DR Barometer
Shifting the needle

The Diabetic Retinopathy Barometer Report

Poland

IFA
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International Diabetes Federation
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Contents

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 Poland.

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, 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 contributions 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 the 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 Organisation (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 WHO and into the 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 principles should be applied when interpreting the results.

Even though the sample is not representative of the broader population of adults 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 adults with diabetes and health care professionals around the world. This study provides a rich resource for generating unique insights into real-life experiences, 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 three 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% 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
Poland Study

Demographic Characteristics[1]

Poland is the ninth most populous country in Europe with a total population of approximately 37.9 million.

Currently Poland's population is already leaning towards an ageing population with ~15% of its population falling under the age of 15 while ~15% are 65 or older.

With Poland's low fertility rates and increased life expectancy the current population distribution will continue to increase. By 2050, it is projected that approximately 31% of the population will be at least 65 years old and only 12% of the population will be under the age of 15. This means that in just over 30 years the population aged 65 years or older will almost double and reach an all-time high of approximately 10.2 million.

Diabetes Profile[2]

There are 415 million people living with diabetes and more than 59.8 million people are in the European Region. By 2040, this number is expected to rise to 71.1 million.

Fifty-six countries comprise the European Region with diverse populations ranging from Norway, the Russian Federation, Turkey, and Iceland. While the European Region has the second-lowest age-adjusted comparative diabetes prevalence rate of any regions of the International Diabetes Federation, there are still many countries with relatively high diabetes prevalence rates.

Poland has the ninth highest number of people living with diabetes in the European Region at ~2.2 million (1,637.6-6,290.6‡), which accounts for ~4% of people living with diabetes in this region. Poland's diabetes national prevalence (20-79 years) is 7.6% (5.6-21.5‡) and the diabetes age-adjusted comparative prevalence is 6.2% (4.4-22.0‡).

Deaths attributed to diabetes in Poland in 2015 were 21,483, which accounts to ~3% of the diabetes-related deaths experienced in this region. The estimated number of undiagnosed cases was ~847,500 (848.6-3,259.8‡).

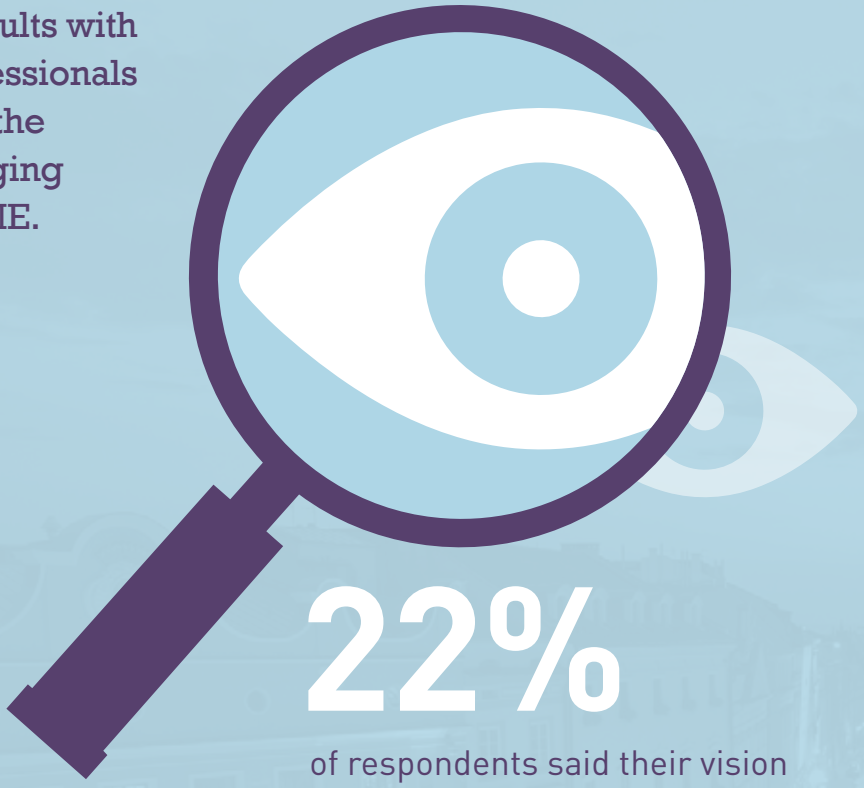
Study Populations: Poland

As reported by 111 adults with diabetes in Poland, 25% of respondents have been diagnosed with DED and a further 7.2% with DME.

Forty-two health care professionals completed the survey in Poland. Of these, five were diabetes specialist providers (12%), 23 were ophthalmologists (55%), and six were primary care providers (14%). The remaining respondents were optometrists, nurses, health educators or other types of professionals.

The DR Barometer Study: **Poland Overview**

The DR Barometer study was conducted in 41 countries. In Poland, 111 adults with diabetes and 42 health care professionals provided new information about the experiences of living with, managing and treating diabetes, DR and DME.



73%

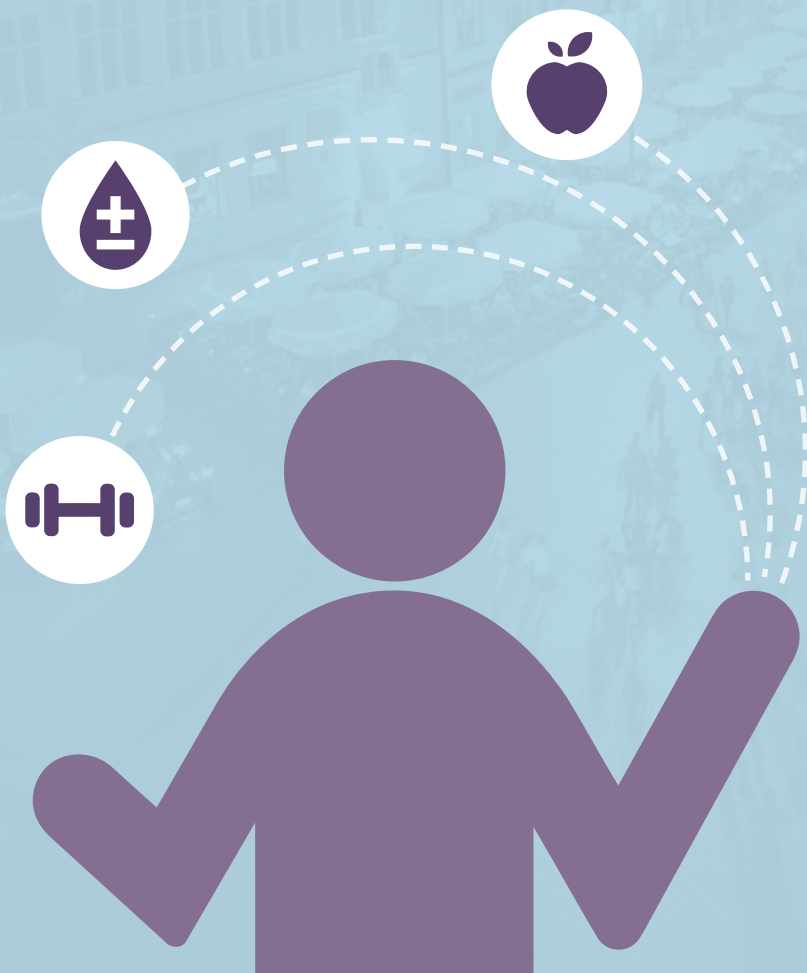
of patients said that **long wait times for an appointment** were a barrier to eye exams

22%

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

31%

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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75%

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

83%

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

24%

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

7%

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

Poland
DR Barometer Findings:
Adults with Diabetes

Key Demographic Characteristics

One hundred and eleven adults with diabetes completed the patients' survey in Poland: 47% were female and 53% were male. Eighty-four percent lived in an urban setting and 16% resided in a non-urban setting (see Appendix Table 4.2).

The education levels of all respondents was as follows: 3.1% were educated to a primary school level, 49% to a secondary school level, 15% to a college or university level, and 33% to a graduate or post-graduate level. Thirty-four percent of all respondents were in paid employment, 54% were retired, and 5.2% stated they were not working (see Appendix Table 4.3 and 4.4).

Most respondents (55%) were aged between 60 and 79 years (12% were 18-39 years, 32% were 40-59 years and 1.8% were 80 years plus). Forty-three percent were of traditional working age (18- 59 years) (see Table 1).

Of the respondents in Poland, 34% had been diagnosed with type 1 diabetes and 59% with type 2 diabetes. A further 7.2% of respondents were either unsure of or did not know their type of diabetes (see Appendix Table 2.1). Twenty-five percent (n=28) of respondents have reported they have been diagnosed with DED and a further 7.2% (n=8) have been diagnosed with DME.

A little under six percent (5.6%) of respondents were diagnosed with diabetes within the last year, 1 - 5 years ago (11%), 6 - 10 years ago (11%), 11 - 15 years ago (18%), 16 - 20 years ago (14%), and 21 years ago or more (39%) (see Appendix Table 2.2).

A younger population was more likely to be associated with type 1 diabetes, which was the opposite of those with type 2 diabetes, which tended to be an older population. Amongst 18 to 39-year-olds, 92% had type 1 and 7.7% had type 2 diabetes. In the 40-59 year age group, 46% had type 1 and 49% had type 2 diabetes, 16% of 60-79-year-olds had type 1 diabetes and 75% had type 2.

In the 18-39 year age group, 31% had DED and 7.7% had DME. For the 40-59 year age group, 26% had DED and 2.9% had DME, in the 60-79 year age group, 25% had DED and 6.6% had DME.

A particularly important trend noted in the findings was that the longer the time since diabetes was diagnosed, the greater the likelihood for DED and DME to be detected.

In those diagnosed with diabetes within the last five years, none of the respondents had been diagnosed with DED and or DME. In those people diagnosed with diabetes 16-20 years ago, more than a quarter (27%) had DED and 13% had DME. Of note is the finding that almost half of respondents (45%) that had been diagnosed with diabetes 21 years ago or more had DED.

While most (72%) respondents reported that their diabetes was well controlled, 27% felt that their diabetes was not well controlled. For those whose diabetes was controlled, 26% had DED and 8.1% had DME. In those whose diabetes was not controlled 32% had DED and 7.1% 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		111 (100.0%)	38 (34.2%)	65 (58.6%)	28 (25.2%)	8 (7.2%)
Gender	Male	50 (53.2%)	9 (18.0%)	38 (76.0%)	14 (28.0%)	3 (6.0%)
	Female	44 (46.8%)	23 (52.3%)	20 (45.5%)	13 (29.5%)	4 (9.1%)
	Total Missing	17	6	7	1	1
Age	18-39 yrs.	13 (11.7%)	12 (92.3%)	1 (7.7%)	4 (30.8%)	1 (7.7%)
	40-59 yrs.	35 (31.5%)	16 (45.7%)	17 (48.6%)	9 (25.7%)	1 (2.9%)
	60-79 yrs.	61 (55.0%)	10 (16.4%)	46 (75.4%)	15 (24.6%)	4 (6.6%)
	80 yrs. plus	2 (1.8%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	2 (100.0%)
Time since diagnosis	Within the last year	6 (5.6%)	1 (16.7%)	2 (33.3%)	0 (0.0%)	0 (0.0%)
	1 - 5 yrs.	12 (11.2%)	0 (0.0%)	11 (91.7%)	0 (0.0%)	0 (0.0%)
	6 - 10 yrs.	12 (11.2%)	1 (8.3%)	9 (75.0%)	1 (8.3%)	2 (16.7%)
	11 - 15 yrs.	19 (17.8%)	3 (15.8%)	16 (84.2%)	4 (21.1%)	1 (5.3%)
	16 - 20 yrs.	15 (14.0%)	4 (26.7%)	11 (73.3%)	4 (26.7%)	2 (13.3%)
	21 yrs. plus	42 (39.3%)	28 (66.7%)	14 (33.3%)	19 (45.2%)	3 (7.1%)
	Don't know/ Not sure	1 (0.9%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	4	0	2	0	0
Control of Diabetes	Controlled	74 (71.8%)	28 (37.8%)	45 (60.8%)	19 (25.7%)	6 (8.1%)
	Not controlled	28 (27.2%)	8 (28.6%)	17 (60.7%)	9 (32.1%)	2 (7.1%)
	Don't know/ Not sure	1 (1.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	8	2	2	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-four percent of those surveyed saw a health care professional for their diabetes, with 81% seeing a diabetes specialist (average number of visits was 4.9 times per year) and 18% seeing a general/family doctor (average number of visits was 6.5 times per year) (see Appendix Table 2.3.1 and 2.3.2).

People were informed about their condition through a variety of channels. Seventy-nine percent received information from a doctor or nurse, 59% from a diabetes organisation or other health organisation. Of particular note is the increasing use of the internet as well as the nutritionist or dietician (see Table 2 and Appendix Table 2.4).

Table 2: Source of information regarding diabetes

Information Source	All Respondents (n=106)
Doctor or nurse	84 (79.2%)
Diabetes organisation or other health organisation	62 (58.5%)
Internet	55 (51.9%)
Nutritionist or dietician	37 (34.9%)
TV/Radio/Newspaper/Magazines	29 (27.4%)
Health educator	23 (21.7%)
Family/Friends/Neighbours	18 (17.0%)
Social media (e.g. Facebook, Twitter, blogs)	11 (10.4%)
Pharmacist	5 (4.7%)
Other	6 (5.7%)
None of the above	3 (2.8%)

A range of strategies was used by respondents to manage their diabetes. For those with type 1 diabetes, apart from insulin, 76% managed their diabetes with diet, 43% with exercise, 14% with oral medicine, and 11% with natural/herbal medicine. Of the respondents with type 2 diabetes, 81% managed their condition with diet, 75% with oral medicine, 62% with insulin, 40% with exercise, and 13% with natural/herbal medicine.

Sixteen percent of respondents were enrolled in diabetes management programmes. Eighty-one percent of respondents 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 undilated eye checks. Of the respondents that had eye checks (93%), these occurred at the following intervals: less than 6 months (37%), 6 - 12 months (43%), and greater than 12 months (13%) (see Appendix Table 2.7).

The main challenges in controlling diabetes cited by respondents were: there were long wait times for an appointment to see their doctor or specialist (63%), the high cost of care (61%), it was too hard to eat the right things (49%), health services needed are not available (32%), and there were too many other things to do (25%) (see Appendix Table 2.9).

Health education and information (61%), free or low cost medicines or monitoring materials (42%), support from family or friends (41%), support groups (34%), and coordination of healthcare and services by a professional (34%) were identified as important to improving the management of a person's diabetes. Almost ten percent of respondents stated that none of the services listed helped them to better manage their diabetes (see Appendix Table 2.10).

Nature and Information about Complications

Ninety-two percent of respondents were aware of vision loss and other complications, such as: neuropathy (88%), cardiovascular disease or stroke (88%), amputation (87%), and kidney disease (81%) were also associated with diabetes (see Appendix Table 2.11).

Patients were more concerned about vision loss (46%) compared to other complications such as cardiovascular disease/stroke (28%), amputation (9.8%), kidney disease (4.9%), and neuropathy (3.9%) (see Appendix Table 2.12).

Twenty-eight percent of respondents reported that they had no complications of diabetes. However, of those who did report complications: 37% had neuropathy, cardiovascular disease or stroke (34%), vision loss (30%), kidney disease (12%), and amputation (4.1%) (see Figure 1 and Appendix Table 2.13).

