

The Diabetic Retinopathy Barometer Report

Ireland



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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 Ireland.

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

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

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

Goal

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

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

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

Background

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

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, related national and international policies 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.

Respondents from each country were grouped into regions as defined by the WHO and into the WBIGs.

Study Populations

The people with diabetes participating in the patient survey were self-selected, predominantly from patient organisations. Therefore, this 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 caution should be applied when interpreting the results.

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

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

For the purpose of understanding the impact of the progression of DED, responses to the patient survey, beyond “all respondents”, are reported by 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% reported to have been diagnosed with DED and a further 7.6% with DME.

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

Introduction

Ireland Study

Demographic Characteristics^{1,2}

Ireland is estimated to be the twentieth most populous country in the European Union and twenty-fifth most populous country in Europe with a population of approximately 4.6 million.

According to most recent statistics, it is estimated that the population under the age of 15 makes up ~22% of the total population while those over the age of 65 make up ~14%.

Unlike many countries of the European Union, Ireland's population is expected to increase. However, the population distribution will change in a way that those aged 65 years or older will increase and those 14 years and younger will decrease. By 2050, those under the age of 15 will only make up 18% of the total population while those over the age of 65 will make up 26% of the total population. In just over thirty years' time, the population group aged 65 years or older will double, increasing from 631,000 to ~1.4 million.

Diabetes Profile³

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 IDF region (after Africa), there are still many countries with relatively high diabetes prevalence rates.

Ireland has over 171,800 (135.8-222.9±) adults living with diabetes, which accounts to ~0.3% of people living with diabetes in this region. The diabetes national prevalence in Ireland (20 – 79 years) is 5.3% (4.2-6.8±) and the diabetes age-adjusted comparative prevalence is 4.4% (3.4-6.0±). It is important to note that Ireland is the seventh country in the world for the number of new cases of type 1 diabetes for people under 15 years of age at an estimated 26.8 cases per 100,000 population per year.

Deaths attributed to diabetes in Ireland in 2015 were 1,187, which accounts to ~0.2% of the diabetes related deaths experienced in this region. The estimated number of undiagnosed cases was 64,800 (70.4-115.5±).

Study Populations: Ireland

As reported by 84 respondents with diabetes in Ireland, 20% were diagnosed with DED and a further 2.4% with DME.

Thirty-nine health care professionals completed the survey in Ireland. Of these, 11 were diabetes specialist providers (28%), nine were ophthalmologists (23%), and one was a primary care provider (2.6%). The remaining respondents were optometrists, nurses, health educators or other types of professionals.

The DR Barometer Study: Ireland Overview

The DR Barometer study was conducted in 41 countries. In Ireland, 84 adults with diabetes and 39 health care professionals provided new information about the experiences of living with, managing and treating diabetes, DR and DME.

28%

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



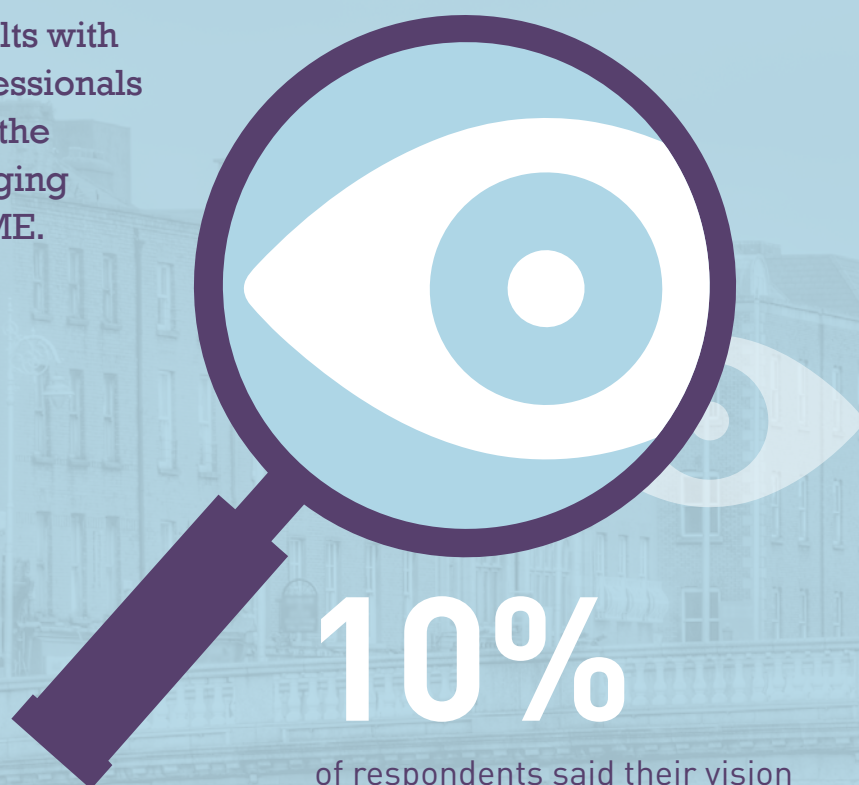
40%

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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10%

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





50%

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



100%

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



26%

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



17%

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



Ireland

DR Barometer Findings:

Adults with Diabetes

Key Demographic Characteristics

Eighty-four adults with diabetes completed the patients' survey in Ireland: 70% were female and 30% were male.

Sixty-eight percent lived in an urban setting and 32% in a non-urban setting (see Appendix Table 4.2).

The education levels of all respondents were as follows: 1.4% of respondents were educated to a primary school level, 31% to a secondary school level, 31% to a college or university level, and 37% to a graduate or post-graduate level (see Appendix Table 4.3).

Sixty-seven percent of all respondents were in paid employment, 4.3% were retired, and 14% were not working (see Appendix Table 4.4).

Most respondents (49%) were aged between 18 and 39 years (45% were 40-59 years and 6.0% were 60-79 years). Ninety-four percent were of traditional working age (18- 59 years) (see Table 1).

Of the respondents in Ireland, 71% had been diagnosed with type 1 diabetes and 28% with type 2 diabetes. A further 1.2% of respondents were either unsure of or did not know their type of diabetes (see Appendix Table 2.1).

Twenty percent of respondents (n=17) had been diagnosed with DED and a further 2.4% (n=2) with DME.

Ten percent of those surveyed were diagnosed with diabetes within the last year, 1 - 5 years ago (16%), 6 - 10 years ago (16%), 11 - 15 years ago (11%), 16 - 20 years ago (19%) and 21 years ago or more (28%) (see Appendix Table 2.2).

Amongst 18 to 39-year-olds, 90% had type 1 and 9.8% had type 2 diabetes. In the 40-59 age group, 55% had type 1 and 40% had type 2 diabetes. Twenty percent of 60-79-year-olds had type 1 diabetes and 80% had type 2.

In people aged 18-39 years, 15% had DED and 2.4% had DME, this increased to 24% for DED and DME remained the same (at 2.6%) in those aged 40-59 years. For people aged 60-79 years 40% had DED and no one had DME.

An important trend noted in the findings was that generally the longer the time since diagnoses the greater the likelihood to be diagnosed with DED.

In those diagnosed within the last five years, no one had DED, this increased to 23% of those 6-10 years since diagnosis. The proportion with DED increased again to 33% for those 11-15 years since diagnosis. Thirty-five percent of respondents that had been diagnosed 21 years ago or longer had DED. All respondents with DME were within the subgroup of respondents with 21 plus years since diagnosis and they accounted for 8.7% of this subgroup.

While most (75%) respondents reported that their diabetes was well controlled there were almost one in four who felt that this was not the case. For those who felt their diabetes was controlled, 26% had DED, and 3.5% had DME and where their condition was not well-controlled 11% had DED and no one 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		84 (100.0%)	59 (70.2%)	23 (27.4%)	17 (20.2%)	2 (2.4%)
Gender	Male	21 (29.6%)	15 (71.4%)	5 (23.8%)	6 (28.6%)	0 (0.0%)
	Female	50 (70.4%)	35 (70.0%)	15 (30.0%)	11 (22.0%)	2 (4.0%)
	Total Missing	13	9	3	0	0
Age	18-39 yrs.	41 (48.8%)	37 (90.2%)	4 (9.8%)	6 (14.6%)	1 (2.4%)
	40-59 yrs.	38 (45.2%)	21 (55.3%)	15 (39.5%)	9 (23.7%)	1 (2.6%)
	60-79 yrs.	5 (6.0%)	1 (20.0%)	4 (80.0%)	2 (40.0%)	0 (0.0%)
Time since diagnosis	Within the last year	8 (9.9%)	5 (62.5%)	2 (25.0%)	0 (0.0%)	0 (0.0%)
	1 - 5 yrs.	13 (16.0%)	4 (30.8%)	9 (69.2%)	0 (0.0%)	0 (0.0%)
	6 - 10 yrs.	13 (16.0%)	8 (61.5%)	5 (38.5%)	3 (23.1%)	0 (0.0%)
	11 - 15 yrs.	9 (11.1%)	6 (66.7%)	3 (33.3%)	3 (33.3%)	0 (0.0%)
	16 - 20 yrs.	15 (18.5%)	12 (80.0%)	3 (20.0%)	3 (20.0%)	0 (0.0%)
	21 yrs. plus	23 (28.4%)	22 (95.7%)	0 (0.0%)	8 (34.8%)	2 (8.7%)
	Total Missing	3	2	1	0	0
Control of Diabetes	Controlled	57 (75.0%)	39 (68.4%)	17 (29.8%)	15 (26.3%)	2 (3.5%)
	Not controlled	18 (23.7%)	15 (83.3%)	3 (16.7%)	2 (11.1%)	0 (0.0%)
	Don't know/ Not sure	1 (1.3%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	8	5	2	0	0
	Don't know/ Not sure	7 (2.6%)	2 (28.6%)	4 (57.1%)	1 (14.3%)	2 (28.6%)
	Total Missing	25	12	12	1	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

Ninety-eight percent of those surveyed saw a health care professional for their diabetes, with 88% seeing a diabetes specialist (average number of visits was 2.4 times per year) and 7.9% seeing a general or family doctor (average number of visits was 2.5 times per year) (see Appendix Table 2.3.1 and 2.3.2).

People were informed about their condition through a variety of channels. Ninety-one percent received information from a doctor or nurse, 67% from a diabetes organisation or other health organisation, 65% from a nutritionist or dietician, and the internet was an important source of information for over half of the respondents (59%) (see Table 2 and Appendix Table 2.4).

Table 2: Source of information regarding diabetes

Information Source	All Respondents (n=78)
Doctor or nurse	71 (91.0%)
Diabetes organisation or other health organisation	52 (66.7%)
Nutritionist or dietician	51 (65.4%)
Internet	46 (59.0%)
Social media (e.g. Facebook, Twitter, blogs)	32 (41.0%)
Health educator	18 (23.1%)
Pharmacist	18 (23.1%)
Family/Friends/Neighbours	14 (17.9%)
TV/Radio/Newspaper/Magazines	7 (9.0%)
None of the above	1 (1.3%)

A range of strategies was used by respondents to manage their diabetes. For those with type 1 diabetes, apart from insulin, 36% managed their diabetes with diet and 24% with exercise. Of the respondents with type 2 diabetes, 81% reported that they managed their condition with diet, 76% with oral medicine, 62% with exercise, and 19% with insulin.

Twenty-three percent of respondents were enrolled in diabetes management programmes and all respondents said the programme included information on the importance of screening for diabetic eye complications (see Appendix Table 2.6).

The nature and frequency of tests that people with diabetes experienced included blood glucose checks and eye checks. For those who had eye checks (77%), these occurred at the following intervals: less than 6 months (40%), 6 - 12 months (20%), and greater than 12 months (15%) (see Appendix Table 2.7).

The main challenges in controlling diabetes cited by respondents were: too hard to eat the right things (50%), there were too many other things to do (33%), the person did not want to think about having diabetes (26%), stigma or discrimination because of diabetes (17%) and the health services which were needed were not available (16%) (see Appendix Table 2.9).

Free or low cost medicines or monitoring materials (80%), support from family or friends (50%), health education and information (43%), coordination of healthcare and services by a professional (34%) and support groups (24%) were identified as important to improving the management of their diabetes (see Appendix Table 2.10).

Nature and Information about Complications

Ninety-three percent of respondents were aware of amputation and believed other complications, such as: vision loss (93%), neuropathy (87%), foot ulcers (86%) and cardiovascular disease or stroke (82%) were associated with diabetes (see Appendix Table 2.11).

Respondents were most concerned about vision loss (53%), kidney disease (15%), cardiovascular disease or stroke (15%), amputation (8.1%) and foot ulcers (1.4%) (see Appendix Table 2.12).

Sixty-seven percent of respondents reported that they had no complications of diabetes. However, of those who did have complications 15% had vision loss, neuropathy (13%), kidney disease (4%), cardiovascular disease or stroke (2.7%) and foot ulcers (1.3%) (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 complications compared to people without DED. The frequency of neuropathy increased from 7.1% in those without DED to 29% with DED and 50% of those with DME. The frequency of other complications also increased but the number of respondents were too small to identify a trend (see Table 3 and Appendix EXP 1).

