	16 (15.8%)	5 (5.0%)
	Female	148 (59.4%)	29 (19.6%)	112 (75.7%)	17 (11.5%)	2 (1.4%)
	Total Missing	58	2	50	2	1
Age	18-39 yrs.	68 (22.1%)	26 (38.2%)	35 (51.5%)	4 (5.9%)	2 (2.9%)
	40-59 yrs.	184 (59.9%)	11 (6.0%)	164 (89.1%)	19 (10.3%)	6 (3.3%)
	60-79 yrs.	53 (17.3%)	5 (9.4%)	45 (84.9%)	12 (22.6%)	0 (0.0%)
	80 yrs. plus	2 (0.7%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	0 (0.0%)
Time since diagnosis	Within the last year	32 (10.5%)	3 (9.4%)	26 (81.3%)	2 (6.3%)	0 (0.0%)
	1 - 5 yrs.	89 (29.2%)	7 (7.9%)	79 (88.8%)	4 (4.5%)	1 (1.1%)
	6 - 10 yrs.	70 (23.0%)	9 (12.9%)	57 (81.4%)	8 (11.4%)	0 (0.0%)
	11 - 15 yrs.	46 (15.1%)	1 (2.2%)	44 (95.7%)	6 (13.0%)	5 (10.9%)
	16 - 20 yrs.	36 (11.8%)	8 (22.2%)	23 (63.9%)	7 (19.4%)	1 (2.8%)
	21 yrs. plus	30 (9.8%)	14 (46.7%)	14 (46.7%)	7 (23.3%)	1 (3.3%)
	Don't know/ Not sure	2 (0.7%)	0 (0.0%)	1 (50.0%)	1 (50.0%)	0 (0.0%)
	Total Missing	2	0	1	0	0
Control of Diabetes	Controlled	150 (52.1%)	25 (16.7%)	119 (79.3%)	16 (10.7%)	5 (3.3%)
	Not controlled	125 (43.4%)	13 (10.4%)	102 (81.6%)	19 (15.2%)	3 (2.4%)
	Don't know/ Not sure	13 (4.5%)	3 (23.1%)	9 (69.2%)	0 (0.0%)	0 (0.0%)
	Total Missing	19	1	15	0	0

NB [1]: Percentages for All Respondents category are calculated based on their respective group. All categories are calculated as row percentages.

NB [2]: Diabetes control is based on the respondents' perception of their own control. Diabetes control terms were grouped as follows; Controlled includes patients who selected 'Very Well' and 'Well'. Not Controlled includes patients who selected 'Not very well' and 'Not well at all'.

NB [3]: DED = respondents with DED = "Yes" minus respondents with DME= "Yes".

NB [4]: DME = respondents with DME = "Yes".

NB [5]: This table is a summary of various questions. For a detailed breakdown for each question, please refer to the Appendices.

Knowledge and Management of Diabetes

Eighty percent of those surveyed saw a health care professional for their diabetes, with 33% seeing a diabetes specialist (average number of visits was 4.9 times per year) and 58% a general/family doctor (average number of visits was 8 times per year) (see Appendix Table 2.3.1 and 2.3.2).

People were informed about their condition through a variety of channels. Eighty percent received information from a doctor or nurse, 55% from the internet and 48% from social media (e.g. Facebook, Twitter, blogs) (see Table 2 and Appendix Table 2.4).

Table 2: Source of information regarding diabetes

Information Source	All Respondents (n=297)
Doctor or nurse	238 (80.1%)
Internet	164 (55.2%)
Social media (e.g. Facebook, Twitter, blogs)	142 (47.8%)
Nutritionist or dietician	114 (38.4%)
Diabetes organisation or other health organisation	114 (38.4%)
Family/Friends/Neighbourss	103 (34.7%)
TV/Radio/Newspaper/Magazines	76 (25.6%)
Health educator	58 (19.5%)
Pharmacist	7 (2.4%)
None of the above	1 (0.3%)

A range of strategies was used by respondents to manage their diabetes. For those with type 1 diabetes, apart from insulin, 83% managed their diabetes with diet, 55% with exercise and 26% with oral medicine. Of the respondents with type 2 diabetes, 86% managed their condition with oral medicine, 66% with diet, 46% with exercise, 31% with insulin, and 13% with natural/herbal medicine.

Less than one in five respondents (19%) were enrolled in diabetes management programmes and of these 67% said the programme included education on the importance of screening for diabetic eye complications (see Appendix Table 2.6).

The nature and frequency of tests that people with diabetes experienced included blood glucose checks and eye checks. For the respondents that had eye checks (61%) these occurred: less than 6 months (30%), 6 - 12 months (15%), and greater than 12 months (15%) (see Appendix Table 2.7).

The main challenges in controlling diabetes cited by respondents were: it's too hard to eat the right things (54%), the high cost of care (44%), long wait times for an appointment to see their doctor or specialist (43%), the health services needed are not available (21%) and there were too many other things to do (20%) (see Appendix Table 2.9).

Free or low cost medicines or monitoring materials (49%), health education and information (44%), support from family or friends (43%), coordination of healthcare and services by a professional (27%) and support groups (13%) were identified as important to improving the management of their diabetes (see Appendix Table 2.10).

Nature and Information about Complications

Eighty-nine percent of respondents were aware of vision loss as a possible consequence of diabetes and believed complications such as: amputation (81%), neuropathy (78%), kidney disease (78%), and foot ulcers (71%) were associated with diabetes (see Appendix Table 2.11).

Patients were most concerned about vision loss (44%), kidney disease (24%), amputation (15%), cardiovascular disease/ stroke (9.4%), and neuropathy (2.5%) (see Appendix Table 2.12).

Thirty-eight percent of respondents reported that they had no complications of diabetes. However, of those who reported complications 36% had vision loss, neuropathy (26%), kidney disease (13%), cardiovascular disease or stroke (6.7%), and foot ulcers (3.7%) (see Figure 1 and Appendix Table 2.13).

It is significant that 91% of those with DED and 88% with DME reported diabetic related complications (see Table 3 and Appendix EXP 1).

Aside from vision loss, there was a considerable increase in the frequency of people with DED and DME experiencing complications compared with people without DED. The frequency of neuropathy increased from 21% in those without DED to 55% with DED and 38% with DME. Likewise, the frequency of cardiovascular disease increased from 6.2% in people without DED to 9.1% in those with DED and to 13% with DME.

Figure 1: Presence of complications

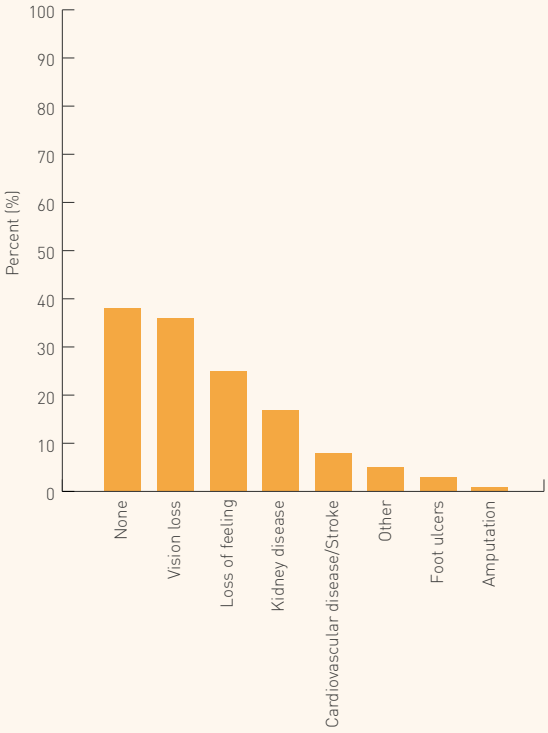


Table 3: Presence of complications without DED, with DED or DME

Complication	Without DED (n=227)	With DED (n=33)	With DME (n=8)
Any	130 (57.3%)	30 (90.9%)	7 (87.5%)
Vision loss	67 (29.5%)	24 (72.7%)	5 (62.5%)
Loss of feeling in hands or toes (neuropathy)	48 (21.1%)	18 (54.5%)	3 (37.5%)
Kidney disease	20 (8.8%)	14 (42.4%)	1 (12.5%)
Cardiovascular disease/Stroke	14 (6.2%)	3 (9.1%)	1 (12.5%)
Foot ulcers	7 (3.1%)	3 (9.1%)	0 (0.0%)
Amputation	2 (0.9%)	1 (3.0%)	1 (12.5%)
Other	8 (3.5%)	2 (6.1%)	1 (12.5%)
None	97 (42.7%)	3 (9.1%)	1 (12.5%)

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.

NB [2]: DED = respondents with DED = "Yes" minus respondents with DME = "Yes".

NB [3]: DME = respondents with DME = "Yes".

NB [4]: Percentages within groups are calculated from non-missing data for that question.

NB [5]: Not all responses have been presented in this table, but have been included under "Any". Please see Appendix Table EXP1 for the full list of responses.

Information about Diabetic Eye Disease and Diabetic Macular Edema

While 80% of respondents stated that eye complications were discussed with their health care professionals, 46% had either never had a discussion (18%), or it only happened when symptoms arose (28%). The frequency of regular discussions varied from every visit (19%), multiple times a year (8.5%) and once a year (25%) (see Appendix Table 2.14).

Fifty-nine percent of patients said that they did what they could to prevent vision problems (e.g. get routine screenings, visit specialists), but a quarter did not make any special effort to prevent vision problems and 24% thought that vision problems were a normal part of ageing (see Appendix Table 2.15).

Fifty-nine percent of all respondents had received information about DR and DME with the doctor or nurse being the most common source (36%) (see Appendix Table 3.9).

Table 4: Source of information about DR and DME

Source	All respondents (n=224)
Doctor/Nurse	88 (36.1%)
Internet	74 (30.3%)
Diabetes organisation or other health organisation	45 (18.4%)
Health educator	29 (11.9%)
TV/Radio/Newspaper/ Magazines	19 (7.8%)
Family/Friends/ Neighbourss	18 (7.4%)
None of the above	100 (41.0%)

NB [1]: Not all respondents answered all questions in the survey; percentages are calculated from non-missing responses to the survey question.

Screening for Diabetic Eye Disease

Fifty percent of the respondents reported having an eye exam for DED, with 56% having the exam within the last year and a further 25% more than one year ago but less than two years ago (see Appendix Table 3.2). Five percent of those surveyed were aware of government sponsored screening programmes for DED (see Appendix Table 3.1).

While 74% thought they should have their eyes examined for DED once a year, there were varied smaller numbers of respondents who thought that testing should happen only when symptoms occur, every two years, or less often than every two years. Four respondents said that testing should not occur at all (see Appendix Table 3.4).

The biggest barriers to eye exams were the high cost (70%), long wait times for an appointment (40%), and the limited access to diabetes specialists (32%) (see Table 5 and Appendix 3.5).

Table 5: Barriers to eye examinations

Identified Barriers	All Respondents (n=252)
They are expensive	177 (70.2%)
Long wait time for appointment	100 (39.7%)
Limited access to diabetes specialists	80 (31.7%)
Eye exams are not available near my home	59 (23.4%)
Long wait time on the day of the visit	58 (23.0%)
Referral process is complicated or takes too long	57 (22.6%)
Don't know much about my condition	55 (21.8%)
Recommended treatments for eye problems are not available	40 (15.9%)
Fear of treatment/results	33 (13.1%)
Clinics are too small or lack necessary equipment/staff	32 (12.7%)
Burden on my family/friends	24 (9.5%)
Too many other things to do or worry about	13 (5.2%)
I'm not likely to have eye complications	7 (2.8%)
Eye exams are not important	4 (1.6%)
Other	14 (5.6%)

Treatment of Diabetic Eye Disease and Diabetic Macular Edema

Treatment was assessed separately in people with DED and DME. For those with DED 49% (n=17) had received treatment, with the most common being laser treatment (81%). Of those who received treatment, 69% (n=11) completed their treatment and 6.3% (n=1) was still receiving treatment. Sixty percent felt that treatment had been successful and either their vision had improved (27%) or their vision had stayed the same (33%). Twenty percent felt that the treatment did not work (see Table 6).

For the 17 respondents (49%) with DED who had not received treatment, the most common reason reported was that their doctor did not recommend it (53%).

While there were very few in this sub group 50% of patients with DME (n=3) had received treatment and the most common treatment was laser (100%). Half felt that treatment had been successful and their vision had improved while the remainder felt that treatment had not worked.

There was a strong preference by respondents with DME to have a proactive approach in the treatment pathway to prevent further vision loss rather than a reactive approach once further vision loss occurred (see Appendix Table 3.8).

Table 6: Treatment characteristics of patients with DED and DME

Question	Response	With DED (n=35)	With DME (n=6)
Have you had any treatment for diabetic eye disease?	Yes	17 (48.6%)	3 (50.0%)
	No	17 (48.6%)	3 (50.0%)
	Don't know/Not sure	1 (2.9%)	0 (0.0%)
What treatment did you receive?	Laser	13 (81.3%)	3 (100.0%)
	Anti-VEGF	7 (43.8%)	0 (0.0%)
	Surgery	7 (43.8%)	1 (33.3%)
	Other	2 (12.5%)	0 (0.0%)
Did you complete the treatment?	Yes	11 (68.8%)	1 (33.3%)
	No	1 (6.3%)	1 (33.3%)
	Still receiving treatment	1 (6.3%)	1 (33.3%)
	Don't know/Not sure	3 (18.8%)	0 (0.0%)
Do you feel that the treatment worked?	Yes, and vision improved	4 (26.7%)	1 (50.0%)
	Yes, but vision stayed the same	5 (33.3%)	0 (0.0%)
	No	3 (20.0%)	1 (50.0%)
	Still waiting to know	2 (13.3%)	0 (0.0%)
	Don't know/Not sure	1 (6.7%)	0 (0.0%)
What is/are the reason(s) that you did not complete the treatment?	Treatment was too expensive	1 (100.0%)	1 (100.0%)
	Eye doctor was located too far away	1 (100.0%)	0 (0.0%)
	Appointment times were not convenient	1 (100.0%)	0 (0.0%)
	Too much burden on my family/friends	1 (100.0%)	0 (0.0%)
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	8 (53.3%)	0 (0.0%)
	Treatment would not be effective	1 (6.7%)	0 (0.0%)
	Treatment is not accessible	1 (6.7%)	0 (0.0%)
	Still waiting for treatment	2 (13.3%)	1 (33.3%)
	Too expensive	4 (26.7%)	1 (33.3%)
	No insurance	3 (20.0%)	0 (0.0%)
	I'm fearful of treatment	1 (6.7%)	0 (0.0%)
	Other	3 (20.0%)	1 (33.3%)

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.

NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".

NB [3]: DME = respondents with DME ="Yes".

NB [4]: This table is a summary of various questions. For a detailed breakdown for each question, please refer to the Appendices.

Impact of Diabetic Eye Disease and Diabetic Macular Edema

Ninety-three percent of those diagnosed with DED or DME reported that their vision was affected (34% significantly, 59% slightly) (see Appendix Table 3.6).

Ninety-four percent of these respondents reported that vision issues impacted their daily lives in various ways such as difficulty experienced in: driving a vehicle (58%), working or keeping a job (42%), leisure activities or exercise (31%), managing their condition (31%), household responsibilities, such as cooking or cleaning (28%), travelling (22%) and social interactions with family/ friends (19%) (see Table 7).