Aside from vision loss, there was a considerable increase in the frequency of people with DED and DME experiencing certain complications compared with people without DED. The frequency of cardiovascular disease increased from 31% in people without DED to 41% in those with DED and to 38% in those with DME. The frequency of neuropathy increased from 29% in those without DED to 59% in those with DED and likewise, kidney disease increased from 11% in those without DED to 19% in those with DED. This emphasises how other complications develop alongside the development of DED and DME and thus the additional health burdens of people with DED or DME (see Table 3 and Appendix EXP 1).

Figure 1: Presence of complications

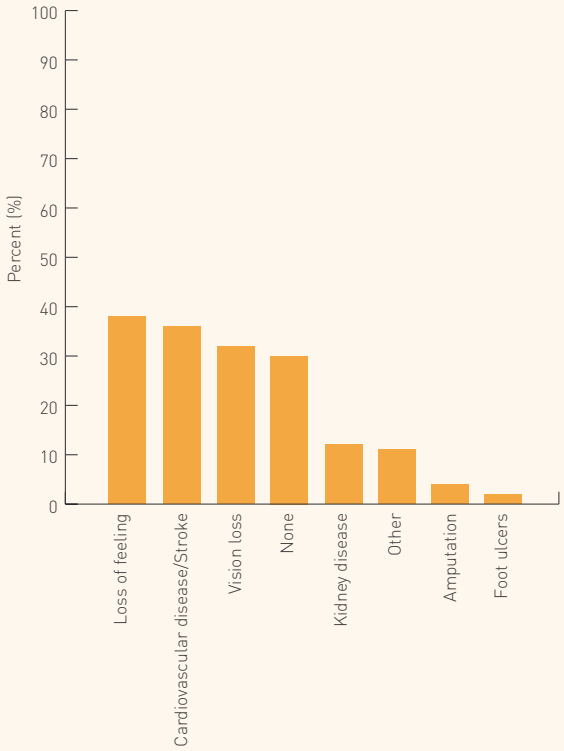


Table 3: Presence of complications without DED, with DED or DME

Complication	Without DED (n=62)	With DED (n=27)	With DME (n=8)
Any	38 (61.3%)	25 (92.6%)	7 (87.5%)
Loss of feeling in hands or toes (neuropathy)	18 (29.0%)	16 (59.3%)	2 (25.0%)
Cardiovascular disease/Stroke	19 (30.6%)	11 (40.7%)	3 (37.5%)
Vision loss	13 (21.0%)	10 (37.0%)	6 (75.0%)
Kidney disease	7 (11.3%)	5 (18.5%)	0 (0.0%)
Foot ulcers	0 (0.0%)	2 (7.4%)	0 (0.0%)
Amputation	3 (4.8%)	0 (0.0%)	1 (12.5%)
Other	3 (4.8%)	7 (25.9%)	1 (12.5%)
None	24 (38.7%)	2 (7.4%)	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 ninety-one percent of respondents stated that eye complications were discussed with their health care professionals, almost a quarter (24%) either never discussed eye complications with their doctor (5.9%) or did so only after the onset of symptoms (18%). The frequency of regular discussions varied from every visit (27%), multiple times a year (19%), and once a year (28%) (see Appendix Table 2.14).

Eighty-six percent of respondents said that they did what they could to prevent vision problems (e.g. get routine screenings, visit specialists), yet myths and perceptions around vision changes and preventions were evident with 10% not making any special effort to prevent vision problems, and 21% thinking that vision problems were a normal part of ageing (see Appendix Table 2.15).

Eighty percent of all respondents received Information about DR and DME with the doctor or nurse being the most common source (46%). A surprising finding was that one in five respondents did not receive such information from any of the sources listed (see Table 4 and Appendix Table 3.9).

Table 4: Source of information about DR and DME

Source	All respondents (n=94)
Doctor/Nurse	43 (45.7%)
Diabetes organisation or other health organisation	34 (36.2%)
Internet	30 (31.9%)
Health educator	14 (14.9%)
TV/Radio/Newspaper/ Magazines	12 (12.8%)
Family/Friends/Neighbours	3 (3.2%)
Other	2 (2.1%)
None of the above	19 (20.2%)

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

Most respondents (84%) reported having an eye exam for DED, with 83% reporting to have had an eye exam within the last year, and a further 12% more than one year ago but less than two years ago. Twelve percent of respondents were aware of a government sponsored screening programme for DED (see Appendix Table 3.1 and 3.2).

While a large proportion (92%) of those surveyed thought their eyes examined for DED once a year there were varied smaller numbers of respondents who thought that testing should happen every two years (see Appendix Table 3.4).

The biggest barriers to eye exams were: long wait times to schedule an appointment (73%), the long wait times on the day of the visit (33%), and there was limited access to diabetes specialists (26%) (see Table 5 and Appendix Table 3.5).

Table 5: Barriers to eye examinations

Identified Barriers	All Respondents (n=92)
Long wait time for appointment	67 (72.8%)
Long wait time on the day of the visit	30 (32.6%)
Limited access to diabetes specialists	24 (26.1%)
Eye exams are not available near my home	21 (22.8%)
Referral process is complicated or takes too long	21 (22.8%)
They are expensive	17 (18.5%)
Clinics are too small or lack necessary equipment/staff	13 (14.1%)
Recommended treatments for eye problems are not available	7 (7.6%)
Don't know much about my condition	7 (7.6%)
I'm not likely to have eye complications	5 (5.4%)
Too many other things to do or worry about	4 (4.3%)
Fear of treatment/results	3 (3.3%)
Burden on my family/friends	3 (3.3%)
Other	6 (6.5%)

Treatment of Diabetic Eye Disease and Diabetic Macular Edema

Treatment was assessed separately in people with DED and in those with DME. For those with DED, 57% (n=16) had received treatment and the most common treatment was laser treatment (63%). Of those who received treatment, 19% (n=3) completed their treatment and 75% (n=12) were currently still receiving treatment. Sixty-seven percent felt that treatment had been successful and either their vision had improved (40%) or vision had stayed the same (27%) (see Table 6).

Of the ten respondents (36%) with DED who had not received treatment, the most common reason reported was that their doctor did not recommend any treatment (80%).

Three-quarters of patients with DME (n=6) had received treatment and the most common treatments were laser (100%, n=6) and surgery (67%, n=4). Half of the respondents had completed their treatment with the other half still receiving treatment. Two-thirds felt that treatment had been successful and either their vision had improved (17%, n=1) or vision had stayed the same (50%, n=3).

All people with DME said they would prefer proactive treatment to prevent further vision loss rather than reactive treatment 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=28)	With DME (n=8)
Have you had any treatment for diabetic eye disease?	Yes	16 (57.1%)	6 (75.0%)
	No	10 (35.7%)	2 (25.0%)
	Don't know/ Not sure	2 (7.1%)	0 (0.0%)
What treatment did you receive?	Laser	10 (62.5%)	6 (100.0%)
	Anti-VEGF	2 (12.5%)	2 (33.3%)
	Surgery	4 (25.0%)	4 (66.7%)
	Other	6 (37.5%)	0 (0.0%)
Did you complete the treatment?	Yes	3 (18.8%)	3 (50.0%)
	No	1 (6.3%)	0 (0.0%)
	Still receiving treatment	12 (75.0%)	3 (50.0%)
	Don't know/ Not sure	1 (2.2%)	0 (0.0%)
Do you feel that the treatment worked?	Yes, and vision improved	6 (40.0%)	1 (16.7%)
	Yes, but vision stayed the same	4 (26.7%)	3 (50.0%)
	Still waiting to know	2 (13.3%)	2 (33.3%)
	Don't know/ Not sure	3 (20.0%)	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 (80.0%)	0 (0.0%)
	Treatment would not be effective	1 (10.0%)	0 (0.0%)
	Treatment is not accessible	1 (10.0%)	0 (0.0%)
	Still waiting for treatment	2 (20.0%)	2 (100.0%)
	Too expensive	3 (30.0%)	0 (0.0%)

NB [1]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".

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

NB [3]: Not all respondents answered all questions in the survey; percentages are calculated from non-missing responses to the survey question.

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

All respondents diagnosed with DED or DME reported that their vision was affected (47% significantly, 53% slightly) (see Appendix Table 3.6).

Seventy-five percent of these respondents reported vision issues impacted their daily lives. Ways in which their lives were affected included: working or keeping a job (36%), driving a vehicle (36%), leisure activities or exercise (28%), travelling (22%), managing their underlying diabetes (22%), household responsibilities, such as cooking or cleaning (11%), and social interactions with family or friends (5.6%) (see Table 7).

Table 7: Activities affected through vision impairment and loss

	All Respondents (n=36)
Work or keeping a job	13 (36.1%)
Driving (a car/vehicle)	13 (36.1%)
Leisure activities/exercise	10 (27.8%)
Traveling	8 (22.2%)
Managing my diabetes	8 (22.2%)
Household responsibilities, such as cooking or cleaning	4 (11.1%)
Social interactions with family/ friends	2 (5.6%)
Other	3 (8.3%)
None	9 (25.0%)

Twenty-nine percent of respondents with DED, 38% with DME, and 37% without DED were in paid employment. One in three of those with vision complications, due to DED or DME, reported difficulties with working or keeping a job (36%) and of those diagnosed with DED 11% (n=3) were not working at all (see Table 8 and Appendix EXP 5.1).

Three quarters (77%) of those surveyed did not receive assistance from the government, while small in numbers, respondents who had received such assistance increased in those with DME (25%) and DED (30%) compared to those without DED (20%) (see Appendix Table 4.5 and EXP 5.4).

Eighty percent of all respondents said they had no trouble paying for food at any time during the past year. Over half (58%) of the respondents said they did not feel that their access to healthcare was affected. However, for almost a third (30%) of respondents their access to healthcare was affected by their income, followed by their age (18%) or where they actually lived (16%) see Appendix Table 4.6 and 4.7).

Health (54%), family (23%), and money (15%) were the top three 'worries' on the mind of the respondents surveyed (see Appendix Table 4.8).

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

Question	Response	Without DED (n=60)	With DED (n= 28)	With DME (n=8)
Are you currently working?	Working for pay	22 (36.7%)	8 (28.6%)	3 (37.5%)
	Working without pay at home (e.g. housework, farming)	2 (3.3%)	1 (3.6%)	0 (0.0%)
	Volunteering	1 (1.7%)	2 (7.1%)	0 (0.0%)
	Retired	33 (55.0%)	14 (50.0%)	5 (62.5%)
	Not working	2 (3.3%)	3 (10.7%)	0 (0.0%)
Question	**Response**	**Without DED (n=56)**	**With DED (n= 27)**	**With DME (n=8)**
Do you receive assistance from the government?	Income assistance	1 (1.8%)	3 (11.1%)	0 (0.0%)
	Medical assistance	7 (12.5%)	6 (22.2%)	1 (12.5%)
	Food assistance	0 (0.0%)	1 (3.7%)	0 (0.0%)
	Pension assistance	5 (8.9%)	4 (14.8%)	1 (12.5%)
	None of the above	45 (80.4%)	19 (70.4%)	6 (75.0%)
Question	**Response**	**Without DED (n=60)**	**With DED (n= 26)**	**With DME (n=8)**
Did you have trouble paying for food at anytime during the past year?	Yes	15 (25.0%)	4 (15.4%)	0 (0.0%)
	No	45 (75.0%)	22 (84.6%)	8 (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).

All of those with DME, and 84% of people with DED, reported their overall health as poor compared with 68% of people without DED. Three in four people with DED and DME also experienced a greater impact on their mental health, with 79% of those with DED and 71% of those with DME experiencing a series of mentally unhealthy days compared with 38% of those without DED.

Sixty-five percent of people with DED, and 75% with DME, experienced limitations of their daily activities as a result of poor health compared with 43% of those without DED. Where health impacted daily activities, the primary limitations were: walking problems, vision problems, and arthritis. People living with DED and DME had a higher proportion for some impairments beyond vision loss, including mental health problems (see Appendix Table 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	18 (31.6%)	4 (16.0%)	0 (0.0%)
Self-rated health: Poor	39 (68.4%)	21 (84.0%)	8 (100.0%)
Physically unhealthy days	24 (57.1%)	17 (89.5%)	3 (50.0%)
Mentally unhealthy days	15 (37.5%)	15 (78.9%)	5 (71.4%)
Unhealthy days	28 (66.7%)	19 (100.0%)	5 (83.3%)
Activity limitation days	14 (41.2%)	8 (50.0%)	3 (50.0%)

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.

Poland
DR Barometer Findings:
Health Care Professionals

Key Demographic Characteristics

There were 42 health care professionals who answered at least one of the survey questions in Poland. Of these, six were primary care providers (14%), five were diabetes specialist providers (12%) and 23 were ophthalmologists (55%). The remaining respondents were optometrists, nurses, health educators or other types of 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 16 years, with the ophthalmologist group practicing for an average of 20 years (see Appendix PT 1.5).

All were well educated (96% with graduate or advanced degree), 56% were female and 44% male, and varied in age with 52% between 30 - 49 years (see Table 10 and Appendix PT 3.1).

Table 10: Summary of key characteristics of health care professionals

Group	Subgroup	All Respondents	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist
All respondents		42 (100.0%)	6 (14.3%)	5 (11.9%)	23 (54.8%)
Age group	18 - 29 yrs.	3 (11.1%)	1 (20.0%)	0 (0.0%)	1 (6.3%)
	30 - 39 yrs.	7 (25.9%)	2 (40.0%)	2 (50.0%)	3 (18.8%)
	40 - 49 yrs.	7 (25.9%)	2 (40.0%)	0 (0.0%)	4 (25.0%)
	50 - 59 yrs.	6 (22.2%)	0 (0.0%)	2 (50.0%)	4 (25.0%)
	60 - 69 yrs.	2 (7.4%)	0 (0.0%)	0 (0.0%)	2 (12.5%)
	70 - 79 yrs.	2 (7.4%)	0 (0.0%)	0 (0.0%)	2 (12.5%)
Gender	Female	15 (55.6%)	4 (80.0%)	4 (100.0%)	6 (37.5%)
	Male	12 (44.4%)	1 (20.0%)	0 (0.0%)	10 (62.5%)
Education	College/University	1 (3.7%)	0 (0.0%)	0 (0.0%)	1 (6.3%)
	Graduate or advanced degree (e.g. PhD, MD, etc.)	26 (96.3%)	5 (100.0%)	4 (100.0%)	15 (93.8%)

[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

Forty-six percent of all health care professionals have their main practice setting at a hospital and for ophthalmologists alone, it was an eye clinic (45%), a hospital (45%), and a diabetes clinic (5%). Ninety-one percent of health care professionals worked in an urban setting (see Appendix PT 2.1 and PT 2.2).

Most health care professionals worked in the government sector (47%) as did ophthalmologists (42%) who also reported working in private (37%), and combined or mixed (21%) sector (see Appendix PT 2.3).

The health care professionals reported that half of patients do not pay for services, a quarter of patients pay out-of-pocket (full fees), and a quarter of patients pay through insurance. The situation was similar for ophthalmologists with a higher rate of out of pocket payments: 41% of patients pay out-of-pocket (full fees) for services, 35% of patients pay through insurance, and 29% of patients do not pay for services (see Appendix PT 2.7).

Health care professionals reported on average of seeing 55 patients per week, of which an estimated 34% of these patients had diabetes. Ophthalmologists saw an average of 47 patients per week and 16% 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 reported as more than one week but less than one month (47%), less than one week (12%), or between two and three months (12%).