Figure 1: Presence of complications

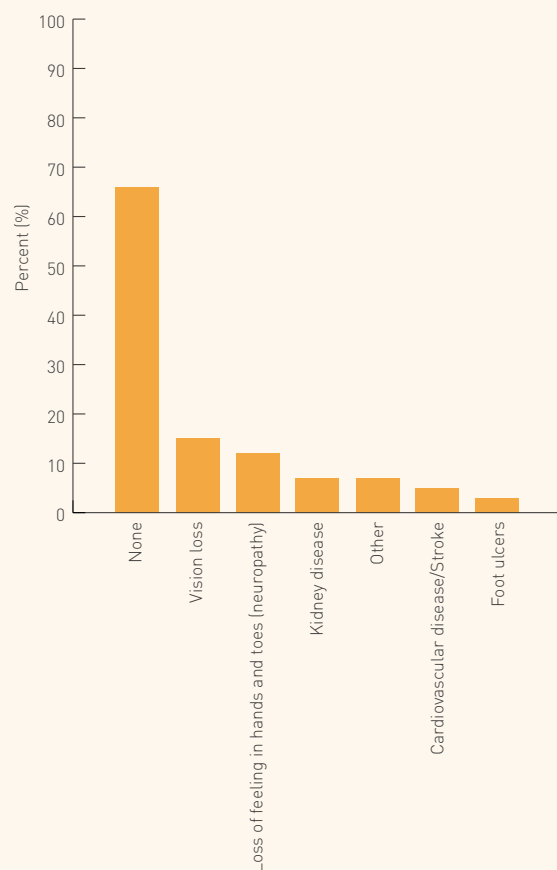


Table 3: Presence of complications without DED, with DED or DME

Complication	Without DED (n=56)	With DED (n=17)	With DME (n=2)
Any	14 (25.0%)	9 (52.9%)	2 (100.0%)
Loss of feeling in hands or toes (neuropathy)	4 (7.1%)	5 (29.4%)	1 (50.0%)
Vision loss	5 (8.9%)	4 (23.5%)	2 (100.0%)
Kidney disease	1 (1.8%)	1 (5.9%)	1 (50.0%)
Cardiovascular disease/Stroke	1 (1.8%)	1 (5.9%)	0 (0.0%)
Foot ulcers	0 (0.0%)	1 (5.9%)	0 (0.0%)
Other	2 (3.6%)	1 (5.9%)	0 (0.0%)
None	42 (75.0%)	8 (47.1%)	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.

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

Eighty-two percent of respondents stated that eye complications were discussed with their health care professionals. Notwithstanding this, one in four patients (26%) either never discussed eye complications with their health care professionals (14%) or discussion only took place once symptoms arose (12%). The frequency of regular discussions varied from every visit (31%), multiple times a year (10%) and once a year (29%) (see Appendix Table 2.14).

The majority of all patients (87%) reported that they did what they could to prevent vision problems (e.g. get routine screenings, visit specialists), yet 11% thought that vision problems were a normal part of ageing and some (8%) made no special effort to have a preventative approach to their eye health (see Appendix Table 2.15).

Eighty percent of all respondents had received information about DR and DME with the doctor or nurse being the most common source (50%). An important finding to note, one in five patients did not receive such information from any of the traditional sources listed, including one in two not receiving this information from their doctor (see Table 4 and Appendix Table 3.9).

Table 4: Source of information about DR and DME

Source	All respondents (n=70)
Doctor/Nurse	35 (50.0%)
Diabetes organisation or other health organisation	32 (45.7%)
Internet	14 (20.0%)
Health educator	8 (11.4%)
TV/Radio/Newspaper/Magazines	6 (8.6%)
Family/Friends/Neighbours	2 (2.9%)
None of the above	14 (20.0%)

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

Screening for Diabetic Eye Disease

Most (91%) respondents reported having an eye exam for DED, with 87% having the exam within the last year and a further 9% between one and two years ago. Two-thirds of respondents were aware of government sponsored screening programmes for DED (see Appendix Table 3.1 and 3.2).

While 89% of those surveyed thought they should have their eyes examined for DED once a year, there were a varied smaller number 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 (28%), or on the day of the visit (24%), as well as a fear of treatment or results (16%) (see Table 5 and Appendix Table 3.5).

Table 5: Barriers to eye examinations

Identified Barriers	All Respondents (n=58)
Long wait time for appointment	16 (27.6%)
Long wait time on the day of the visit	14 (24.1%)
Fear of treatment/results	9 (15.5%)
Referral process is complicated or takes too long	8 (13.8%)
Limited access to diabetes specialists	6 (10.3%)
They are expensive	5 (8.6%)
Eye exams are not available near my home	5 (8.6%)
Too many other things to do or worry about	5 (8.6%)
Clinics are too small or lack necessary equipment/staff	4 (6.9%)
Burden on my family/friends	3 (5.2%)
Recommended treatments for eye problems are not available	2 (3.4%)
Don't know much about my condition	1 (1.7%)
I'm not likely to have eye complications	1 (1.7%)
Other	9 (15.5%)

Treatment of Diabetic Eye Disease and Diabetic Macular Edema

Treatment was assessed separately in people with DED and in those with DME.

Those with DED (35%, n=6), all had received laser treatment which was on going for half of the respondents. The majority (83%) of this group felt that treatment had been successful and their vision had remained the same (see Table 6).

For the eleven respondents (65%) with DED who had not received treatment, the most common reason reported was that their doctor did not recommend treatment.

All patients with DME (n=2) had received laser treatment and anti-VEGF therapy with one also having surgery. Both respondents felt that the treatment had been successful their vision had improved.

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

Table 6: Treatment characteristics of patients with DED and DME

Question	Response	With DED (n=17)	With DME (n=2)
Have you had any treatment for diabetic eye disease?	Yes	6 (35.3%)	2 (100.0%)
	No	11 (64.7%)	0 (0.0%)
What treatment did you receive?	Laser	6 (100.0%)	2 (100.0%)
	Anti-VEGF	0 (0.0%)	2 (100.0%)
	Surgery	0 (0.0%)	1 (50.0%)
Did you complete the treatment?	Yes	3 (50.0%)	1 (50.0%)
	Still receiving treatment	3 (50.0%)	1 (50.0%)
Do you feel that the treatment worked?	Yes, and vision improved	0 (0.0%)	2 (100.0%)
	Yes, but vision stayed the same	5 (83.3%)	0 (0.0%)
	Still waiting to know	1 (16.7%)	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	9 (81.8%)	0 (0.0%)
	Treatment is not accessible	1 (9.1%)	0 (0.0%)
	Still waiting for treatment	1 (9.1%)	0 (0.0%)
	Other	2 (18.2%)	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

Over half (58%) of those diagnosed with DED or DME said that their vision was affected (5.3% significantly, 53% slightly) (see Appendix Table 3.6).

Fifty percent of these respondents reported vision issues impacted their daily lives in various ways such as undertaking household responsibilities, such as cooking or cleaning (20%), difficulty experienced in driving a vehicle (20%), leisure activities or exercise (10%), working or keeping a job (10%), and managing their underlying diabetes (10%) (see Table 7).

Table 7: Activities affected through vision impairment and loss

Have vision issues caused you to have difficulty with any of the following?	All Respondents (n=10)
Household responsibilities, such as cooking or cleaning	2 (20.0%)
Driving (a car/vehicle)	2 (20.0%)
Leisure activities/exercise	1 (10.0%)
Work or keeping a job	1 (10.0%)
Managing my diabetes	1 (10.0%)
Other	2 (20.0%)
None	5 (50.0%)

Respondents with vision complications reported difficulties with work or keeping a job (10%) and 24% of those with DED were not working. Fifty-nine percent of those with DED, and 50% with DME, were in paid employment compared with 71% of respondents without DED (see Table 8 and Appendix EXP 5.1).

Fifty-nine percent of those surveyed did not receive assistance from the government while 31% received medical assistance (see Appendix Table 4.5). Thirty-seven percent of respondents without DED received assistance from the government compared with 47% of those with DED and 100% of those with DME.

Eighty-four percent of respondents said they had no trouble paying for food at any time during the past year. Although seventy-four percent stated their access to health care was not affected by any factors, for 15% it was affected by their income and for 12% it was where affected by where one lives (see Appendix Table 4.6 and 4.7).

Forty-seven percent of respondents said they worried about their health, followed by money (27%), and family (16%) (see Appendix Table 4.8).

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

Question	Response	Without DED (n=51)	With DED (n=17)	With DME (n=2)
Are you currently working?	Working for pay	36 (70.6%)	10 (58.8%)	1 (50.0%)
	Working without pay at home (e.g. housework, farming)	7 (13.7%)	1 (5.9%)	0 (0.0%)
	Retired	1 (2.0%)	2 (11.8%)	0 (0.0%)
	Student	2 (3.9%)	0 (0.0%)	0 (0.0%)
	Not working	5 (9.8%)	4 (23.5%)	1 (50.0%)
Question	Response	Without DED (n=51)	With DED (n=17)	With DME (n=2)
Do you receive assistance from the government?	Income assistance	7 (13.7%)	3 (17.6%)	2 (100.0%)
	Medical assistance	15 (29.4%)	6 (35.3%)	1 (50.0%)
	Pension assistance	2 (3.9%)	0 (0.0%)	0 (0.0%)
	None of the above	32 (62.7%)	9 (52.9%)	0 (0.0%)
Question	Response	Without DED (n=50)	With DED (n=17)	With DME (n=2)
Did you have trouble paying for food at any time during the past year?	Yes	10 (20.0%)	1 (5.9%)	0 (0.0%)
	No	40 (80.0%)	16 (94.1%)	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".

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).

Twenty-five percent of people without DED, 24% with DED, and 50% with DME reported their health as poor. While reported health was reasonably consistent whether the respondent had DED or not, half of those with DED and all respondents with DME reported physically unhealthy days compared with 38% of people without DED. People with DED and DME also experienced a greater impact on their mental health. Forty-seven percent of people with DED, and 50% of those with DME, had mentally unhealthy days in comparison to 42% of those without DED.

People living with DED and DME had a higher proportion for some impairments. Of note were potential mobility challenges manifest through walking problems, back and neck problems, stroke and arthritis. These patients have complex comorbidities that require careful management across the health and social care system (see Appendix EXP 2).

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

Health Status	Without DED	With DED	With DME
Self-rated health: Good	37 (75.5%)	13 (76.5%)	1 (50.0%)
Self-rated health: Poor	12 (24.5%)	4 (23.5%)	1 (50.0%)
Physically unhealthy days	16 (38.1%)	8 (50.0%)	2 (100.0%)
Mentally unhealthy days	17 (41.5%)	7 (46.7%)	1 (50.0%)
Unhealthy days	23 (56.1%)	10 (66.7%)	2 (100.0%)
Activity limitation days	13 (52.0%)	5 (50.0%)	0 (0.0%)

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

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

NB [3]: DME = respondents with DME = “Yes”.

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

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

Ireland

DR Barometer Findings:

Health Care Professionals

Key Demographic Characteristics

There were 39 health care professionals who answered at least one of the survey questions in Ireland. Of these, one was a primary care provider (2.6%), 11 were diabetes specialist providers (28%) and nine were ophthalmologists (23%). The remaining respondents were optometrists, nurses, health educators or other professionals (see Appendix PT 1.3).

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

Health care professionals as a group had been practicing for an average of 14 years (see Appendix PT 1.5).

Health care professionals were well-educated (67% with graduate or advanced degree); 74% were female and 26% male. The largest proportion (50%) of respondents were aged 40 - 49 years with a further 23% in the 30-39 and 50-59 age groups (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	Ophthalmologist
All respondents		39 (100.0%)	1 (2.6%)	11 (28.2%)	9 (23.1%)
Age group	30 - 39 yrs.	6 (23.1%)	0 (0.0%)	3 (33.3%)	1 (16.7%)
	40 - 49 yrs.	13 (50.0%)	1 (100.0%)	3 (33.3%)	5 (83.3%)
	50 - 59 yrs.	6 (23.1%)	0 (0.0%)	3 (33.3%)	0 (0.0%)
	60 - 69 yrs.	1 (3.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Gender	Female	20 (74.1%)	0 (0.0%)	6 (66.7%)	4 (57.1%)
	Male	7 (25.9%)	1 (100.0%)	3 (33.3%)	3 (42.9%)
Education	College/University	9 (33.3%)	0 (0.0%)	3 (33.3%)	0 (0.0%)
	Graduate or advanced degree (e.g. PhD, MD, etc.)	18 (66.7%)	1 (100.0%)	6 (66.7%)	7 (100.0%)

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-seven percent of all providers had their main practice setting in a hospital (47%) and for ophthalmologists only the settings were hospital (63%), and eye clinic (38%) (see Appendix PT 2.1).

Eighty-two percent of health care professionals worked in an urban setting (see Appendix PT 2.2).

Most health care professionals worked in the government sector (59%) and ophthalmologists worked mainly in the government (75%) and combined or mixed (25%) sector (see Appendix PT 2.3).

The health care professionals reported that 74% of patients do not pay for services, 22% pay out-of-pocket (full fees) for services, and 19% pay through insurance for services. The pattern was similar for ophthalmologists, where 88% of patients do not pay for services, 38% pay through insurance for services, and 13% pay a reduced or subsidised rate for services (see Appendix PT 2.7).

On average, all providers see 76 patients per week and an estimated 75% of these patients had diabetes. Similarly, ophthalmologists saw an average 108 patients per week and 52% had diabetes (see Appendix PT 2.6).

For all health care professionals, the average waiting time for an appointment was most commonly between one week and a month (32%), or six months or more (21%) (see Appendix PT 2.5).

For an appointment with an ophthalmologist, it was usually between a week and a month in 50% of practices but for a further 25% of practices, the wait time was between three and six months.

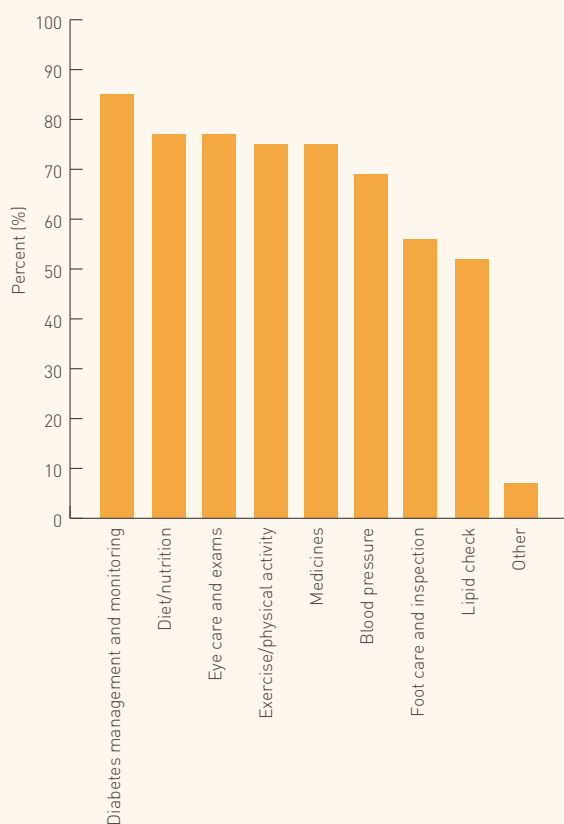
Table 11: Average wait times to schedule an appointment

Wait Time Intervals	All Respondents (n=28)	Ophthalmologist (n=8)
Less than 1 week	2 (7.1%)	0 (0.0%)
More than 1 week but less than 1 month	9 (32.1%)	4 (50.0%)
More than 1 month but less than 2 months	3 (10.7%)	1 (12.5%)
More than 2 months but less than 3 months	1 (3.6%)	0 (0.0%)
More than 3 months but less than 6 months	5 (17.9%)	2 (25.0%)
Six or more months	6 (21.4%)	1 (12.5%)
Do not take appointments	2 (7.1%)	0 (0.0%)

Patient Education Information

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

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



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

Forty-six percent of all providers reported that they had sufficient information about eye complications, 35% said the information available on eye complications was insufficient. Overall 8% of those surveyed had no written information (see Table 12 and Appendix PT 2.11).