Table 7: Activities affected through vision impairment and loss

	All Respondents (n=36)
Driving (a car/vehicle)	21 (58.3%)
Work or keeping a job	15 (41.7%)
Leisure activities/exercise	11 (30.6%)
Managing my diabetes	11 (30.6%)
Household responsibilities, such as cooking or cleaning	10 (27.8%)
Travelling	8 (22.2%)
Social interactions with family/ friends	7 (19.4%)
Other	3 (8.3%)
None	2 (5.6%)

Forty-six percent of those with DED and 71% with DME were in paid employment compared with 59% of those without DED (see Table 8 and Appendix 5.1). Patients with vision complications reported difficulties with work or keeping a job (42%) and of those diagnosed with DED, 18% (n=6) were not working at all.

Sixty-two percent of those surveyed did not receive assistance from the government while 27% (n=66) had medical assistance (see Appendix Table 4.5). Thirty-five percent of those without DED received government assistance compared with 58% and 43% of those with DED and DME respectively.

Sixty-eight percent of respondents said they had no trouble paying for food at any time during the past year (see Appendix Table 4.6). Some 44% said that their access to health care was affected, and for more than one-third (36%) it was affected by income (see Appendix Table 4.7).

Forty-eight percent of respondents said they worried about their health, 24% about family while 2% were not worried about any of the items in the survey (see Appendix Table 4.8).

Table 8: Socio-economic profile of patients without DED, with DED or DME

Question	Response	Without DED (n=207)	With DED (n=33)	With DME (n=7)
Are you currently working?	Working for pay	121 (58.5%)	15 (45.5%)	5 (71.4%)
	Working without pay at home (e.g. housework, farming)	31 (15.0%)	2 (6.1%)	1 (14.3%)
	Volunteering	4 (1.9%)	1 (3.0%)	0 (0.0%)
	Retired	16 (7.7%)	9 (27.3%)	1 (14.3%)
	Student	7 (3.4%)	0 (0.0%)	0 (0.0%)
	Not working	28 (13.5%)	6 (18.2%)	0 (0.0%)
Question	**Response**	**Without DED (n=202)**	**With DED (n=33)**	**With DME (n=7)**
Do you receive assistance from the government?	Income assistance	8 (4.0%)	3 (9.1%)	0 (0.0%)
	Medical assistance	56 (27.7%)	8 (24.2%)	2 (28.6%)
	Food assistance	1 (0.5%)	1 (3.0%)	0 (0.0%)
	Housing assistance	4 (2.0%)	1 (3.0%)	0 (0.0%)
	Pension assistance	17 (8.4%)	9 (27.3%)	1 (14.3%)
	None of the above	131 (64.9%)	14 (42.4%)	4 (57.1%)
Question	**Response**	**Without DED (n=209)**	**With DED (n=33)**	**With DME (n=7)**
Did you have trouble paying for food at anytime during the past year?	Yes	63 (30.1%)	17 (51.5%)	0 (0.0%)
	No	146 (69.9%)	16 (48.5%)	7 (100.0%)

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.

NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".

NB [3]: DME = respondents with DME ="Yes".

NB [4]: Not all respondents answered all questions in the survey; percentages are calculated from non-missing responses to the survey question.

NB [5]: This table is a summary of various questions. For a detailed breakdown for each question, please refer to the Appendices.

Self-reported Quality of Life

The CDC HRQOL-4 Core Modules of the "Healthy Days Measure" was used to capture information on self-reported quality of life, based on the number of unhealthy days within the last 30 days from when the survey was taken. The reported health status varied depending on whether respondents had been diagnosed with DED or DME (see Table 9.)

More than 70% of people with DED and 57% with DME reported their overall health as poor compared with 52% of people without DED. People with DED and DME also experienced a greater negative impact on their physical and mental health.

Fifty-five percent of people with DED and 86% of those with DME had physically unhealthy days; and 53% with DED and 57% with DME had mentally unhealthy days. In comparison, 58% and 54% of people without DED had physically and mentally unhealthy days, respectively.

Compared with 41% of those without DED, 72% of people with DED and 57% of people with DME experienced limitations to their daily activities as a result of poor health. Where health or an associated condition impacted daily activities, the primary limitations were: diabetes, vision problems, hypertension or high blood pressure and back or neck problems.

People living with DED and DME had a higher proportion for some impairments, including vision problems and hypertension or high blood pressure (See Appendix EXP 2).

Table 9: Self-reported healthy days of patients without DED, with DED or DME

Health Status	Without DED	With DED	With DME
Self-rated health: Good	94 (48.0%)	9 (30.0%)	3 (42.9%)
Self-rated health: Poor	102 (52.0%)	21 (70.0%)	4 (57.1%)
Physically unhealthy days	88 (57.9%)	12 (54.5%)	6 (85.7%)
Mentally unhealthy days	85 (54.1%)	10 (52.6%)	4 (57.1%)
Unhealthy days	115 (74.7%)	16 (80.0%)	7 (100.0%)
Activity limitation days	54 (41.9%)	10 (55.6%)	0 (0.0%)

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.

NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".

NB [3]: DME = respondents with DME ="Yes".

NB [4]: Not all respondents answered all questions in the survey; percentages are calculated from non-missing responses to the survey question.

NB [5]: This table is a summary of various questions. For a detailed breakdown for each question, please refer to the Appendices.

Mexico
DR Barometer Findings:
Health Care Professionals

Key Demographic Characteristics

There were 57 health care professionals who answered at least one of the survey questions in Mexico. Of these, 12 were primary care providers (21%), nine were diabetes specialists (16%) and 26 were ophthalmologists (46%). The remaining respondents were optometrists, nurses, health educators or other professionals (see Appendix PT 1.3).

In this section of the report, data from health care professionals as a whole and then the ophthalmologist subgroup will be reported.

Health care professionals as a group had been practicing for an average of 12 years, with the ophthalmologist group practicing for an average of 15 years (see Appendix PT 1.5).

All well were well educated (69% with graduate or advanced degree); 59% were female and 42% male, and varied in age with 42% being in the age group 30 - 39 years (see Appendix PT 3.1 and Table 10).

Table 10: Summary of key characteristics of health care professionals

Group	Subgroup	All Respondents	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist
All respondents		57 (100.0%)	12 (21.1%)	9 (15.8%)	26 (45.6%)
Age group	18 - 29 yrs.	3 (7.3%)	0 (0.0%)	2 (25.0%)	0 (0.0%)
	30 - 39 yrs.	17 (41.5%)	3 (42.9%)	3 (37.5%)	9 (42.9%)
	40 - 49 yrs.	9 (22.0%)	2 (28.6%)	1 (12.5%)	5 (23.8%)
	50 - 59 yrs.	6 (14.6%)	0 (0.0%)	2 (25.0%)	4 (19.0%)
	60 - 69 yrs.	6 (14.6%)	2 (28.6%)	0 (0.0%)	3 (14.3%)
Gender	Female	24 (58.5%)	2 (28.6%)	4 (50.0%)	13 (61.9%)
	Male	17 (41.5%)	5 (71.4%)	4 (50.0%)	8 (38.1%)
Education	Secondary School	1 (2.4%)	1 (14.3%)	0 (0.0%)	0 (0.0%)
	College/University	12 (28.6%)	3 (42.9%)	3 (37.5%)	2 (9.1%)
	Graduate or advanced degree (e.g. PhD, MD)	29 (69.0%)	3 (42.9%)	5 (62.5%)	20 (90.9%)

NB [1]: This table is a summary of various questions. For a detailed breakdown for each question, please refer to the Appendices.

Clinical Practice Characteristics

Thirty-three percent of all providers had their main practice setting in an eye clinic/practice and for ophthalmologists only it varied from an eye clinic/practice (64%), hospital (24%), and diabetes clinic/practice (4%) (see Appendix PT 2.1). Ninety-four percent of providers worked in an urban setting (see Appendix PT 2.2).

Most health care professionals worked in the combined/mixed sector (37%) (see Appendix PT 2.3) and ophthalmologists only worked mainly in private (40%), combined/mixed (36%), and non-profit (16%) sectors (see Appendix PT 2.3).

Health care professionals reported that 44% of patients pay out-of-pocket (full fees) for services, 41% pay a reduced or subsidised rate, and 30% pay through insurance. For ophthalmologists, 46% of patients pay out-of-pocket (full fees) for services, 46% pay through insurance and 42% of patients pay a reduced or subsidised rate (see Appendix PT 2.7).

Health care professionals reported that an average of 42 patients were seen per week and on average 50% had diabetes whereas ophthalmologists saw an average of 49 patients per week and 45% of their patient population had diabetes (see Appendix PT 2.6).

For all health care professionals, the average waiting time for an appointment was most commonly less than one week (53%), or more than one week but less than one month (26%) (see Appendix PT 2.5).

For an appointment with an ophthalmologist, it was less than one week in 58% of practices. In a further 21% of practices, the average wait time was more than one week but less than one month.

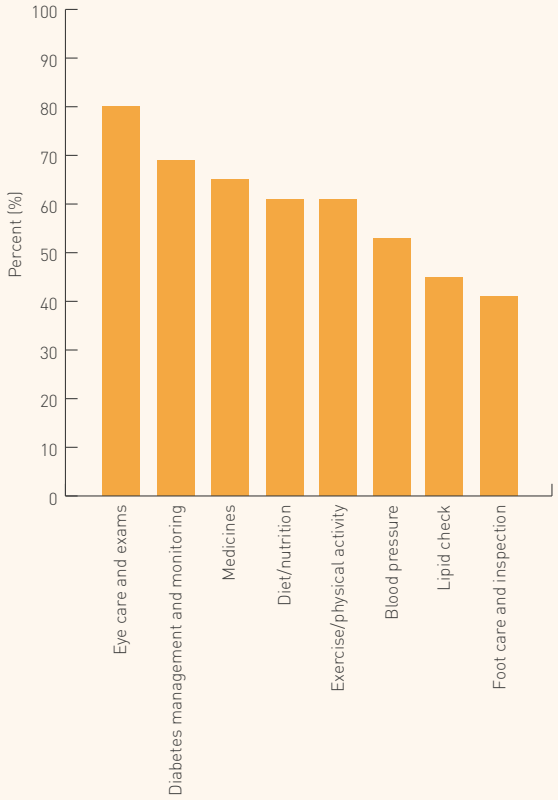
Table 11: Average wait times to schedule an appointment

Wait Time Intervals	All Respondents (n=47)	Ophthalmologist (n=24)
Less than 1 week	25 (53.2%)	14 (58.3%)
More than 1 week but less than 1 month	12 (25.5%)	5 (20.8%)
More than 1 month but less than 2 months	1 (2.1%)	1 (4.2%)
More than 2 months but less than 3 months	1 (2.1%)	0 (0.0%)
More than 3 months but less than 6 months	1 (2.1%)	1 (4.2%)
Six or more months	3 (6.4%)	3 (12.5%)
Other	4 (8.5%)	0 (0.0%)

Patient Education Information

A wide range of topics related to diabetes and its management were addressed by the health care professionals in a routine visit (see Figure 2 and Appendix PT 2.10).

Figure 2: Health care topics discussed with patients during a routine visit



Health care professionals stated that written information about diabetes is available yet the adequacy of that related to eye complications varied greatly.

Twenty-one percent of all providers reported that they had sufficient information about eye complications, 36% had information on diabetes but information on eye complications was not sufficient and 9.1% reported that information on eye complications was not included. Overall, 34% of health care professionals had no written information at all (see Table 12 and Appendix PT 2.11).

One quarter of the ophthalmologists (26%) had written information about diabetes and potential eye complications; 22% had information on diabetes but that which was on eye complications was not sufficient. Of significance is the finding that 52% of ophthalmologists had no written information available at all.

Guidelines and Protocols

Forty-one percent of all providers had written protocols for the management of diabetes and these were used by staff however 21% had no protocols (see Appendix PT 2.12). Only 22% of ophthalmologists had written protocols for the management of diabetes available, which were used by staff.

Thirty percent of providers had written protocols for the detection and management of diabetes-related vision issues available that were used by staff and 25% had protocols available but these were not used. Of significance, 39% of health care professionals did not have protocols (see Appendix PT 2.13).

For ophthalmologists, 30% had written protocols for detection and management of diabetes-related vision issues available, which were used by staff, but just as many did not have protocols on the management of diabetes-related vision issues available (see Table 12).

Table 12: Availability and use of information and protocols

Question	Response	All Respondents (n=44)	Ophthalmologist (n=23)
Is there written information about diabetes available for patients in your main practice?	Yes, and information on eye complications is sufficient	9 (20.5%)	6 (26.1%)
	Yes, but information on eye complications is not sufficient	16 (36.4%)	5 (21.7%)
	Yes, but no information on eye complications is included	4 (9.1%)	0 (0.0%)
	No written information is available for patients	15 (34.1%)	12 (52.2%)
Question	**Response**	**All Respondents (n=44)**	**Ophthalmologist (n=23)**
Do you have written protocols/guidelines for detection and management of diabetes-related vision issue available in your main practice?	Yes, available and used by staff	13 (29.5%)	7 (30.4%)
	Yes, available but not used by staff	11 (25.0%)	7 (30.4%)
	Not available	17 (38.6%)	7 (30.4%)
	Don't know/Not sure	3 (6.8%)	2 (8.7%)

NB [1]: This table is a summary of various questions. For a detailed breakdown for each question, please refer to the Appendices.

Screening Protocols and Barriers in the Care Pathway

Timing for the initial eye exam for persons with diabetes varied depending upon the type of diabetes as reported by all providers.

Most providers for patients with both type 1 (60%) and type 2 (71%) diabetes reported that the initial eye exam should occur at time of the diagnosis of diabetes (see Appendix PT 2.14).

Overall, eighty-three percent of health care professionals and 87% of ophthalmologists reported that follow-up eye examinations were conducted every year (see Appendix PT 2.15). Most ophthalmologists (88%) and health care professionals (82%) screen patients for DR (see Appendix PT 2.16).

Across all providers 44% send appointment reminders however more than half (54%) do not send reminders (see Appendix PT 2.19).

Eighty-one percent of the health care professionals and 73% of ophthalmologists shared information to optimise patient care management (see Appendix PT 2.20).

The most common patient characteristics influencing the referral process for eye complications for health professionals and ophthalmologists respectively were: diabetes duration (86%) (96%), the presence of comorbidities such as hypertension (81%) (86%), high glucose levels (83%) (86%), the patient's age (62%) (59%), and patient adherence to recommendations (43%) (50%) (see Appendix PT 2.17).

As reported by all health care professionals, the major barriers to optimising eye health faced by patients with diabetes were the cost of care (62%), patients' fear of treatment or results (55%) and the limited access to eye specialists (48%) (see Table 13 and Appendix PT 2.18).

With the exception of 46% of ophthalmologists reporting that some patients feel that eye complications are unlikely, the major barriers to optimising eye health faced by patients were similar to those of health professionals (cost of care 68% and patients' fear of treatment/results 55%).

Table 13: Major barriers to optimising eye health

Response	All Respondents (n=42)	Ophthalmologists (n=22)
Cost of care	26 (61.9%)	15 (68.2%)
Patients fear of treatment/results	23 (54.8%)	12 (54.5%)
Patients feel eye complications are unlikely	14 (33.3%)	10 (45.5%)
Patients feel eye exams are not important	19 (45.2%)	10 (45.5%)
Proximity to care	14 (33.3%)	9 (40.9%)
Lack of knowledge and/or awareness	19 (45.2%)	9 (40.9%)
Long wait time for appointment	17 (40.5%)	8 (36.4%)
Patients feel they are a burden on family/friends	11 (26.2%)	8 (36.4%)
Limited access to eye specialists	20 (47.6%)	7 (31.8%)
Patients have competing responsibilities and priori-ties	14 (33.3%)	7 (31.8%)
Referral process	13 (31.0%)	6 (27.3%)
Limited access to diabetes specialists	13 (31.0%)	5 (22.7%)
Recommended treatments are not available	9 (21.4%)	4 (18.2%)
Long wait time on the day of visit	8 (19.0%)	3 (13.6%)
Clinic too small or lack necessary equipment/staff	2 (4.8%)	0 (0.0%)
Other	2 (4.8%)	1 (4.5%)

Mexico
DR Barometer Findings:
Ophthalmologists

Screening

There were twenty ophthalmologists who answered at least one of the supplementary questions (see Appendix PT4.1 to PT 4.14). On average 38% of patients seen by the ophthalmologists had DR and 18% had DME (see Appendix PT 4.1 and PT 4.2).