The average wait time for an appointment with an ophthalmologist was more than one week but less than one month in 63% of practices. In a further 11% of practices, the average wait time was either between three and six months, or six months or more (see Table 11 and Appendix PT 2.5).

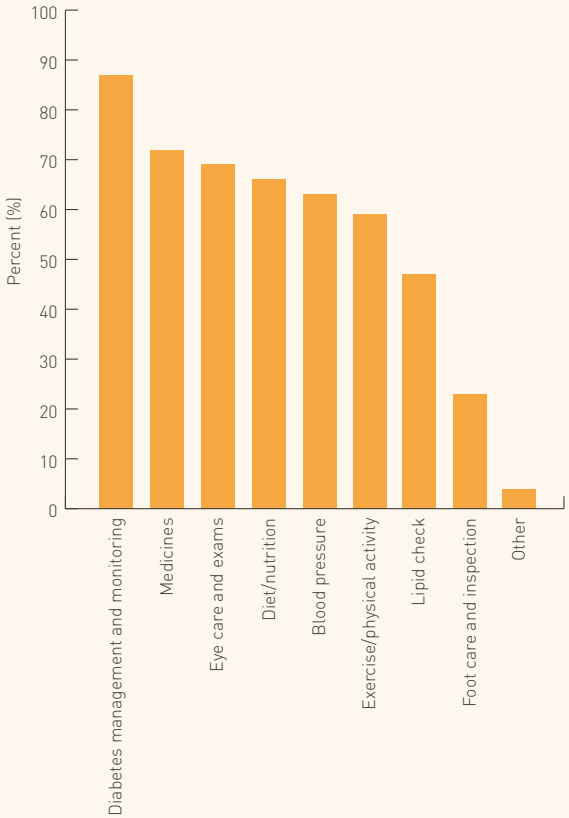
Table 11: Average wait times to schedule an appointment

Wait Time Intervals	All Respondents (n=34)	Ophthalmologist (n=19)
Less than 1 week	4 (11.8%)	1 (5.3%)
More than 1 week but less than 1 month	16 (47.1%)	12 (63.2%)
More than 2 months but less than 3 months	4 (11.8%)	1 (5.3%)
More than 3 months but less than 6 months	3 (8.8%)	2 (10.5%)
Six or more months	3 (8.8%)	2 (10.5%)
Do not take appointments	2 (5.9%)	1 (5.3%)
Other	2 (5.9%)	0 (0.0%)

Patient Education Information

A wide range of topics related to diabetes, and its management, were addressed by the health care professional 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 which was related to eye complications varies.

One in five health care professionals (21%) did not have written information about diabetes and potential eye complications available for their patients. Over a third of all providers (36%) reported that they had sufficient information about eye complications, 21% had information but that which was on eye complications was insufficient, and 3.6% reported that information on eye complications was not included in the available information.

Almost one-third of ophthalmologists (31%) did not have written information available for their patients. Some ophthalmologists (38%) had written information about diabetes and potential eye complications, while 19% had information on diabetes, but that which is on eye complications was insufficient (see Appendix PT 2.11).

Guidelines and Protocols

Fifty-five percent of all providers, including 56% of ophthalmologists, had written protocols for the management of diabetes available, which were used by staff. However, 24% of all providers had no such protocols (see Appendix PT 2.12).

With respect to the management of diabetes-related vision issues, almost one third of providers (31%) did not have written protocols. Forty-eight percent of health care professionals had written protocols available, which were used by staff and 6.9% had protocols available but not used by staff.

For ophthalmologists, 56% had written protocols available, which were used by staff. Similar to all providers, 31% of ophthalmologists did not have access to protocols on diabetes-related vision issues (see Table 12 and Appendix PT 2.13).

Table 12: Availability and use of information and protocols

Question	Response	All Respondents (n=28)	Ophthalmologist (n=16)
Is there written information about diabetes available for patients in your main practice?	Yes, and information on eye complications is sufficient	10 (35.7%)	6 (37.5%)
	Yes, but information on eye complications is not sufficient	6 (21.4%)	3 (18.8%)
	Yes, but no information on eye complications is included	1 (3.6%)	0 (0.0%)
	No written information is available for patients	6 (21.4%)	5 (31.3%)
	Don't know/Not sure	5 (17.9%)	2 (12.5%)
Question	**Response**	**All Respondents (n=29)**	**Ophthalmologist (n=16)**
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	14 (48.3%)	9 (56.3%)
	Yes, available but not used by staff	2 (6.9%)	1 (6.3%)
	Not available	9 (31.0%)	5 (31.3%)
	Don't know/Not sure	4 (13.8%)	1 (6.3%)

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

Recommendations for the timing of 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 type 1 (48%) or type 2 (63%) diabetes, reported that the initial eye exam should occur at the time of the diagnosis of diabetes (see Appendix PT 2.14).

Overall, 70% of health care professionals, including 80% of ophthalmologists, reported that follow-up eye examinations should be conducted every year. Most providers (76%), including 94% of ophthalmologists, screen patients for DR (see Appendix PT 2.15 and PT 2.16).

For all health care professionals, only a third reported to send appointment reminders and 56% do not. Sixty-three percent of the providers shared information to optimise patient care management (see Appendix PT 2.19 and PT 2.20).

The most common patient characteristics influencing the referral process for eye complications were: diabetes duration (82%), high glucose levels (74%), a patient's age (67%), the presence of comorbidities such as hypertension (63%), and a patient's ability to adhere to recommendations (30%). The findings were similar for ophthalmologists with the addition of a patient's gender (25%) (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: long wait times for an appointment (62%), a general lack of knowledge or awareness (62%), and the cost of care (54%).

Similarly, ophthalmologists reported: the cost of care (63%), a general lack of knowledge or awareness (63%), and the referral process (56%) (see Table 13 and Appendix PT 2.18).

Table 13: Major barriers to optimising eye health

Response	All Respondents (n=26)	Ophthalmologists (n=16)
Cost of care	14 (53.8%)	10 (62.5%)
Lack of knowledge and/or awareness	16 (61.5%)	10 (62.5%)
Referral process	11 (42.3%)	9 (56.3%)
Long wait time for appointment	16 (61.5%)	7 (43.8%)
Limited access to eye specialists	10 (38.5%)	5 (31.3%)
Patients feel eye exams are not important	7 (26.9%)	5 (31.3%)
Patients feel eye complications are unlikely	6 (23.1%)	4 (25.0%)
Patients have competing responsibilities and priorities	6 (23.1%)	4 (25.0%)
Proximity to care	4 (15.4%)	3 (18.8%)
Patients feel they are a burden on family/friends	4 (15.4%)	3 (18.8%)
Recommended treatments are not available	3 (11.5%)	2 (12.5%)
Patients fear of treatment/results	4 (15.4%)	2 (12.5%)
Limited access to diabetes specialists	5 (19.2%)	2 (12.5%)
Long wait time on the day of visit	4 (15.4%)	1 (6.3%)
Clinic too small or lack necessary equipment/staff	2 (7.7%)	1 (6.3%)
Other	4 (15.4%)	2 (12.5%)

Poland
DR Barometer Findings:
Ophthalmologists

Screening

There were fourteen ophthalmologists who answered at least one of the supplementary questions (see Appendix PT 4.1 to PT 4.14).

Ophthalmologists reported that an average of 17% of their patients had DR and 7.2% had DME (see Appendix PT 4.1 and PT 4.2).

The most common wait time for a screening appointment for DED was more than one week but less than one month (60%) with 13% stating between two and three months. Forty-seven percent of ophthalmologists reported that there was no wait from the time of screening to diagnosis, 20% (n=3) reported a wait time of less than one week (see Appendix PT 4.3 and 4.4).

Treatment and Challenges

Seventy-three percent of ophthalmologists personally administer treatment for diabetic retinopathy themselves. The most common factors influencing how ophthalmologists treat patients with DR or DME were: diabetes duration (60%), the presence of comorbidities such as hypertension (50%), and high glucose levels (50%) (see Appendix PT 4.6 and PT 4.7).

The most common outreach venues for screening for DED were reported to be at health fairs for people with diabetes (21%), at vision centres (21%), health fairs for all (14%), and mobile screening centres (14%) (see Appendix PT 4.13).

Ninety-three percent ophthalmologists reported that they screen patients for DR based on a fundoscopy through dilated pupils. Additionally, 86% use optical coherence tomography, 64% use fluorescein angiography, and 50% use retinal photo. Eighty-six percent of ophthalmologists reported that they treat DR and DME based on both visual and anatomical outcomes (see Appendix PT 4.8 and PT 4.9).

Eighty-six percent of ophthalmologists reported that the majority of their patients present when visual problems have already occurred, while 7.1% (n=1) reported that patients present in time for the screening, and 7.1% (n=1) reported that patients present too late for effective treatment (see Appendix PT 4.10).

Ninety-three percent of ophthalmologists had received specific training in the treatment and diagnosis of DR and or DME, of which 69% had received training more than one year ago but less than five years, 23% received training within the past year, and 7.7% received training five or more years ago. Sixty percent would be interested in online education and certification on DME, angiogenesis and anti-VEGF therapies (see Appendix PT 4.11 and PT 4.12).

Ophthalmologists reported that the greatest challenges for improving patient outcomes in DED were: late diagnosis (64%, n=9), reimbursement/restrictions on approved therapy (50%, n=7), and the referral pathways (43%, n=6) (see Table 14 and Appendix PT 4.14).

Table 14: Challenges for improving outcomes in DED

Question	Response	Ophthalmologist (n=14)
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Late diagnosis	9 (64.3%)
	Reimbursement/restrictions on approved therapy	7 (50.0%)
	Referral pathways	6 (42.9%)
	Multi-disciplinary team integration is poor	5 (35.7%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	4 (28.6%)
	No universal guidelines on referral/ screening	3 (21.4%)
	Government/insurance not able to cover patient costs	3 (21.4%)
	Current available therapies not effective	2 (14.3%)
	No universal guidelines on how to treat	1 (7.1%)
	No universal guideline on when to treat	1 (7.1%)
	Other	1 (7.1%)

Poland
DR Barometer Summary

In Poland, 111 adults with diabetes and 42 health care professionals provided insight into the experiences of living with, managing and treating diabetes, DR and DME. The results help to understand the level of awareness, and access and barriers to diabetes management, including screening for DED, and timely treatment.

With Poland's low fertility rates and increased life expectancy it is projected that by 2050 approximately 31% of the population will be at least 65 years old and only 12% of the population will be under the age of 15. This means that in just over 30 years the population aged 65 years or older will almost double and reach an all-time high of approximately 10.2 million.

Poland also has the ninth highest number of people living with diabetes in the European Region at ~2.2 million (1,637.6-6,290.6‡), which accounts for ~4% of people living with diabetes in this region. Deaths attributed to diabetes in Poland in 2015 were 21,483, which accounts to ~3% of the diabetes related deaths experienced in this region.

The DR Barometer findings indicate that a younger population was more likely to be associated with type 1 diabetes, which was the opposite of those with type 2 diabetes, which tended to be an older population. This is an important, and well-known, finding in the context of Poland's rapidly ageing population.

The study also showed that the longer the time since diabetes was diagnosed, the greater the likelihood for DED and DME to be detected. Twenty-five percent of respondents reported to have been diagnosed with DED and a further 7.2% with DME.

People were most often informed about their diabetes condition from their health care professionals, such as a doctor, nurse, and nutritionist. A trend globally, which was reflected in the Poland study, was the increasing usage of the internet by over half (52%) of the respondents.

Many of those surveyed struggled with the management of their diabetic condition with some issues that were beyond their personal control such as long waiting times for an appointment to see their doctor, or specialist, and the high cost of care. These two factors could play a role in the finding that only sixteen percent of patients were currently enrolled in a diabetes management programme.

There was not only a relatively high awareness of the complications but vision loss was feared almost two times more than cardiovascular disease or stroke and almost five times more than the loss of a limb.

There was also a considerable increase in the frequency of people with DED and DME experiencing certain complications compared with people without DED. The frequency of cardiovascular disease or stroke, neuropathy, and kidney disease had a marked increase in those with DED and DME compared with those without DED.

The relationship between the patient and the health care professional is critical to realistic and optimal patient outcomes. Indeed, health education and information was reported by patients as the most important tool to improve the management of one's diabetes yet one in five respondents did not receive any information on eye complications from traditional sources, such as their doctor or nurse. Likewise, close to two-thirds of health care professionals reported one of the major barriers to optimising eye health was a lack of knowledge or awareness and yet almost half (41%) of these providers either did not have information on diabetes-related eye health available for their patients or that which they had was insufficient.

It is also important to note that almost a quarter of those surveyed had either never had a conversation about potential eye complications or only did so only after symptoms arose. Equally concerning is the myths and perceptions around vision changes, with one in five patients believing that vision problems were a normal part of ageing and some did not make any special effort to prevent vision problems.

Knowledge and guidance was not only an issue for patients, as almost one in three providers said that they did not have any written protocols or guidelines available in the management of diabetes-related vision issues.

All respondents diagnosed with DED or DME said that their vision was either slightly or significantly affected which in turn impacted their health, lifestyle, and life choices. One in three reported their vision impairment made it difficult to work or keep a job, drive a vehicle, and for a fifth of those, it affected their ability to manage their underlying diabetes, including exercising.

People with DED and DME also experienced more mentally unhealthy days when compared to those without DED. Around three in four people with DED and DME experienced a greater impact on their mental health compared with 38% of those without DED.

A proactive treatment approach to prevent further vision loss was preferred by all of those with DME rather than reactive treatment once further vision loss occurred. However, for almost a third (30%) of respondents their access to healthcare was affected by their income, followed by their age (18%) or where they actually lived (16%).

Supporting this, ophthalmologists reported the cost of care as one of the major barriers in optimising eye health, and one in three patients reported that health services needed were not available, which may reflect that one's income level and where one lives could impact their access to healthcare.

Health, family, and money were the top three 'worries' on the mind of the respondents surveyed.

Knowing that diabetes-related vision loss is preventable, addressing barriers to eye screening is an important policy issue. While most respondents had received an eye exam, which is understandable considering the purposeful sample, there remained many barriers, primarily those associated with clinical capacities, such as long wait times to schedule an appointment and subsequent wait time on the day of the visit. In addition, given that the majority of ophthalmologists recommended annual screenings, it was a surprise finding that only 38% sent reminders to their patients to schedule an appointment.

The top patient characteristics influencing the referral process for eye care across providers and ophthalmologists were diabetes duration, high glucose levels, a patient's age, presence of comorbidities, and a patient's ability to adhere to recommendations.

Eighty-six percent of ophthalmologists reported that the majority of their patients present for screening when visual problems had already occurred rather than in time for the screening. Furthermore, almost two-thirds of ophthalmologists cited that late diagnosis was one of the greatest challenges for improving outcomes, along with reimbursement restrictions on approved therapy and a complex referral pathway.

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 Poland.

References and Acknowledgement

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[2] International Diabetes Federation. (2015). *IDF Diabetes Atlas.* Accessed from: http://www.diabetesatlas.org/

The IFA, IDF and IAPB would like to acknowledge and thank the many organisations and health care professionals from Poland that assisted in the dissemination of patient and provider surveys, your contributions were pivotal to the success of the DR Barometer Study.