All ophthalmologists (100%, n=6) had written information about diabetes and potential eye complications.

Guidelines and Protocols

Sixty-nine percent of providers, including 67% of ophthalmologists, had written protocols for the management of diabetes, which were used by staff. However, 12% had no protocols (see Appendix PT 2.12).

With respect to the management of diabetes-related vision issues, 48% of health care professionals, including all ophthalmologists, had written protocols and these were used by staff. Forty percent of all providers stated that they did not have protocols on the management of diabetes-related vision issues available (see Table 12 and Appendix PT 2.13).

Table 12: Availability and use of information and protocols

Question	Response	All Respondents (n=26)	Ophthalmologist (n=6)
Is there written information about diabetes available for patients in your main practice?	Yes, and information on eye complications is sufficient	12 (46.2%)	6 (100.0%)
	Yes, but information on eye complications is not sufficient	9 (34.6%)	0 (0.0%)
	Yes, but no information on eye complications is included	2 (7.7%)	0 (0.0%)
	No written information is available for patients	2 (7.7%)	0 (0.0%)
	Don't know/Not sure	1 (3.8%)	0 (0.0%)
Question	Response	All Respondents (n=25)	Ophthalmologist (n=6)
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	12 (48.0%)	6 (100.0%)
	Not available	10 (40.0%)	0 (0.0%)
	Don't know/Not sure	3 (12.0%)	0 (0.0%)

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

Screening Protocols and Barriers in the Care Pathway

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

For those with type 1 diabetes 48% of all providers reported that the initial eye exam should occur at time of the diagnosis of diabetes. For patients with type 2 diabetes 69% of all providers recommended an eye exam at time of diagnosis (see Appendix PT 2.14).

Overall, eighty percent of health care professionals, including 67% of ophthalmologists, reported that follow-up eye examinations should be conducted every year. Over half of ophthalmologists (57%) and half of health care professionals (50%) screen patients for DR (see Appendix PT 2.15 and PT 2.16).

Across all health care professionals, 75% reported that they send reminders to their patients for general follow-up appointments (see Appendix PT 2.19).

Ninety-two percent of the health care professionals shared information to optimise patient care management (see Appendix PT 2.20).

The most common patient characteristics influencing the referral process for eye complications for health professionals were: the duration of diabetes (81%), the presence of comorbidities such as hypertension (65%), a patient's age (58%), and high glucose levels (54%) (see Appendix PT 2.17).

As reported by health care professionals, the major barriers to optimising eye health faced by patients with diabetes were the long wait time to schedule an appointment (38%), the referral process (38%), and a limited access to diabetes specialists (33%). Ophthalmologists like health care professionals reported similar such barriers (see Table 13 and Appendix PT 2.18).

Table 13: Major barriers to optimising eye health

Response	All Respondents (n=24)	Ophthalmologists (n=6)
Limited access to diabetes specialists	8 (33.3%)	4 (66.7%)
Proximity to care	5 (20.8%)	3 (50.0%)
Patients have competing responsibilities and priorities	6 (25.0%)	3 (50.0%)
Long wait time for appointment	9 (37.5%)	2 (33.3%)
Referral process	9 (37.5%)	2 (33.3%)
Lack of knowledge and/or awareness	7 (29.2%)	2 (33.3%)
Patients fear of treatment/results	2 (8.3%)	2 (33.3%)
Patients feel they are a burden on family/friends	2 (8.3%)	2 (33.3%)
Clinic too small or lack necessary equipment/staff	5 (20.8%)	2 (33.3%)
Cost of care	2 (8.3%)	1 (16.7%)
Long wait time on the day of visit	3 (12.5%)	1 (16.7%)
Recommended treatments are not available	1 (4.2%)	1 (16.7%)
Patients feel eye complications are unlikely	2 (8.3%)	1 (16.7%)
Patients feel eye exams are not important	3 (12.5%)	1 (16.7%)
Limited access to eye specialists	6 (25.0%)	0 (0.0%)
Other	3 (12.5%)	2 (33.3%)

Ireland

DR Barometer Findings:

Ophthalmologists

Screening

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

On average 36% of patients seen by the ophthalmologists had DR and 12% DME (see Appendix PT 4.1 and PT 4.2).

The most common waiting time for a screening appointment for DED was between one week and a month (43%) with 29% stating between three and six months (see Appendix PT 4.3).

Fifty-seven percent of ophthalmologists reported that there was no wait from time of screening to diagnosis, 14% (n=1) reported a wait time of more than 1 week but less than 1 month (see Appendix PT 4.4).

Treatment and Challenges

All ophthalmologists personally administer treatment for DR (See Appendix PT 4.6).

There were no common factors influencing the ophthalmologists on how they treat DR or DME (see Appendix PT 4.7).

The most common outreach venues for screening for DED were reported to be at vision centres (83%), mobile screening centres (67%), and other (17%) (see Appendix PT 4.13).

Eighty-three percent ophthalmologists reported that they screen patients for DR based on retinal photo. Additionally 50% use optical coherence tomography, 50% use fluorescein angiography and 33% based on fundoscopy through undilated pupils. All said that they treat DR and DME based on both visual and anatomical outcomes (see Appendix PT 4.8 and PT 4.9).

Sixty-seven percent (n=4) of ophthalmologists said that most patients present “in time” for screening and 33% (n=2) said that patients present when visual problems have already occurred (see Appendix PT 4.10) although the sample is notably very small.

Eighty-three percent of ophthalmologists had received specific training on the treatment and diagnosis of DR and or DME. Forty percent had training within the past year, 40% between one and five years ago, and 20% five years ago or more. Eighty-three 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 poor multi-disciplinary team integration (67%, n=4), complex, and sometimes inadequate, referral pathways (50%, n=3), and late diagnosis (33%, n=2) (see Table 14 and Appendix PT 4.14).

Table 14: Challenges for improving outcomes in DED

Question	Response	Ophthalmologist (n=6)
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Multi-disciplinary team integration is poor	4 (66.7%)
	Referral pathways	3 (50.0%)
	Late diagnosis	2 (33.3%)
	No universal guidelines on how to treat	2 (33.3%)
	Government/insurance not able to cover patient costs	2 (33.3%)
	Reimbursement/restrictions on approved therapy	1 (16.7%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	1 (16.7%)
	No universal guideline on when to treat	1 (16.7%)
	Other	1 (16.7%)

Ireland

DR Barometer Summary

In Ireland, 84 adults with diabetes and 39 health care professionals have provided insight about their experiences of living with, managing and treating diabetes, DR and DME. The results help to understand awareness, management, and services available in Ireland.

Ireland is estimated to be the twentieth most populous country in the European Union and twenty-fifth most populous country in Europe with a population of approximately 4.6 million and an estimated 171,800 (135.8-222.9 \pm) adults living with diabetes, which accounts to ~0.3% of people living with diabetes in this region.

Unlike many countries of the European Union, Ireland's population is expected to increase. However, the population distribution will change in a way that those aged 65 years or older will increase and those 14 years and younger will decrease. By 2050, those under the age of 15 will only make up 18% of the total population while those over the age of 65 will make up 26% of the total population. In just over thirty years' time, the population group aged 65 years or older will double, increasing from 631,000 to ~1.4 million.

The diabetes national prevalence in Ireland (20 – 79 years) is 5.3% (4.2-6.8 \pm) and the diabetes age-adjusted comparative prevalence is 4.4% (3.4-6.0 \pm). It is important to note that Ireland is the seventh country in the world for the number of new cases of type 1 diabetes for people under 15 years of age at an estimated 26.8 cases per 100,000 population per year.

Of the respondents in Ireland, 71% had been diagnosed with type 1 diabetes and 28% with type 2 diabetes. Amongst 18 to 39 year-olds, 90% had type 1 and 9.8% had type 2 diabetes. In the 40-59 age group, 55% had type 1 and 40% had type 2 diabetes. Twenty percent of 60-79 year-olds had type 1 diabetes and 80% had type 2.

Twenty percent of respondents (n=17) had been diagnosed with DED and a further 2.4% (n=2) with DME. In people aged 18-39 years, 15% had DED and 2.4% had DME, this increased to 24% for DED and DME remained the same (at 2.6%) in those aged 40-59 years. For people aged 60-79 years 40% had DED and no one had DME.

The DR Barometer findings indicate an important, and well known, trend noted in the findings that generally the longer the time since diagnoses the greater the likelihood to be diagnosed with DED. This is important finding in the context of the increase of type 1 diabetes for people under 15 years of age coupled with the anticipated ageing demographic shift in Ireland.

In those diagnosed within the last five years, no one had DED, this increased to 23% of those 6-10 years since diagnosis. The proportion with DED increased again to 33% for those 11-15 years since diagnosis. Thirty-five percent of respondents that had been diagnosed 21 years ago or longer had DED. All respondents with DME were within the subgroup of respondents with 21 plus years since diagnosis and they accounted for 8.7% of this subgroup.

People were most often informed about their condition from their health care professionals, such as doctor, nurse, nutritionist, or dietician. It should be noted though a high reliance on diabetes, or other health, organisations along with a rising trend of social media as an important source of information. A trend globally, which was reflected in the Ireland study, was the increasing usage of the internet by over half (59%).

Many of those surveyed struggled with the management of their diabetic condition with some issues that were within their personal control such as finding the right things to eat, balancing one's health with other life priorities, not wanting to acknowledge having diabetes. An important finding was the influence of stigma or discrimination associated with diabetes can have, which was a noted barrier by respondents. For some access to needed healthcare services not being available was a barrier.

A compilation of not wanting to acknowledge having diabetes with limited access to health care services may be a factor in the finding that only 23% of respondents were currently enrolled in a diabetes management programme.

There was not only high awareness of the complications associated with diabetes but vision loss was feared almost four times more than any other complication such as cardiovascular disease, stroke or loss of limb.

There was also an increase in the frequency of people with DED and DME experiencing certain complications compared with those without DED. The frequency of neuropathy increased from 7.1% in those without DED to 29% with DED and 50% with DME. The frequency of other complications also increased but the number of respondents were too small to identify a specific trend.

The relationship between the patient and their health care provider is critical to realistic and optimal patient outcomes. Indeed, health education and information was reported by patients as an important tool to improve the management of one's diabetes yet half one in two respondents did not receive any information on eye complications from their doctor or nurse.

Likewise, almost a third (29%) of all health care professional reported one of the major barriers to optimising eye health was a lack of knowledge or awareness on behalf of the patient and yet less than half (46%) of all providers felt that they had sufficient information on diabetes and potential eye complications available for their patients.

It is also important to note, one in four patients either never discussed eye complications with their health care providers or discussions only took place once symptoms arose. Equally concerning were the myths and perceptions around vision changes and prevention strategies, with one in ten believing that vision problems were a normal part of ageing and some not making any effort to prevent vision problems.

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

Over half of those diagnosed with DED or DME said that their vision was affected either slightly or significantly, and half of these respondent reported ways in which in vision impairment impacted their health, lifestyle, and life choices. Conducting household responsibilities, such as cooking or cleaning, driving a car, working, or keeping a job, and even managing their underlying diabetes was affected by vision impairment or loss due to DED or DME.

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

Over half (59%) of all those surveyed did not receive assistance from the government while 31% received medical assistance. Thirty-seven percent of respondents without DED received assistance from the government compared with 47% of those with DED and 100% of those with DME, although it should be noted that the sample of respondents was quite small.

Both respondents with DME preferred a proactive treatment approach to prevent further vision loss rather than a reactive treatment once further vision loss has occurred. However for almost a quarter of respondents their access to healthcare was affected by certain factors with 15% citing income and 12% reporting where one lives as an influencing factor.

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 time to schedule an appointment and subsequent long wait time on the day of the visit.

Supporting this, health care professionals reported long wait times to schedule an appointment, a limited access to diabetes specialists, the referral pathway, and proximity to care as the major barriers to optimising eye health.

The top characteristics influencing the referral process for eye care providers, including ophthalmologists, were the duration of diabetes, the presence of comorbidities such as hypertension, a patient's age, and high glucose levels.

Ophthalmologists reported that the greatest challenges for improving patient outcomes in DED were poor multi-disciplinary team integration, complex, and sometimes inadequate, referral pathways, and late diagnosis.

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 policy action in Ireland.