The most common waiting time for a screening appointment for DED was less than 1 week (71%) with 9.5% stating more than 1 week but less than 1 month (see Appendix PT 4.3).

Fifty-two percent of ophthalmologists said that there was no wait from time of screening to diagnosis, and 38% (n=8) reported a wait time of less than 1 week (see Appendix PT 4.4).

Treatment and Challenges

Eighty-one percent of ophthalmologists personally administer the treatment for DR (see Appendix PT 4.6). The most common factors influencing how ophthalmologists treat patients with DR or DME were: the duration of diabetes (69%), the presence of comorbidities such as hypertension (63%) and high glucose levels (56%) (see Appendix PT 4.7).

The most common outreach venues for screening for DED were at vision centres (30%), health fairs for people with diabetes (15%), health fairs for all (10%) and mobile screening centres (5%) (see Appendix PT 4.13).

Ninety-five percent ophthalmologists reported that they screen patients for DR based on fundoscopy through dilated pupils. Additionally 75% use fluorescein angiography, 65% optical coherence tomography and 40% retinal photos. Ninety-five percent said that they treat DR and DME based on both visual and anatomical outcomes (see Appendix PT 4.8 and PT 4.9).

Seventy-five percent said that patients present when visual problems have already occurred and 25% reported that many patients are too late for effective treatment (see Appendix PT 4.10).

Most (91%) ophthalmologists had received specific training on the treatment and diagnosis of DR and or DME. Seventy-eight percent had training within the past year, 11% more than 1 year ago but less than 5 years and 5.6% five or more years ago (see Appendix PT 4.11). Most (81%) were interested in online education and certification on DME, angiogenesis and anti-VEGF therapies (see Appendix PT 4.12).

Limited access to patient education on DR and DME (90%), and late diagnosis (85%) were viewed by ophthalmologists as the greatest challenges for improving patient outcomes in DED (see Table 14 and Appendix 4.14).

Table 14: Challenges for improving outcomes in DED

Question	Response	Ophthalmologist (n=20)
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Limited access to patient education on diabetic retinopathy and diabetic macular edema	18 (90.0%)
	Late diagnosis	17 (85.0%)
	Multi-disciplinary team integration is poor	13 (65.0%)
	Ineffective screening services	13 (65.0%)
	Government/insurance not able to cover patient costs	12 (60.0%)
	Referral pathways	9 (45.0%)
	Reimbursement/restrictions on approved therapy	6 (30.0%)
	No universal guidelines on referral/ screening	5 (25.0%)
	No universal guidelines on how to treat	3 (15.0%)
	No universal guideline on when to treat	2 (10.0%)
	Current available therapies not effective	2 (10.0%)
	Other	2 (10.0%)

Mexico
DR Barometer Summary

In Mexico, 307 adults with diabetes and 57 health care professionals have provided insight about their experiences of living with, managing, and treating diabetes, DR, and DME. The results of the DR Barometer, Mexico help to understand the level of awareness, access, and barriers to diabetes management, including screening for DED and DME and timely treatment.

Mexico is estimated to be the second most populous country in North America and Latin America with an estimated population of approximately 123.1 million inhabitants. According to most recent statistics, it is estimated that 27% of the population is under the age of 15 years and 11% over the age of 60 years.

By 2050, the population distribution in Mexico is expected to drastically change with a 22% population increase, but with the country actually ageing. Approximately, two in three Mexicans (30%) will be over the age of 60 years, while some one in six will be aged 15 years and under[2].

In just 34 years, the population 60 years of age and over will reach an all-time high of some 45 million[2]. This is not surprising as birth rate will decrease by about 7% and life expectancy is expected to increase to an average of 83 years old with the average age being 40 years in 2050, at the moment it is 27 years.

Mexico is the 6th country in the world for the number of adults living with diabetes with some 11.5 million. By 2040, this number is expected to increase to 20.6 million. It has been predicted by 2040, Mexico will be the 5th top country in the world for the number of people (20-79 years) with impaired glucose tolerance. It is important to note that Mexico in 2040 is also predicted to be the 8th top country in the world for diabetes-related health expenditure at 19 billion USD.

In the North American and Caribbean region, Mexico has the second highest number of people with diabetes accounting to ~26% of people living with diabetes.

The DR Barometer Study findings indicate that overall, a younger population was more likely to be associated with type 1 diabetes, which was the opposite for those with type 2 diabetes, which tended to be an older population. This is important in the context of Mexico's demographic trend to an older nation.

People were most often informed about their condition by a doctor or nurse but it is important to note that respondents also used the internet and social media extensively which were viewed as sources of information. Despite this, a staggering 43% of patients felt that their condition was not well controlled and less than one in five (19%) patients was enrolled in diabetes management programmes.

There was a relatively high awareness of the complications associated with diabetes. The proportion of respondents worried about the consequences was mixed although vision loss was feared two times or more than kidney disease and cardiovascular disease. Over one third of those with complications reported vision loss, followed by neuropathy, kidney disease, cardiovascular disease or stroke, and foot ulcers.

All respondents with DED and DME reported complications, which were significantly greater in frequency than those without DED (e.g. 21% of those without DED reported neuropathy compared with 55% of those with DED and 38% with DME).

Evidence shows that the relationship between the patient and the health care professional is critical to realistic and optimal patient outcomes. Hence a serious and concerning finding was that 46% of patients had either never had a conversation about eye complications with their health care providers or it took place only when symptoms arose. Equally concerning is that about a quarter of patients thought that vision problems were a normal part of ageing and did not make any special effort to prevent vision problems.

People with DED or DME said that their vision was affected and this impacted their lifestyle and choices in life with most reporting both physical and mental unhealthy days. It was significant that considerably more people with DED (72%) and DME (57%) experienced limitations to their daily activities as a result of poor health compared without DED (41%).

Most respondents preferred a proactive treatment approach to prevent further vision loss rather than reactive treatment once further vision loss had occurred.

Patient education is very much at the heart of a proactive approach so it was somewhat unexpected to find that over a third of all providers had no written information about diabetes. Furthermore, only 30% of providers and ophthalmologists only had written protocols for the detection and management of diabetes-related vision issues. In many practices, the education material and protocols did not exist.

For those with type 1 and type 2, most providers reported that the initial eye exam should occur at time of the diagnosis of diabetes and that follow-up eye examinations should be conducted every year.Knowing that diabetic-related vision loss is preventable addressing barriers to eye screening is an important policy issue. It is concerning that only 50% of respondents had received an eye exam considering it was a purposeful sample, there were many reported barriers including the cost of the exam as reported by 70% of the patient respondents, along with the long wait times to schedule an appointment, and a limited access to diabetes specialists.

There is a slight disparity between the views of the health care professionals and ophthalmologist only concerning the major barriers to optimising eye health. Providers noted that patients are fearful of treatment and or results, there is limited access to eye specialists, and cost of treatment and care is high.

Limited access to patient education on DR and DME, late diagnosis, and patients presenting far too late for treatment to be effective were viewed by ophthalmologists as the greatest challenges for improving patient outcomes in DED.

In large part, the patients and providers who participated in the study were self-selected, and therefore this population group is more likely to be engaged and motivated in the management of their diabetes hence a possible explanation for the rates of awareness and screening.

Even though the sample is not representative of the broader population, and as such may not truly reflect the national situation, the findings illustrate important trends, and certainly highlight specific areas of concern and potential calls for action in Mexico.

References and Acknowledgement

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Appendices

The Diabetic Retinopathy Barometer Survey: Appendices for Mexico

APPENDIX 1 : National Results

Table 1.1

Survey Information	Number of Respondents (%)
All valid respondents [1]	347 (100.0%)
Respondents aged 18 or over	346 (99.7%)
Respondents with diabetes	308 (88.8%)

NB [1]: valid respondents are those with country information

Table 1.2

Survey Information	Number of Respondents (%)
All valid respondents	347 (100.0%)
Included in Diabetic Analysis Set	307 (88.5%)
Excluded from Diabetic Analysis Set	40 (11.5%)
Reasons for exclusion from diabetic analysis set	.
Under 18 years of age	1
Not diagnosed with diabetes	27
Missing information on diabetes diagnosis	11
Gestational diabetes only	1

Table 1.3

Survey Information	Number of Respondents (%)
Diabetic Analysis Set	307 (100.0%)
World Bank Income Group: Upper-middle income	307 (100.0%)
Persons with diabetic eye disease (DED)	35 (11.4%)
Persons with diabetic macular edema (DME)	8 (2.6%)
Persons with Type I diabetes	42 (13.7%)
Persons with Type II diabetes	245 (79.8%)
Persons not seeing health care professional for diabetes	60 (19.5%)
Persons seeing health care professional for diabetes	245 (79.8%)
Persons with eye disease & not received treatment	20 (6.5%)

Survey Information	Number of Respondents (%)
Persons with eye disease & received treatment	20 (6.5%)

Table 2.1

Question	Response	Number of Respondents (%)
With which type of diabetes have you been diagnosed?	Type I	42 (13.7)
	Type II	245 (79.8)
	Don't know/Not sure	20 (6.5)
	Total Valid Response	307 (100.0)

Table 2.2

Question	Response	Number of Respondents (%)
When was your diabetes diagnosed?	Within the last year	32 (10.5)
	1 - 5 years ago	89 (29.2)
	6 - 10 years ago	70 (23.0)
	11 - 15 years ago	46 (15.1)
	16 - 20 years ago	36 (11.8)
	21 years ago or longer	30 (9.8)
	Don't know/Not sure	2 (0.7)
	Total Valid Response	305 (100.0)
	Total missing	2

Table 2.3.1

Question	Response	Number of Respondents (%)
Do you see a health care professional for your diabetes?	Yes	245 (80.3)
	No	60 (19.7)
	Total Valid Response	305 (100.0)
	Total missing	2
What kind of health care professional?	General/Family Doctor	142 (58.2)
	Nurse	2 (0.8)

Question	Response	Number of Respondents (%)
	Diabetes Specialist	80 (32.8)
	Other	19 (7.8)
	Don't know/Not sure of kind	1 (0.4)
	Total Valid Response	244 (100.0)
	Total missing	63

Table 2.3.2

Type of health care professional	Times per year seen for diabetes	Value
General/Family Doctor	Total valid numeric response (n)	103
	Mean	8.0
	SD	4.3
	Median	10.0
	Min	1
	Max	15
	Don't know/Not sure	7
	Total missing	32
Nurse	Total valid numeric response (n)	1
	Mean	2.0
	SD	
	Median	2.0
	Min	2
	Max	2
	Total missing	1
Diabetes Specialist	Total valid numeric response (n)	56
	Mean	4.9
	SD	3.4
	Median	4.0
	Min	1
	Max	12
	Don't know/Not sure	4
	Total missing	20
Other	Total valid numeric response (n)	14

Type of health care professional	Times per year seen for diabetes	Value
	Mean	2.9
	SD	1.6
	Median	2.5
	Min	1
	Max	6
	Don't know/Not sure	1
	Total missing	4
Don't know/Not sure of kind	Total valid numeric response (n)	0
	Mean	
	SD	
	Median	
	Min	
	Max	
	Total missing	1

Table 2.4

Question	Response	Number of Respondents (%)
How have you received information about diabetes?	Doctor or nurse	238 (80.1%)
	Health educator	58 (19.5%)
	Nutritionist or dietitian	114 (38.4%)
	Diabetes organization or other health organization	114 (38.4%)
	Family/Friends/Neighbors	103 (34.7%)
	TV/Radio/Newspaper/Magazines	76 (25.6%)
	Internet	164 (55.2%)
	Social media (e.g. Facebook, Twitter, blogs)	142 (47.8%)
	Pharmacist	7 (2.4%)
	None of the above	1 (0.3%)
	Total Valid Response	297 (100.0%)
	Total missing	10

Table 2.5

Question	Response	Number of Respondents (%)
How do you manage your diabetes?	Diet	204 (68.7%)
	Oral medicine	229 (77.1%)
	Exercise	138 (46.5%)
	Insulin	114 (38.4%)
	Natural/Herbal medicine	40 (13.5%)
	None of the above	1 (0.3%)
	Total Valid Response	297 (100.0%)
	Total missing	10

Table 2.6

Question	Response	Number of Respondents (%)
Are you currently enrolled in a diabetes patient management support programme?	Yes	57 (19.0)
	No	243 (81.0)
	Total Valid Response	300 (100.0)
	Total missing	7
Who sponsors the programme?	Hospital support program	17 (30.9)
	Clinic support program	17 (30.9)
	Pharmaceutical support program	4 (7.3)
	Patient organization support program	10 (18.2)
	Don't know/Not sure	7 (12.7)
	Total Valid Response	55 (100.0)
	Total missing	252
Does the programme include education on the importance of screening for diabetic eye complications?	Yes	37 (67.3)
	No	18 (32.7)
	Total Valid Response	55 (100.0)
	Total missing	252

Table 2.7

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
Blood glucose test	Yes	272 (96.5%)
	Less than 6 months	211 (74.8%)
	6 - 12 months	36 (12.8%)
	Greater than 12 months	20 (7.1%)
	Total valid response	267 (94.7%)
	Total missing	40
	No	8 (2.8%)
	Don't know/Not sure	2 (0.7%)
	Total valid response	282 (100.0%)
	Total missing	25
Urine check	Yes	273 (96.1%)
	Less than 6 months	181 (63.7%)
	6 - 12 months	63 (22.2%)
	Greater than 12 months	24 (8.5%)
	Total valid response	268 (94.4%)
	Total missing	39
	No	10 (3.5%)
	Don't know/Not sure	1 (0.4%)
	Total valid response	284 (100.0%)
	Total missing	23
Weight check	Yes	230 (84.2%)
	Less than 6 months	157 (57.5%)
	6 - 12 months	41 (15.0%)

Test	Response	Number of Respondents (%)
	Greater than 12 months	27 (9.9%)
	Total valid response	225 (82.4%)
	Total missing	82
	No	43 (15.8%)
	Total valid response	273 (100.0%)
	Total missing	34
Blood pressure check	Yes	256 (90.8%)
	Less than 6 months	213 (75.5%)
	6 - 12 months	26 (9.2%)
	Greater than 12 months	12 (4.3%)
	Total valid response	251 (89.0%)
	Total missing	56
	No	22 (7.8%)
	Don't know/Not sure	4 (1.4%)
	Total valid response	282 (100.0%)
	Total missing	25
Foot check	Yes	155 (55.6%)
	Less than 6 months	98 (35.1%)
	6 - 12 months	31 (11.1%)
	Greater than 12 months	22 (7.9%)
	Total valid response	151 (54.1%)
	Total missing	156
	No	122 (43.7%)
	Don't know/Not sure	2 (0.7%)
	Total valid	279 (100.0%)

Test	Response	Number of Respondents (%)
	response	
	Total missing	28
Eye check	Yes	174 (60.6%)
	Less than 6 months	86 (30.0%)
	6 - 12 months	42 (14.6%)
	Greater than 12 months	44 (15.3%)
	Total valid response	172 (59.9%)
	Total missing	135
	No	109 (38.0%)
	Don't know/Not sure	4 (1.4%)
	Total valid response	287 (100.0%)
	Total missing	20