Appendices

The Diabetic Retinopathy Barometer Survey: Appendices for Poland

APPENDIX 1 : National Results

Table 1.1

Survey Information	Number of Respondents (%)
All valid respondents [1]	140 (100.0%)
Respondents aged 18 or over	137 (97.9%)
Respondents with diabetes	112 (80.0%)

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

Table 1.2

Survey Information	Number of Respondents (%)
All valid respondents	140 (100.0%)
Included in Diabetic Analysis Set	111 (79.3%)
Excluded from Diabetic Analysis Set	29 (20.7%)
Reasons for exclusion from diabetic analysis set	.
Under 18 years of age	3
Not diagnosed with diabetes	18
Missing information on diabetes diagnosis	7
Gestational diabetes only	1

Table 1.3

Survey Information	Number of Respondents (%)
Diabetic Analysis Set	111 (100.0%)
World Bank Income Group: High Income	111 (100.0%)
Persons with diabetic eye disease (DED)	28 (25.2%)
Persons with diabetic macular edema (DME)	8 (7.2%)
Persons with Type I diabetes	38 (34.2%)
Persons with Type II diabetes	65 (58.6%)
Persons not seeing health care professional for diabetes	17 (15.3%)
Persons seeing health care professional for diabetes	91 (82.0%)
Persons with eye disease & not received treatment	12 (10.8%)

Survey Information	Number of Respondents (%)
Persons with eye disease & received treatment	22 (19.8%)

Table 2.1

Question	Response	Number of Respondents (%)
With which type of diabetes have you been diagnosed?	Type I	38 (34.2)
	Type II	65 (58.6)
	Don't know/Not sure	8 (7.2)
	Total Valid Response	111 (100.0)

Table 2.2

Question	Response	Number of Respondents (%)
When was your diabetes diagnosed?	Within the last year	6 (5.6)
	1 - 5 years ago	12 (11.2)
	6 - 10 years ago	12 (11.2)
	11 - 15 years ago	19 (17.8)
	16 - 20 years ago	15 (14.0)
	21 years ago or longer	42 (39.3)
	Don't know/Not sure	1 (0.9)
	Total Valid Response	107 (100.0)
	Total missing	4

Table 2.3.1

Question	Response	Number of Respondents (%)
Do you see a health care professional for your diabetes?	Yes	91 (84.3)
	No	17 (15.7)
	Total Valid Response	108 (100.0)
	Total missing	3
What kind of health care professional?	General/Family Doctor	16 (17.6)
	Diabetes Specialist	74 (81.3)

Question	Response	Number of Respondents (%)
	Other	1 (1.1)
	Total Valid Response	91 (100.0)
	Total missing	20

Table 2.3.2

Type of health care professional	Times per year seen for diabetes	Value
General/Family Doctor	Total valid numeric response (n)	11
	Mean	6.5
	SD	4.0
	Median	4.0
	Min	2
	Max	12
	Don't know/Not sure	1
	Total missing	4
Diabetes Specialist	Total valid numeric response (n)	54
	Mean	4.9
	SD	4.1
	Median	4.0
	Min	1
	Max	24
	Total missing	20
Other	Total valid numeric response (n)	1
	Mean	12.0
	SD	
	Median	12.0
	Min	12
	Max	12

Table 2.4

Question	Response	Number of Respondents (%)
How have you received	Doctor or nurse	84 (79.2%)

Question	Response	Number of Respondents (%)
information about diabetes?		
	Health educator	23 (21.7%)
	Nutritionist or dietitian	37 (34.9%)
	Diabetes organization or other health organization	62 (58.5%)
	Family/Friends/Neighbors	18 (17.0%)
	TV/Radio/Newspaper/Magazines	29 (27.4%)
	Internet	55 (51.9%)
	Social media (e.g. Facebook, Twitter, blogs)	11 (10.4%)
	Other	6 (5.7%)
	Pharmacist	5 (4.7%)
	None of the above	3 (2.8%)
	Total Valid Response	106 (100.0%)
	Total missing	5

Table 2.5

Question	Response	Number of Respondents (%)
How do you manage your diabetes?	Diet	84 (80.0%)
	Oral medicine	53 (50.5%)
	Exercise	41 (39.0%)
	Insulin	77 (73.3%)
	Natural/Herbal medicine	12 (11.4%)
	None of the above	1 (1.0%)
	Total Valid Response	105 (100.0%)
	Total missing	6

Table 2.6

Question	Response	Number of Respondents (%)
Are you currently enrolled in a diabetes patient management support programme?	Yes	17 (16.0)
	No	89 (84.0)
	Total Valid Response	106 (100.0)

Question	Response	Number of Respondents (%)
	Total missing	5
Who sponsors the programme?	Hospital support program	1 (6.3)
	Patient organization support program	13 (81.3)
	Don't know/Not sure	2 (12.5)
	Total Valid Response	16 (100.0)
	Total missing	95
Does the programme include education on the importance of screening for diabetic eye complications?	Yes	13 (81.3)
	No	3 (18.8)
	Total Valid Response	16 (100.0)
	Total missing	95

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	103 (100.0%)
	Less than 6 months	77 (74.8%)
	6 - 12 months	19 (18.4%)
	Greater than 12 months	7 (6.8%)
	Total valid response	103 (100.0%)
	Total missing	8
	Total valid response	103 (100.0%)
	Total missing	8
Urine check	Yes	95 (96.0%)
	Less than 6 months	49 (49.5%)
	6 - 12 months	33 (33.3%)

Test	Response	Number of Respondents (%)
	Greater than 12 months	12 (12.1%)
	Total valid response	94 (94.9%)
	Total missing	17
	No	3 (3.0%)
	Don't know/Not sure	1 (1.0%)
	Total valid response	99 (100.0%)
	Total missing	12
Weight check	Yes	87 (90.6%)
	Less than 6 months	73 (76.0%)
	6 - 12 months	7 (7.3%)
	Greater than 12 months	6 (6.3%)
	Total valid response	86 (89.6%)
	Total missing	25
	No	7 (7.3%)
	Don't know/Not sure	2 (2.1%)
	Total valid response	96 (100.0%)
	Total missing	15
Blood pressure check	Yes	101 (99.0%)
	Less than 6 months	94 (92.2%)
	6 - 12 months	3 (2.9%)
	Greater than 12 months	1 (1.0%)
	Total valid response	98 (96.1%)
	Total missing	13
	No	1 (1.0%)
	Total valid	102 (100.0%)

Test	Response	Number of Respondents (%)
	response	
	Total missing	9
Foot check	Yes	65 (65.7%)
	Less than 6 months	23 (23.2%)
	6 - 12 months	23 (23.2%)
	Greater than 12 months	17 (17.2%)
	Total valid response	63 (63.6%)
	Total missing	48
	No	30 (30.3%)
	Don't know/Not sure	4 (4.0%)
	Total valid response	99 (100.0%)
	Total missing	12
Eye check	Yes	95 (93.1%)
	Less than 6 months	38 (37.3%)
	6 - 12 months	44 (43.1%)
	Greater than 12 months	13 (12.7%)
	Total valid response	95 (93.1%)
	Total missing	16
	No	7 (6.9%)
	Total valid response	102 (100.0%)
	Total missing	9

Table 2.8

Question	Response	Number of Respondents (%)
How well do you think your diabetes is controlled?	Very well	14 (13.6%)

Question	Response	Number of Respondents (%)
	Well	60 (58.3%)
	Not very well	24 (23.3%)
	Not well at all	4 (3.9%)
	Don't know/Not sure	1 (1.0%)
	Total Valid Response	103 (100.0%)
	Total missing	8

Table 2.9

Question	Response	Number of Respondents (%)
What are the main challenges you face in controlling your diabetes?	High cost of care	62 (60.8%)
	No insurance	3 (2.9%)
	Travel to my regular doctor or specialist is difficult	19 (18.6%)
	Long wait time for an appointment to see my doctor or specialist	64 (62.7%)
	Health services needed are not available	33 (32.4%)
	Don't know enough about diabetes	8 (7.8%)
	Too hard to eat the right things	50 (49.0%)
	Too many other things to do	25 (24.5%)
	Stigma or discrimination because of diabetes	10 (9.8%)
	Don't want to think about having diabetes	13 (12.7%)
	Other	7 (6.9%)
	Total Valid Response	102 (100.0%)
	Total missing	9

Table 2.10

Question	Response	Number of Respondents (%)
Which of the following services currently	Free or low cost medicines or	43 (41.7%)

Question	Response	Number of Respondents (%)
help you better manage your diabetes?	monitoring materials	
	Support groups	35 (34.0%)
	Support from family or friends	42 (40.8%)
	Health education and information	63 (61.2%)
	Mobile services (services that travel to or near your home)	8 (7.8%)
	Coordination of healthcare and services by a professional	35 (34.0%)
	Emergency helpline	3 (2.9%)
	Other	7 (6.8%)
	None	10 (9.7%)
	Total Valid Response	103 (100.0%)
	Total missing	8

Table 2.11

Question	Response	Number of Respondents (%)
What complications (or problems), to your knowledge, arise from diabetes?	Amputation	90 (87.4%)
	Foot ulcers	78 (75.7%)
	Increased risk of broken bones or fractures	18 (17.5%)
	Loss of feeling in hands or toes (neuropathy)	91 (88.3%)
	Vision loss	95 (92.2%)
	Irritable bowel disease	21 (20.4%)
	Kidney disease	83 (80.6%)
	Cardiovascular disease/Stroke	91 (88.3%)
	Other	23 (22.3%)
	None	1 (1.0%)
	Total Valid Response	103 (100.0%)
	Total missing	8

Table 2.12

Question	Response	Number of Respondents (%)
Which complication of diabetes are you most concerned about?	Amputation	10 (9.8)
	Foot ulcers	2 (2.0)
	Loss of feeling in hands or toes (neuropathy)	4 (3.9)
	Vision loss	47 (46.1)
	Kidney disease	5 (4.9)
	Cardiovascular disease/Stroke	29 (28.4)
	Other	2 (2.0)
	None	3 (2.9)
	Total Valid Response	102 (100.0)
	Total missing	9

Table 2.13

Question	Response	Number of Respondents (%)
Which of the following complications of diabetes do you have?	Amputation	4 (4.1%)
	Foot ulcers	2 (2.1%)
	Broken bones or fractures	3 (3.1%)
	Loss of feeling in hands or toes (neuropathy)	36 (37.1%)
	Vision loss	29 (29.9%)
	Irritable bowel disease	10 (10.3%)
	Kidney disease	12 (12.4%)
	Cardiovascular disease/Stroke	33 (34.0%)
	Other	11 (11.3%)
	Don't know/Not sure	9 (9.3%)
	None	27 (27.8%)
	Total Valid Response	97 (100.0%)
	Total missing	14

Table 2.14

Question	Response	Number of Respondents (%)

Question	Response	Number of Respondents (%)
How often do you discuss the possibility of eye complications with your health care professional?	Every visit	27 (26.7%)
	Multiple times per year	19 (18.8%)
	Once per year	28 (27.7%)
	Only when symptoms arise	18 (17.8%)
	Never	6 (5.9%)
	Don't know/Not sure	3 (3.0%)
	Total Valid Response	101 (100.0%)
	Total missing	10

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	21 (21.0%)
	I do what I can to prevent vision problems (e.g. get routine screenings, visit specialists)	86 (86.0%)
	I do not make any special effort to prevent vision problems	10 (10.0%)
	Total Valid Response	100 (100.0%)
	Total missing	11

Table 2.16

Question	Response	Number of Respondents (%)
What type of health insurance do you have?	Public	90 (90.9)
	Public - Private	8 (8.1)
	Private	1 (1.0)
	Total Valid Response	99 (100.0)
	Total missing	12

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	70 (80.5)
	Insurance pays total cost	9 (10.3)
	Insurance and out-of-pocket/cash (e.g. co-pays)	8 (9.2)
	Total Valid Response	87 (100.0)
	Total missing	24
Specialist medical visits (e.g. eye doctor, gynecologist, urologist)	Care is free	43 (46.2)
	Insurance pays total cost	10 (10.8)
	Insurance and out-of-pocket/cash (e.g. co-pays)	25 (26.9)
	Out-of-pocket only (pay cash for all care)	14 (15.1)
	Do not use service	1 (1.1)
	Total Valid Response	93 (100.0)
	Total missing	18
Medicines	Care is free	3 (3.3)
	Insurance pays total cost	5 (5.6)
	Insurance and out-of-pocket/cash (e.g. co-pays)	65 (72.2)
	Out-of-pocket only (pay cash for all care)	17 (18.9)
	Total Valid Response	90 (100.0)
	Total missing	21
Medical supplies (e.g. blood glucose meter/strips)	Care is free	9 (9.7)
	Insurance pays total cost	7 (7.5)
	Insurance and out-of-pocket/cash (e.g. co-pays)	68 (73.1)
	Out-of-pocket only (pay cash for all care)	9 (9.7)
	Total Valid Response	93 (100.0)
	Total missing	18
Procedures	Care is free	25 (27.5)

Question	Response	Number of Respondents (%)
	Insurance pays total cost	14 (15.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	38 (41.8)
	Out-of-pocket only (pay cash for all care)	4 (4.4)
	Do not use service	9 (9.9)
	Don't know/Not Sure	1 (1.1)
	Total Valid Response	91 (100.0)
	Total missing	20
Tests/screenings	Care is free	28 (29.8)
	Insurance pays total cost	24 (25.5)
	Insurance and out-of-pocket/cash (e.g. co-pays)	39 (41.5)
	Out-of-pocket only (pay cash for all care)	3 (3.2)
	Total Valid Response	94 (100.0)
	Total missing	17
Health education	Care is free	42 (44.7)
	Insurance pays total cost	6 (6.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	16 (17.0)
	Out-of-pocket only (pay cash for all care)	5 (5.3)
	Do not use service	18 (19.1)
	Don't know/Not Sure	7 (7.4)
	Total Valid Response	94 (100.0)
	Total missing	17
Counseling	Care is free	35 (38.0)
	Insurance pays total cost	10 (10.9)
	Insurance and out-of-pocket/cash (e.g. co-pays)	19 (20.7)
	Out-of-pocket only (pay cash for all care)	3 (3.3)
	Do not use service	19 (20.7)
	Don't know/Not Sure	6 (6.5)

Question	Response	Number of Respondents (%)
	Total Valid Response	92 (100.0)
	Total missing	19

Table 3.1

Question	Response	Number of Respondents (%)
Are you aware of any government sponsored screening programs for diabetic eye disease (diabetic retinopathy)?	Yes	12 (12.2%)
	No	86 (87.8%)
	Total valid response	98 (100.0%)
	Total missing	13

Table 3.2

Question	Response	Number of Respondents (%)
Have you ever had an eye exam for diabetic eye disease?	Yes	83 (83.8%)
	No	16 (16.2%)
	Total valid response	99 (100.0%)
	Total missing	12
How long ago was your last eye exam?	Within the last year	68 (82.9%)
	More than 1 year ago but less than 2 years	10 (12.2%)
	More than 2 years ago but less than 3 years	1 (1.2%)
	More than 3 years ago but less than 5 years	3 (3.7%)
	Total valid response	82 (100.0%)
	Total missing	29
Who did the last exam?	General/Family practitioner	1 (1.3%)
	Eye doctor/Eye clinic	77 (97.5%)
	Other	1 (1.3%)
	Total valid response	79 (100.0%)
	Total missing	32

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	91 (94.8%)
	No	4 (4.2%)
	Don't know/Not sure	1 (1.0%)
	Total valid response	96 (100.0%)
	Total missing	15