References and Acknowledgement

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³ 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 Ireland 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 Ireland

APPENDIX 1 : National Results

Table 1.1

Survey Information	Number of Respondents (%)
All valid respondents [1]	91 (100.0%)
Respondents aged 18 or over	88 (96.7%)
Respondents with diabetes	84 (92.3%)

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

Table 1.2

Survey Information	Number of Respondents (%)
All valid respondents	91 (100.0%)
Included in Diabetic Analysis Set	84 (92.3%)
Excluded from Diabetic Analysis Set	7 (7.7%)
Reasons for exclusion from diabetic analysis set	.
Under 18 years of age	3
Not diagnosed with diabetes	4

Table 1.3

Survey Information	Number of Respondents (%)
Diabetic Analysis Set	84 (100.0%)
World Bank Income Group: High Income	84 (100.0%)
Persons with diabetic eye disease (DED)	17 (20.2%)
Persons with diabetic macular edema (DME)	2 (2.4%)
Persons with Type I diabetes	59 (70.2%)
Persons with Type II diabetes	23 (27.4%)
Persons not seeing health care professional for diabetes	2 (2.4%)
Persons seeing health care professional for diabetes	80 (95.2%)
Persons with eye disease & not received treatment	11 (13.1%)
Persons with eye disease & received treatment	8 (9.5%)

Table 2.1

Question	Response	Number of Respondents (%)
With which type of diabetes have you been diagnosed?	Type I	59 (71.1)
	Type II	23 (27.7)
	Don't know/Not sure	1 (1.2)
	Total Valid Response	83 (100.0)
	Total missing	1

Table 2.2

Question	Response	Number of Respondents (%)
When was your diabetes diagnosed?	Within the last year	8 (9.9)
	1 - 5 years ago	13 (16.0)
	6 - 10 years ago	13 (16.0)
	11 - 15 years ago	9 (11.1)
	16 - 20 years ago	15 (18.5)
	21 years ago or longer	23 (28.4)
	Total Valid Response	81 (100.0)
	Total missing	3

Table 2.3.1

Question	Response	Number of Respondents (%)
Do you see a health care professional for your diabetes?	Yes	80 (97.6)
	No	2 (2.4)
	Total Valid Response	82 (100.0)
	Total missing	2
What kind of health care professional?	General/Family Doctor	6 (7.9)
	Nurse	3 (3.9)
	Diabetes Specialist	67 (88.2)
	Total Valid Response	76 (100.0)
	Total missing	8

Table 2.3.2

Type of health care professional	Times per year seen for diabetes	Value
General/Family Doctor	Total valid numeric response (n)	4
	Mean	2.5
	SD	0.6
	Median	2.5
	Min	2
	Max	3
	Don't know/Not sure	2
Nurse	Total valid numeric response (n)	2
	Mean	1.5
	SD	0.7
	Median	1.5
	Min	1
	Max	2
	Total missing	1
Diabetes Specialist	Total valid numeric response (n)	50
	Mean	2.4
	SD	1.4
	Median	2.0
	Min	1
	Max	10
	Don't know/Not sure	7
	Total missing	10

Table 2.4

Question	Response	Number of Respondents (%)
How have you received information about diabetes?	Doctor or nurse	71 (91.0%)
	Health educator	18 (23.1%)
	Nutritionist or dietitian	51 (65.4%)
	Diabetes organization or other health organization	52 (66.7%)

Question	Response	Number of Respondents (%)
	Family/Friends/Neighbors	14 (17.9%)
	TV/Radio/Newspaper/Magazines	7 (9.0%)
	Internet	46 (59.0%)
	Social media (e.g. Facebook, Twitter, blogs)	32 (41.0%)
	Pharmacist	18 (23.1%)
	None of the above	1 (1.3%)
	Total Valid Response	78 (100.0%)
	Total missing	6

Table 2.5

Question	Response	Number of Respondents (%)
How do you manage your diabetes?	Diet	38 (48.7%)
	Oral medicine	18 (23.1%)
	Exercise	27 (34.6%)
	Insulin	60 (76.9%)
	Natural/Herbal medicine	2 (2.6%)
	Total Valid Response	78 (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	18 (22.8)
	No	61 (77.2)
	Total Valid Response	79 (100.0)
	Total missing	5
Who sponsors the programme?	Hospital support program	12 (66.7)
	Clinic support program	2 (11.1)
	Don't know/Not sure	4 (22.2)

Question	Response	Number of Respondents (%)
	Total Valid Response	18 (100.0)
	Total missing	66
Does the programme include education on the importance of screening for diabetic eye complications?	Yes	18 (100.0)
	Total Valid Response	18 (100.0)
	Total missing	66

Table 2.7

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctor's office or clinic?		
Blood glucose test	Yes	71 (93.4%)
	Less than 6 months	52 (68.4%)
	6 - 12 months	11 (14.5%)
	Greater than 12 months	6 (7.9%)
	Total valid response	69 (90.8%)
	Total missing	15
	No	5 (6.6%)
	Total valid response	76 (100.0%)
	Total missing	8
Urine check	Yes	71 (93.4%)
	Less than 6 months	40 (52.6%)
	6 - 12 months	19 (25.0%)
	Greater than 12 months	10 (13.2%)
	Total valid response	69 (90.8%)
	Total missing	15
	No	4 (5.3%)

Test	Response	Number of Respondents (%)
	Don't know/Not sure	1 (1.3%)
	Total valid response	76 (100.0%)
	Total missing	8
Weight check	Yes	71 (94.7%)
	Less than 6 months	49 (65.3%)
	6 - 12 months	12 (16.0%)
	Greater than 12 months	8 (10.7%)
	Total valid response	69 (92.0%)
	Total missing	15
	No	4 (5.3%)
	Total valid response	75 (100.0%)
	Total missing	9
Blood pressure check	Yes	75 (100.0%)
	Less than 6 months	61 (81.3%)
	6 - 12 months	11 (14.7%)
	Total valid response	72 (96.0%)
	Total missing	12
	Total valid response	75 (100.0%)
	Total missing	9
Foot check	Yes	57 (76.0%)
	Less than 6 months	30 (40.0%)
	6 - 12 months	14 (18.7%)
	Greater than 12 months	11 (14.7%)
	Total valid response	55 (73.3%)
	Total missing	29

Test	Response	Number of Respondents (%)
	No	18 (24.0%)
	Total valid response	75 (100.0%)
	Total missing	9
Eye check	Yes	58 (77.3%)
	Less than 6 months	30 (40.0%)
	6 - 12 months	15 (20.0%)
	Greater than 12 months	11 (14.7%)
	Total valid response	56 (74.7%)
	Total missing	28
	No	16 (21.3%)
	Don't know/Not sure	1 (1.3%)
	Total valid response	75 (100.0%)
	Total missing	9

Table 2.8

Question	Response	Number of Respondents (%)
How well do you think your diabetes is controlled?	Very well	11 (14.5%)
	Well	46 (60.5%)
	Not very well	15 (19.7%)
	Not well at all	3 (3.9%)
	Don't know/Not sure	1 (1.3%)
	Total Valid Response	76 (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	5 (6.6%)
	No insurance	5 (6.6%)
	Travel to my regular doctor or specialist is difficult	10 (13.2%)
	Long wait time for an appointment to see my doctor or specialist	11 (14.5%)
	Health services needed are not available	12 (15.8%)
	Don't know enough about diabetes	7 (9.2%)
	Too hard to eat the right things	38 (50.0%)
	Too many other things to do	25 (32.9%)
	Stigma or discrimination because of diabetes	13 (17.1%)
	Don't want to think about having diabetes	20 (26.3%)
	Other	9 (11.8%)
	Total Valid Response	76 (100.0%)
	Total missing	8

Table 2.10

Question	Response	Number of Respondents (%)
Which of the following services currently help you better manage your diabetes?	Free or low cost medicines or monitoring materials	61 (80.3%)
	Support groups	18 (23.7%)
	Support from family or friends	38 (50.0%)
	Health education and information	33 (43.4%)
	Mobile services (services that travel to or near your home)	5 (6.6%)
	Coordination of healthcare and services by a professional	26 (34.2%)
	Emergency helpline	5 (6.6%)
	Other	4 (5.3%)
	None	2 (2.6%)

Question	Response	Number of Respondents (%)
	Total Valid Response	76 (100.0%)
	Total missing	8

Table 2.11

Question	Response	Number of Respondents (%)
What complications (or problems), to your knowledge, arise from diabetes?	Amputation	71 (93.4%)
	Foot ulcers	65 (85.5%)
	Increased risk of broken bones or fractures	6 (7.9%)
	Loss of feeling in hands or toes (neuropathy)	66 (86.8%)
	Vision loss	71 (93.4%)
	Irritable bowel disease	3 (3.9%)
	Kidney disease	58 (76.3%)
	Cardiovascular disease/Stroke	62 (81.6%)
	Other	8 (10.5%)
	Don't know/Not sure	1 (1.3%)
	None	3 (3.9%)
	Total Valid Response	76 (100.0%)
	Total missing	8

Table 2.12

Question	Response	Number of Respondents (%)
Which complication of diabetes are you most concerned about?	Amputation	6 (8.1)
	Foot ulcers	1 (1.4)
	Increased risk of broken bones or fractures	1 (1.4)
	Loss of feeling in hands or toes (neuropathy)	1 (1.4)
	Vision loss	39 (52.7)
	Kidney disease	11 (14.9)

Question	Response	Number of Respondents (%)
	Cardiovascular disease/Stroke	11 (14.9)
	Other	3 (4.1)
	None	1 (1.4)
	Total Valid Response	74 (100.0)
	Total missing	10

Table 2.13

Question	Response	Number of Respondents (%)
Which of the following complications of diabetes do you have?	Foot ulcers	1 (1.3%)
	Broken bones or fractures	1 (1.3%)
	Loss of feeling in hands or toes (neuropathy)	10 (13.3%)
	Vision loss	11 (14.7%)
	Irritable bowel disease	4 (5.3%)
	Kidney disease	3 (4.0%)
	Cardiovascular disease/Stroke	2 (2.7%)
	Other	3 (4.0%)
	Don't know/Not sure	1 (1.3%)
	None	50 (66.7%)
	Total Valid Response	75 (100.0%)
	Total missing	9

Table 2.14

Question	Response	Number of Respondents (%)
How often do you discuss the possibility of eye complications with your health care professional?	Every visit	24 (31.2%)
	Multiple times per year	8 (10.4%)
	Once per year	22 (28.6%)
	Only when symptoms arise	9 (11.7%)
	Never	11 (14.3%)

Question	Response	Number of Respondents (%)
	Don't know/Not sure	3 (3.9%)
	Total Valid Response	77 (100.0%)
	Total missing	7

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	6 (7.9%)
	I do what I can to prevent vision problems (e.g. get routine screenings, visit specialists)	66 (86.8%)
	I do not make any special effort to prevent vision problems	8 (10.5%)
	Total Valid Response	76 (100.0%)
	Total missing	8

Table 2.16

Question	Response	Number of Respondents (%)
What type of health insurance do you have?	Public	22 (28.9)
	Public - Private	17 (22.4)
	Private	19 (25.0)
	None	18 (23.7)
	Total Valid Response	76 (100.0)
	Total missing	8

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	25 (34.7)
	Insurance pays total cost	1 (1.4)

Question	Response	Number of Respondents (%)
	Insurance and out-of-pocket/cash (e.g. co-pays)	6 (8.3)
	Out-of-pocket only (pay cash for all care)	39 (54.2)
	Don't know/Not Sure	1 (1.4)
	Total Valid Response	72 (100.0)
	Total missing	12
Specialist medical visits (e.g. eye doctor, gynecologist, urologist)	Care is free	40 (54.8)
	Insurance pays total cost	6 (8.2)
	Insurance and out-of-pocket/cash (e.g. co-pays)	8 (11.0)
	Out-of-pocket only (pay cash for all care)	16 (21.9)
	Do not use service	3 (4.1)
	Total Valid Response	73 (100.0)
	Total missing	11
Medicines	Care is free	56 (78.9)
	Insurance pays total cost	1 (1.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	3 (4.2)
	Out-of-pocket only (pay cash for all care)	9 (12.7)
	Do not use service	1 (1.4)
	Don't know/Not Sure	1 (1.4)
	Total Valid Response	71 (100.0)
	Total missing	13
Medical supplies (e.g. blood glucose meter/strips)	Care is free	66 (91.7)
	Insurance pays total cost	1 (1.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	2 (2.8)
	Out-of-pocket only (pay cash for all care)	2 (2.8)
	Don't know/Not Sure	1 (1.4)
	Total Valid Response	72 (100.0)

Question	Response	Number of Respondents (%)
	Total missing	12
Procedures	Care is free	31 (44.3)
	Insurance pays total cost	8 (11.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	9 (12.9)
	Out-of-pocket only (pay cash for all care)	11 (15.7)
	Do not use service	5 (7.1)
	Don't know/Not Sure	6 (8.6)
	Total Valid Response	70 (100.0)
	Total missing	14
Tests/screenings	Care is free	53 (75.7)
	Insurance pays total cost	2 (2.9)
	Insurance and out-of-pocket/cash (e.g. co-pays)	8 (11.4)
	Out-of-pocket only (pay cash for all care)	4 (5.7)
	Do not use service	2 (2.9)
	Don't know/Not Sure	1 (1.4)
	Total Valid Response	70 (100.0)
	Total missing	14
Health education	Care is free	35 (50.7)
	Insurance and out-of-pocket/cash (e.g. co-pays)	1 (1.4)
	Out-of-pocket only (pay cash for all care)	3 (4.3)
	Do not use service	23 (33.3)
	Don't know/Not Sure	7 (10.1)
	Total Valid Response	69 (100.0)
	Total missing	15
Counseling	Care is free	6 (8.7)
	Insurance and out-of-pocket/cash (e.g. co-pays)	2 (2.9)
	Out-of-pocket only (pay cash for all care)	11 (15.9)

Question	Response	Number of Respondents (%)
	Do not use service	42 (60.9)
	Don't know/Not Sure	8 (11.6)
	Total Valid Response	69 (100.0)
	Total missing	15

Table 3.1

Question	Response	Number of Respondents (%)
Are you aware of any government sponsored screening programs for diabetic eye disease (diabetic retinopathy)?	Yes	65 (86.7%)
	No	10 (13.3%)
	Total valid response	75 (100.0%)
	Total missing	9

Table 3.2

Question	Response	Number of Respondents (%)
Have you ever had an eye exam for diabetic eye disease?	Yes	69 (90.8%)
	No	7 (9.2%)
	Total valid response	76 (100.0%)
	Total missing	8
How long ago was your last eye exam?	Within the last year	58 (86.6%)
	More than 1 year ago but less than 2 years	6 (9.0%)
	More than 2 years ago but less than 3 years	2 (3.0%)
	More than 3 years ago but less than 5 years	1 (1.5%)
	Total valid response	67 (100.0%)
	Total missing	17
Who did the last exam?	Eye doctor/Eye clinic	62 (92.5%)
	Other	5 (7.5%)
	Total valid response	67 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	17