Table 2.8

Question	Response	Number of Respondents (%)
How well do you think your diabetes is controlled?	Very well	36 (12.5%)
	Well	114 (39.6%)
	Not very well	106 (36.8%)
	Not well at all	19 (6.6%)
	Don't know/Not sure	13 (4.5%)
	Total Valid Response	288 (100.0%)
	Total missing	19

Table 2.9

Question	Response	Number of Respondents (%)
What are the main challenges you	High cost of care	126 (44.2%)

Question	Response	Number of Respondents (%)
face in controlling your diabetes?		
	No insurance	51 (17.9%)
	Travel to my regular doctor or specialist is difficult	33 (11.6%)
	Long wait time for an appointment to see my doctor or specialist	121 (42.5%)
	Health services needed are not available	61 (21.4%)
	Don't know enough about diabetes	42 (14.7%)
	Too hard to eat the right things	155 (54.4%)
	Too many other things to do	58 (20.4%)
	Stigma or discrimination because of diabetes	27 (9.5%)
	Don't want to think about having diabetes	32 (11.2%)
	Other	29 (10.2%)
	Total Valid Response	285 (100.0%)
	Total missing	22

Table 2.10

Question	Response	Number of Respondents (%)
Which of the following services currently help you better manage your diabetes?	Free or low cost medicines or monitoring materials	134 (48.6%)
	Support groups	36 (13.0%)
	Support from family or friends	119 (43.1%)
	Health education and information	122 (44.2%)
	Mobile services (services that travel to or near your home)	10 (3.6%)
	Coordination of healthcare and services by a professional	74 (26.8%)
	Emergency helpline	10 (3.6%)
	Other	18 (6.5%)
	None	28 (10.1%)
	Total Valid Response	276 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	31

Table 2.11

Question	Response	Number of Respondents (%)
What complications (or problems), to your knowledge, arise from diabetes?	Amputation	224 (80.6%)
	Foot ulcers	197 (70.9%)
	Increased risk of broken bones or fractures	28 (10.1%)
	Loss of feeling in hands or toes (neuropathy)	216 (77.7%)
	Vision loss	246 (88.5%)
	Irritable bowel disease	50 (18.0%)
	Kidney disease	216 (77.7%)
	Cardiovascular disease/Stroke	186 (66.9%)
	Other	26 (9.4%)
	Don't know/Not sure	5 (1.8%)
	None	6 (2.2%)
	Total Valid Response	278 (100.0%)
	Total missing	29

Table 2.12

Question	Response	Number of Respondents (%)
Which complication of diabetes are you most concerned about?	Amputation	42 (15.2)
	Foot ulcers	2 (0.7)
	Loss of feeling in hands or toes (neuropathy)	7 (2.5)
	Vision loss	121 (43.8)
	Irritable bowel disease	3 (1.1)
	Kidney disease	66 (23.9)
	Cardiovascular disease/Stroke	26 (9.4)

Question	Response	Number of Respondents (%)
	Other	2 (0.7)
	Don't know/Not sure	4 (1.4)
	None	3 (1.1)
	Total Valid Response	276 (100.0)
	Total missing	31

Table 2.13

Question	Response	Number of Respondents (%)
Which of the following complications of diabetes do you have?	Amputation	4 (1.5%)
	Foot ulcers	10 (3.7%)
	Broken bones or fractures	3 (1.1%)
	Loss of feeling in hands or toes (neuropathy)	69 (25.7%)
	Vision loss	96 (35.8%)
	Irritable bowel disease	25 (9.3%)
	Kidney disease	35 (13.1%)
	Cardiovascular disease/Stroke	18 (6.7%)
	Other	11 (4.1%)
	Don't know/Not sure	21 (7.8%)
	None	101 (37.7%)
	Total Valid Response	268 (100.0%)
	Total missing	39

Table 2.14

Question	Response	Number of Respondents (%)
How often do you discuss the possibility of eye complications with your health care professional?	Every visit	51 (18.9%)
	Multiple times per year	23 (8.5%)
	Once per year	67 (24.8%)
	Only when symptoms arise	75 (27.8%)

Question	Response	Number of Respondents (%)
	Never	48 (17.8%)
	Don't know/Not sure	6 (2.2%)
	Total Valid Response	270 (100.0%)
	Total missing	37

Table 2.15

Question	Response	Number of Respondents (%)
Which of the following best describes your attitude to vision issues?	I think that vision problems are a normal part of ageing	62 (23.6%)
	I do what I can to prevent vision problems (e.g. get routine screenings, visit specialists)	155 (58.9%)
	I do not make any special effort to prevent vision problems	65 (24.7%)
	Total Valid Response	263 (100.0%)
	Total missing	44

Table 2.16

Question	Response	Number of Respondents (%)
What type of health insurance do you have?	Public	178 (65.7)
	Public - Private	42 (15.5)
	Private	13 (4.8)
	None	38 (14.0)
	Total Valid Response	271 (100.0)
	Total missing	36

Table 2.17

Question	Response	Number of Respondents (%)
Most often, how do you pay for the following types of medical care and services?		
General doctor visits (e.g. primary care doctor)	Care is free	83 (32.8)

Question	Response	Number of Respondents (%)
	Insurance pays total cost	47 (18.6)
	Insurance and out-of-pocket/cash (e.g. co-pays)	43 (17.0)
	Out-of-pocket only (pay cash for all care)	71 (28.1)
	Do not use service	7 (2.8)
	Don't know/Not Sure	2 (0.8)
	Total Valid Response	253 (100.0)
	Total missing	54
Specialist medical visits (e.g. eye doctor, gynecologist, urologist)	Care is free	47 (18.7)
	Insurance pays total cost	40 (15.9)
	Insurance and out-of-pocket/cash (e.g. co-pays)	31 (12.4)
	Out-of-pocket only (pay cash for all care)	102 (40.6)
	Do not use service	27 (10.8)
	Don't know/Not Sure	4 (1.6)
	Total Valid Response	251 (100.0)
	Total missing	56
Medicines	Care is free	63 (25.9)
	Insurance pays total cost	35 (14.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	45 (18.5)
	Out-of-pocket only (pay cash for all care)	95 (39.1)
	Do not use service	4 (1.6)
	Don't know/Not Sure	1 (0.4)
	Total Valid Response	243 (100.0)
	Total missing	64
Medical supplies (e.g. blood glucose meter/strips)	Care is free	21 (8.3)
	Insurance pays total cost	16 (6.3)
	Insurance and out-of-pocket/cash (e.g. co-pays)	19 (7.5)
	Out-of-pocket only (pay	178 (70.4)

Question	Response	Number of Respondents (%)
	cash for all care)	
	Do not use service	17 (6.7)
	Don't know/Not Sure	2 (0.8)
	Total Valid Response	253 (100.0)
	Total missing	54
Procedures	Care is free	44 (18.5)
	Insurance pays total cost	31 (13.0)
	Insurance and out-of-pocket/cash (e.g. co-pays)	36 (15.1)
	Out-of-pocket only (pay cash for all care)	104 (43.7)
	Do not use service	17 (7.1)
	Don't know/Not Sure	6 (2.5)
	Total Valid Response	238 (100.0)
	Total missing	69
Tests/screenings	Care is free	54 (22.0)
	Insurance pays total cost	29 (11.8)
	Insurance and out-of-pocket/cash (e.g. co-pays)	49 (19.9)
	Out-of-pocket only (pay cash for all care)	106 (43.1)
	Do not use service	5 (2.0)
	Don't know/Not Sure	3 (1.2)
	Total Valid Response	246 (100.0)
	Total missing	61
Health education	Care is free	41 (17.7)
	Insurance pays total cost	21 (9.1)
	Insurance and out-of-pocket/cash (e.g. co-pays)	20 (8.6)
	Out-of-pocket only (pay cash for all care)	64 (27.6)
	Do not use service	72 (31.0)
	Don't know/Not Sure	14 (6.0)
	Total Valid Response	232 (100.0)
	Total missing	75

Question	Response	Number of Respondents (%)
Counseling	Care is free	49 (20.8)
	Insurance pays total cost	19 (8.1)
	Insurance and out-of-pocket/cash (e.g. co-pays)	26 (11.0)
	Out-of-pocket only (pay cash for all care)	60 (25.4)
	Do not use service	69 (29.2)
	Don't know/Not Sure	13 (5.5)
	Total Valid Response	236 (100.0)
	Total missing	71

Table 3.1

Question	Response	Number of Respondents (%)
Are you aware of any government sponsored screening programs for diabetic eye disease (diabetic retinopathy)?	Yes	13 (5.0%)
	No	247 (95.0%)
	Total valid response	260 (100.0%)
	Total missing	47

Table 3.2

Question	Response	Number of Respondents (%)
Have you ever had an eye exam for diabetic eye disease?	Yes	130 (49.8%)
	No	131 (50.2%)
	Total valid response	261 (100.0%)
	Total missing	46
How long ago was your last eye exam?	Within the last year	71 (56.3%)
	More than 1 year ago but less than 2 years	32 (25.4%)
	More than 2 years ago but less than 3 years	10 (7.9%)
	More than 3 years ago but less than 5 years	6 (4.8%)

Question	Response	Number of Respondents (%)
	Five or more years ago	7 (5.6%)
	Total valid response	126 (100.0%)
	Total missing	181
Who did the last exam?	General/Family practitioner	2 (1.6%)
	Eye doctor/Eye clinic	120 (96.8%)
	Other	1 (0.8%)
	Don't know/Not sure	1 (0.8%)
	Total valid response	124 (100.0%)
	Total missing	183

Table 3.3

Question	Response	Number of Respondents (%)
Have you ever had a dilated eye exam, where your eyes are examined after eye drops?	Yes	131 (51.6%)
	No	118 (46.5%)
	Don't know/Not sure	5 (2.0%)
	Total valid response	254 (100.0%)
	Total missing	53

Table 3.4

Question	Response	Number of Respondents (%)
Based on what you know, how often should you get your eyes examined for diabetic eye disease?	Once a year	189 (73.8%)
	Every two years	7 (2.7%)
	Less often than every two years	1 (0.4%)
	Only when symptoms occur	11 (4.3%)
	Never	4 (1.6%)
	Don't know/Not sure	44 (17.2%)
	Total valid response	256 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	51

Table 3.5

Question	Response	Number of Respondents (%)
For you, what are the biggest barriers to eye exams?	They are expensive	177 (70.2%)
	Eye exams are not available near my home	59 (23.4%)
	Long wait time for appointment	100 (39.7%)
	Long wait time on the day of the visit	58 (23.0%)
	Referral process is complicated or takes too long	57 (22.6%)
	Recommended treatments for eye problems are not available	40 (15.9%)
	Don't know much about my condition	55 (21.8%)
	Fear of treatment/results	33 (13.1%)
	Burden on my family/friends	24 (9.5%)
	Limited access to diabetes specialists	80 (31.7%)
	I'm not likely to have eye complications	7 (2.8%)
	Eye exams are not important	4 (1.6%)
	Too many other things to do or worry about	13 (5.2%)
	Clinics are too small or lack necessary equipment/staff	32 (12.7%)
	Other	14 (5.6%)
	Total valid response	252 (100.0%)
	Total missing	55

Table 3.6

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic eye disease?	Yes	41 (16.0%)
	No	216 (84.0%)
	Total valid response	257 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	50
Has your diabetic eye disease affected your vision?	Yes, slightly	24 (58.5%)
	Yes, significantly	14 (34.1%)
	No	3 (7.3%)
	Total valid response	41 (100.0%)
	Total missing	266
Have vision issues caused you to have difficulty with any of the following?	Traveling	8 (22.2%)
	Household responsibilities, such as cooking or cleaning	10 (27.8%)
	Social interactions with family/friends	7 (19.4%)
	Leisure activities/exercise	11 (30.6%)
	Work or keeping a job	15 (41.7%)
	Managing my diabetes	11 (30.6%)
	Other	3 (8.3%)
	None	2 (5.6%)
	Driving (a car/vehicle)	21 (58.3%)
	Total valid response	36 (100.0%)
	Total missing	271

Table 3.7

Question	Response	Number of Respondents (%)
Have you had any treatment for diabetic eye disease?	Yes	20 (48.8%)
	No	20 (48.8%)
	Don't know/Not sure	1 (2.4%)
	Total valid response	41 (100.0%)
	Total missing	266
What treatment did you receive?	Laser	16 (84.2%)
	Injection in the eye (Anti-VEGF)	7 (36.8%)
	Surgery	8 (42.1%)

Question	Response	Number of Respondents (%)
	Other	2 (10.5%)
	Total valid response	19 (100.0%)
	Total missing	288
Did you complete the treatment?	Yes	12 (63.2%)
	No	2 (10.5%)
	Still receiving treatment	2 (10.5%)
	Don't know/Not sure	3 (15.8%)
	Total valid response	19 (100.0%)
	Total missing	288
Do you feel that the treatment worked?	Yes, and vision improved	5 (29.4%)
	Yes, but vision stayed the same	5 (29.4%)
	No	4 (23.5%)
	Still waiting to know	2 (11.8%)
	Don't know/Not sure	1 (5.9%)
	Total valid response	17 (100.0%)
	Total missing	290
What is/are the reason(s) that you did not complete the treatment?	Treatment was too expensive	2 (100.0%)
	Eye doctor was located too far away	1 (50.0%)
	Appointment times were not convenient	1 (50.0%)
	Too much burden on my family/friends	1 (50.0%)
	Total valid response	2 (100.0%)
	Total missing	305
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	8 (44.4%)
	Treatment would not be effective	1 (5.6%)
	Treatment is not accessible	1 (5.6%)
	Still waiting for treatment	3 (16.7%)
	Too expensive	5 (27.8%)
	No insurance	3 (16.7%)

Question	Response	Number of Respondents (%)
	I'm fearful of treatment	1 (5.6%)
	Other	4 (22.2%)
	Total valid response	18 (100.0%)
	Total missing	289

Table 3.8

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic macular edema?	Yes	8 (3.2%)
	No	188 (75.8%)
	Don't know/Not sure	52 (21.0%)
	Total valid response	248 (100.0%)
	Total missing	59
If Yes, which of the following would you prefer	Treatment to prevent further vision loss	7 (100.0%)
	Total valid response	7 (100.0%)
	Total missing	300

Table 3.9

Question	Response	Number of Respondents (%)
Have you received information about diabetic retinopathy or diabetic macular edema from any of the following sources?	Doctor/Nurse	88 (36.1%)
	Health educator	29 (11.9%)
	Diabetes organization or other health organization	45 (18.4%)
	Family/Friends/Neighbors	18 (7.4%)
	TV/Radio/Newspaper/Magazines	19 (7.8%)
	Internet	74 (30.3%)
	None of the above	100 (41.0%)
	Total valid response	244 (100.0%)
	Total missing	63

Table 4.1

Question	Response	Number of Respondents (%)
What is your gender?	Female	148 (59.4)
	Male	101 (40.6)
	Total Valid Response	249 (100.0)
	Total missing	58
Please indicate your age	18 - 29	28 (9.1)
	30 - 39	40 (13.0)
	40 - 49	90 (29.3)
	50 - 59	94 (30.6)
	60 - 69	45 (14.7)
	70 - 79	8 (2.6)
	80 - 89	2 (0.7)
	Total Valid Response	307 (100.0)

Table 4.2

Question	Response	Number of Respondents (%)
Where do you live?	Urban setting	234 (93.6)
	Non-urban setting	16 (6.4)
	Total Valid Response	250 (100.0)
	Total missing	57

Table 4.3

Question	Response	Number of Respondents (%)
What is the highest level of education you completed?	Did not complete primary school	6 (2.4)
	Primary school	16 (6.4)
	Secondary school	65 (26.0)
	College/University	58 (23.2)
	Graduate or post-graduate	105 (42.0)
	Total valid response	250 (100.0)
	Total missing	57