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	89 (91.8%)
	Every two years	5 (5.2%)
	Don't know/Not sure	3 (3.1%)
	Total valid response	97 (100.0%)
	Total missing	14

Table 3.5

Question	Response	Number of Respondents (%)
For you, what are the biggest barriers to eye exams?	They are expensive	17 (18.5%)
	Eye exams are not available near my home	21 (22.8%)
	Long wait time for appointment	67 (72.8%)
	Long wait time on the day of the visit	30 (32.6%)
	Referral process is complicated or takes too long	21 (22.8%)
	Recommended treatments for eye problems are not available	7 (7.6%)
	Don't know much about my condition	7 (7.6%)
	Fear of treatment/results	3 (3.3%)

Question	Response	Number of Respondents (%)
	Burden on my family/friends	3 (3.3%)
	Limited access to diabetes specialists	24 (26.1%)
	I'm not likely to have eye complications	5 (5.4%)
	Too many other things to do or worry about	4 (4.3%)
	Clinics are too small or lack necessary equipment/staff	13 (14.1%)
	Other	6 (6.5%)
	Total valid response	92 (100.0%)
	Total missing	19

Table 3.6

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic eye disease?	Yes	36 (36.7%)
	No	62 (63.3%)
	Total valid response	98 (100.0%)
	Total missing	13
Has your diabetic eye disease affected your vision?	Yes, slightly	19 (52.8%)
	Yes, significantly	17 (47.2%)
	Total valid response	36 (100.0%)
	Total missing	75
Have vision issues caused you to have difficulty with any of the following?	Traveling	8 (22.2%)
	Household responsibilities, such as cooking or cleaning	4 (11.1%)
	Social interactions with family/friends	2 (5.6%)
	Leisure activities/exercise	10 (27.8%)
	Work or keeping a job	13 (36.1%)
	Managing my diabetes	8 (22.2%)
	Other	3 (8.3%)
	None	9 (25.0%)

Question	Response	Number of Respondents (%)
	Driving (a car/vehicle)	13 (36.1%)
	Total valid response	36 (100.0%)
	Total missing	75

Table 3.7

Question	Response	Number of Respondents (%)
Have you had any treatment for diabetic eye disease?	Yes	22 (61.1%)
	No	12 (33.3%)
	Don't know/Not sure	2 (5.6%)
	Total valid response	36 (100.0%)
	Total missing	75
What treatment did you receive?	Laser	16 (72.7%)
	Injection in the eye (Anti-VEGF)	4 (18.2%)
	Surgery	8 (36.4%)
	Other	6 (27.3%)
	Total valid response	22 (100.0%)
	Total missing	89
Did you complete the treatment?	Yes	6 (27.3%)
	No	1 (4.5%)
	Still receiving treatment	15 (68.2%)
	Total valid response	22 (100.0%)
	Total missing	89
Do you feel that the treatment worked?	Yes, and vision improved	7 (33.3%)
	Yes, but vision stayed the same	7 (33.3%)
	Still waiting to know	4 (19.0%)
	Don't know/Not sure	3 (14.3%)
	Total valid response	21 (100.0%)
	Total missing	90
What is/are the reason(s) that you did not complete the treatment?	Total missing	111

Question	Response	Number of Respondents (%)
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	8 (66.7%)
	Treatment would not be effective	1 (8.3%)
	Treatment is not accessible	1 (8.3%)
	Still waiting for treatment	4 (33.3%)
	Too expensive	3 (25.0%)
	Total valid response	12 (100.0%)
	Total missing	99

Table 3.8

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic macular edema?	Yes	8 (8.4%)
	No	65 (68.4%)
	Don't know/Not sure	22 (23.2%)
	Total valid response	95 (100.0%)
	Total missing	16
If Yes, which of the following would you prefer	Treatment to prevent further vision loss	8 (100.0%)
	Total valid response	8 (100.0%)
	Total missing	103

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	43 (45.7%)
	Health educator	14 (14.9%)
	Diabetes organization or other health organization	34 (36.2%)
	Family/Friends/Neighbors	3 (3.2%)
	TV/Radio/Newspaper/Magazines	12 (12.8%)

Question	Response	Number of Respondents (%)
	Internet	30 (31.9%)
	Other	2 (2.1%)
	None of the above	19 (20.2%)
	Total valid response	94 (100.0%)
	Total missing	17

Table 4.1

Question	Response	Number of Respondents (%)
What is your gender?	Female	44 (46.8)
	Male	50 (53.2)
	Total Valid Response	94 (100.0)
	Total missing	17
Please indicate your age	18 - 29	3 (2.7)
	30 - 39	10 (9.0)
	40 - 49	12 (10.8)
	50 - 59	23 (20.7)
	60 - 69	49 (44.1)
	70 - 79	12 (10.8)
	80 - 89	2 (1.8)
	Total Valid Response	111 (100.0)

Table 4.2

Question	Response	Number of Respondents (%)
Where do you live?	Urban setting	81 (84.4)
	Non-urban setting	15 (15.6)
	Total Valid Response	96 (100.0)
	Total missing	15

Table 4.3

Question	Response	Number of Respondents (%)
What is the highest level of education you completed?	Primary school	3 (3.1)

Question	Response	Number of Respondents (%)
	Secondary school	47 (49.0)
	College/University	14 (14.6)
	Graduate or post-graduate	32 (33.3)
	Total valid response	96 (100.0)
	Total missing	15

Table 4.4

Question	Response	Number of Respondents (%)
Are you currently working?	Working for pay	33 (34.4)
	Working without pay at home (e.g. housework, farming)	3 (3.1)
	Volunteering	3 (3.1)
	Retired	52 (54.2)
	Not working	5 (5.2)
	Total Valid Response	96 (100.0)
	Total missing	15

Table 4.5

Question	Response	Number of Respondents (%)
Do you receive assistance from the government?	Income assistance	4 (4.4%)
	Medical assistance	14 (15.4%)
	Food assistance	1 (1.1%)
	Pension assistance	10 (11.0%)
	None of the above	70 (76.9%)
	Total valid response	91 (100.0%)
	Total missing	20

Table 4.6

Question	Response	Number of Respondents (%)
Did you have trouble paying for food at anytime during the past year?	Yes	19 (20.2)
	No	75 (79.8)
	Total Valid Response	94 (100.0)
	Total missing	17

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	17 (17.9)
	Income	28 (29.5)
	Language you speak	2 (2.1)
	Place where you live	15 (15.8)
	None of the above	55 (57.9)
	Total valid response	95 (100.0)
	Total missing	16

Table 4.8

Question	Response	Number of Respondents (%)
Which of the following do you worry about most?	Food	1 (1.1)
	Housing	1 (1.1)
	Money	14 (14.7)
	Health	51 (53.7)
	Family	22 (23.2)
	Other	1 (1.1)
	None of the above	5 (5.3)
	Total Valid Response	95 (100.0)

Question	Response	Number of Respondents (%)
	Total missing	16

Table 5.1

Question	Response	Number of Respondents (%)
In general, would you say your health is:	Very good	2 (2.2%)
	Good	20 (22.2%)
	Total good health	22 (24.4%)
	Fair	40 (44.4%)
	Poor	28 (31.1%)
	Fair or poor health	68 (75.6%)
	Total valid response	90 (100.0%)
	Total missing	21

Table 5.2

Question	Response	Number of Respondents (%)
How many days during last 30 days was your physical health not good	Any unhealthy days	44 (65.7%)
	1-5 unhealthy days	11 (16.4%)
	6-10 unhealthy days	10 (14.9%)
	11-20 unhealthy days	8 (11.9%)
	21-30 unhealthy days	15 (22.4%)
	No unhealthy days	23 (34.3%)
	Total valid response	67 (100.0%)
	Total missing	44

Table 5.3.1

Question	Response	Number of Respondents (%)
How many days during last 30 days was your mental	Any unhealthy	35 (53.0%)

Question	Response	Number of Respondents (%)
health not good	days	
	1-5 unhealthy days	11 (16.7%)
	6-10 unhealthy days	11 (16.7%)
	11-20 unhealthy days	6 (9.1%)
	21-30 unhealthy days	7 (10.6%)
	No unhealthy days	31 (47.0%)
	Total valid response	66 (100.0%)
	Total missing	45

Table 5.3.2

Question	Response	Number of Respondents (%)
Unhealthy days (physically or mentally unhealthy, max 30)	Any unhealthy days	52 (77.6%)
	1-5 unhealthy days	7 (10.4%)
	6-10 unhealthy days	11 (16.4%)
	11-20 unhealthy days	13 (19.4%)
	21-30 unhealthy days	21 (31.3%)
	No unhealthy days	15 (22.4%)
	Total valid response	67 (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	25 (44.6%)

Question	Response	Number of Respondents (%)
	1-5 unhealthy days	8 (14.3%)
	6-10 unhealthy days	4 (7.1%)
	11-20 unhealthy days	8 (14.3%)
	21-30 unhealthy days	5 (8.9%)
	No unhealthy days	31 (55.4%)
	Total valid response	56 (100.0%)
	Total missing	55

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	49 (60.5%)
	No	32 (39.5%)
	Total valid response	81 (100.0%)
	Total missing	30
Which impairment or health problem, if any, limits your activities?		
a) Arthritis/rheumatism	Yes	30 (63.8%)
	No	16 (34.0%)
	Don't know/Not sure	1 (2.1%)
	Total valid response	47 (100.0%)
	Total missing	64
b) Back or neck problem	Yes	28 (59.6%)
	No	13 (27.7%)
	Don't know/Not sure	6 (12.8%)
	Total valid	47 (100.0%)

Question	Response	Number of Respondents (%)
	response	
	Total missing	64
c) Fractures, bone/joint injury	Yes	10 (27.0%)
	No	27 (73.0%)
	Total valid response	37 (100.0%)
	Total missing	74
d) Walking problem	Yes	37 (78.7%)
	No	9 (19.1%)
	Don't know/Not sure	1 (2.1%)
	Total valid response	47 (100.0%)
	Total missing	64
e) Lung/breathing problem	Yes	11 (28.2%)
	No	27 (69.2%)
	Don't know/Not sure	1 (2.6%)
	Total valid response	39 (100.0%)
	Total missing	72
f) Hearing problem	Yes	11 (28.2%)
	No	27 (69.2%)
	Don't know/Not sure	1 (2.6%)
	Total valid response	39 (100.0%)
	Total missing	72
g) Eye/vision problem	Yes	33 (71.7%)
	No	10 (21.7%)
	Don't know/Not sure	3 (6.5%)
	Total valid response	46 (100.0%)
	Total missing	65
h) Heart problem	Yes	19 (44.2%)

Question	Response	Number of Respondents (%)
	No	20 (46.5%)
	Don't know/Not sure	4 (9.3%)
	Total valid response	43 (100.0%)
	Total missing	68
i) Stroke problem	Yes	8 (20.5%)
	No	28 (71.8%)
	Don't know/Not sure	3 (7.7%)
	Total valid response	39 (100.0%)
	Total missing	72
j) Hypertension/high blood pressure	Yes	28 (65.1%)
	No	10 (23.3%)
	Don't know/Not sure	5 (11.6%)
	Total valid response	43 (100.0%)
	Total missing	68
k) Diabetes	Yes	51 (89.5%)
	No	5 (8.8%)
	Don't know/Not sure	1 (1.8%)
	Total valid response	57 (100.0%)
	Total missing	54
l) Cancer	Yes	6 (15.8%)
	No	27 (71.1%)
	Don't know/Not sure	5 (13.2%)
	Total valid response	38 (100.0%)
	Total missing	73
m) Mental or emotional health	Yes	17 (39.5%)
	No	20 (46.5%)

Question	Response	Number of Respondents (%)
	Don't know/Not sure	4 (9.3%)
	Refused	2 (4.7%)
	Total valid response	43 (100.0%)
	Total missing	68

PT 1.2

Analysis Sets	Number of Respondents (%)
All valid respondents	42 (100.0%)
Included in Provider Analysis Set (PAS)	42 (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	42
Included in the Eye Care Professional Set (Eye Specialist)	23 (54.8%)
Excluded in the Eye Care Professional Set (Eye Specialist)	19 (45.2%)
Reasons for exclusion from Eye Care Professional Set:	
Missing required speciality	19
No valid (non-missing) response for the supplemental eye questionnaire	0

PT 1.3

Subgroups	Number of Respondents (%)
Provider Analysis Set	42 (100.0%)
Primary Care Provider	6 (14.3%)
Diabetes Specialist Provider	5 (11.9%)
Eye Care Professional	23 (54.8%)
Ophthalmologist	23 (54.8%)

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	6 (100.0%)	0 (0.0%)	0 (0.0%)	6 (14.3%)
	Diabetes specialist	0 (0.0%)	5 (100.0%)	0 (0.0%)	5 (11.9%)
	General ophthalmologist	0 (0.0%)	0 (0.0%)	16 (69.6%)	16 (38.1%)
	Optometrist	0 (0.0%)	0 (0.0%)	1 (4.3%)	1 (2.4%)
	Retinal specialist	0 (0.0%)	0 (0.0%)	8 (34.8%)	8 (19.0%)
	Nurse	0 (0.0%)	0 (0.0%)	1 (4.3%)	1 (2.4%)
	Health educator	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.8%)
	None of the above	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (14.3%)
	Total valid response	6 (100.0%)	5 (100.0%)	23 (100.0%)	42 (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)	6	5	23	41
	Mean	10.0	10.6	20.2	15.6
	SD	4.5	4.0	18.3	15.1
	Median	10.0	12.0	18.0	12.0
	Min.	4	4	0	0
	Max.	15	14	80	80
	Total missing	0	0	0	1

PT 2.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your main practice setting?	Diabetes clinic/practice	0 (0.0%)	4 (80.0%)	1 (5.0%)	5 (13.5%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Eye clinic/practice	0 (0.0%)	0 (0.0%)	9 (45.0%)	9 (24.3%)
	General medical clinic/practice	3 (50.0%)	0 (0.0%)	0 (0.0%)	3 (8.1%)
	Hospital	3 (50.0%)	1 (20.0%)	9 (45.0%)	17 (45.9%)
	Other	0 (0.0%)	0 (0.0%)	1 (5.0%)	3 (8.1%)
	Total Valid Response	6 (100.0%)	5 (100.0%)	20 (100.0%)	37 (100.0%)
	Total missing	0	0	3	5

PT 2.2

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Where is your main practice located?	Urban setting	5 (83.3%)	5 (100.0%)	18 (94.7%)	32 (91.4%)
	Non-urban setting	1 (16.7%)	0 (0.0%)	1 (5.3%)	3 (8.6%)
	Total Valid Response	6 (100.0%)	5 (100.0%)	19 (100.0%)	35 (100.0%)
	Total missing	0	0	4	7

PT 2.3

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In which sector is your main practice?	Government	3 (50.0%)	3 (60.0%)	8 (42.1%)	16 (47.1%)
	Private	2 (33.3%)	0 (0.0%)	7 (36.8%)	10 (29.4%)
	Non profit	0 (0.0%)	2 (40.0%)	0 (0.0%)	2 (5.9%)
	Combined/mixed	1 (16.7%)	0 (0.0%)	4 (21.1%)	6 (17.6%)
	Total Valid Response	6 (100.0%)	5 (100.0%)	19 (100.0%)	34 (100.0%)
	Total missing	0	0	4	8