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	68 (91.9%)
	No	6 (8.1%)
	Total valid response	74 (100.0%)
	Total missing	10

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	66 (89.2%)
	Every two years	8 (10.8%)
	Total valid response	74 (100.0%)
	Total missing	10

Table 3.5

Question	Response	Number of Respondents (%)
For you, what are the biggest barriers to eye exams?	They are expensive	5 (8.6%)
	Eye exams are not available near my home	5 (8.6%)
	Long wait time for appointment	16 (27.6%)
	Long wait time on the day of the visit	14 (24.1%)
	Referral process is complicated or takes too long	8 (13.8%)
	Recommended treatments for eye problems are not available	2 (3.4%)
	Don't know much about my condition	1 (1.7%)

Question	Response	Number of Respondents (%)
	Fear of treatment/results	9 (15.5%)
	Burden on my family/friends	3 (5.2%)
	Limited access to diabetes specialists	6 (10.3%)
	I'm not likely to have eye complications	1 (1.7%)
	Too many other things to do or worry about	5 (8.6%)
	Clinics are too small or lack necessary equipment/staff	4 (6.9%)
	Other	9 (15.5%)
	Total valid response	58 (100.0%)
	Total missing	26

Table 3.6

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic eye disease?	Yes	19 (26.4%)
	No	53 (73.6%)
	Total valid response	72 (100.0%)
	Total missing	12
Has your diabetic eye disease affected your vision?	Yes, slightly	10 (52.6%)
	Yes, significantly	1 (5.3%)
	No	8 (42.1%)
	Total valid response	19 (100.0%)
	Total missing	65
Have vision issues caused you to have difficulty with any of the following?	Household responsibilities, such as cooking or cleaning	2 (20.0%)
	Leisure activities/exercise	1 (10.0%)
	Work or keeping a job	1 (10.0%)
	Managing my diabetes	1 (10.0%)
	Other	2 (20.0%)
	None	5 (50.0%)
	Driving (a car/vehicle)	2 (20.0%)
	Total valid response	10 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	74

Table 3.7

Question	Response	Number of Respondents (%)
Have you had any treatment for diabetic eye disease?	Yes	8 (42.1%)
	No	11 (57.9%)
	Total valid response	19 (100.0%)
	Total missing	65
What treatment did you receive?	Laser	8 (100.0%)
	Injection in the eye (Anti-VEGF)	2 (25.0%)
	Surgery	1 (12.5%)
	Total valid response	8 (100.0%)
	Total missing	76
Did you complete the treatment?	Yes	4 (50.0%)
	Still receiving treatment	4 (50.0%)
	Total valid response	8 (100.0%)
	Total missing	76
Do you feel that the treatment worked?	Yes, and vision improved	2 (25.0%)
	Yes, but vision stayed the same	5 (62.5%)
	Still waiting to know	1 (12.5%)
	Total valid response	8 (100.0%)
	Total missing	76
What is/are the reason(s) that you did not complete the treatment?	Total missing	84
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	9 (81.8%)
	Treatment is not accessible	1 (9.1%)
	Still waiting for treatment	1 (9.1%)
	Other	2 (18.2%)
	Total valid response	11 (100.0%)
	Total missing	73

Table 3.8

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic macular edema?	Yes	2 (2.8%)
	No	61 (85.9%)
	Don't know/Not sure	8 (11.3%)
	Total valid response	71 (100.0%)
	Total missing	13
If Yes, which of the following would you prefer	Treatment to prevent further vision loss	2 (100.0%)
	Total valid response	2 (100.0%)
	Total missing	82

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	35 (50.0%)
	Health educator	8 (11.4%)
	Diabetes organization or other health organization	32 (45.7%)
	Family/Friends/Neighbors	2 (2.9%)
	TV/Radio/Newspaper/Magazines	6 (8.6%)
	Internet	14 (20.0%)
	None of the above	14 (20.0%)
	Total valid response	70 (100.0%)
	Total missing	14

Table 4.1

Question	Response	Number of Respondents (%)
What is your gender?	Female	50 (70.4)
	Male	21 (29.6)
	Total Valid Response	71 (100.0)

Question	Response	Number of Respondents (%)
	Total missing	13
Please indicate your age	18 - 29	15 (17.9)
	30 - 39	26 (31.0)
	40 - 49	22 (26.2)
	50 - 59	16 (19.0)
	60 - 69	2 (2.4)
	70 - 79	3 (3.6)
	Total Valid Response	84 (100.0)

Table 4.2

Question	Response	Number of Respondents (%)
Where do you live?	Urban setting	48 (67.6)
	Non-urban setting	23 (32.4)
	Total Valid Response	71 (100.0)
	Total missing	13

Table 4.3

Question	Response	Number of Respondents (%)
What is the highest level of education you completed?	Primary school	1 (1.4)
	Secondary school	22 (31.0)
	College/University	22 (31.0)
	Graduate or post-graduate	26 (36.6)
	Total valid response	71 (100.0)
	Total missing	13

Table 4.4

Question	Response	Number of Respondents (%)
Are you currently working?	Working for pay	47 (67.1)
	Working without pay at home (e.g. housework, farming)	8 (11.4)

Question	Response	Number of Respondents (%)
	Retired	3 (4.3)
	Student	2 (2.9)
	Not working	10 (14.3)
	Total Valid Response	70 (100.0)
	Total missing	14

Table 4.5

Question	Response	Number of Respondents (%)
Do you receive assistance from the government?	Income assistance	12 (17.1%)
	Medical assistance	22 (31.4%)
	Pension assistance	2 (2.9%)
	None of the above	41 (58.6%)
	Total valid response	70 (100.0%)
	Total missing	14

Table 4.6

Question	Response	Number of Respondents (%)
Did you have trouble paying for food at anytime during the past year?	Yes	11 (15.9)
	No	58 (84.1)
	Total Valid Response	69 (100.0)
	Total missing	15

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	3 (4.4)
	Education	1 (1.5)
	Gender	2 (2.9)

Question	Response	Number of Respondents (%)
	Income	10 (14.7)
	Place of birth	1 (1.5)
	Place where you live	8 (11.8)
	None of the above	50 (73.5)
	Total valid response	68 (100.0)
	Total missing	16

Table 4.8

Question	Response	Number of Respondents (%)
Which of the following do you worry about most?	Money	19 (27.1)
	Health	33 (47.1)
	Family	11 (15.7)
	None of the above	7 (10.0)
	Total Valid Response	70 (100.0)
	Total missing	14

Table 5.1

Question	Response	Number of Respondents (%)
In general, would you say your health is:	Excellent	4 (5.9%)
	Very good	23 (33.8%)
	Good	24 (35.3%)
	Total good health	51 (75.0%)
	Fair	14 (20.6%)
	Poor	3 (4.4%)
	Fair or poor health	17 (25.0%)
	Total valid response	68 (100.0%)
	Total missing	16

Table 5.2

Question	Response	Number of Respondents (%)
How many days during last 30 days was your physical health not good	Any unhealthy days	26 (43.3%)
	1-5 unhealthy days	16 (26.7%)
	6-10 unhealthy days	5 (8.3%)
	11-20 unhealthy days	4 (6.7%)
	21-30 unhealthy days	1 (1.7%)
	No unhealthy days	34 (56.7%)
	Total valid response	60 (100.0%)
	Total missing	24

Table 5.3.1

Question	Response	Number of Respondents (%)
How many days during last 30 days was your mental health not good	Any unhealthy days	25 (43.1%)
	1-5 unhealthy days	9 (15.5%)
	6-10 unhealthy days	9 (15.5%)
	11-20 unhealthy days	4 (6.9%)
	21-30 unhealthy days	3 (5.2%)
	No unhealthy days	33 (56.9%)
	Total valid response	58 (100.0%)
	Total missing	26

Table 5.3.2

Question	Response	Number of Respondents (%)
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Question	Response	Number of Respondents (%)
Unhealthy days (physically or mentally unhealthy, max 30)	Any unhealthy days	35 (60.3%)
	1-5 unhealthy days	15 (25.9%)
	6-10 unhealthy days	8 (13.8%)
	11-20 unhealthy days	5 (8.6%)
	21-30 unhealthy days	7 (12.1%)
	No unhealthy days	23 (39.7%)
	Total valid response	58 (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	18 (48.6%)
	1-5 unhealthy days	10 (27.0%)
	6-10 unhealthy days	5 (13.5%)
	11-20 unhealthy days	3 (8.1%)
	No unhealthy days	19 (51.4%)
	Total valid response	37 (100.0%)
	Total missing	47

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	21 (31.8%)
	No	45 (68.2%)

Question	Response	Number of Respondents (%)
	Total valid response	66 (100.0%)
	Total missing	18
Which impairment or health problem, if any, limits your activities?		
a) Arthritis/rheumatism	Yes	3 (25.0%)
	No	8 (66.7%)
	Don't know/Not sure	1 (8.3%)
	Total valid response	12 (100.0%)
	Total missing	72
b) Back or neck problem	Yes	7 (53.8%)
	No	6 (46.2%)
	Total valid response	13 (100.0%)
	Total missing	71
c) Fractures, bone/joint injury	Yes	6 (42.9%)
	No	8 (57.1%)
	Total valid response	14 (100.0%)
	Total missing	70
d) Walking problem	Yes	11 (64.7%)
	No	6 (35.3%)
	Total valid response	17 (100.0%)
	Total missing	67
e) Lung/breathing problem	Yes	2 (16.7%)
	No	10 (83.3%)
	Total valid response	12 (100.0%)
	Total missing	72
f) Hearing problem	Yes	2 (16.7%)
	No	10 (83.3%)
	Total valid response	12 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	72
g) Eye/vision problem	Yes	4 (30.8%)
	No	8 (61.5%)
	Don't know/Not sure	1 (7.7%)
	Total valid response	13 (100.0%)
	Total missing	71
h) Heart problem	Yes	2 (15.4%)
	No	11 (84.6%)
	Total valid response	13 (100.0%)
	Total missing	71
i) Stroke problem	No	12 (100.0%)
	Total valid response	12 (100.0%)
	Total missing	72
j) Hypertension/high blood pressure	Yes	4 (30.8%)
	No	9 (69.2%)
	Total valid response	13 (100.0%)
	Total missing	71
k) Diabetes	Yes	15 (75.0%)
	No	5 (25.0%)
	Total valid response	20 (100.0%)
	Total missing	64
l) Cancer	No	12 (100.0%)
	Total valid response	12 (100.0%)
	Total missing	72
m) Mental or emotional health	Yes	10 (62.5%)
	No	5 (31.3%)
	Don't know/Not sure	1 (6.3%)

Question	Response	Number of Respondents (%)
	Total valid response	16 (100.0%)
	Total missing	68

PT 1.2

Analysis Sets	Number of Respondents (%)
All valid respondents	39 (100.0%)
Included in Provider Analysis Set (PAS)	39 (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	39
Included in the Eye Care Professional Set (Eye Specialist)	10 (25.6%)
Excluded in the Eye Care Professional Set (Eye Specialist)	29 (74.4%)
Reasons for exclusion from Eye Care Professional Set:	
Missing required speciality	29
No valid (non-missing) response for the supplemental eye questionnaire	0

PT 1.3

Subgroups	Number of Respondents (%)
Provider Analysis Set	39 (100.0%)
Primary Care Provider	1 (2.6%)
Diabetes Specialist Provider	11 (28.2%)
Eye Care Professional	10 (25.6%)
Ophthalmologist	9 (23.1%)

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 speciality

PT 1.4

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
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Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your specialty?	General primary care/Family practitioner	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (2.6%)
	Diabetes specialist	0 (0.0%)	11 (100.0%)	0 (0.0%)	11 (28.2%)
	General ophthalmologist	0 (0.0%)	0 (0.0%)	3 (33.3%)	3 (7.7%)
	Optometrist	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.6%)
	Retinal specialist	0 (0.0%)	0 (0.0%)	8 (88.9%)	8 (20.5%)
	Nurse	0 (0.0%)	3 (27.3%)	0 (0.0%)	14 (35.9%)
	Health educator	0 (0.0%)	1 (9.1%)	0 (0.0%)	6 (15.4%)
	None of the above	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (10.3%)
	Total valid response	1 (100.0%)	11 (100.0%)	9 (100.0%)	39 (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)	1	11	9	36
	Mean	20.0	13.1	13.9	14.3
	SD	.	7.1	8.2	10.0
	Median	20.0	11.0	17.0	13.5
	Min.	20	2	0	0
	Max.	20	25	21	35
	Total missing	0	0	0	3

PT 2.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your main practice	Diabetes	0 (0.0%)	3 (30.0%)	0 (0.0%)	5 (14.7%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
setting?	clinic/practice				
	Eye clinic/practice	0 (0.0%)	1 (10.0%)	3 (37.5%)	5 (14.7%)
	General medical clinic/practice	1 (100.0%)	0 (0.0%)	0 (0.0%)	2 (5.9%)
	Hospital	0 (0.0%)	6 (60.0%)	5 (62.5%)	16 (47.1%)
	Other	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (17.6%)
	Total Valid Response	1 (100.0%)	10 (100.0%)	8 (100.0%)	34 (100.0%)
	Total missing	0	1	1	5

PT 2.2

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Where is your main practice located?	Urban setting	0 (0.0%)	9 (90.0%)	8 (100.0%)	28 (82.4%)
	Non-urban setting	1 (100.0%)	1 (10.0%)	0 (0.0%)	6 (17.6%)
	Total Valid Response	1 (100.0%)	10 (100.0%)	8 (100.0%)	34 (100.0%)
	Total missing	0	1	1	5

PT 2.3

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In which sector is your main practice?	Government	0 (0.0%)	7 (70.0%)	6 (75.0%)	20 (58.8%)
	Private	1 (100.0%)	1 (10.0%)	0 (0.0%)	5 (14.7%)
	Non profit	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (5.9%)
	Combined/mixed	0 (0.0%)	2 (20.0%)	2 (25.0%)	7 (20.6%)
	Total Valid Response	1 (100.0%)	10 (100.0%)	8 (100.0%)	34 (100.0%)
	Total missing	0	1	1	5