Table 4.4

Question	Response	Number of Respondents (%)
Are you currently working?	Working for pay	141 (57.1)
	Working without pay at home (e.g. housework, farming)	34 (13.8)
	Volunteering	5 (2.0)
	Retired	26 (10.5)
	Student	7 (2.8)
	Not working	34 (13.8)
	Total Valid Response	247 (100.0)
	Total missing	60

Table 4.5

Question	Response	Number of Respondents (%)
Do you receive assistance from the government?	Income assistance	11 (4.5%)
	Medical assistance	66 (27.3%)
	Food assistance	2 (0.8%)
	Housing assistance	5 (2.1%)
	Pension assistance	27 (11.2%)
	None of the above	149 (61.6%)
	Total valid response	242 (100.0%)
	Total missing	65

Table 4.6

Question	Response	Number of Respondents (%)
Did you have trouble paying for food at anytime during the past year?	Yes	80 (32.1)
	No	169 (67.9)
	Total Valid Response	249 (100.0)
	Total missing	58

Table 4.7

Question	Response	Number of Respondents (%)
Do you feel that your access to health care is negatively affected by any of the following?	Age	22 (9.2)
	Education	9 (3.8)
	Ethnicity	2 (0.8)
	Gender	8 (3.4)
	Income	86 (36.1)
	Language you speak	1 (0.4)
	Place of birth	1 (0.4)
	Place where you live	16 (6.7)
	Race	1 (0.4)
	Tribal affiliation	3 (1.3)
	None of the above	132 (55.5)
	Total valid response	238 (100.0)
	Total missing	69

Table 4.8

Question	Response	Number of Respondents (%)
Which of the following do you worry about most?	Food	16 (6.5)
	Housing	5 (2.0)
	Money	43 (17.4)
	Health	119 (48.2)
	Family	59 (23.9)
	None of the above	5 (2.0)
	Total Valid Response	247 (100.0)
	Total missing	60

Table 5.1

Question	Response	Number of Respondents (%)

Question	Response	Number of Respondents (%)
In general, would you say your health is:	Excellent	2 (0.9%)
	Very good	20 (8.6%)
	Good	84 (36.1%)
	Total good health	106 (45.5%)
	Fair	105 (45.1%)
	Poor	22 (9.4%)
	Fair or poor health	127 (54.5%)
	Total valid response	233 (100.0%)
	Total missing	74

Table 5.2

Question	Response	Number of Respondents (%)
How many days during last 30 days was your physical health not good	Any unhealthy days	106 (58.6%)
	1-5 unhealthy days	47 (26.0%)
	6-10 unhealthy days	24 (13.3%)
	11-20 unhealthy days	17 (9.4%)
	21-30 unhealthy days	18 (9.9%)
	No unhealthy days	75 (41.4%)
	Total valid response	181 (100.0%)
	Total missing	126

Table 5.3.1

Question	Response	Number of Respondents (%)
How many days during last 30 days was your mental health not good	Any unhealthy days	99 (54.1%)
	1-5 unhealthy days	40 (21.9%)
	6-10 unhealthy	16 (8.7%)

Question	Response	Number of Respondents (%)
	days	
	11-20 unhealthy days	21 (11.5%)
	21-30 unhealthy days	22 (12.0%)
	No unhealthy days	84 (45.9%)
	Total valid response	183 (100.0%)
	Total missing	124

Table 5.3.2

Question	Response	Number of Respondents (%)
Unhealthy days (physically or mentally unhealthy, max 30)	Any unhealthy days	138 (76.2%)
	1-5 unhealthy days	41 (22.7%)
	6-10 unhealthy days	27 (14.9%)
	11-20 unhealthy days	27 (14.9%)
	21-30 unhealthy days	43 (23.8%)
	No unhealthy days	43 (23.8%)
	Total valid response	181 (100.0%)

Table 5.4

Question	Response	Number of Respondents (%)
How many days during last 30 days did poor health limit your usual activities	Any unhealthy days	64 (41.8%)
	1-5 unhealthy days	32 (20.9%)
	6-10 unhealthy days	12 (7.8%)

Question	Response	Number of Respondents (%)
	11-20 unhealthy days	16 (10.5%)
	21-30 unhealthy days	4 (2.6%)
	No unhealthy days	89 (58.2%)
	Total valid response	153 (100.0%)
	Total missing	154

Table 5.5

Question	Response	Number of Respondents (%)
Are you limited in any way in any activities because of any impairment or health problem?	Yes	109 (47.4%)
	No	121 (52.6%)
	Total valid response	230 (100.0%)
	Total missing	77
Which impairment or health problem, if any, limits your activities?		
a) Arthritis/rheumatism	Yes	18 (24.3%)
	No	52 (70.3%)
	Don't know/Not sure	4 (5.4%)
	Total valid response	74 (100.0%)
	Total missing	233
b) Back or neck problem	Yes	41 (48.8%)
	No	41 (48.8%)
	Don't know/Not sure	2 (2.4%)
	Total valid response	84 (100.0%)
	Total missing	223
c) Fractures, bone/joint injury	Yes	25 (32.5%)
	No	51 (66.2%)

Question	Response	Number of Respondents (%)
	Don't know/Not sure	1 (1.3%)
	Total valid response	77 (100.0%)
	Total missing	230
d) Walking problem	Yes	38 (47.5%)
	No	40 (50.0%)
	Don't know/Not sure	2 (2.5%)
	Total valid response	80 (100.0%)
	Total missing	227
e) Lung/breathing problem	Yes	14 (17.7%)
	No	63 (79.7%)
	Don't know/Not sure	2 (2.5%)
	Total valid response	79 (100.0%)
	Total missing	228
f) Hearing problem	Yes	14 (18.7%)
	No	60 (80.0%)
	Don't know/Not sure	1 (1.3%)
	Total valid response	75 (100.0%)
	Total missing	232
g) Eye/vision problem	Yes	64 (68.8%)
	No	24 (25.8%)
	Don't know/Not sure	4 (4.3%)
	Refused	1 (1.1%)
	Total valid response	93 (100.0%)
	Total missing	214
h) Heart problem	Yes	15 (19.5%)
	No	54 (70.1%)

Question	Response	Number of Respondents (%)
	Don't know/Not sure	7 (9.1%)
	Refused	1 (1.3%)
	Total valid response	77 (100.0%)
	Total missing	230
i) Stroke problem	Yes	4 (5.6%)
	No	64 (90.1%)
	Don't know/Not sure	2 (2.8%)
	Refused	1 (1.4%)
	Total valid response	71 (100.0%)
	Total missing	236
j) Hypertension/high blood pressure	Yes	45 (51.1%)
	No	41 (46.6%)
	Don't know/Not sure	2 (2.3%)
	Total valid response	88 (100.0%)
	Total missing	219
k) Diabetes	Yes	91 (90.1%)
	No	8 (7.9%)
	Don't know/Not sure	2 (2.0%)
	Total valid response	101 (100.0%)
	Total missing	206
l) Cancer	Yes	2 (2.8%)
	No	65 (90.3%)
	Don't know/Not sure	5 (6.9%)
	Total valid response	72 (100.0%)
	Total missing	235
m) Mental or emotional health	Yes	29 (35.4%)

Question	Response	Number of Respondents (%)
	No	44 (53.7%)
	Don't know/Not sure	8 (9.8%)
	Refused	1 (1.2%)
	Total valid response	82 (100.0%)
	Total missing	225

PT 1.2

Analysis Sets	Number of Respondents (%)
All valid respondents	57 (100.0%)
Included in Provider Analysis Set (PAS)	57 (100.0%)
Excluded in Provider Analysis Set (PAS)	0 (0.0%)
Reasons for exclusion from Provider Analysis Set:	
No other valid survey data	0
Provider Analysis Set	57
Included in the Eye Care Professional Set (Eye Specialist)	27 (47.4%)
Excluded in the Eye Care Professional Set (Eye Specialist)	30 (52.6%)
Reasons for exclusion from Eye Care Professional Set:	
Missing required speciality	30
No valid (non-missing) response for the supplemental eye questionnaire	0

PT 1.3

Subgroups	Number of Respondents (%)
Provider Analysis Set	57 (100.0%)
Primary Care Provider	12 (21.1%)
Diabetes Specialist Provider	9 (15.8%)
Eye Care Professional	27 (47.4%)
Ophthalmologist	26 (45.6%)

NB [1]: Primary Care Provider = General Practitioner/Family practitioner (but not diabetes specialist or eye care professional)
NB [2]: Diabetes specialist provider = Diabetes specialist (but not eye care professional)
NB [4]: Ophthalmologist = General ophthalmologist or retinal specialist
NB [5]: Note that providers may have selected more than one specialty

PT 1.4

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your specialty?	General primary care/Family practitioner	12 (100.0%)	2 (22.2%)	0 (0.0%)	14 (24.6%)
	Diabetes specialist	0 (0.0%)	9 (100.0%)	0 (0.0%)	9 (15.8%)
	General ophthalmologist	0 (0.0%)	0 (0.0%)	14 (53.8%)	14 (24.6%)
	Optometrist	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.8%)
	Retinal specialist	0 (0.0%)	0 (0.0%)	14 (53.8%)	14 (24.6%)
	Nurse	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (3.5%)
	Health educator	3 (25.0%)	1 (11.1%)	2 (7.7%)	11 (19.3%)
	None of the above	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (3.5%)
	Total valid response	12 (100.0%)	9 (100.0%)	26 (100.0%)	57 (100.0%)
	Total missing	0	0	0	0

PT 1.5

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
How long have you been practicing in this profession?	Total valid response (n)	12	9	26	57
	Mean	12.3	9.3	14.7	12.3
	SD	9.0	9.3	12.4	10.7
	Median	11.0	5.0	9.5	8.0
	Min.	0	2	1	0
	Max.	30	29	42	42
	Total missing	0	0	0	0

PT 2.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your main practice setting?	Diabetes clinic/practice	1 (10.0%)	7 (77.8%)	1 (4.0%)	12 (23.5%)
	Eye clinic/practice	0 (0.0%)	0 (0.0%)	16 (64.0%)	17 (33.3%)
	General medical clinic/practice	7 (70.0%)	1 (11.1%)	1 (4.0%)	9 (17.6%)
	Hospital	2 (20.0%)	1 (11.1%)	6 (24.0%)	11 (21.6%)
	Other	0 (0.0%)	0 (0.0%)	1 (4.0%)	2 (3.9%)
	Total Valid Response	10 (100.0%)	9 (100.0%)	25 (100.0%)	51 (100.0%)
	Total missing	2	0	1	6

PT 2.2

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Where is your main practice located?	Urban setting	9 (90.0%)	9 (100.0%)	24 (96.0%)	48 (94.1%)
	Non-urban setting	1 (10.0%)	0 (0.0%)	1 (4.0%)	3 (5.9%)
	Total Valid Response	10 (100.0%)	9 (100.0%)	25 (100.0%)	51 (100.0%)
	Total missing	2	0	1	6

PT 2.3

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In which sector is your main practice?	Government	4 (40.0%)	0 (0.0%)	2 (8.0%)	9 (17.6%)
	Private	2 (20.0%)	2 (22.2%)	10 (40.0%)	15 (29.4%)
	Non profit	0 (0.0%)	2 (22.2%)	4 (16.0%)	8 (15.7%)
	Combined/mixed	4 (40.0%)	5 (55.6%)	9 (36.0%)	19

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
					(37.3%)
	Total Valid Response	10 (100.0%)	9 (100.0%)	25 (100.0%)	51 (100.0%)
	Total missing	2	0	1	6

PT 2.4

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is your main practice limited to certain populations?	No	5 (50.0%)	7 (77.8%)	20 (80.0%)	37 (72.5%)
	Yes, limited by age	1 (10.0%)	0 (0.0%)	0 (0.0%)	1 (2.0%)
	Yes, limited to persons with health insurance	4 (40.0%)	1 (11.1%)	4 (16.0%)	10 (19.6%)
	Yes, limited to low income or uninsured persons	2 (20.0%)	0 (0.0%)	1 (4.0%)	4 (7.8%)
	Yes, limited to persons who pay out-of-pocket	0 (0.0%)	2 (22.2%)	1 (4.0%)	3 (5.9%)
	Total valid response	10 (100.0%)	9 (100.0%)	25 (100.0%)	51 (100.0%)
	Total missing	2	0	1	6

PT 2.5

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is the average wait time for an appointment in your main practice?	Less than 1 week	4 (50.0%)	5 (55.6%)	14 (58.3%)	25 (53.2%)
	More than 1 week but less	2 (25.0%)	3 (33.3%)	5 (20.8%)	12 (25.5%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	than 1 month				
	More than 1 month but less than 2 months	0 (0.0%)	0 (0.0%)	1 (4.2%)	1 (2.1%)
	More than 2 months but less than 3 months	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.1%)
	More than 3 months but less than 6 months	0 (0.0%)	0 (0.0%)	1 (4.2%)	1 (2.1%)
	Six or more months	0 (0.0%)	0 (0.0%)	3 (12.5%)	3 (6.4%)
	Other	2 (25.0%)	1 (11.1%)	0 (0.0%)	4 (8.5%)
	Total Valid Response	8 (100.0%)	9 (100.0%)	24 (100.0%)	47 (100.0%)
	Total missing	4	0	2	10

PT 2.6

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
On average, how many patients do you see per week in your main practice [n patients]	Total valid response (n)	8	9	23	46
	Mean	36.6	29.8	48.8	42.2
	SD	29.4	45.3	30.1	33.7
	Median	32.5	15	50	35
	Min.	0	8	3	0
	Max.	90	150	100	150
	Total missing	4	0	3	11
What percentage of the patients in your main practice have diabetes [% patients]	Total valid response (n)	8	8	23	45

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Mean	36.5	70	45.4	49.9
	SD	34.8	35.6	28	32.8
	Median	27.5	87.5	50	50
	Min.	0	20	2	0
	Max.	85	100	95	100
	Total missing	4	1	3	12

PT 2.7

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, how do patients pay for the care and services that you provide?	Don't pay	3 (37.5%)	2 (22.2%)	1 (4.2%)	8 (17.4%)
	Pay a reduced/subsidized rate	3 (37.5%)	4 (44.4%)	10 (41.7%)	19 (41.3%)
	Pay out-of-pocket (full fees)	1 (12.5%)	7 (77.8%)	11 (45.8%)	20 (43.5%)
	Pay through insurance	1 (12.5%)	2 (22.2%)	11 (45.8%)	14 (30.4%)
	Patient pays some, insurance pays some	1 (12.5%)	0 (0.0%)	6 (25.0%)	8 (17.4%)
	Other	0 (0.0%)	0 (0.0%)	4 (16.7%)	4 (8.7%)
	Total valid response	8 (100.0%)	9 (100.0%)	24 (100.0%)	46 (100.0%)
	Total missing	4	0	2	11