PT 2.4

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is your main practice limited to certain populations?	No	5 (83.3%)	3 (60.0%)	13 (68.4%)	24 (68.6%)
	Yes, limited by age	0 (0.0%)	1 (20.0%)	0 (0.0%)	1 (2.9%)
	Yes, limited by gender	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.9%)
	Yes, limited to persons with health insurance	1 (16.7%)	1 (20.0%)	3 (15.8%)	5 (14.3%)
	Yes, limited to persons who pay out-of-pocket	0 (0.0%)	0 (0.0%)	3 (15.8%)	3 (8.6%)
	Yes, other	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.9%)
	Total valid response	6 (100.0%)	5 (100.0%)	19 (100.0%)	35 (100.0%)
	Total missing	0	0	4	7

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	3 (50.0%)	0 (0.0%)	1 (5.3%)	4 (11.8%)
	More than 1 week but less than 1 month	2 (33.3%)	1 (20.0%)	12 (63.2%)	16 (47.1%)
	More than 2 months but less than 3 months	0 (0.0%)	2 (40.0%)	1 (5.3%)	4 (11.8%)
	More than 3 months but less than 6 months	0 (0.0%)	1 (20.0%)	2 (10.5%)	3 (8.8%)
	Six or more	0 (0.0%)	0 (0.0%)	2 (10.5%)	3 (8.8%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	months				
	Do not take appointments	0 (0.0%)	1 (20.0%)	1 (5.3%)	2 (5.9%)
	Other	1 (16.7%)	0 (0.0%)	0 (0.0%)	2 (5.9%)
	Total Valid Response	6 (100.0%)	5 (100.0%)	19 (100.0%)	34 (100.0%)
	Total missing	0	0	4	8

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)	6	5	16	30
	Mean	65.8	88	46.6	54.9
	SD	73.2	25.9	28.6	42.9
	Median	35	90	35	45
	Min.	10	50	15	8
	Max.	200	120	120	200
	Total missing	0	0	7	12
What percentage of the patients in your main practice have diabetes [% patients]	Total valid response (n)	6	5	15	29
	Mean	15.8	99	15.9	34.4
	SD	4.9	2.2	11	35.2
	Median	17.5	100	10	20
	Min.	10	95	5	5
	Max.	20	100	40	100
	Total missing	0	0	8	13

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	5 (83.3%)	4 (80.0%)	5 (29.4%)	16 (50.0%)
	Pay a reduced/subsidized rate	0 (0.0%)	1 (20.0%)	0 (0.0%)	1 (3.1%)
	Pay out-of-pocket (full fees)	0 (0.0%)	0 (0.0%)	7 (41.2%)	8 (25.0%)
	Pay through insurance	1 (16.7%)	0 (0.0%)	6 (35.3%)	8 (25.0%)
	Patient pays some, insurance pays some	0 (0.0%)	0 (0.0%)	2 (11.8%)	2 (6.3%)
	Total valid response	6 (100.0%)	5 (100.0%)	17 (100.0%)	32 (100.0%)
	Total missing	0	0	6	10

PT 2.8

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In addition to your main practice, do you work in another practice setting?	Yes	2 (33.3%)	3 (60.0%)	16 (84.2%)	26 (72.2%)
	No	4 (66.7%)	2 (40.0%)	3 (15.8%)	10 (27.8%)
	Total valid response	6 (100.0%)	5 (100.0%)	19 (100.0%)	36 (100.0%)
	Total missing			4	6
In which other practice setting(s) do you work?	Hospital			8 (50.0%)	10 (41.7%)
	General medical clinic/practice	2 (100.0%)	1 (33.3%)	2 (12.5%)	5 (20.8%)
	Diabetes clinic/practice		2 (66.7%)		3 (12.5%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Eye clinic/practice			8 (50.0%)	8 (33.3%)
	Other				1 (4.2%)
	Total valid response	2 (100.0%)	3 (100.0%)	16 (100.0%)	24 (100.0%)
	Total missing	4	2	7	18
In which sector(s) is(are) the practice(s)?	Government	1 (50.0%)		1 (6.3%)	3 (12.5%)
	Private		3 (100.0%)	12 (75.0%)	16 (66.7%)
	Combined/mixed	1 (50.0%)		3 (18.8%)	5 (20.8%)
	Total valid response	2 (100.0%)	3 (100.0%)	16 (100.0%)	24 (100.0%)
	Total missing	4	2	7	18
Is there a major difference between your practices with respect to how diabetic eye disease is screened and managed?	Yes		1 (33.3%)	7 (46.7%)	9 (40.9%)
	No	2 (100.0%)	2 (66.7%)	8 (53.3%)	13 (59.1%)
	Total valid response	2 (100.0%)	3 (100.0%)	15 (100.0%)	22 (100.0%)
	Total missing	4	2	8	20

PT 2.9

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Blood glucose	Yes		4 (80.0%)	5 (100.0%)	13 (86.7%)	25 (89.3%)
		Total valid numeric response (n)	4 (80.0%)	4 (80.0%)	12 (80.0%)	23 (82.1%)
		Mean	258.0	2.5	5.1	48.6

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		SD	173.4	1.3	6.0	117.4
		Median	332.5	2.5	3.0	3.0
		Min	2	1	0	0
		Max	365	4	20	365
		Total missing	2	1	11	19
	No		1 (20.0%)		2 (13.3%)	3 (10.7%)
	Total valid response		5 (100.0%)	5 (100.0%)	15 (100.0%)	28 (100.0%)
	Total missing		1		8	14
HbA1c	Yes		4 (80.0%)	5 (100.0%)	9 (81.8%)	21 (87.5%)
		Total valid numeric response (n)	4 (80.0%)	4 (80.0%)	9 (81.8%)	20 (83.3%)
		Mean	33.8	1.8	2.0	8.3
		SD	46.0	1.0	1.4	22.5
		Median	17.0	1.5	2.0	2.0
		Min	1	1	0	0
		Max	100	3	4	100
		Total missing	2	1	14	22
	No		1 (20.0%)		2 (18.2%)	3 (12.5%)
	Total valid response		5 (100.0%)	5 (100.0%)	11 (100.0%)	24 (100.0%)
	Total missing		1		12	18
Urine check	Yes		4 (80.0%)	5 (100.0%)	9 (81.8%)	21 (87.5%)
		Total valid numeric response (n)	4 (80.0%)	4 (80.0%)	9 (81.8%)	20 (83.3%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		Mean	182.8	1.3	2.6	38.2
		SD	207.6	0.5	2.5	110.9
		Median	182.0	1.0	2.0	2.0
		Min	2	1	0	0
		Max	365	2	8	365
		Total missing	2	1	14	22
	No		1 (20.0%)		2 (18.2%)	3 (12.5%)
	Total valid response		5 (100.0%)	5 (100.0%)	11 (100.0%)	24 (100.0%)
	Total missing		1		12	18
Weight check	Yes		4 (80.0%)	5 (100.0%)	9 (81.8%)	21 (87.5%)
		Total valid numeric response (n)	4 (80.0%)	4 (80.0%)	8 (72.7%)	19 (79.2%)
		Mean	184.8	3.8	3.1	41.4
		SD	205.3	0.5	4.1	113.2
		Median	186.0	4.0	1.0	3.0
		Min	2	3	0	0
		Max	365	4	12	365
		Total missing	2	1	15	23
	No		1 (20.0%)		2 (18.2%)	3 (12.5%)
	Total valid response		5 (100.0%)	5 (100.0%)	11 (100.0%)	24 (100.0%)
	Total missing		1		12	18
Blood pressure check	Yes		4 (80.0%)	5 (100.0%)	11 (91.7%)	21 (91.3%)
		Total valid numeric	4 (80.0%)	4 (80.0%)	10 (83.3%)	19 (82.6%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		response (n)				
		Mean	274.0	3.8	10.6	83.0
		SD	178.7	0.5	15.0	148.7
		Median	362.5	4.0	4.5	5.0
		Min	6	3	0	0
		Max	365	4	50	365
		Total missing	2	1	13	23
	No		1 (20.0%)		1 (8.3%)	2 (8.7%)
	Total valid response		5 (100.0%)	5 (100.0%)	12 (100.0%)	23 (100.0%)
	Total missing		1		11	19
Foot check	Yes		3 (75.0%)	5 (100.0%)	3 (30.0%)	13 (61.9%)
		Total valid numeric response (n)	3 (75.0%)	4 (80.0%)	3 (30.0%)	12 (57.1%)
		Mean	14.7	1.8	4.7	5.5
		SD	14.2	1.0	6.4	8.8
		Median	12.0	1.5	2.0	2.0
		Min	2	1	0	0
		Max	30	3	12	30
		Total missing	3	1	20	30
	No		1 (25.0%)		7 (70.0%)	8 (38.1%)
	Total valid response		4 (100.0%)	5 (100.0%)	10 (100.0%)	21 (100.0%)
	Total missing		2		13	21
Eye examination - Un-dilated	Yes		1 (25.0%)	3 (60.0%)	12 (80.0%)	17 (68.0%)
		Total valid	1 (25.0%)	2 (40.0%)	11 (73.3%)	15

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		numeric response (n)				(60.0%)
		Mean	12.0	1.0	51.3	38.6
		SD		0.0	101.0	88.1
		Median	12.0	1.0	5.0	3.0
		Min	12	1	0	0
		Max	12	1	300	300
		Total missing	5	3	12	27
	No		3 (75.0%)	2 (40.0%)	3 (20.0%)	8 (32.0%)
	Total valid response		4 (100.0%)	5 (100.0%)	15 (100.0%)	25 (100.0%)
	Total missing		2		8	17
Eye examination - Optical Coherence Tomography	Yes			1 (25.0%)	12 (85.7%)	13 (56.5%)
		Total valid numeric response (n)	0 (0.0%)	1 (25.0%)	12 (85.7%)	13 (56.5%)
		Mean		1.0	41.9	38.8
		SD			105.5	101.6
		Median		1.0	2.5	2.0
		Min		1	1	1
		Max		1	365	365
		Total missing	6	4	11	29
	No		4 (100.0%)	3 (75.0%)	2 (14.3%)	10 (43.5%)
	Total valid response		4 (100.0%)	4 (100.0%)	14 (100.0%)	23 (100.0%)
	Total missing		2	1	9	19

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Eye examination - Fundoscopy	Yes			2 (40.0%)	13 (92.9%)	15 (62.5%)
		Total valid numeric response (n)	0 (0.0%)	1 (20.0%)	13 (92.9%)	14 (58.3%)
		Mean		1.0	69.8	64.9
		SD			129.2	125.5
		Median		1.0	4.0	4.0
		Min		1	0	0
		Max		1	365	365
		Total missing	6	4	10	28
	No		4 (100.0%)	3 (60.0%)	1 (7.1%)	9 (37.5%)
	Total valid response		4 (100.0%)	5 (100.0%)	14 (100.0%)	24 (100.0%)
	Total missing		2		9	18
Eye examination - Fluorescein Angiography	Yes			1 (25.0%)	10 (76.9%)	12 (52.2%)
		Total valid numeric response (n)	0 (0.0%)	1 (25.0%)	10 (76.9%)	12 (52.2%)
		Mean		1.0	20.9	17.5
		SD			44.5	41.1
		Median		1.0	2.0	1.5
		Min		1	0	0
		Max		1	140	140
		Total missing	6	4	13	30
	No		4 (100.0%)	3 (75.0%)	3 (23.1%)	11 (47.8%)
	Total valid		4 (100.0%)	4 (100.0%)	13 (100.0%)	23 (100.0%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	response					
	Total missing		2	1	10	19
Eye examination - Lipid check	Yes		1 (20.0%)	2 (50.0%)	6 (54.5%)	10 (45.5%)
		Total valid numeric response (n)	1 (20.0%)	2 (50.0%)	6 (54.5%)	10 (45.5%)
		Mean	10.0	2.5	10.5	7.8
		SD		0.7	24.3	18.6
		Median	10.0	2.5	1.0	1.0
		Min	10	2	0	0
		Max	10	3	60	60
		Total missing	5	3	17	32
	No		4 (80.0%)	2 (50.0%)	5 (45.5%)	12 (54.5%)
	Total valid response		5 (100.0%)	4 (100.0%)	11 (100.0%)	22 (100.0%)
	Total missing		1	1	12	20

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	5 (100.0%)	4 (100.0%)	14 (87.5%)	25 (86.2%)
	Diet/nutrition	4 (80.0%)	4 (100.0%)	9 (56.3%)	19 (65.5%)
	Exercise/physical activity	3 (60.0%)	3 (75.0%)	9 (56.3%)	17 (58.6%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Medicines	5 (100.0%)	4 (100.0%)	8 (50.0%)	21 (72.4%)
	Foot care and inspection	1 (20.0%)	4 (100.0%)	2 (12.5%)	7 (24.1%)
	Blood pressure	5 (100.0%)	4 (100.0%)	8 (50.0%)	18 (62.1%)
	Eye care and exams	1 (20.0%)	4 (100.0%)	14 (87.5%)	20 (69.0%)
	Lipid check	4 (80.0%)	4 (100.0%)	5 (31.3%)	14 (48.3%)
	Other	0 (0.0%)	1 (25.0%)	0 (0.0%)	1 (3.4%)
	Total valid response	5 (100.0%)	4 (100.0%)	16 (100.0%)	29 (100.0%)
	Total missing	1	1	7	13

PT 2.11

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is there written information about diabetes available for patients in your main practice?	Yes, and information on eye complications is sufficient	0 (0.0%)	3 (75.0%)	6 (37.5%)	10 (35.7%)
	Yes, but information on eye complications is not sufficient	2 (40.0%)	1 (25.0%)	3 (18.8%)	6 (21.4%)
	Yes, but no information on eye complications is included	1 (20.0%)	0 (0.0%)	0 (0.0%)	1 (3.6%)
	No written information is available for patients	1 (20.0%)	0 (0.0%)	5 (31.3%)	6 (21.4%)
	Don't know/Not sure	1 (20.0%)	0 (0.0%)	2 (12.5%)	5 (17.9%)
	Total Valid Response	5 (100.0%)	4 (100.0%)	16 (100.0%)	28 (100.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total missing	1	1	7	14

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	1 (20.0%)	4 (100.0%)	9 (56.3%)	16 (55.2%)
	Yes, available but not used by staff	1 (20.0%)	0 (0.0%)	0 (0.0%)	2 (6.9%)
	Not available	1 (20.0%)	0 (0.0%)	5 (31.3%)	7 (24.1%)
	Don't know/Not sure	2 (40.0%)	0 (0.0%)	2 (12.5%)	4 (13.8%)
	Total Valid Response	5 (100.0%)	4 (100.0%)	16 (100.0%)	29 (100.0%)
	Total missing	1	1	7	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	0 (0.0%)	4 (100.0%)	9 (56.3%)	14 (48.3%)
	Yes, available but not used by staff	0 (0.0%)	0 (0.0%)	1 (6.3%)	2 (6.9%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Not available	3 (60.0%)	0 (0.0%)	5 (31.3%)	9 (31.0%)
	Don't know/Not sure	2 (40.0%)	0 (0.0%)	1 (6.3%)	4 (13.8%)
	Total Valid Response	5 (100.0%)	4 (100.0%)	16 (100.0%)	29 (100.0%)
	Total missing	1	1	7	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%)	3 (75.0%)	2 (13.3%)	5 (18.5%)
	Mean		5.0	5.0	5.0
	SD		0.0	0.0	0.0
	Median		5.0	5.0	5.0
	Min		5	5	5
	Max		5	5	5
	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	1 (20.0%)	1 (25.0%)	9 (60.0%)	13 (48.1%)
	No standard	2 (40.0%)		3 (20.0%)	6