PT 2.4

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is your main practice limited to certain populations?	No	0 (0.0%)	6 (60.0%)	7 (87.5%)	25 (73.5%)
	Yes, limited by age	0 (0.0%)	4 (40.0%)	1 (12.5%)	8 (23.5%)
	Yes, limited to persons who pay out-of-pocket	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (2.9%)
	Total valid response	1 (100.0%)	10 (100.0%)	8 (100.0%)	34 (100.0%)
	Total missing	0	1	1	5

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	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (7.1%)
	More than 1 week but less than 1 month	0 (0.0%)	3 (33.3%)	4 (50.0%)	9 (32.1%)
	More than 1 month but less than 2 months	0 (0.0%)	1 (11.1%)	1 (12.5%)	3 (10.7%)
	More than 2 months but less than 3 months	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.6%)
	More than 3 months but less than 6 months	0 (0.0%)	1 (11.1%)	2 (25.0%)	5 (17.9%)
	Six or more months	0 (0.0%)	4 (44.4%)	1 (12.5%)	6 (21.4%)
	Do not take appointments	1 (100.0%)	0 (0.0%)	0 (0.0%)	2 (7.1%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total Valid Response	1 (100.0%)	9 (100.0%)	8 (100.0%)	28 (100.0%)
	Total missing	0	2	1	11

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)	1	9	7	25
	Mean	200	43.9	108.1	75.5
	SD	.	25.2	58.3	59.9
	Median	200	50	120	55
	Min.	200	10	40	10
	Max.	200	90	200	200
	Total missing	0	2	2	14
What percentage of the patients in your main practice have diabetes [% patients]	Total valid response (n)	1	9	6	25
	Mean	30	83.1	52.5	74.6
	SD	.	32.6	28.1	33.5
	Median	30	100	42.5	100
	Min.	30	8	25	7
	Max.	30	100	100	100
	Total missing	0	2	3	14

PT 2.7

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, how do	Don't pay	0 (0.0%)	6 (66.7%)	7 (87.5%)	20 (74.1%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
patients pay for the care and services that you provide?					
	Pay a reduced/subsidized rate	0 (0.0%)	0 (0.0%)	1 (12.5%)	1 (3.7%)
	Pay out-of-pocket (full fees)	1 (100.0%)	2 (22.2%)	0 (0.0%)	6 (22.2%)
	Pay through insurance	0 (0.0%)	1 (11.1%)	3 (37.5%)	5 (18.5%)
	Patient pays some, insurance pays some	0 (0.0%)	0 (0.0%)	1 (12.5%)	1 (3.7%)
	Other	0 (0.0%)	1 (11.1%)	0 (0.0%)	2 (7.4%)
	Total valid response	1 (100.0%)	9 (100.0%)	8 (100.0%)	27 (100.0%)
	Total missing	0	2	1	12

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	1 (100.0%)	3 (33.3%)	6 (66.7%)	11 (36.7%)
	No		6 (66.7%)	3 (33.3%)	19 (63.3%)
	Total valid response	1 (100.0%)	9 (100.0%)	9 (100.0%)	30 (100.0%)
	Total missing		2		9
In which other practice setting(s) do you work?	Hospital	1 (100.0%)	2 (66.7%)	1 (16.7%)	4 (36.4%)
	General medical clinic/practice		1 (33.3%)		1 (9.1%)
	Diabetes clinic/practice	1 (100.0%)			1 (9.1%)
	Eye clinic/practice			5 (83.3%)	5

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
					(45.5%)
	Other			1 (16.7%)	2 (18.2%)
	Total valid response	1 (100.0%)	3 (100.0%)	6 (100.0%)	11 (100.0%)
	Total missing		8	3	28
In which sector(s) is(are) the practice(s)?	Government		1 (33.3%)		2 (18.2%)
	Private	1 (100.0%)	1 (33.3%)	5 (83.3%)	7 (63.6%)
	Combined/mixed		1 (33.3%)	1 (16.7%)	2 (18.2%)
	Total valid response	1 (100.0%)	3 (100.0%)	6 (100.0%)	11 (100.0%)
	Total missing		8	3	28
Is there a major difference between your practices with respect to how diabetic eye disease is screened and managed?	No	1 (100.0%)	3 (100.0%)	6 (100.0%)	11 (100.0%)
	Total valid response	1 (100.0%)	3 (100.0%)	6 (100.0%)	11 (100.0%)
	Total missing		8	3	28

PT 2.9

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Blood glucose	Yes		1 (100.0%)	8 (88.9%)	3 (60.0%)	20 (83.3%)
		Total valid numeric response (n)	1 (100.0%)	8 (88.9%)	3 (60.0%)	19 (79.2%)
		Mean	12.0	3.3	2.0	22.5
		SD		3.7	3.5	83.0

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		Median	12.0	2.0	0.0	3.0
		Min	12	0	0	0
		Max	12	12	6	365
		Total missing	0	3	6	20
	No			1 (11.1%)	2 (40.0%)	4 (16.7%)
	Total valid response			1 (100.0%)	9 (100.0%)	5 (100.0%)
	Total missing			2	4	15
	HbA1c	Yes	1 (100.0%)	7 (77.8%)	3 (75.0%)	19 (82.6%)
		Total valid numeric response (n)	1 (100.0%)	7 (77.8%)	2 (50.0%)	17 (73.9%)
		Mean	3.0	3.0	3.0	2.9
		SD		0.8	1.4	0.9
		Median	3.0	3.0	3.0	3.0
		Min	3	2	2	1
		Max	3	4	4	4
		Total missing	0	4	7	22
	No			2 (22.2%)	1 (25.0%)	4 (17.4%)
	Total valid response			1 (100.0%)	9 (100.0%)	4 (100.0%)
	Total missing			2	5	16
Urine check	Yes		1 (100.0%)	7 (77.8%)	4 (66.7%)	17 (73.9%)
		Total valid numeric response (n)	1 (100.0%)	7 (77.8%)	4 (66.7%)	17 (73.9%)
		Mean	6.0	2.3	1.5	2.1

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		SD		1.4	0.6	1.5
		Median	6.0	3.0	1.5	2.0
		Min	6	0	1	0
		Max	6	4	2	6
		Total missing	0	4	5	22
	No			2 (22.2%)	2 (33.3%)	6 (26.1%)
	Total valid response		1 (100.0%)	9 (100.0%)	6 (100.0%)	23 (100.0%)
	Total missing			2	3	16
	Weight check	Yes		1 (100.0%)	8 (88.9%)	2 (50.0%)
		Total valid numeric response (n)	1 (100.0%)	8 (88.9%)	2 (50.0%)	17 (77.3%)
		Mean	12.0	3.5	2.0	3.5
		SD		3.7	0.0	3.4
		Median	12.0	2.5	2.0	3.0
		Min	12	0	2	0
		Max	12	12	2	12
		Total missing	0	3	7	22
	No			1 (11.1%)	2 (50.0%)	4 (18.2%)
	Total valid response		1 (100.0%)	9 (100.0%)	4 (100.0%)	22 (100.0%)
Total missing			2	5	17	
Blood pressure check	Yes		1 (100.0%)	8 (88.9%)	4 (66.7%)	19 (82.6%)
		Total valid numeric response (n)	1 (100.0%)	8 (88.9%)	4 (66.7%)	18 (78.3%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		Mean	12.0	3.3	1.5	3.2
		SD		3.7	1.0	3.5
		Median	12.0	2.0	2.0	2.0
		Min	12	0	0	0
		Max	12	12	2	12
		Total missing	0	3	5	21
	No			1 (11.1%)	2 (33.3%)	4 (17.4%)
	Total valid response			1 (100.0%)	9 (100.0%)	6 (100.0%)
	Total missing			2	3	16
Foot check	Yes			1 (100.0%)	6 (75.0%)	1 (25.0%)
		Total valid numeric response (n)	1 (100.0%)	6 (75.0%)	1 (25.0%)	14 (70.0%)
		Mean	12.0	2.7	2.0	2.9
		SD		4.6		4.0
		Median	12.0	1.0	2.0	1.0
		Min	12	0	2	0
		Max	12	12	2	12
		Total missing	0	5	8	25
	No			2 (25.0%)	3 (75.0%)	6 (30.0%)
	Total valid response			1 (100.0%)	8 (100.0%)	4 (100.0%)
	Total missing			3	5	19
Eye examination - Un-dilated	Yes			1 (12.5%)	4 (100.0%)	8 (40.0%)
		Total valid numeric	0 (0.0%)	1 (12.5%)	2 (50.0%)	6

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		response (n)				(30.0%)
		Mean		0.0	0.0	61.2
		SD			0.0	148.8
		Median		0.0	0.0	0.5
		Min		0	0	0
		Max		0	0	365
		Total missing	1	10	7	33
	No		1 (100.0%)	7 (87.5%)		12 (60.0%)
	Total valid response		1 (100.0%)	8 (100.0%)	4 (100.0%)	20 (100.0%)
	Total missing			3	5	19
Eye examination - Optical Coherence Tomography	Yes			1 (12.5%)	7 (100.0%)	9 (40.9%)
		Total valid numeric response (n)	0 (0.0%)	1 (12.5%)	6 (85.7%)	8 (36.4%)
		Mean		2.0	2.8	2.5
		SD			1.0	1.1
		Median		2.0	2.5	2.0
		Min		2	2	1
		Max		2	4	4
		Total missing	1	10	3	31
	No		1 (100.0%)	7 (87.5%)		13 (59.1%)
	Total valid response		1 (100.0%)	8 (100.0%)	7 (100.0%)	22 (100.0%)
	Total missing			3	2	17

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Eye examination - Fundoscopy	Yes			4 (44.4%)	7 (100.0%)	14 (60.9%)
		Total valid numeric response (n)	0 (0.0%)	4 (44.4%)	6 (85.7%)	13 (56.5%)
		Mean		1.3	2.8	29.9
		SD		0.5	1.0	100.7
		Median		1.0	2.5	2.0
		Min		1	2	1
		Max		2	4	365
		Total missing	1	7	3	26
	No		1 (100.0%)	5 (55.6%)		9 (39.1%)
	Total valid response		1 (100.0%)	9 (100.0%)	7 (100.0%)	23 (100.0%)
	Total missing			2	2	16
Eye examination - Fluorescein Angiography	Yes			1 (12.5%)	7 (100.0%)	8 (36.4%)
		Total valid numeric response (n)	0 (0.0%)	1 (12.5%)	5 (71.4%)	6 (27.3%)
		Mean		1.0	0.8	0.8
		SD			0.4	0.4
		Median		1.0	1.0	1.0
		Min		1	0	0
		Max		1	1	1
		Total missing	1	10	4	33
	No		1 (100.0%)	7 (87.5%)		14 (63.6%)
	Total valid		1 (100.0%)	8 (100.0%)	7 (100.0%)	22 (100.0%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	response					
	Total missing			3	2	17
Eye examination - Lipid check	Yes		1 (100.0%)		2 (50.0%)	5 (25.0%)
		Total valid numeric response (n)	1 (100.0%)	0 (0.0%)	2 (50.0%)	4 (20.0%)
		Mean	3.0		1.5	1.8
		SD			0.7	1.0
		Median	3.0		1.5	1.5
		Min	3		1	1
		Max	3		2	3
		Total missing	0	11	7	35
No				8 (100.0%)	2 (50.0%)	15 (75.0%)
Total valid response			1 (100.0%)	8 (100.0%)	4 (100.0%)	20 (100.0%)
Total missing				3	5	19

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	1 (100.0%)	8 (88.9%)	4 (66.7%)	22 (84.6%)
	Diet/nutrition	1 (100.0%)	8 (88.9%)	2 (33.3%)	20 (76.9%)
	Exercise/physical activity	1 (100.0%)	8 (88.9%)	2 (33.3%)	19 (73.1%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Medicines	1 (100.0%)	7 (77.8%)	3 (50.0%)	19 (73.1%)
	Foot care and inspection	1 (100.0%)	5 (55.6%)	0 (0.0%)	14 (53.8%)
	Blood pressure	1 (100.0%)	8 (88.9%)	1 (16.7%)	17 (65.4%)
	Eye care and exams	0 (0.0%)	5 (55.6%)	6 (100.0%)	20 (76.9%)
	Lipid check	0 (0.0%)	5 (55.6%)	0 (0.0%)	13 (50.0%)
	Other	0 (0.0%)	1 (11.1%)	0 (0.0%)	1 (3.8%)
	Total valid response	1 (100.0%)	9 (100.0%)	6 (100.0%)	26 (100.0%)
	Total missing	0	2	3	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 (33.3%)	6 (100.0%)	12 (46.2%)
	Yes, but information on eye complications is not sufficient	1 (100.0%)	3 (33.3%)	0 (0.0%)	9 (34.6%)
	Yes, but no information on eye complications is included	0 (0.0%)	1 (11.1%)	0 (0.0%)	2 (7.7%)
	No written information is available for patients	0 (0.0%)	2 (22.2%)	0 (0.0%)	2 (7.7%)
	Don't know/Not sure	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.8%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	6 (100.0%)	26 (100.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total missing	0	2	3	13

PT 2.12

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you have written protocols/guidelines available in your main practice for the management of diabetes?	Yes, available and used by staff	0 (0.0%)	7 (77.8%)	4 (66.7%)	18 (69.2%)
	Yes, available but not used by staff	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (7.7%)
	Not available	1 (100.0%)	1 (11.1%)	1 (16.7%)	3 (11.5%)
	Don't know/Not sure	0 (0.0%)	1 (11.1%)	1 (16.7%)	3 (11.5%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	6 (100.0%)	26 (100.0%)
	Total missing	0	2	3	13

PT 2.13

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you have written protocols/guidelines for detection and management of diabetes-related vision issue available in your main practice?	Yes, available and used by staff	0 (0.0%)	4 (44.4%)	6 (100.0%)	12 (48.0%)
	Not available	1 (100.0%)	4 (44.4%)	0 (0.0%)	10 (40.0%)
	Don't know/Not	0 (0.0%)	1 (11.1%)	0 (0.0%)	3 (12.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	sure				
	Total Valid Response	1 (100.0%)	9 (100.0%)	6 (100.0%)	25 (100.0%)
	Total missing	0	2	3	14