PT 2.8

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In addition to your main practice, do you	Yes	4 (50.0%)	6 (66.7%)	17 (70.8%)	30 (63.8%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
work in another practice setting?					
	No	4 (50.0%)	3 (33.3%)	7 (29.2%)	17 (36.2%)
	Total valid response	8 (100.0%)	9 (100.0%)	24 (100.0%)	47 (100.0%)
	Total missing	4		2	10
In which other practice setting(s) do you work?	Hospital	1 (25.0%)	3 (50.0%)	5 (29.4%)	9 (30.0%)
	General medical clinic/practice	2 (50.0%)		3 (17.6%)	5 (16.7%)
	Diabetes clinic/practice		2 (33.3%)	2 (11.8%)	5 (16.7%)
	Eye clinic/practice			8 (47.1%)	8 (26.7%)
	Other	1 (25.0%)	3 (50.0%)	1 (5.9%)	7 (23.3%)
	Total valid response	4 (100.0%)	6 (100.0%)	17 (100.0%)	30 (100.0%)
	Total missing	8	3	9	27
In which sector(s) is(are) the practice(s)?	Government	2 (50.0%)	3 (50.0%)		5 (16.7%)
	Private	1 (25.0%)	1 (16.7%)	8 (47.1%)	12 (40.0%)
	Non profit	1 (25.0%)		3 (17.6%)	5 (16.7%)
	Combined/mixed		2 (33.3%)	6 (35.3%)	8 (26.7%)
	Total valid response	4 (100.0%)	6 (100.0%)	17 (100.0%)	30 (100.0%)
	Total missing	8	3	9	27
Is there a major difference between your practices with respect to how diabetic eye disease is screened and	Yes	2 (50.0%)	2 (33.3%)	9 (52.9%)	15 (50.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
managed?					
	No	2 (50.0%)	4 (66.7%)	8 (47.1%)	15 (50.0%)
	Total valid response	4 (100.0%)	6 (100.0%)	17 (100.0%)	30 (100.0%)
	Total missing	8	3	9	27

PT 2.9

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Blood glucose	Yes		8 (100.0%)	9 (100.0%)	22 (95.7%)	44 (97.8%)
		Total valid numeric response (n)	8 (100.0%)	8 (88.9%)	22 (95.7%)	43 (95.6%)
		Mean	7.1	52.1	21.6	36.0
		SD	4.1	126.5	76.8	94.1
		Median	5.0	9.0	3.5	5.0
		Min	3	2	2	2
		Max	12	365	365	365
		Total missing	4	1	4	14
	No				1 (4.3%)	1 (2.2%)
	Total valid response		8 (100.0%)	9 (100.0%)	23 (100.0%)	45 (100.0%)
	Total missing		4		3	12
HbA1c	Yes		6 (75.0%)	7 (87.5%)	16 (69.6%)	33 (76.7%)
		Total valid numeric response (n)	6 (75.0%)	6 (75.0%)	16 (69.6%)	32 (74.4%)
		Mean	3.8	3.7	24.9	14.3
		SD	0.4	0.5	90.7	64.0
		Median	4.0	4.0	3.0	3.0

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		Min	3	3	1	1
		Max	4	4	365	365
		Total missing	6	3	10	25
	No		2 (25.0%)	1 (12.5%)	7 (30.4%)	10 (23.3%)
	Total valid response		8 (100.0%)	8 (100.0%)	23 (100.0%)	43 (100.0%)
	Total missing		4	1	3	14
Urine check	Yes		7 (87.5%)	8 (88.9%)	11 (50.0%)	27 (61.4%)
		Total valid numeric response (n)	7 (87.5%)	7 (77.8%)	11 (50.0%)	26 (59.1%)
		Mean	3.3	3.7	35.6	17.0
		SD	1.3	1.7	109.2	71.0
		Median	4.0	3.0	3.0	3.0
		Min	1	2	1	1
		Max	4	6	365	365
		Total missing	5	2	15	31
	No		1 (12.5%)	1 (11.1%)	11 (50.0%)	17 (38.6%)
	Total valid response		8 (100.0%)	9 (100.0%)	22 (100.0%)	44 (100.0%)
	Total missing		4		4	13
Weight check	Yes		8 (100.0%)	8 (100.0%)	7 (33.3%)	26 (61.9%)
		Total valid numeric response (n)	8 (100.0%)	7 (87.5%)	7 (33.3%)	25 (59.5%)
		Mean	8.9	6.9	6.9	7.6
		SD	4.3	5.1	4.9	4.5

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		Median	12.0	6.0	5.0	6.0
		Min	3	0	2	0
		Max	12	12	12	12
		Total missing	4	2	19	32
	No				14 (66.7%)	16 (38.1%)
	Total valid response		8 (100.0%)	8 (100.0%)	21 (100.0%)	42 (100.0%)
	Total missing		4	1	5	15
Blood pressure check	Yes		8 (100.0%)	9 (100.0%)	18 (81.8%)	38 (86.4%)
		Total valid numeric response (n)	8 (100.0%)	8 (88.9%)	18 (81.8%)	37 (84.1%)
		Mean	9.6	13.3	6.3	10.1
		SD	3.9	15.5	4.1	11.7
		Median	12.0	11.0	4.0	10.0
		Min	3	0	2	0
		Max	12	50	12	60
		Total missing	4	1	8	20
	No				4 (18.2%)	6 (13.6%)
	Total valid response		8 (100.0%)	9 (100.0%)	22 (100.0%)	44 (100.0%)
	Total missing		4		4	13
Foot check	Yes		7 (87.5%)	8 (88.9%)	3 (14.3%)	23 (53.5%)
		Total valid numeric response (n)	7 (87.5%)	8 (88.9%)	3 (14.3%)	23 (53.5%)
		Mean	9.3	11.9	4.3	9.1

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		SD	4.0	16.0	6.7	10.0
		Median	12.0	7.0	1.0	10.0
		Min	3	1	0	0
		Max	12	50	12	50
		Total missing	5	1	23	34
	No		1 (12.5%)	1 (11.1%)	18 (85.7%)	20 (46.5%)
	Total valid response		8 (100.0%)	9 (100.0%)	21 (100.0%)	43 (100.0%)
	Total missing		4		5	14
Eye examination - Un-dilated	Yes		5 (62.5%)	4 (44.4%)	18 (81.8%)	30 (68.2%)
		Total valid numeric response (n)	5 (62.5%)	4 (44.4%)	18 (81.8%)	30 (68.2%)
		Mean	4.0	7.3	4.3	5.1
		SD	3.5	5.5	5.6	6.2
		Median	3.0	7.5	2.0	2.5
		Min	1	2	0	0
		Max	10	12	22	24
		Total missing	7	5	8	27
	No		3 (37.5%)	5 (55.6%)	4 (18.2%)	14 (31.8%)
	Total valid response		8 (100.0%)	9 (100.0%)	22 (100.0%)	44 (100.0%)
	Total missing		4		4	13
Eye examination - Optical Coherence Tomography	Yes				19 (82.6%)	21 (48.8%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		Total valid numeric response (n)	0 (0.0%)	0 (0.0%)	18 (78.3%)	20 (46.5%)
		Mean			21.3	19.3
		SD			85.8	81.4
		Median			1.0	1.0
		Min			0	0
		Max			365	365
		Total missing	12	9	8	37
	No		7 (100.0%)	8 (100.0%)	4 (17.4%)	22 (51.2%)
	Total valid response		7 (100.0%)	8 (100.0%)	23 (100.0%)	43 (100.0%)
	Total missing		5	1	3	14
Eye examination - Fundoscopy	Yes		2 (25.0%)	2 (25.0%)	23 (100.0%)	30 (68.2%)
		Total valid numeric response (n)	2 (25.0%)	2 (25.0%)	23 (100.0%)	30 (68.2%)
		Mean	5.5	1.5	18.9	15.1
		SD	6.4	0.7	75.5	66.2
		Median	5.5	1.5	2.0	2.0
		Min	1	1	0	0
		Max	10	2	365	365
		Total missing	10	7	3	27
	No		6 (75.0%)	6 (75.0%)		14 (31.8%)
	Total valid response		8 (100.0%)	8 (100.0%)	23 (100.0%)	44 (100.0%)
	Total missing		4	1	3	13

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Eye examination - Fluorescein Angiography	Yes		1 (12.5%)	1 (12.5%)	21 (95.5%)	25 (58.1%)
		Total valid numeric response (n)	1 (12.5%)	1 (12.5%)	21 (95.5%)	25 (58.1%)
		Mean	1.0	1.0	1.1	1.0
		SD			0.7	0.7
		Median	1.0	1.0	1.0	1.0
		Min	1	1	0	0
		Max	1	1	3	3
		Total missing	11	8	5	32
	No		7 (87.5%)	7 (87.5%)	1 (4.5%)	18 (41.9%)
	Total valid response		8 (100.0%)	8 (100.0%)	22 (100.0%)	43 (100.0%)
	Total missing		4	1	4	14
Eye examination - Lipid check	Yes		3 (37.5%)	4 (44.4%)	9 (42.9%)	19 (44.2%)
		Total valid numeric response (n)	3 (37.5%)	4 (44.4%)	9 (42.9%)	19 (44.2%)
		Mean	3.0	3.0	1.7	2.3
		SD	1.0	1.4	0.5	1.1
		Median	3.0	3.5	2.0	2.0
		Min	2	1	1	1
		Max	4	4	2	4
		Total missing	9	5	17	38
	No		5 (62.5%)	5 (55.6%)	12 (57.1%)	24 (55.8%)
	Total valid		8 (100.0%)	9 (100.0%)	21 (100.0%)	43 (100.0%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	response					
	Total missing		4		5	14

PT 2.10

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, what topics do you cover during a routine visit with a patient who has diabetes?	Diabetes management and monitoring	8 (100.0%)	6 (75.0%)	11 (47.8%)	30 (68.2%)
	Diet/nutrition	8 (100.0%)	8 (100.0%)	7 (30.4%)	27 (61.4%)
	Exercise/physical activity	8 (100.0%)	7 (87.5%)	8 (34.8%)	27 (61.4%)
	Medicines	8 (100.0%)	7 (87.5%)	10 (43.5%)	28 (63.6%)
	Foot care and inspection	7 (87.5%)	6 (75.0%)	1 (4.3%)	18 (40.9%)
	Blood pressure	7 (87.5%)	7 (87.5%)	6 (26.1%)	23 (52.3%)
	Eye care and exams	5 (62.5%)	4 (50.0%)	23 (100.0%)	35 (79.5%)
	Lipid check	5 (62.5%)	6 (75.0%)	6 (26.1%)	20 (45.5%)
	Total valid response	8 (100.0%)	8 (100.0%)	23 (100.0%)	44 (100.0%)
	Total missing	4	1	3	13

PT 2.11

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is there written information about diabetes available	Yes, and information on eye complications is	0 (0.0%)	1 (12.5%)	6 (26.1%)	9 (20.5%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
for patients in your main practice?	sufficient				
	Yes, but information on eye complications is not sufficient	4 (50.0%)	5 (62.5%)	5 (21.7%)	16 (36.4%)
	Yes, but no information on eye complications is included	2 (25.0%)	1 (12.5%)	0 (0.0%)	4 (9.1%)
	No written information is available for patients	2 (25.0%)	1 (12.5%)	12 (52.2%)	15 (34.1%)
	Total Valid Response	8 (100.0%)	8 (100.0%)	23 (100.0%)	44 (100.0%)
	Total missing	4	1	3	13

PT 2.12

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you have written protocols/guidelines available in your main practice for the management of diabetes?	Yes, available and used by staff	4 (50.0%)	5 (62.5%)	5 (21.7%)	18 (40.9%)
	Yes, available but not used by staff	3 (37.5%)	2 (25.0%)	7 (30.4%)	13 (29.5%)
	Not available	1 (12.5%)	0 (0.0%)	8 (34.8%)	9 (20.5%)
	Don't know/Not sure	0 (0.0%)	1 (12.5%)	3 (13.0%)	4 (9.1%)
	Total Valid Response	8 (100.0%)	8 (100.0%)	23 (100.0%)	44 (100.0%)
	Total missing	4	1	3	13

PT 2.13

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you have written protocols/guidelines for detection and management of diabetes-related vision issue available in your main practice?	Yes, available and used by staff	1 (12.5%)	3 (37.5%)	7 (30.4%)	13 (29.5%)
	Yes, available but not used by staff	2 (25.0%)	2 (25.0%)	7 (30.4%)	11 (25.0%)
	Not available	5 (62.5%)	3 (37.5%)	7 (30.4%)	17 (38.6%)
	Don't know/Not sure	0 (0.0%)	0 (0.0%)	2 (8.7%)	3 (6.8%)
	Total Valid Response	8 (100.0%)	8 (100.0%)	23 (100.0%)	44 (100.0%)
	Total missing	4	1	3	13

PT 2.14

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is the protocol in your main practice for timing of initial eye exams for persons with diabetes - Type I?	After a predetermined number of years (numeric response) (n)	0 (0.0%)	0 (0.0%)	1 (4.5%)	2 (4.8%)
	Mean			3.0	4.0
	SD				1.4
	Median			3.0	4.0
	Min			3	3
	Max			3	5

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	After a predetermined age (numeric response) (n)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Mean				
	SD				
	Median				
	Min				
	Max				
	As soon as they are diagnosed	7 (87.5%)	5 (71.4%)	19 (86.4%)	32 (76.2%)
	When a patient reports eye/vision problems		1 (14.3%)	1 (4.5%)	3 (7.1%)
	No standard practice, timing varies case by case	1 (12.5%)	1 (14.3%)	1 (4.5%)	5 (11.9%)
	Total valid response	8 (100.0%)	7 (100.0%)	22 (100.0%)	42 (100.0%)
	Total missing	4	2	4	15
What is the protocol in your main practice for timing of initial eye exams for persons with diabetes - Type II?	After a predetermined number of years (numeric response) (n)	0 (0.0%)	0 (0.0%)	1 (4.3%)	1 (2.3%)
	Mean			5.0	5.0
	SD				
	Median			5.0	5.0
	Min			5	5
	Max			5	5
	After a predetermined age (numeric response) (n)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Mean				
	SD				

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Median				
	Min				
	Max				
	As soon as they are diagnosed	6 (75.0%)	5 (62.5%)	18 (78.3%)	31 (70.5%)
	When a patient reports eye/vision problems		2 (25.0%)	1 (4.3%)	5 (11.4%)
	No standard practice, timing varies case by case	1 (12.5%)	1 (12.5%)	2 (8.7%)	5 (11.4%)
	Other	1 (12.5%)		1 (4.3%)	2 (4.5%)
	Total valid response	8 (100.0%)	8 (100.0%)	23 (100.0%)	44 (100.0%)
	Total missing	4	1	3	13

PT 2.15

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is the protocol in your main practice for timing of follow-up eye examinations for persons with diabetes?	Once a year	6 (85.7%)	7 (87.5%)	20 (87.0%)	38 (88.4%)
	Every two years	1 (14.3%)	0 (0.0%)	0 (0.0%)	1 (2.3%)
	Only when symptoms are present	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (2.3%)
	Other	0 (0.0%)	0 (0.0%)	3 (13.0%)	3 (7.0%)
	Total Valid Response	7 (100.0%)	8 (100.0%)	23 (100.0%)	43 (100.0%)
	Total missing	5	1	3	14

PT 2.16

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you screen patients for DR?	Yes	4 (57.1%)	6 (75.0%)	21 (87.5%)	36 (81.8%)
	No	3 (42.9%)	2 (25.0%)	3 (12.5%)	8 (18.2%)
	Total valid response	7 (100.0%)	8 (100.0%)	24 (100.0%)	44 (100.0%)
	Total missing	5	1	2	13
Where do you screen patients?	In clinic	4 (100.0%)	4 (66.7%)	15 (71.4%)	26 (72.2%)
	Outreach		3 (50.0%)	2 (9.5%)	7 (19.4%)
	Other			5 (23.8%)	5 (13.9%)
	Total valid response	4 (100.0%)	6 (100.0%)	21 (100.0%)	36 (100.0%)
	Total missing	8	3	5	21