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	practice, timing varies case by case				(22.2%)
	Don't know/Not sure	1 (20.0%)			1 (3.7%)
	Other	1 (20.0%)		1 (6.7%)	2 (7.4%)
	Total valid response	5 (100.0%)	4 (100.0%)	15 (100.0%)	27 (100.0%)
	Total missing	1	1	8	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 (6.7%)	1 (3.7%)
	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%)	1 (6.7%)	1 (3.7%)
	Mean			70.0	70.0
	SD				
	Median			70.0	70.0
	Min			70	70
	Max			70	70
	As soon as they are diagnosed	2 (40.0%)	4 (100.0%)	10 (66.7%)	17 (63.0%)
	No standard practice, timing varies case by case	1 (20.0%)		2 (13.3%)	4 (14.8%)
	Don't know/Not sure	1 (20.0%)			2 (7.4%)
	Other	1 (20.0%)		1 (6.7%)	2 (7.4%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total valid response	5 (100.0%)	4 (100.0%)	15 (100.0%)	27 (100.0%)
	Total missing	1	1	8	15

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	1 (20.0%)	4 (100.0%)	12 (80.0%)	19 (70.4%)
	Every two years	1 (20.0%)	0 (0.0%)	2 (13.3%)	3 (11.1%)
	More than every two years	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.7%)
	Only when symptoms are present	1 (20.0%)	0 (0.0%)	0 (0.0%)	1 (3.7%)
	Other	1 (20.0%)	0 (0.0%)	1 (6.7%)	2 (7.4%)
	Don't know/Not sure	1 (20.0%)	0 (0.0%)	0 (0.0%)	1 (3.7%)
	Total Valid Response	5 (100.0%)	4 (100.0%)	15 (100.0%)	27 (100.0%)
	Total missing	1	1	8	15

PT 2.16

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you screen patients for DR?	Yes	1 (20.0%)	3 (75.0%)	15 (93.8%)	22 (75.9%)
	No	4 (80.0%)	1 (25.0%)	1 (6.3%)	7 (24.1%)
	Total valid response	5 (100.0%)	4 (100.0%)	16 (100.0%)	29 (100.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total missing	1	1	7	13
Where do you screen patients?	In clinic		2 (66.7%)	14 (93.3%)	17 (77.3%)
	Outreach	1 (100.0%)	1 (33.3%)	2 (13.3%)	6 (27.3%)
	Other			1 (6.7%)	1 (4.5%)
	Total valid response	1 (100.0%)	3 (100.0%)	15 (100.0%)	22 (100.0%)
	Total missing	5	2	8	20

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	4 (80.0%)	3 (75.0%)	13 (81.3%)	22 (81.5%)
	Patient's age	4 (80.0%)	1 (25.0%)	11 (68.8%)	18 (66.7%)
	Patient's gender	1 (20.0%)	0 (0.0%)	4 (25.0%)	5 (18.5%)
	Presence of comorbidities such as hypertension, etc.	4 (80.0%)	3 (75.0%)	8 (50.0%)	17 (63.0%)
	High glucose levels	4 (80.0%)	3 (75.0%)	11 (68.8%)	20 (74.1%)
	Ability or inability to pay	0 (0.0%)	0 (0.0%)	1 (6.3%)	1 (3.7%)
	Patient educational level	0 (0.0%)	0 (0.0%)	1 (6.3%)	1 (3.7%)
	Patient adherence to recommendations	2 (40.0%)	1 (25.0%)	3 (18.8%)	8 (29.6%)
	None of the above	0 (0.0%)	1 (25.0%)	0 (0.0%)	1 (3.7%)
	Not applicable	1 (20.0%)	0 (0.0%)	2 (12.5%)	3 (11.1%)
	Total valid response	5 (100.0%)	4 (100.0%)	16 (100.0%)	27 (100.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total missing	1	1	7	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	2 (40.0%)	0 (0.0%)	10 (62.5%)	14 (53.8%)
	Proximity to care	1 (20.0%)	0 (0.0%)	3 (18.8%)	4 (15.4%)
	Long wait time for appointment	4 (80.0%)	3 (100.0%)	7 (43.8%)	16 (61.5%)
	Long wait time on the day of visit	2 (40.0%)	1 (33.3%)	1 (6.3%)	4 (15.4%)
	Referral process	1 (20.0%)	1 (33.3%)	9 (56.3%)	11 (42.3%)
	Recommended treatments are not available	1 (20.0%)	0 (0.0%)	2 (12.5%)	3 (11.5%)
	Lack of knowledge and/or awareness	3 (60.0%)	2 (66.7%)	10 (62.5%)	16 (61.5%)
	Patients fear of treatment/results	1 (20.0%)	1 (33.3%)	2 (12.5%)	4 (15.4%)
	Patients they are a burden on family/friends	1 (20.0%)	0 (0.0%)	3 (18.8%)	4 (15.4%)
	Limited access to diabetes specialists	3 (60.0%)	0 (0.0%)	2 (12.5%)	5 (19.2%)
	Limited access to eye specialists	3 (60.0%)	1 (33.3%)	5 (31.3%)	10 (38.5%)
	Patients feel eye complications are unlikely	0 (0.0%)	1 (33.3%)	4 (25.0%)	6 (23.1%)
	Patients feel eye exams are not	1 (20.0%)	0 (0.0%)	5 (31.3%)	7 (26.9%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	important				
	Patients have competing responsibilities and priorities	1 (20.0%)	1 (33.3%)	4 (25.0%)	6 (23.1%)
	Clinic too small or lack necessary equipment/staff	1 (20.0%)	0 (0.0%)	1 (6.3%)	2 (7.7%)
	Other	2 (40.0%)	0 (0.0%)	2 (12.5%)	4 (15.4%)
	Total valid response	5 (100.0%)	3 (100.0%)	16 (100.0%)	26 (100.0%)
	Total missing	1	2	7	16

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	0 (0.0%)	2 (50.0%)	6 (37.5%)	9 (33.3%)
	No	4 (80.0%)	2 (50.0%)	8 (50.0%)	15 (55.6%)
	Don't know/Not sure	1 (20.0%)	0 (0.0%)	2 (12.5%)	3 (11.1%)
	Total Valid Response	5 (100.0%)	4 (100.0%)	16 (100.0%)	27 (100.0%)
	Total missing	1	1	7	15

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	Yes	1 (20.0%)	4 (100.0%)	10 (62.5%)	17 (63.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
her general practitioner, ophthalmologist, podiastrist?					
	No	3 (60.0%)	0 (0.0%)	4 (25.0%)	7 (25.9%)
	Don't know/Not sure	1 (20.0%)	0 (0.0%)	2 (12.5%)	3 (11.1%)
	Total Valid Response	5 (100.0%)	4 (100.0%)	16 (100.0%)	27 (100.0%)
	Total missing	1	1	7	15

PT 3.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Please indicate your age:	18 - 29	1 (20.0%)		1 (6.3%)	3 (11.1%)
	30 - 39	2 (40.0%)	2 (50.0%)	3 (18.8%)	7 (25.9%)
	40 - 49	2 (40.0%)		4 (25.0%)	7 (25.9%)
	50 - 59		2 (50.0%)	4 (25.0%)	6 (22.2%)
	60 - 69			2 (12.5%)	2 (7.4%)
	70 - 79			2 (12.5%)	2 (7.4%)
	Total valid response	5 (100.0%)	4 (100.0%)	16 (100.0%)	27 (100.0%)
	Total missing	1	1	7	15
What is your gender?	Female	4 (80.0%)	4 (100.0%)	6 (37.5%)	15 (55.6%)
	Male	1 (20.0%)		10 (62.5%)	12 (44.4%)
	Total valid response	5 (100.0%)	4 (100.0%)	16 (100.0%)	27 (100.0%)
	Total missing	1	1	7	15
What is your highest level of	College/University			1 (6.3%)	1 (3.7%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
education completed?					
	Graduate or advanced degree (e.g. PhD, MD, etc)	5 (100.0%)	4 (100.0%)	15 (93.8%)	26 (96.3%)
	Total valid response	5 (100.0%)	4 (100.0%)	16 (100.0%)	27 (100.0%)
	Total missing	1	1	7	15

PT 4.1

Question	Response	Ophthalmologist
What percentage of your patients have diabetic retinopathy	Total valid numeric response (n)	16
	Mean	16.8
	SD	25.3
	Median	10.0
	Min	0
	Max	100
	Total missing	7

PT 4.2

Question	Response	Ophthalmologist
What percentage of your patients have diabetic macular edema?	Total valid numeric response (n)	16
	Mean	7.2
	SD	8.1
	Median	4.5
	Min	0
	Max	23
	Total missing	7

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	Less than 1 week	1 (6.7%)

Question	Response	Ophthalmologist
disease in your practice?		
	More than 1 week but less than 1 month	9 (60.0%)
	More than 1 month but less than 2 months	1 (6.7%)
	More than 2 months but less than 3 months	2 (13.3%)
	More than 3 months but less than 6 months	1 (6.7%)
	Do not take appointment	1 (6.7%)
	Total Valid Response	15 (100.0%)
	Total missing	8

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	3 (20.0%)
	More than 1 week but less than 1 month	2 (13.3%)
	More than 1 month but less than 2 months	1 (6.7%)
	More than 2 months but less than 3 months	1 (6.7%)
	More than 3 months but less than 6 months	1 (6.7%)
	There is not wait, diagnosis is given when screened	7 (46.7%)
	Total Valid Response	15 (100.0%)
	Total missing	8

PT 4.5

Type of Treatment	Question	Response/time	Ophthalmologist
Laser photocoagulation	Is the treatment available?	Available within country	4 (26.7%)
		Available locally	9 (60.0%)
		Available in practice	6 (40.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Total valid response	15 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	6 (54.5%)
		Mean	1.5
		SD	0.5
		Median	1.5
		Min	1
		Max	2
		Don't know/not sure	4 (36.4%)
		Not applicable	1 (9.1%)
		Total valid response	11 (100.0%)
		Total missing	12
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	6 (50.0%)
		Mean	2.0
		SD	1.5
		Median	1.0
		Min	1
		Max	4
		Don't know/not sure	5 (41.7%)
		Not applicable	1 (8.3%)
		Total valid response	12 (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 (53.8%)
		Mean	2.4
		SD	1.5
		Median	2.0

Type of Treatment	Question	Response/time	Ophthalmologist
		Min	1
		Max	4
		Don't know/not sure	5 (38.5%)
		Not applicable	1 (7.7%)
		Total valid response	13 (100.0%)
		Total missing	10
Anti-VEGF therapies	Is the treatment available?	Available within country	5 (33.3%)
		Available locally	8 (53.3%)
		Available in practice	6 (40.0%)
		Total valid response	15 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	4 (36.4%)
		Mean	3.8
		SD	0.5
		Median	4.0
		Min	3
		Max	4
		Don't know/not sure	4 (36.4%)
		Not applicable	3 (27.3%)
		Total valid response	11 (100.0%)
		Total missing	12
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	4 (33.3%)
		Mean	3.3
		SD	1.0
		Median	3.5
		Min	2

Type of Treatment	Question	Response/time	Ophthalmologist
		Max	4
		Don't know/not sure	5 (41.7%)
		Not applicable	3 (25.0%)
		Total valid response	12 (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)	5 (38.5%)
		Mean	5.2
		SD	1.8
		Median	4.0
		Min	4
		Max	8
		Don't know/not sure	5 (38.5%)
		Not applicable	3 (23.1%)
		Total valid response	13 (100.0%)
		Total missing	10
Intravitreal steroid	Is the treatment available?	Available within country	4 (26.7%)
		Available locally	5 (33.3%)
		Available in practice	6 (40.0%)
		Not available	2 (13.3%)
		Total valid response	15 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	4 (40.0%)
		Mean	2.8
		SD	1.0
		Median	2.5
		Min	2

Type of Treatment	Question	Response/time	Ophthalmologist
		Max	4
		Don't know/not sure	3 (30.0%)
		Not applicable	3 (30.0%)
		Total valid response	10 (100.0%)
		Total missing	13
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	3 (27.3%)
		Mean	3.0
		SD	1.0
		Median	3.0
		Min	2
		Max	4
		Don't know/not sure	5 (45.5%)
		Not applicable	3 (27.3%)
		Total valid response	11 (100.0%)
		Total missing	12
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	3 (27.3%)
		Mean	4.0
		SD	0.0
		Median	4.0
		Min	4
		Max	4
		Don't know/not sure	5 (45.5%)
		Not applicable	3 (27.3%)
		Total valid response	11 (100.0%)
		Total missing	12
Uncomplicated vitrectomy	Is the treatment available?	Available within country	5 (33.3%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Available locally	8 (53.3%)
		Available in practice	7 (46.7%)
		Total valid response	15 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	6 (50.0%)
		Mean	6.5
		SD	8.7
		Median	4.0
		Min	1
		Max	24
		Don't know/not sure	3 (25.0%)
		Not applicable	3 (25.0%)
		Total valid response	12 (100.0%)
		Total missing	11
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	5 (38.5%)
		Mean	3.8
		SD	0.4
		Median	4.0
		Min	3
		Max	4
		Don't know/not sure	5 (38.5%)
		Not applicable	3 (23.1%)
		Total valid response	13 (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)	4 (33.3%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Mean	3.8
		SD	0.5
		Median	4.0
		Min	3
		Max	4
		Don't know/not sure	5 (41.7%)
		Not applicable	3 (25.0%)
		Total valid response	12 (100.0%)
		Total missing	11
Complex vitreo-retinal surgery	Is the treatment available?	Available within country	5 (33.3%)
		Available locally	7 (46.7%)
		Available in practice	6 (40.0%)
		Total valid response	15 (100.0%)
		Total missing	8
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	5 (45.5%)
		Mean	8.0
		SD	8.9
		Median	4.0
		Min	4
		Max	24
		Don't know/not sure	3 (27.3%)
		Not applicable	3 (27.3%)
		Total valid response	11 (100.0%)
		Total missing	12
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	4 (33.3%)
		Mean	4.0

Type of Treatment	Question	Response/time	Ophthalmologist
		SD	0.0
		Median	4.0
		Min	4
		Max	4
		Don't know/not sure	5 (41.7%)
		Not applicable	3 (25.0%)
		Total valid response	12 (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)	3 (25.0%)
		Mean	4.3
		SD	0.6
		Median	4.0
		Min	4
		Max	5
		Don't know/not sure	6 (50.0%)
		Not applicable	3 (25.0%)
		Total valid response	12 (100.0%)
		Total missing	11

PT 4.6

Question	Response	Ophthalmologist
Do you personally administer treatment for diabetic retinopathy?	Yes	11 (73.3%)
	No	4 (26.7%)
	Total valid response	15 (100.0%)
	Total missing	8
Who administer it?	Another provider in your practice	3 (75.0%)
	Refer to a provider at another facility	1 (25.0%)

Question	Response	Ophthalmologist
	Total valid response	4 (100.0%)
	Total missing	19