PT 2.14

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is the protocol in your main practice for timing of initial eye exams for persons with diabetes - Type I?	After a predetermined number of years (numeric response) (n)	0 (0.0%)	0 (0.0%)	3 (50.0%)	3 (12.0%)
	Mean			5.0	5.0
	SD			1.0	1.0
	Median			5.0	5.0
	Min			4	4
	Max			6	6
	After a predetermined age (numeric response) (n)	0 (0.0%)	2 (22.2%)	1 (16.7%)	4 (16.0%)
	Mean		12.0	12.0	12.0
	SD		0.0		0.0
	Median		12.0	12.0	12.0
	Min		12	12	12
	Max		12	12	12
	As soon as they are diagnosed	1 (100.0%)	5 (55.6%)	1 (16.7%)	12 (48.0%)
	When a patient reports eye/vision problems		1 (11.1%)		2 (8.0%)
	No standard practice, timing		1 (11.1%)		2 (8.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS		
	varies case by case						
	Other			1 (16.7%)	2 (8.0%)		
	Total valid response	1 (100.0%)	9 (100.0%)	6 (100.0%)	25 (100.0%)		
	Total missing		2	3	14		
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%)	0 (0.0%)	0 (0.0%)		
	Mean						
	SD						
	Median						
	Min						
	Max						
	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 (100.0%)	6 (66.7%)	5 (83.3%)	18 (69.2%)		
	When a patient reports eye/vision problems					1 (3.8%)	
	No standard practice, timing varies case by case					2 (22.2%)	3 (11.5%)
	Don't know/Not sure					1 (3.8%)	
	Other		1 (11.1%)	1 (16.7%)	3 (11.5%)		

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total valid response	1 (100.0%)	9 (100.0%)	6 (100.0%)	26 (100.0%)
	Total missing		2	3	13

PT 2.15

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is the protocol in your main practice for timing of follow-up eye examinations for persons with diabetes?	Once a year	1 (100.0%)	7 (77.8%)	4 (66.7%)	20 (80.0%)
	Every two years	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.0%)
	Only when symptoms are present	0 (0.0%)	1 (11.1%)	0 (0.0%)	1 (4.0%)
	Other	0 (0.0%)	1 (11.1%)	2 (33.3%)	3 (12.0%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	6 (100.0%)	25 (100.0%)
	Total missing	0	2	3	14

PT 2.16

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you screen patients for DR?	Yes		4 (44.4%)	4 (57.1%)	14 (50.0%)
	No	1 (100.0%)	5 (55.6%)	3 (42.9%)	14 (50.0%)
	Total valid response	1 (100.0%)	9 (100.0%)	7 (100.0%)	28 (100.0%)
	Total missing		2	2	11
Where do you screen patients?	In clinic		1 (25.0%)	2 (50.0%)	6 (42.9%)
	Outreach		1 (25.0%)	1 (25.0%)	4 (28.6%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Other		2 (50.0%)	1 (25.0%)	4 (28.6%)
	Total valid response		4 (100.0%)	4 (100.0%)	14 (100.0%)
	Total missing	1	7	5	25

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	1 (100.0%)	6 (66.7%)	5 (83.3%)	21 (80.8%)
	Patient's age	1 (100.0%)	5 (55.6%)	2 (33.3%)	15 (57.7%)
	Patient's gender	0 (0.0%)	0 (0.0%)	1 (16.7%)	2 (7.7%)
	Presence of comorbidities such as hypertension, etc.	1 (100.0%)	5 (55.6%)	5 (83.3%)	17 (65.4%)
	High glucose levels	1 (100.0%)	3 (33.3%)	4 (66.7%)	14 (53.8%)
	Patient adherence to recommendations	0 (0.0%)	1 (11.1%)	0 (0.0%)	3 (11.5%)
	None of the above	0 (0.0%)	2 (22.2%)	1 (16.7%)	3 (11.5%)
	Total valid response	1 (100.0%)	9 (100.0%)	6 (100.0%)	26 (100.0%)
	Total missing	0	2	3	13

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	Cost of care	0 (0.0%)	1 (12.5%)	1 (16.7%)	2 (8.3%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
diabetes in your main practice?					
	Proximity to care	0 (0.0%)	1 (12.5%)	3 (50.0%)	5 (20.8%)
	Long wait time for appointment	1 (100.0%)	3 (37.5%)	2 (33.3%)	9 (37.5%)
	Long wait time on the day of visit	0 (0.0%)	1 (12.5%)	1 (16.7%)	3 (12.5%)
	Referral process	0 (0.0%)	3 (37.5%)	2 (33.3%)	9 (37.5%)
	Recommended treatments are not available	0 (0.0%)	0 (0.0%)	1 (16.7%)	1 (4.2%)
	Lack of knowledge and/or awareness	1 (100.0%)	2 (25.0%)	2 (33.3%)	7 (29.2%)
	Patients fear of treatment/results	0 (0.0%)	0 (0.0%)	2 (33.3%)	2 (8.3%)
	Patients they are a burden on family/friends	0 (0.0%)	0 (0.0%)	2 (33.3%)	2 (8.3%)
	Limited access to diabetes specialists	0 (0.0%)	2 (25.0%)	4 (66.7%)	8 (33.3%)
	Limited access to eye specialists	1 (100.0%)	1 (12.5%)	0 (0.0%)	6 (25.0%)
	Patients feel eye complications are unlikely	0 (0.0%)	0 (0.0%)	1 (16.7%)	2 (8.3%)
	Patients feel eye exams are not important	0 (0.0%)	1 (12.5%)	1 (16.7%)	3 (12.5%)
	Patients have competing responsibilities and priorities	0 (0.0%)	2 (25.0%)	3 (50.0%)	6 (25.0%)
	Clinic too small or lack necessary equipment/staff	1 (100.0%)	1 (12.5%)	2 (33.3%)	5 (20.8%)
	Other	0 (0.0%)	1 (12.5%)	2 (33.3%)	3 (12.5%)
Total valid response		1	8 (100.0%)	6 (100.0%)	24

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		(100.0%)			(100.0%)
	Total missing	0	3	3	15

PT 2.19

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, are patients contacted with reminders for general follow-up appointments?	Yes	0 (0.0%)	6 (75.0%)	5 (83.3%)	18 (75.0%)
	No	1 (100.0%)	2 (25.0%)	1 (16.7%)	6 (25.0%)
	Total Valid Response	1 (100.0%)	8 (100.0%)	6 (100.0%)	24 (100.0%)
	Total missing	0	3	3	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 her general practitioner, ophthalmologist, podiatrist?	Yes	1 (100.0%)	8 (88.9%)	6 (100.0%)	23 (92.0%)
	No	0 (0.0%)	1 (11.1%)	0 (0.0%)	2 (8.0%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	6 (100.0%)	25 (100.0%)
	Total missing	0	2	3	14

PT 3.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
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Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Please indicate your age:	30 - 39		3 (33.3%)	1 (16.7%)	6 (23.1%)
	40 - 49	1 (100.0%)	3 (33.3%)	5 (83.3%)	13 (50.0%)
	50 - 59		3 (33.3%)		6 (23.1%)
	60 - 69				1 (3.8%)
	Total valid response	1 (100.0%)	9 (100.0%)	6 (100.0%)	26 (100.0%)
	Total missing		2	3	13
What is your gender?	Female		6 (66.7%)	4 (57.1%)	20 (74.1%)
	Male	1 (100.0%)	3 (33.3%)	3 (42.9%)	7 (25.9%)
	Total valid response	1 (100.0%)	9 (100.0%)	7 (100.0%)	27 (100.0%)
	Total missing		2	2	12
What is your highest level of education completed?	College/University		3 (33.3%)		9 (33.3%)
	Graduate or advanced degree (e.g. PhD, MD, etc)	1 (100.0%)	6 (66.7%)	7 (100.0%)	18 (66.7%)
	Total valid response	1 (100.0%)	9 (100.0%)	7 (100.0%)	27 (100.0%)
	Total missing		2	2	12

PT 4.1

Question	Response	Ophthalmologist
What percentage of your patients have diabetic retinopathy	Total valid numeric response (n)	7
	Mean	35.7
	SD	30.9
	Median	35.0
	Min	0
	Max	80

Question	Response	Ophthalmologist
	Total missing	2

PT 4.2

Question	Response	Ophthalmologist
What percentage of your patients have diabetic macular edema?	Total valid numeric response (n)	7
	Mean	11.7
	SD	9.6
	Median	10.0
	Min	0
	Max	25
	Total missing	2

PT 4.3

Question	Response	Ophthalmologist
What is the average amount of time your patients wait for an appointment to be screened for diabetic eye disease in your practice?	Less than 1 week	0 (0.0%)
	More than 1 week but less than 1 month	3 (42.9%)
	More than 1 month but less than 2 months	1 (14.3%)
	More than 3 months but less than 6 months	2 (28.6%)
	Other	1 (14.3%)
	Total Valid Response	7 (100.0%)
	Total missing	2

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?	More than 1 week but less than 1 month	1 (14.3%)
	More than 1 month but less than 2 months	1 (14.3%)
	Other	1 (14.3%)

Question	Response	Ophthalmologist
	There is not wait, diagnosis is given when screened	4 (57.1%)
	Total Valid Response	7 (100.0%)
	Total missing	2

PT 4.5

Type of Treatment	Question	Response/time	Ophthalmologist
Laser photocoagulation	Is the treatment available?	Available locally	
		Available in practice	6 (100.0%)
		Total valid response	6 (100.0%)
		Total missing	3
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	5 (100.0%)
		Mean	3.0
		SD	3.2
		Median	2.0
		Min	0
		Max	8
		Don't know/not sure	
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	5 (100.0%)
		Mean	2.4
		SD	2.3
		Median	2.0
		Min	0
		Max	6
		Don't know/not sure	

Type of Treatment	Question	Response/time	Ophthalmologist
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid response	5 (100.0%)
		Total missing	4
		Total valid numeric response (n)	4 (80.0%)
		Mean	1.5
		SD	1.3
		Median	1.5
		Min	0
		Max	3
		Don't know/not sure	
		Not applicable	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
Anti-VEGF therapies	Is the treatment available?	Available locally	1 (16.7%)
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Available in practice	5 (83.3%)
		Total valid response	6 (100.0%)
		Total missing	3
		Total valid numeric response (n)	5 (100.0%)
		Mean	4.4
		SD	2.1
		Median	4.0
		Min	3
		Max	8
		Don't know/not sure	
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a first	Total valid numeric	5 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
	treatment?(weeks)	response (n)	
		Mean	4.2
		SD	2.3
		Median	4.0
		Min	2
		Max	8
		Don't know/not sure	
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	5 (100.0%)
		Mean	4.0
		SD	1.4
		Median	4.0
		Min	2
		Max	6
		Don't know/not sure	
		Total valid response	5 (100.0%)
		Total missing	4
Intravitreal steroid	Is the treatment available?	Available locally	1 (16.7%)
		Available in practice	5 (83.3%)
		Total valid response	6 (100.0%)
		Total missing	3
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	4.8
		SD	2.2
		Median	4.0
		Min	3

Type of Treatment	Question	Response/time	Ophthalmologist
		Max	8
		Don't know/not sure	
		Not applicable	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	4.3
		SD	2.6
		Median	3.5
		Min	2
		Max	8
		Don't know/not sure	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	6.0
		SD	4.3
		Median	5.0
		Min	2
		Max	12
		Don't know/not sure	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
Uncomplicated vitrectomy	Is the treatment available?	Available within country	1 (16.7%)
		Available locally	1 (16.7%)
		Available in	4 (66.7%)

Type of Treatment	Question	Response/time	Ophthalmologist
		practice	
		Total valid response	6 (100.0%)
		Total missing	3
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	4.0
		SD	1.4
		Median	3.5
		Min	3
		Max	6
		Don't know/not sure	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	3.8
		SD	1.5
		Median	3.0
		Min	3
		Max	6
		Don't know/not sure	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	2 (40.0%)
		Mean	3.0
		SD	0.0
		Median	3.0
		Min	3

Type of Treatment	Question	Response/time	Ophthalmologist
		Max	3
		Don't know/not sure	2 (40.0%)
		Not applicable	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
Complex vitreo-retinal surgery	Is the treatment available?	Available within country	1 (16.7%)
		Available locally	1 (16.7%)
		Available in practice	4 (66.7%)
		Total valid response	6 (100.0%)
		Total missing	3
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	4.0
		SD	1.4
		Median	3.5
		Min	3
		Max	6
		Don't know/not sure	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	4 (80.0%)
		Mean	3.8
		SD	1.5
		Median	3.0
		Min	3
		Max	6
		Don't know/not	1 (20.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
	What is the average amount of time your patients wait for a second treatment?(weeks)	sure	
		Total valid response	5 (100.0%)
		Total missing	4
		Total valid numeric response (n)	2 (40.0%)
		Mean	3.0
		SD	0.0
		Median	3.0
		Min	3
		Max	3
		Don't know/not sure	2 (40.0%)
		Not applicable	1 (20.0%)
		Total valid response	5 (100.0%)
		Total missing	4

PT 4.6

Question	Response	Ophthalmologist
Do you personally administer treatment for diabetic retinopathy?	Yes	6 (100.0%)
	No	
	Total valid response	6 (100.0%)
	Total missing	3
Who administer it?	Refer to a provider at another facility	
	Total valid response	
	Total missing	9

PT 4.7

Question	Response	Ophthalmologist
Do any of the following influence how you treat diabetic retinopathy or diabetic macular edema?	None of the above	5 (100.0%)
	Total valid	5 (100.0%)

Question	Response	Ophthalmologist
	response	
	Total missing	4

PT 4.8

Question	Response	Ophthalmologist
Do you treat diabetic retinopathy and diabetic macular edema based on:	Both	6 (100.0%)
	Other	0 (0.0%)
	Total Valid Response	6 (100.0%)
	Total missing	3