PT 2.17

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What patient characteristics influence your vision care and/or vision referrals?	Diabetes duration	6 (85.7%)	6 (75.0%)	21 (95.5%)	36 (85.7%)
	Patient's age	5 (71.4%)	6 (75.0%)	13 (59.1%)	26 (61.9%)
	Patient's gender	2 (28.6%)	0 (0.0%)	2 (9.1%)	5 (11.9%)
	Presence of comorbidities such as hypertension, etc.	6 (85.7%)	7 (87.5%)	19 (86.4%)	34 (81.0%)
	High glucose levels	6 (85.7%)	8 (100.0%)	19 (86.4%)	35 (83.3%)
	Ability or inability to pay	1 (14.3%)	0 (0.0%)	2 (9.1%)	4 (9.5%)
	Insurance restrictions	1 (14.3%)	0 (0.0%)	0 (0.0%)	2 (4.8%)
	Patient educational level	0 (0.0%)	1 (12.5%)	7 (31.8%)	9 (21.4%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Patient adherence to recommendations	1 (14.3%)	3 (37.5%)	11 (50.0%)	18 (42.9%)
	None of the above	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.4%)
	Not applicable	1 (14.3%)	0 (0.0%)	0 (0.0%)	1 (2.4%)
	Total valid response	7 (100.0%)	8 (100.0%)	22 (100.0%)	42 (100.0%)
	Total missing	5	1	4	15

PT 2.18

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What are the major barriers to optimizing eye health faced by patients with diabetes in your main practice?	Cost of care	3 (42.9%)	6 (75.0%)	15 (68.2%)	26 (61.9%)
	Proximity to care	1 (14.3%)	2 (25.0%)	9 (40.9%)	14 (33.3%)
	Long wait time for appointment	4 (57.1%)	3 (37.5%)	8 (36.4%)	17 (40.5%)
	Long wait time on the day of visit	2 (28.6%)	2 (25.0%)	3 (13.6%)	8 (19.0%)
	Referral process	5 (71.4%)	2 (25.0%)	6 (27.3%)	13 (31.0%)
	Recommended treatments are not available	3 (42.9%)	2 (25.0%)	4 (18.2%)	9 (21.4%)
	Lack of knowledge and/or awareness	3 (42.9%)	4 (50.0%)	9 (40.9%)	19 (45.2%)
	Patients fear of treatment/results	4 (57.1%)	4 (50.0%)	12 (54.5%)	23 (54.8%)
	Patients they are a burden on family/friends	0 (0.0%)	3 (37.5%)	8 (36.4%)	11 (26.2%)
	Limited access to diabetes specialists	4 (57.1%)	3 (37.5%)	5 (22.7%)	13 (31.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Limited access to eye specialists	5 (71.4%)	5 (62.5%)	7 (31.8%)	20 (47.6%)
	Patients feel eye complications are unlikely	2 (28.6%)	2 (25.0%)	10 (45.5%)	14 (33.3%)
	Patients feel eye exams are not important	3 (42.9%)	3 (37.5%)	10 (45.5%)	19 (45.2%)
	Patients have competing responsibilities and priorities	1 (14.3%)	3 (37.5%)	7 (31.8%)	14 (33.3%)
	Clinic too small or lack necessary equipment/staff	1 (14.3%)	1 (12.5%)	0 (0.0%)	2 (4.8%)
	Other	0 (0.0%)	0 (0.0%)	1 (4.5%)	2 (4.8%)
	Total valid response	7 (100.0%)	8 (100.0%)	22 (100.0%)	42 (100.0%)
	Total missing	5	1	4	15

PT 2.19

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, are patients contacted with reminders for general follow-up appointments?	Yes	1 (14.3%)	6 (75.0%)	9 (39.1%)	19 (44.2%)
	No	6 (85.7%)	1 (12.5%)	14 (60.9%)	23 (53.5%)
	Don't know/Not sure	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (2.3%)
	Total Valid Response	7 (100.0%)	8 (100.0%)	23 (100.0%)	43 (100.0%)
	Total missing	5	1	3	14

PT 2.20

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you share relevant patient information with other health care professionals involved in the patients care e.g. his or her general practitioner, ophthalmologist, podiastrist?	Yes	6 (85.7%)	7 (87.5%)	16 (72.7%)	34 (81.0%)
	No	1 (14.3%)	1 (12.5%)	6 (27.3%)	8 (19.0%)
	Total Valid Response	7 (100.0%)	8 (100.0%)	22 (100.0%)	42 (100.0%)
	Total missing	5	1	4	15

PT 3.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Please indicate your age:	18 - 29		2 (25.0%)		3 (7.3%)
	30 - 39	3 (42.9%)	3 (37.5%)	9 (42.9%)	17 (41.5%)
	40 - 49	2 (28.6%)	1 (12.5%)	5 (23.8%)	9 (22.0%)
	50 - 59		2 (25.0%)	4 (19.0%)	6 (14.6%)
	60 - 69	2 (28.6%)		3 (14.3%)	6 (14.6%)
	Total valid response	7 (100.0%)	8 (100.0%)	21 (100.0%)	41 (100.0%)
	Total missing	5	1	5	16
What is your gender?	Female	2 (28.6%)	4 (50.0%)	13 (61.9%)	24 (58.5%)
	Male	5 (71.4%)	4 (50.0%)	8 (38.1%)	17 (41.5%)
	Total valid response	7 (100.0%)	8 (100.0%)	21 (100.0%)	41 (100.0%)
	Total missing	5	1	5	16
What is your highest level of	Secondary School	1 (14.3%)			1 (2.4%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
education completed?					
	College/University	3 (42.9%)	3 (37.5%)	2 (9.1%)	12 (28.6%)
	Graduate or advanced degree (e.g. PhD, MD, etc)	3 (42.9%)	5 (62.5%)	20 (90.9%)	29 (69.0%)
	Total valid response	7 (100.0%)	8 (100.0%)	22 (100.0%)	42 (100.0%)
	Total missing	5	1	4	15

PT 4.1

Question	Response	Ophthalmologist
What percentage of your patients have diabetic retinopathy	Total valid numeric response (n)	22
	Mean	37.7
	SD	29.0
	Median	30.0
	Min	0
	Max	95
	Total missing	4

PT 4.2

Question	Response	Ophthalmologist
What percentage of your patients have diabetic macular edema?	Total valid numeric response (n)	22
	Mean	18.1
	SD	22.5
	Median	10.0
	Min	0
	Max	90
	Total missing	4

PT 4.3

Question	Response	Ophthalmologist
What is the average amount of time your patients wait for an appointment to be screened for diabetic eye disease in your practice?	Less than 1 week	15 (71.4%)
	More than 1 week but less than 1 month	2 (9.5%)
	More than 2 months but less than 3 months	2 (9.5%)
	More than 3 months but less than 6 months	1 (4.8%)
	Six or more months	1 (4.8%)
	Total Valid Response	21 (100.0%)
	Total missing	5

PT 4.4

Question	Response	Ophthalmologist
From the time a patient is screened, what is the average length of time he/she waits for diagnosis?	Less than 1 week	8 (38.1%)
	More than 1 month but less than 2 months	1 (4.8%)
	Six or more months	1 (4.8%)
	Don't know/Not sure	0 (0.0%)
	There is not wait, diagnosis is given when screened	11 (52.4%)
	Total Valid Response	21 (100.0%)
	Total missing	5

PT 4.5

Type of Treatment	Question	Response/time	Ophthalmologist
Laser photocoagulation	Is the treatment available?	Available within country	7 (33.3%)
		Available locally	8 (38.1%)
		Available in practice	18 (85.7%)
		Total valid response	21 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Total missing	5
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	13 (81.3%)
		Mean	2.4
		SD	2.4
		Median	1.0
		Min	1
		Max	8
		Don't know/not sure	1 (6.3%)
		Not applicable	2 (12.5%)
		Total valid response	16 (100.0%)
		Total missing	10
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	15 (93.8%)
		Mean	2.4
		SD	2.7
		Median	1.0
		Min	0
		Max	8
		Don't know/not sure	1 (6.3%)
		Total valid response	16 (100.0%)
		Total missing	10
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	16 (94.1%)
		Mean	3.5
		SD	2.4
		Median	3.0
		Min	1
		Max	8
		Don't know/not	1 (5.9%)

Type of Treatment	Question	Response/time	Ophthalmologist
		sure	
		Total valid response	17 (100.0%)
		Total missing	9
Anti-VEGF therapies	Is the treatment available?	Available within country	6 (28.6%)
		Available locally	8 (38.1%)
		Available in practice	16 (76.2%)
		Total valid response	21 (100.0%)
		Total missing	5
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	11 (64.7%)
		Mean	1.6
		SD	1.2
		Median	1.0
		Min	1
		Max	4
		Don't know/not sure	3 (17.6%)
		Not applicable	3 (17.6%)
		Total valid response	17 (100.0%)
		Total missing	9
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	13 (81.3%)
		Mean	1.8
		SD	1.7
		Median	1.0
		Min	0
		Max	6
		Don't know/not sure	1 (6.3%)
		Not applicable	2 (12.5%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Total valid response	16 (100.0%)
		Total missing	10
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	14 (82.4%)
		Mean	3.4
		SD	1.7
		Median	4.0
		Min	1
		Max	6
		Don't know/not sure	1 (5.9%)
		Not applicable	2 (11.8%)
		Total valid response	17 (100.0%)
		Total missing	9
Intravitreal steroid	Is the treatment available?	Available within country	5 (25.0%)
		Available locally	8 (40.0%)
		Available in practice	12 (60.0%)
		Total valid response	20 (100.0%)
		Total missing	6
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	7 (43.8%)
		Mean	1.3
		SD	0.8
		Median	1.0
		Min	1
		Max	3
		Don't know/not sure	4 (25.0%)
		Not applicable	5 (31.3%)
		Total valid	16 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
		response	
		Total missing	10
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	8 (53.3%)
		Mean	1.1
		SD	0.8
		Median	1.0
		Min	0
		Max	3
		Don't know/not sure	3 (20.0%)
		Not applicable	4 (26.7%)
		Total valid response	15 (100.0%)
		Total missing	11
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	7 (46.7%)
		Mean	2.9
		SD	2.7
		Median	1.0
		Min	1
		Max	8
		Don't know/not sure	3 (20.0%)
		Not applicable	5 (33.3%)
		Total valid response	15 (100.0%)
		Total missing	11
Uncomplicated vitrectomy	Is the treatment available?	Available within country	6 (28.6%)
		Available locally	9 (42.9%)
		Available in practice	13 (61.9%)
		Total valid response	21 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Total missing	5
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	13 (76.5%)
		Mean	6.0
		SD	6.8
		Median	3.0
		Min	1
		Max	24
		Don't know/not sure	2 (11.8%)
		Not applicable	2 (11.8%)
		Total valid response	17 (100.0%)
		Total missing	9
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	15 (83.3%)
		Mean	6.2
		SD	9.5
		Median	1.0
		Min	1
		Max	32
		Don't know/not sure	2 (11.1%)
		Not applicable	1 (5.6%)
		Total valid response	18 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	8 (50.0%)
		Mean	2.0
		SD	1.9
		Median	1.0
		Min	1
		Max	6

Type of Treatment	Question	Response/time	Ophthalmologist
		Don't know/not sure	4 (25.0%)
		Not applicable	4 (25.0%)
		Total valid response	16 (100.0%)
		Total missing	10
Complex vitreo-retinal surgery	Is the treatment available?	Available within country	6 (28.6%)
		Available locally	8 (38.1%)
		Available in practice	13 (61.9%)
		Total valid response	21 (100.0%)
		Total missing	5
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	12 (70.6%)
		Mean	7.3
		SD	9.4
		Median	2.0
		Min	1
		Max	24
		Don't know/not sure	3 (17.6%)
		Not applicable	2 (11.8%)
		Total valid response	17 (100.0%)
		Total missing	9
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	13 (72.2%)
		Mean	6.1
		SD	10.0
		Median	1.0
		Min	1
		Max	32
		Don't know/not	4 (22.2%)

Type of Treatment	Question	Response/time	Ophthalmologist
		sure	
		Not applicable	1 (5.6%)
		Total valid response	18 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	8 (50.0%)
		Mean	2.0
		SD	1.9
		Median	1.0
		Min	1
		Max	6
		Don't know/not sure	4 (25.0%)
		Not applicable	4 (25.0%)
		Total valid response	16 (100.0%)
		Total missing	10

PT 4.6

Question	Response	Ophthalmologist
Do you personally administer treatment for diabetic retinopathy?	Yes	17 (81.0%)
	No	4 (19.0%)
	Total valid response	21 (100.0%)
	Total missing	5
Who administer it?	Another provider in your practice	1 (25.0%)
	Refer to a provider at another facility	1 (25.0%)
	Other	2 (50.0%)
	Total valid response	4 (100.0%)
	Total missing	22

PT 4.7

Question	Response	Ophthalmologist
Do any of the following influence how you treat diabetic retinopathy or diabetic macular edema?	Diabetes duration	11 (68.8%)
	Patient's age	5 (31.3%)
	Presence of comorbidities such as hypertension, etc.	10 (62.5%)
	High glucose levels	9 (56.3%)
	Ability or inability to pay	8 (50.0%)
	Insurance restrictions	2 (12.5%)
	Patient educational level	6 (37.5%)
	Patient adherence to recommendations	7 (43.8%)
	Total valid response	16 (100.0%)
	Total missing	10

PT 4.8

Question	Response	Ophthalmologist
Do you treat diabetic retinopathy and diabetic macular edema based on:	Visual outcome	0 (0.0%)
	Anatomical outcomes	1 (5.0%)
	Both	19 (95.0%)
	Total Valid Response	20 (100.0%)
	Total missing	6

PT 4.9

Question	Response	Ophthalmologist
How are your patients with diabetes screened for diabetic eye disease?	Fundoscopy undilated	1 (5.0%)
	Fundoscopy dilated	19 (95.0%)
	Retinal photo	8 (40.0%)
	Optical Coherence Tomography	13 (65.0%)
	Fluorescein Angiography	15 (75.0%)
	Total valid response	20 (100.0%)

Question	Response	Ophthalmologist
	Total missing	6

PT 4.10

Question	Response	Ophthalmologist
In your opinion, do the majority of your patients present:	When visual problems have already occurred	15 (75.0%)
	Too late for effective treatment	5 (25.0%)
	Total Valid Response	20 (100.0%)
	Total missing	6

PT 4.11

Question	Response	Ophthalmologist
Have you received training specifically on treatment and diagnosis of diabetic retinopathy and/or clinically significant diabetic macular edema?	Yes	19 (90.5%)
	No	2 (9.5%)
	Total valid response	21 (100.0%)
	Total missing	5
If yes, When was your last training?	Don't know/Not sure	1 (5.6%)
	Five or more years ago	1 (5.6%)
	Greater than 1 year ago but less than 5 years	2 (11.1%)
	Within the past year	14 (77.8%)
	Total valid response	18 (100.0%)
	Total missing	8

PT 4.12

Question	Response	Ophthalmologist
Would you be interested in online education and certification on DME, Angiogenesis and Anti-VEGF therapies?	Yes	17 (81.0%)
	No	4 (19.0%)
	Total Valid Response	21 (100.0%)
	Total missing	5

PT 4.13

Question	Response	Ophthalmologist
How is outreach for screening for diabetic eye disease done in your main practice?	Health fairs for all	2 (10.0%)
	Health fairs for people with diabetes	3 (15.0%)
	Mobile screening centers	1 (5.0%)
	At vision centers	6 (30.0%)
	Other	4 (20.0%)
	Not done	3 (15.0%)
	Don't know/Not sure	4 (20.0%)
	Total valid response	20 (100.0%)
	Total missing	6

PT 4.14

Question	Response	Ophthalmologist
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Reimbursement/restrictions on approved therapy	6 (30.0%)
	Late diagnosis	17 (85.0%)
	Referral pathways	9 (45.0%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	18 (90.0%)
	No universal guidelines on referral/screening	5 (25.0%)
	No universal guidelines on how to treat	3 (15.0%)
	No universal guideline on when to treat	2 (10.0%)
	Current available therapies not effective	2 (10.0%)
	Government/insurance not able to cover patient costs	12 (60.0%)
	Multi-disciplinary team integration is poor	13 (65.0%)
	Ineffective screening services	13 (65.0%)
	Other	2 (10.0%)
	Total valid response	20 (100.0%)

Question	Response	Ophthalmologist
	Total missing	6

EXP 1

Question	Response	Without DED (%)	With DED (%)	With DME (%)
Which of the following complications of diabetes do you have?	Amputation	2 (0.9%)	1 (3.0%)	1 (12.5%)
	Cardiovascular disease/Stroke	14 (6.2%)	3 (9.1%)	1 (12.5%)
	Kidney disease	20 (8.8%)	14 (42.4%)	1 (12.5%)
	Loss of feeling in hands or toes (neuropathy)	48 (21.1%)	18 (54.5%)	3 (37.5%)
	Vision loss	67 (29.5%)	24 (72.7%)	5 (62.5%)
	Foot ulcers	7 (3.1%)	3 (9.1%)	0 (0.0%)
	Broken bones or fractures	2 (0.9%)	1 (3.0%)	0 (0.0%)
	Irritable bowel disease	21 (9.3%)	4 (12.1%)	0 (0.0%)
	Other	8 (3.5%)	2 (6.1%)	1 (12.5%)
	None	97 (42.7%)	3 (9.1%)	1 (12.5%)
	Don't know/Not sure	20 (8.8%)	1 (3.0%)	0 (0.0%)
	Total Valid Response	227 (100.0%)	33 (100.0%)	8 (100.0%)
	Total missing	37	2	0

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".
NB [4]: Percentages within groups are calculated from non-missing data for that question.