PT 4.7

Question	Response	Ophthalmologist
Do any of the following influence how you treat diabetic retinopathy or diabetic macular edema?	Diabetes duration	6 (60.0%)
	Patient's age	4 (40.0%)
	Presence of comorbidities such as hypertension, etc.	5 (50.0%)
	High glucose levels	5 (50.0%)
	Ability or inability to pay	2 (20.0%)
	Insurance restrictions	1 (10.0%)
	Patient adherence to recommendations	4 (40.0%)
	None of the above	3 (30.0%)
	Not applicable	1 (10.0%)
	Total valid response	10 (100.0%)
	Total missing	13

PT 4.8

Question	Response	Ophthalmologist
Do you treat diabetic retinopathy and diabetic macular edema based on:	Anatomical outcomes	1 (7.1%)
	Both	12 (85.7%)
	Other	1 (7.1%)
	Total Valid Response	14 (100.0%)
	Total missing	9

PT 4.9

Question	Response	Ophthalmologist
How are your patients with diabetes screened for diabetic eye disease?	Fundoscopy dilated	13 (92.9%)
	Retinal photo	7 (50.0%)

Question	Response	Ophthalmologist
	Optical Coherence Tomography	12 (85.7%)
	Fluorescein Angiography	9 (64.3%)
	Other	1 (7.1%)
	Total valid response	14 (100.0%)
	Total missing	9

PT 4.10

Question	Response	Ophthalmologist
In your opinion, do the majority of your patients present:	In time for screening	1 (7.1%)
	When visual problems have already occurred	12 (85.7%)
	Too late for effective treatment	1 (7.1%)
	Total Valid Response	14 (100.0%)
	Total missing	9

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	14 (93.3%)
	No	1 (6.7%)
	Total valid response	15 (100.0%)
	Total missing	8
If yes, When was your last training?	Five or more years ago	1 (7.7%)
	Greater than 1 year ago but less than 5 years	9 (69.2%)
	Within the past year	3 (23.1%)
	Total valid response	13 (100.0%)
	Total missing	10

PT 4.12

Question	Response	Ophthalmologist

Question	Response	Ophthalmologist
Would you be interested in online education and certification on DME, Angiogenesis and Anti-VEGF therapies?	Yes	9 (60.0%)
	No	6 (40.0%)
	Total Valid Response	15 (100.0%)
	Total missing	8

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 (14.3%)
	Health fairs for people with diabetes	3 (21.4%)
	Mobile screening centers	2 (14.3%)
	At vision centers	3 (21.4%)
	Other	3 (21.4%)
	Not done	2 (14.3%)
	Don't know/Not sure	3 (21.4%)
	Total valid response	14 (100.0%)
	Total missing	9

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	7 (50.0%)
	Late diagnosis	9 (64.3%)
	Referral pathways	6 (42.9%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	4 (28.6%)
	No universal guidelines on referral/screening	3 (21.4%)
	No universal guidelines on how to treat	1 (7.1%)
	No universal guideline on when to treat	1 (7.1%)
	Current available therapies not effective	2 (14.3%)

Question	Response	Ophthalmologist
	Government/insurance not able to cover patient costs	3 (21.4%)
	Multi-disciplinary team integration is poor	5 (35.7%)
	Other	1 (7.1%)
	Total valid response	14 (100.0%)
	Total missing	9

EXP 1

Question	Response	Without DED (%)	With DED (%)	With DME (%)
Which of the following complications of diabetes do you have?	Cardiovascular disease/Stroke	19 (30.6%)	11 (40.7%)	3 (37.5%)
	Loss of feeling in hands or toes (neuropathy)	18 (29.0%)	16 (59.3%)	2 (25.0%)
	Vision loss	13 (21.0%)	10 (37.0%)	6 (75.0%)
	Amputation	3 (4.8%)	0 (0.0%)	1 (12.5%)
	Broken bones or fractures	1 (1.6%)	2 (7.4%)	0 (0.0%)
	Irritable bowel disease	6 (9.7%)	4 (14.8%)	0 (0.0%)
	Kidney disease	7 (11.3%)	5 (18.5%)	0 (0.0%)
	Foot ulcers	0 (0.0%)	2 (7.4%)	0 (0.0%)
	Other	3 (4.8%)	7 (25.9%)	1 (12.5%)
	None	24 (38.7%)	2 (7.4%)	1 (12.5%)
	Don't know/Not sure	6 (9.7%)	3 (11.1%)	0 (0.0%)
	Total Valid Response	62 (100.0%)	27 (100.0%)	8 (100.0%)
	Total missing	13	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".
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	26 (43.3%)	17 (65.4%)	6 (75.0%)

Limitations	Without DED n (%)	With DED n (%)	With DME n (%)
Impairment or health problem			
Diabetes	27 (90.0%)	18 (90.0%)	6 (85.7%)
Walking problem	20 (87.0%)	13 (72.2%)	4 (66.7%)
Arthritis/rheumatism	16 (66.7%)	10 (58.8%)	4 (66.7%)
Back or neck problem	16 (66.7%)	10 (58.8%)	2 (33.3%)
Eye/vision problem	14 (63.6%)	13 (76.5%)	6 (85.7%)
Hypertension/high blood pressure	12 (60.0%)	10 (58.8%)	6 (100.0%)
Heart problem	9 (45.0%)	8 (47.1%)	2 (33.3%)
Hearing problem	6 (33.3%)	4 (26.7%)	1 (16.7%)
Fractures, bone/joint injury	5 (29.4%)	3 (21.4%)	2 (33.3%)
Mental or emotional health	6 (28.6%)	8 (53.3%)	3 (42.9%)
Stroke problem	5 (27.8%)	1 (6.7%)	2 (33.3%)
Lung/breathing problem	3 (17.6%)	6 (40.0%)	2 (28.6%)
Cancer	3 (16.7%)	3 (21.4%)	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	18 (31.6%)	4 (16.0%)	0 (0.0%)
Self-rated health: Poor	39 (68.4%)	21 (84.0%)	8 (100.0%)
Physically unhealthy days	24 (57.1%)	17 (89.5%)	3 (50.0%)
Mentally unhealthy days	15 (37.5%)	15 (78.9%)	5 (71.4%)
Unhealthy days	28 (66.7%)	19 (100.0%)	5 (83.3%)
Activity limitation days	14 (41.2%)	8 (50.0%)	3 (50.0%)

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	84 (80.0%)	28 (75.7%)	51 (81.0%)

Item	Response	All respondents	Respondents with Type I diabetes	Respondents with Type II diabetes
	Oral medicine	53 (50.5%)	5 (13.5%)	47 (74.6%)
	Exercise	41 (39.0%)	16 (43.2%)	25 (39.7%)
	Insulin	77 (73.3%)	35 (94.6%)	39 (61.9%)
	Natural/Herbal medicine	12 (11.4%)	4 (10.8%)	8 (12.7%)
	None of the above	1 (1.0%)	1 (2.7%)	

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	22 (36.7%)	8 (28.6%)	3 (37.5%)
	Working without pay at home (e.g. housework, farming)	2 (3.3%)	1 (3.6%)	0 (0.0%)
	Volunteering	1 (1.7%)	2 (7.1%)	0 (0.0%)
	Retired	33 (55.0%)	14 (50.0%)	5 (62.5%)
	Not working	2 (3.3%)	3 (10.7%)	0 (0.0%)
	Total Valid Response	60 (100.0%)	28 (100.0%)	8 (100.0%)
	Total missing	15	0	0
Do you receive assistance from the government?	Income assistance	1 (1.8%)	3 (11.1%)	0 (0.0%)
	Medical assistance	7 (12.5%)	6 (22.2%)	1 (12.5%)
	Food assistance	0 (0.0%)	1 (3.7%)	0 (0.0%)
	Pension assistance	5 (8.9%)	4 (14.8%)	1 (12.5%)
	None of the above	45 (80.4%)	19 (70.4%)	6 (75.0%)
	Total valid response	56 (100.0%)	27 (100.0%)	8 (100.0%)
	Total missing	19	1	0
Did you have trouble paying for food at anytime during the past year?	Yes	15 (25.0%)	4 (15.4%)	0 (0.0%)
	No	45 (75.0%)	22 (84.6%)	8 (100.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	Total Valid Response	60 (100.0%)	26 (100.0%)	8 (100.0%)
	Total missing	15	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 5.2: Age group 18-39 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	4 (100.0%)	3 (75.0%)	1 (100.0%)
	Volunteering	0 (0.0%)	1 (25.0%)	0 (0.0%)
	Total Valid Response	4 (100.0%)	4 (100.0%)	1 (100.0%)
	Total missing	4	0	0
Do you receive assistance from the government?	Income assistance	1 (25.0%)	2 (66.7%)	0 (0.0%)
	Medical assistance	1 (25.0%)	1 (33.3%)	0 (0.0%)
	None of the above	3 (75.0%)	1 (33.3%)	1 (100.0%)
	Total valid response	4 (100.0%)	3 (100.0%)	1 (100.0%)
	Total missing	4	1	0
Did you have trouble paying for food at anytime during the past year?	Yes	1 (25.0%)	0 (0.0%)	0 (0.0%)
	No	3 (75.0%)	4 (100.0%)	1 (100.0%)
	Total Valid Response	4 (100.0%)	4 (100.0%)	1 (100.0%)
	Total missing	4	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	12 (63.2%)	3 (33.3%)	1 (100.0%)
	Working without pay at	2 (10.5%)	1 (11.1%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	home (e.g. housework, farming)			
	Retired	4 (21.1%)	2 (22.2%)	0 (0.0%)
	Not working	1 (5.3%)	3 (33.3%)	0 (0.0%)
	Total Valid Response	19 (100.0%)	9 (100.0%)	1 (100.0%)
	Total missing	6	0	0
Do you receive assistance from the government?	Medical assistance	2 (10.5%)	1 (11.1%)	0 (0.0%)
	Pension assistance	0 (0.0%)	1 (11.1%)	0 (0.0%)
	None of the above	17 (89.5%)	8 (88.9%)	1 (100.0%)
	Total valid response	19 (100.0%)	9 (100.0%)	1 (100.0%)
	Total missing	6	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	5 (26.3%)	2 (25.0%)	0 (0.0%)
	No	14 (73.7%)	6 (75.0%)	1 (100.0%)
	Total Valid Response	19 (100.0%)	8 (100.0%)	1 (100.0%)
	Total missing	6	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 5.4: Age group 60-79 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	6 (16.2%)	2 (13.3%)	1 (25.0%)
	Volunteering	1 (2.7%)	1 (6.7%)	0 (0.0%)
	Retired	29 (78.4%)	12 (80.0%)	3 (75.0%)
	Not working	1 (2.7%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	37 (100.0%)	15 (100.0%)	4 (100.0%)
	Total missing	5	0	0
Do you receive assistance from the government?	Income assistance	0 (0.0%)	1 (6.7%)	0 (0.0%)
	Medical	4 (12.1%)	4 (26.7%)	1 (25.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	assistance			
	Food assistance	0 (0.0%)	1 (6.7%)	0 (0.0%)
	Pension assistance	5 (15.2%)	3 (20.0%)	1 (25.0%)
	None of the above	25 (75.8%)	10 (66.7%)	2 (50.0%)
	Total valid response	33 (100.0%)	15 (100.0%)	4 (100.0%)
	Total missing	9	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	9 (24.3%)	2 (14.3%)	0 (0.0%)
	No	28 (75.7%)	12 (85.7%)	4 (100.0%)
	Total Valid Response	37 (100.0%)	14 (100.0%)	4 (100.0%)
	Total missing	5	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?	Retired	0 (0.0%)	0 (0.0%)	2 (100.0%)
	Total Valid Response	0 (0.0%)	0 (0.0%)	2 (100.0%)
Do you receive assistance from the government?	None of the above	0 (0.0%)	0 (0.0%)	2 (100.0%)
	Total valid response	0	0	2 (100.0%)
	Total missing	0	0	0
Did you have trouble paying for food at anytime during the past year?	No	0 (0.0%)	0 (0.0%)	2 (100.0%)
	Total Valid Response	0 (0.0%)	0 (0.0%)	2 (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".

EXP 6

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
All respondents		111 (100%)	38 (34.2%)	65 (58.6%)	28 (25.2%)	8 (7.2%)
Gender	Male	50 (53.2%)	9 (18.0%)	38 (76.0%)	14 (28.0%)	3 (6.0%)
	Female	44 (46.8%)	23 (52.3%)	20 (45.5%)	13 (29.5%)	4 (9.1%)
	Total Missing	17	6	7	1	1
Age	18-39 yrs	13 (11.7%)	12 (92.3%)	1 (7.7%)	4 (30.8%)	1 (7.7%)
	40-59 yrs	35 (31.5%)	16 (45.7%)	17 (48.6%)	9 (25.7%)	1 (2.9%)
	60-79 yrs	61 (55.0%)	10 (16.4%)	46 (75.4%)	15 (24.6%)	4 (6.6%)
	80 yrs and over	2 (1.8%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	2 (100.0%)
Time since diagnosis	Within the last year	6 (5.6%)	1 (16.7%)	2 (33.3%)	0 (0.0%)	0 (0.0%)
	1 - 5 years ago	12 (11.2%)	0 (0.0%)	11 (91.7%)	0 (0.0%)	0 (0.0%)
	6 - 10 years ago	12 (11.2%)	1 (8.3%)	9 (75.0%)	1 (8.3%)	2 (16.7%)
	11 - 15 years ago	19 (17.8%)	3 (15.8%)	16 (84.2%)	4 (21.1%)	1 (5.3%)
	16 - 20 years ago	15 (14.0%)	4 (26.7%)	11 (73.3%)	4 (26.7%)	2 (13.3%)
	21 years ago or longer	42 (39.3%)	28 (66.7%)	14 (33.3%)	19 (45.2%)	3 (7.1%)
	Don't know/Not sure	1 (0.9%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	4	0	2	0	0
Control of Diabetes	Controlled	74 (71.8%)	28 (37.8%)	45 (60.8%)	19 (25.7%)	6 (8.1%)
	Not controlled	28 (27.2%)	8 (28.6%)	17 (60.7%)	9 (32.1%)	2 (7.1%)
	Don't know/Not sure	1 (1.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	8	2	2	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	16 (57.1%)	6 (75.0%)
	No	10 (35.7%)	2 (25.0%)
	Don't know/Not sure	2 (7.1%)	0 (0.0%)
	Total valid response	28 (100.0%)	8 (100.0%)
What treatment did you receive?	Laser	10 (62.5%)	6 (100.0%)
	Anti-VEGF	2 (12.5%)	2 (33.3%)
	Surgery	4 (25.0%)	4 (66.7%)
	Other	6 (37.5%)	0 (0.0%)
	Total valid response	16 (100.0%)	6 (100.0%)
	Total missing	12	2
Did you complete the treatment?	Yes	3 (18.8%)	3 (50.0%)
	No	1 (6.3%)	0 (0.0%)
	Still receiving treatment	12 (75.0%)	3 (50.0%)
	Total valid response	16 (100.0%)	6 (100.0%)
	Total missing	12	2
Do you feel that the treatment worked?	Yes, and vision improved	6 (40.0%)	1 (16.7%)
	Yes, but vision stayed the same	4 (26.7%)	3 (50.0%)
	Still waiting to know	2 (13.3%)	2 (33.3%)
	Don't know/Not sure	3 (20.0%)	0 (0.0%)
	Total valid response	15 (100.0%)	6 (100.0%)
	Total missing	13	2
What is/are the reason(s) that you did not complete the treatment?	Total valid response	0 (0.0%)	0 (0.0%)
	Total missing	28	8
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	8 (80.0%)	0 (0.0%)


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