PT 4.9

Question	Response	Ophthalmologist
How are your patients with diabetes screened for diabetic eye disease?	Fundoscopy undilated	2 (33.3%)
	Fundoscopy dilated	1 (16.7%)
	Retinal photo	5 (83.3%)
	Optical Coherence Tomography	3 (50.0%)
	Fluorescein Angiography	3 (50.0%)
	Total valid response	6 (100.0%)
	Total missing	3

PT 4.10

Question	Response	Ophthalmologist
In your opinion, do the majority of your patients present:	In time for screening	4 (66.7%)
	When visual problems have already occurred	2 (33.3%)
	Total Valid Response	6 (100.0%)
	Total missing	3

PT 4.11

Question	Response	Ophthalmologist
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Question	Response	Ophthalmologist
Have you received training specifically on treatment and diagnosis of diabetic retinopathy and/or clinically significant diabetic macular edema?	Yes	5 (83.3%)
	No	1 (16.7%)
	Total valid response	6 (100.0%)
	Total missing	3
If yes, When was your last training?	Five or more years ago	1 (20.0%)
	Greater than 1 year ago but less than 5 years	2 (40.0%)
	Within the past year	2 (40.0%)
	Total valid response	5 (100.0%)
	Total missing	4

PT 4.12

Question	Response	Ophthalmologist
Would you be interested in online education and certification on DME, Angiogenesis and Anti-VEGF therapies?	Yes	5 (83.3%)
	No	1 (16.7%)
	Total Valid Response	6 (100.0%)
	Total missing	3

PT 4.13

Question	Response	Ophthalmologist
How is outreach for screening for diabetic eye disease done in your main practice?	Mobile screening centers	4 (66.7%)
	At vision centers	5 (83.3%)
	Other	1 (16.7%)
	Total valid response	6 (100.0%)
	Total missing	3

PT 4.14

Question	Response	Ophthalmologist
What do you perceive to be the greatest challenges for improving	Reimbursement/restrictions on approved	1 (16.7%)

Question	Response	Ophthalmologist
patient outcomes in diabetic eye disease?	therapy	
	Late diagnosis	2 (33.3%)
	Referral pathways	3 (50.0%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	1 (16.7%)
	No universal guidelines on how to treat	2 (33.3%)
	No universal guideline on when to treat	1 (16.7%)
	Government/insurance not able to cover patient costs	2 (33.3%)
	Multi-disciplinary team integration is poor	4 (66.7%)
	Other	1 (16.7%)
	Total valid response	6 (100.0%)
	Total missing	3

EXP 1

Question	Response	Without DED (%)	With DED (%)	With DME (%)
Which of the following complications of diabetes do you have?	Kidney disease	1 (1.8%)	1 (5.9%)	1 (50.0%)
	Loss of feeling in hands or toes (neuropathy)	4 (7.1%)	5 (29.4%)	1 (50.0%)
	Vision loss	5 (8.9%)	4 (23.5%)	2 (100.0%)
	Cardiovascular disease/Stroke	1 (1.8%)	1 (5.9%)	0 (0.0%)
	Foot ulcers	0 (0.0%)	1 (5.9%)	0 (0.0%)
	Irritable bowel disease	4 (7.1%)	0 (0.0%)	0 (0.0%)
	Broken bones or fractures	0 (0.0%)	1 (5.9%)	0 (0.0%)
	Other	2 (3.6%)	1 (5.9%)	0 (0.0%)
	None	42 (75.0%)	8 (47.1%)	0 (0.0%)
	Don't know/Not sure	1 (1.8%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	56 (100.0%)	17 (100.0%)	2 (100.0%)

Question	Response	Without DED (%)	With DED (%)	With DME (%)
	Total missing	9	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 2

Limitations	Without DED n (%)	With DED n (%)	With DME n (%)
Limited in any way in any activities because of impairment or health problem	11 (21.6%)	9 (52.9%)	1 (50.0%)
Impairment or health problem			
Diabetes	10 (83.3%)	5 (62.5%)	0 (0.0%)
Mental or emotional health	6 (66.7%)	4 (57.1%)	0 (0.0%)
Walking problem	5 (62.5%)	5 (62.5%)	1 (100.0%)
Back or neck problem	3 (50.0%)	4 (57.1%)	0 (0.0%)
Fractures, bone/joint injury	3 (42.9%)	3 (42.9%)	0 (0.0%)
Hypertension/high blood pressure	2 (33.3%)	2 (28.6%)	0 (0.0%)
Arthritis/rheumatism	1 (20.0%)	2 (28.6%)	0 (0.0%)
Hearing problem	1 (20.0%)	1 (14.3%)	0 (0.0%)
Heart problem	1 (16.7%)	1 (14.3%)	0 (0.0%)
Eye/vision problem	1 (16.7%)	3 (42.9%)	0 (0.0%)
Lung/breathing problem	0 (0.0%)	2 (28.6%)	0 (0.0%)

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

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

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

NB [4]: 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	37 (75.5%)	13 (76.5%)	1 (50.0%)
Self-rated health: Poor	12 (24.5%)	4 (23.5%)	1 (50.0%)
Physically unhealthy days	16 (38.1%)	8 (50.0%)	2 (100.0%)
Mentally unhealthy days	17 (41.5%)	7 (46.7%)	1 (50.0%)
Unhealthy days	23 (56.1%)	10 (66.7%)	2 (100.0%)
Activity limitation days	13 (52.0%)	5 (50.0%)	0 (0.0%)

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

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

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

EXP 4

Item	Response	All respondents	Respondents with Type I diabetes	Respondents with Type II diabetes
How do you manage your diabetes?	Diet	38 (48.7%)	20 (36.4%)	17 (81.0%)
	Oral medicine	18 (23.1%)	1 (1.8%)	16 (76.2%)
	Exercise	27 (34.6%)	13 (23.6%)	13 (61.9%)
	Insulin	60 (76.9%)	55 (100.0%)	4 (19.0%)
	Natural/Herbal medicine	2 (2.6%)	1 (1.8%)	1 (4.8%)

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	36 (70.6%)	10 (58.8%)	1 (50.0%)
	Working without pay at home (e.g. housework, farming)	7 (13.7%)	1 (5.9%)	0 (0.0%)
	Retired	1 (2.0%)	2 (11.8%)	0 (0.0%)
	Student	2 (3.9%)	0 (0.0%)	0 (0.0%)
	Not working	5 (9.8%)	4 (23.5%)	1 (50.0%)
	Total Valid Response	51 (100.0%)	17 (100.0%)	2 (100.0%)
	Total missing	14	0	0
Do you receive assistance from the government?	Income assistance	7 (13.7%)	3 (17.6%)	2 (100.0%)
	Medical assistance	15 (29.4%)	6 (35.3%)	1 (50.0%)
	Pension assistance	2 (3.9%)	0 (0.0%)	0 (0.0%)
	None of the above	32 (62.7%)	9 (52.9%)	0 (0.0%)
	Total valid response	51 (100.0%)	17 (100.0%)	2 (100.0%)
	Total missing	14	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	10 (20.0%)	1 (5.9%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	No	40 (80.0%)	16 (94.1%)	2 (100.0%)
	Total Valid Response	50 (100.0%)	17 (100.0%)	2 (100.0%)
	Total missing	15	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 5.2: Age group 18-39 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	20 (71.4%)	4 (66.7%)	0 (0.0%)
	Working without pay at home (e.g. housework, farming)	3 (10.7%)	0 (0.0%)	0 (0.0%)
	Student	2 (7.1%)	0 (0.0%)	0 (0.0%)
	Not working	3 (10.7%)	2 (33.3%)	1 (100.0%)
	Total Valid Response	28 (100.0%)	6 (100.0%)	1 (100.0%)
	Total missing	6	0	0
Do you receive assistance from the government?	Income assistance	4 (14.3%)	2 (33.3%)	1 (100.0%)
	Medical assistance	9 (32.1%)	0 (0.0%)	1 (100.0%)
	None of the above	17 (60.7%)	4 (66.7%)	0 (0.0%)
	Total valid response	28 (100.0%)	6 (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 (18.5%)	0 (0.0%)	0 (0.0%)
	No	22 (81.5%)	6 (100.0%)	1 (100.0%)
	Total Valid Response	27 (100.0%)	6 (100.0%)	1 (100.0%)
	Total missing	7	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	15 (71.4%)	6 (66.7%)	1 (100.0%)
	Working without pay at home (e.g. housework, farming)	4 (19.0%)	1 (11.1%)	0 (0.0%)
	Not working	2 (9.5%)	2 (22.2%)	0 (0.0%)
	Total Valid Response	21 (100.0%)	9 (100.0%)	1 (100.0%)
	Total missing	7	0	0
Do you receive assistance from the government?	Income assistance	3 (14.3%)	1 (11.1%)	1 (100.0%)
	Medical assistance	6 (28.6%)	5 (55.6%)	0 (0.0%)
	Pension assistance	1 (4.8%)	0 (0.0%)	0 (0.0%)
	None of the above	14 (66.7%)	4 (44.4%)	0 (0.0%)
	Total valid response	21 (100.0%)	9 (100.0%)	1 (100.0%)
	Total missing	7	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	5 (23.8%)	1 (11.1%)	0 (0.0%)
	No	16 (76.2%)	8 (88.9%)	1 (100.0%)
	Total Valid Response	21 (100.0%)	9 (100.0%)	1 (100.0%)
	Total missing	7	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 5.4: Age group 60-79 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	1 (50.0%)	0 (0.0%)	0 (0.0%)
	Retired	1 (50.0%)	2 (100.0%)	0 (0.0%)
	Total Valid Response	2 (100.0%)	2 (100.0%)	0 (0.0%)
	Total missing	1	0	0
Do you receive assistance from the	Medical	0 (0.0%)	1 (50.0%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
government?	assistance			
	Pension assistance	1 (50.0%)	0 (0.0%)	0 (0.0%)
	None of the above	1 (50.0%)	1 (50.0%)	0 (0.0%)
	Total valid response	2 (100.0%)	2 (100.0%)	0
	Total missing	1	0	0
Did you have trouble paying for food at anytime during the past year?	No	2 (100.0%)	2 (100.0%)	0 (0.0%)
	Total Valid Response	2 (100.0%)	2 (100.0%)	0 (0.0%)
	Total missing	1	0	0

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

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

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

EXP 5.5: Age group 80+ years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?		0 (0.0%)	0 (0.0%)	0 (0.0%)
Do you receive assistance from the government?	Total valid response	0	0	0
	Total missing	0	0	0
Did you have trouble paying for food at anytime during the past year?		0 (0.0%)	0 (0.0%)	0 (0.0%)

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

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

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

EXP 6

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
All respondents		84 (100%)	59 (70.2%)	23 (27.4%)	17 (20.2%)	2 (2.4%)
Gender	Male	21 (29.6%)	15 (71.4%)	5 (23.8%)	6 (28.6%)	0 (0.0%)
	Female	50 (70.4%)	35 (70.0%)	15 (30.0%)	11 (22.0%)	2 (4.0%)
	Total Missing	13	9	3	0	0

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
Age	18-39 yrs	41 (48.8%)	37 (90.2%)	4 (9.8%)	6 (14.6%)	1 (2.4%)
	40-59 yrs	38 (45.2%)	21 (55.3%)	15 (39.5%)	9 (23.7%)	1 (2.6%)
	60-79 yrs	5 (6.0%)	1 (20.0%)	4 (80.0%)	2 (40.0%)	0 (0.0%)
Time since diagnosis	Within the last year	8 (9.9%)	5 (62.5%)	2 (25.0%)	0 (0.0%)	0 (0.0%)
	1 - 5 years ago	13 (16.0%)	4 (30.8%)	9 (69.2%)	0 (0.0%)	0 (0.0%)
	6 - 10 years ago	13 (16.0%)	8 (61.5%)	5 (38.5%)	3 (23.1%)	0 (0.0%)
	11 - 15 years ago	9 (11.1%)	6 (66.7%)	3 (33.3%)	3 (33.3%)	0 (0.0%)
	16 - 20 years ago	15 (18.5%)	12 (80.0%)	3 (20.0%)	3 (20.0%)	0 (0.0%)
	21 years ago or longer	23 (28.4%)	22 (95.7%)	0 (0.0%)	8 (34.8%)	2 (8.7%)
	Total Missing	3	2	1	0	0
Control of Diabetes	Controlled	57 (75.0%)	39 (68.4%)	17 (29.8%)	15 (26.3%)	2 (3.5%)
	Not controlled	18 (23.7%)	15 (83.3%)	3 (16.7%)	2 (11.1%)	0 (0.0%)
	Don't know/Not sure	1 (1.3%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	8	5	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	6 (35.3%)	2 (100.0%)
	No	11 (64.7%)	0 (0.0%)
	Total valid response	17 (100.0%)	2 (100.0%)
What treatment did you receive?	Laser	6 (100.0%)	2 (100.0%)
	Anti-VEGF	0 (0.0%)	2 (100.0%)
	Surgery	0 (0.0%)	1 (50.0%)
	Total valid response	6 (100.0%)	2 (100.0%)

Question	Response	With DED n (%)	With DME n (%)
	Total missing	11	0
Did you complete the treatment?	Yes	3 (50.0%)	1 (50.0%)
	Still receiving treatment	3 (50.0%)	1 (50.0%)
	Total valid response	6 (100.0%)	2 (100.0%)
	Total missing	11	0
Do you feel that the treatment worked?	Yes, and vision improved	0 (0.0%)	2 (100.0%)
	Yes, but vision stayed the same	5 (83.3%)	0 (0.0%)
	Still waiting to know	1 (16.7%)	0 (0.0%)
	Total valid response	6 (100.0%)	2 (100.0%)
	Total missing	11	0
What is/are the reason(s) that you did not complete the treatment?	Total valid response	0 (0.0%)	0 (0.0%)
	Total missing	17	2
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	9 (81.8%)	0 (0.0%)
	Treatment is not accessible	1 (9.1%)	0 (0.0%)
	Still waiting for treatment	1 (9.1%)	0 (0.0%)
	Other	2 (18.2%)	0 (0.0%)
	Total valid response	11 (100.0%)	0 (0.0%)
	Total missing	6	2

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

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

NB [3]: Percentages within groups are calculated from non-missing data for that question.

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