EXP 2

Limitations	Without DED n (%)	With DED n (%)	With DME n (%)
Limited in any way in any activities because of impairment or health problem	82 (41.2%)	23 (71.9%)	4 (57.1%)
Impairment or health problem			
Diabetes	67 (88.2%)	21 (95.5%)	3 (100.0%)
Eye/vision problem	40 (58.8%)	22 (95.7%)	2 (100.0%)
Back or neck problem	33 (52.4%)	8 (40.0%)	0 (0.0%)

Limitations	Without DED n (%)	With DED n (%)	With DME n (%)
Hypertension/high blood pressure	32 (47.8%)	12 (60.0%)	1 (100.0%)
Walking problem	27 (46.6%)	11 (52.4%)	0 (0.0%)
Mental or emotional health	22 (34.9%)	7 (38.9%)	0 (0.0%)
Fractures, bone/joint injury	18 (32.1%)	6 (31.6%)	1 (50.0%)
Hearing problem	13 (23.2%)	1 (5.6%)	0 (0.0%)
Arthritis/rheumatism	12 (21.8%)	5 (29.4%)	1 (50.0%)
Heart problem	12 (21.1%)	3 (15.8%)	0 (0.0%)
Lung/breathing problem	11 (18.3%)	3 (16.7%)	0 (0.0%)
Stroke problem	3 (5.7%)	1 (5.9%)	0 (0.0%)
Cancer	1 (1.9%)	1 (5.9%)	0 (0.0%)

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".
NB [4]: Percentages within groups are calculated from non-missing data for that question.

EXP 3

Health Status	Without DED (%)	With DED (%)	With DME (%)
Self-rated health: Good	94 (48.0%)	9 (30.0%)	3 (42.9%)
Self-rated health: Poor	102 (52.0%)	21 (70.0%)	4 (57.1%)
Physically unhealthy days	88 (57.9%)	12 (54.5%)	6 (85.7%)
Mentally unhealthy days	85 (54.1%)	10 (52.6%)	4 (57.1%)
Unhealthy days	115 (74.7%)	16 (80.0%)	7 (100.0%)
Activity limitation days	54 (41.9%)	10 (55.6%)	0 (0.0%)

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".

EXP 4

Item	Response	All respondents	Respondents with Type I diabetes	Respondents with Type II diabetes
How do you manage your diabetes?	Diet	204 (68.7%)	35 (83.3%)	156 (66.1%)
	Oral medicine	229 (77.1%)	11 (26.2%)	204 (86.4%)
	Exercise	138 (46.5%)	23 (54.8%)	108 (45.8%)
	Insulin	114 (38.4%)	34 (81.0%)	73 (30.9%)
	Natural/Herbal medicine	40 (13.5%)	4 (9.5%)	31 (13.1%)

Item	Response	All respondents	Respondents with Type I diabetes	Respondents with Type II diabetes
	None of the above	1 (0.3%)		

NB [1]: Percentages within groups are calculated from non-missing data for that question.

EXP 5.1

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	121 (58.5%)	15 (45.5%)	5 (71.4%)
	Working without pay at home (e.g. housework, farming)	31 (15.0%)	2 (6.1%)	1 (14.3%)
	Volunteering	4 (1.9%)	1 (3.0%)	0 (0.0%)
	Retired	16 (7.7%)	9 (27.3%)	1 (14.3%)
	Student	7 (3.4%)	0 (0.0%)	0 (0.0%)
	Not working	28 (13.5%)	6 (18.2%)	0 (0.0%)
	Total Valid Response	207 (100.0%)	33 (100.0%)	7 (100.0%)
	Total missing	57	2	1
Do you receive assistance from the government?	Income assistance	8 (4.0%)	3 (9.1%)	0 (0.0%)
	Medical assistance	56 (27.7%)	8 (24.2%)	2 (28.6%)
	Food assistance	1 (0.5%)	1 (3.0%)	0 (0.0%)
	Housing assistance	4 (2.0%)	1 (3.0%)	0 (0.0%)
	Pension assistance	17 (8.4%)	9 (27.3%)	1 (14.3%)
	None of the above	131 (64.9%)	14 (42.4%)	4 (57.1%)
	Total valid response	202 (100.0%)	33 (100.0%)	7 (100.0%)
	Total missing	62	2	1
Did you have trouble paying for food at anytime during the past year?	Yes	63 (30.1%)	17 (51.5%)	0 (0.0%)
	No	146 (69.9%)	16 (48.5%)	7 (100.0%)
	Total Valid Response	209 (100.0%)	33 (100.0%)	7 (100.0%)
	Total missing	55	2	1

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".
NB [4]: Percentages within groups are calculated from non-missing data for that question.

EXP 5.2: Age group 18-39 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	38 (71.7%)	4 (100.0%)	2 (100.0%)
	Working without pay at home (e.g. housework, farming)	4 (7.5%)	0 (0.0%)	0 (0.0%)
	Student	7 (13.2%)	0 (0.0%)	0 (0.0%)
	Not working	4 (7.5%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	53 (100.0%)	4 (100.0%)	2 (100.0%)
	Total missing	9	0	0
Do you receive assistance from the government?	Medical assistance	10 (18.9%)	2 (50.0%)	1 (50.0%)
	Housing assistance	1 (1.9%)	0 (0.0%)	0 (0.0%)
	Pension assistance	1 (1.9%)	0 (0.0%)	0 (0.0%)
	None of the above	41 (77.4%)	2 (50.0%)	1 (50.0%)
	Total valid response	53 (100.0%)	4 (100.0%)	2 (100.0%)
	Total missing	9	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	24 (44.4%)	3 (75.0%)	0 (0.0%)
	No	30 (55.6%)	1 (25.0%)	2 (100.0%)
	Total Valid Response	54 (100.0%)	4 (100.0%)	2 (100.0%)
	Total missing	8	0	0

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".

EXP 5.3: Age group 40-59 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	75 (62.5%)	8 (44.4%)	3 (60.0%)
	Working without pay at	18 (15.0%)	2 (11.1%)	1 (20.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	home (e.g. housework, farming)			
	Volunteering	3 (2.5%)	1 (5.6%)	0 (0.0%)
	Retired	8 (6.7%)	3 (16.7%)	1 (20.0%)
	Not working	16 (13.3%)	4 (22.2%)	0 (0.0%)
	Total Valid Response	120 (100.0%)	18 (100.0%)	5 (100.0%)
	Total missing	39	1	1
Do you receive assistance from the government?	Income assistance	4 (3.4%)	3 (16.7%)	0 (0.0%)
	Medical assistance	32 (27.6%)	4 (22.2%)	1 (20.0%)
	Food assistance	1 (0.9%)	1 (5.6%)	0 (0.0%)
	Housing assistance	3 (2.6%)	1 (5.6%)	0 (0.0%)
	Pension assistance	5 (4.3%)	5 (27.8%)	1 (20.0%)
	None of the above	79 (68.1%)	7 (38.9%)	3 (60.0%)
	Total valid response	116 (100.0%)	18 (100.0%)	5 (100.0%)
	Total missing	43	1	1
Did you have trouble paying for food at anytime during the past year?	Yes	31 (25.6%)	7 (38.9%)	0 (0.0%)
	No	90 (74.4%)	11 (61.1%)	5 (100.0%)
	Total Valid Response	121 (100.0%)	18 (100.0%)	5 (100.0%)
	Total missing	38	1	1

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".

EXP 5.4: Age group 60-79 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	8 (24.2%)	3 (27.3%)	0 (0.0%)
	Working without pay at home (e.g. housework, farming)	9 (27.3%)	0 (0.0%)	0 (0.0%)
	Volunteering	1 (3.0%)	0 (0.0%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	Retired	8 (24.2%)	6 (54.5%)	0 (0.0%)
	Not working	7 (21.2%)	2 (18.2%)	0 (0.0%)
	Total Valid Response	33 (100.0%)	11 (100.0%)	0 (0.0%)
	Total missing	8	1	0
Do you receive assistance from the government?	Income assistance	4 (12.5%)	0 (0.0%)	0 (0.0%)
	Medical assistance	13 (40.6%)	2 (18.2%)	0 (0.0%)
	Pension assistance	11 (34.4%)	4 (36.4%)	0 (0.0%)
	None of the above	11 (34.4%)	5 (45.5%)	0 (0.0%)
	Total valid response	32 (100.0%)	11 (100.0%)	0
	Total missing	9	1	0
Did you have trouble paying for food at anytime during the past year?	Yes	8 (24.2%)	7 (63.6%)	0 (0.0%)
	No	25 (75.8%)	4 (36.4%)	0 (0.0%)
	Total Valid Response	33 (100.0%)	11 (100.0%)	0 (0.0%)
	Total missing	8	1	0

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".

EXP 5.5: Age group 80+ years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Not working	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total missing	1	0	0
Do you receive assistance from the government?	Medical assistance	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total valid response	1 (100.0%)	0	0
	Total missing	1	0	0
Did you have trouble paying for food at anytime during the past year?	No	1 (100.0%)	0 (0.0%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	Total Valid Response	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total missing	1	0	0

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".

EXP 6

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
All respondents		307 (100%)	42 (13.7%)	245 (79.8%)	35 (11.4%)	8 (2.6%)
Gender	Male	101 (40.6%)	11 (10.9%)	83 (82.2%)	16 (15.8%)	5 (5.0%)
	Female	148 (59.4%)	29 (19.6%)	112 (75.7%)	17 (11.5%)	2 (1.4%)
	Total Missing	58	2	50	2	1
Age	18-39 yrs	68 (22.1%)	26 (38.2%)	35 (51.5%)	4 (5.9%)	2 (2.9%)
	40-59 yrs	184 (59.9%)	11 (6.0%)	164 (89.1%)	19 (10.3%)	6 (3.3%)
	60-79 yrs	53 (17.3%)	5 (9.4%)	45 (84.9%)	12 (22.6%)	0 (0.0%)
	80 yrs and over	2 (0.7%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	0 (0.0%)
Time since diagnosis	Within the last year	32 (10.5%)	3 (9.4%)	26 (81.3%)	2 (6.3%)	0 (0.0%)
	1 - 5 years ago	89 (29.2%)	7 (7.9%)	79 (88.8%)	4 (4.5%)	1 (1.1%)
	6 - 10 years ago	70 (23.0%)	9 (12.9%)	57 (81.4%)	8 (11.4%)	0 (0.0%)
	11 - 15 years ago	46 (15.1%)	1 (2.2%)	44 (95.7%)	6 (13.0%)	5 (10.9%)
	16 - 20 years ago	36 (11.8%)	8 (22.2%)	23 (63.9%)	7 (19.4%)	1 (2.8%)
	21 years ago or longer	30 (9.8%)	14 (46.7%)	14 (46.7%)	7 (23.3%)	1 (3.3%)
	Don't know/Not sure	2 (0.7%)	0 (0.0%)	1 (50.0%)	1 (50.0%)	0 (0.0%)
	Total Missing	2	0	1	0	0

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
Control of Diabetes	Controlled	150 (52.1%)	25 (16.7%)	119 (79.3%)	16 (10.7%)	5 (3.3%)
	Not controlled	125 (43.4%)	13 (10.4%)	102 (81.6%)	19 (15.2%)	3 (2.4%)
	Don't know/Not sure	13 (4.5%)	3 (23.1%)	9 (69.2%)	0 (0.0%)	0 (0.0%)
	Total Missing	19	1	15	0	0

NB [1]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [2]: DME = respondents with DME ="Yes".
NB [3]: Percentages within groups are calculated from non-missing data for that question.

EXP 7

Question	Response	With DED n (%)	With DME n (%)
Have you had any treatment for diabetic eye disease?	Yes	17 (48.6%)	3 (50.0%)
	No	17 (48.6%)	3 (50.0%)
	Don't know/Not sure	1 (2.9%)	0 (0.0%)
	Total valid response	35 (100.0%)	6 (100.0%)
	Total missing	0	2
What treatment did you receive?	Laser	13 (81.3%)	3 (100.0%)
	Anti-VEGF	7 (43.8%)	0 (0.0%)
	Surgery	7 (43.8%)	1 (33.3%)
	Other	2 (12.5%)	0 (0.0%)
	Total valid response	16 (100.0%)	3 (100.0%)
	Total missing	19	5
Did you complete the treatment?	Yes	11 (68.8%)	1 (33.3%)
	No	1 (6.3%)	1 (33.3%)
	Still receiving treatment	1 (6.3%)	1 (33.3%)
	Don't know/Not sure	3 (18.8%)	0 (0.0%)
	Total valid response	16 (100.0%)	3 (100.0%)
	Total missing	19	5
Do you feel that the treatment worked?	Yes, and vision improved	4 (26.7%)	1 (50.0%)

Question	Response	With DED n (%)	With DME n (%)
	Yes, but vision stayed the same	5 (33.3%)	0 (0.0%)
	No	3 (20.0%)	1 (50.0%)
	Still waiting to know	2 (13.3%)	0 (0.0%)
	Don't know/Not sure	1 (6.7%)	0 (0.0%)
	Total valid response	15 (100.0%)	2 (100.0%)
	Total missing	20	6
What is/are the reason(s) that you did not complete the treatment?	Treatment was too expensive	1 (100.0%)	1 (100.0%)
	Eye doctor was located too far away	1 (100.0%)	0 (0.0%)
	Appointment times were not convenient	1 (100.0%)	0 (0.0%)
	Too much burden on my family/friends	1 (100.0%)	0 (0.0%)
	Total valid response	1 (100.0%)	1 (100.0%)
	Total missing	34	7
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	8 (53.3%)	0 (0.0%)
	Treatment would not be effective	1 (6.7%)	0 (0.0%)
	Treatment is not accessible	1 (6.7%)	0 (0.0%)
	Still waiting for treatment	2 (13.3%)	1 (33.3%)
	Too expensive	4 (26.7%)	1 (33.3%)
	No insurance	3 (20.0%)	0 (0.0%)
	I'm fearful of treatment	1 (6.7%)	0 (0.0%)
	Other	3 (20.0%)	1 (33.3%)
	Total valid response	15 (100.0%)	3 (100.0%)
	Total missing	20	5

NB [1]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [2]: DME = respondents with DME ="Yes".
NB [3]: Percentages within groups are calculated from non-missing data for that question.

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