DR Barometer
Shifting the needle

The Diabetic Retinopathy Barometer Report

Egypt

Contents

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

Introduction
Global Study

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

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

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 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 into World Bank Income Groups (WBIGs).

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

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

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

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 the three following subgroups:

• Without DED: people with diabetes without any reported form of DED

• With DED: people with diabetes with reported DED but not DME

• With DME: people with diabetes with reported DED and DME

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

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

Introduction
Egypt Study

Demographic Characteristics[1]

Egypt is the second most populous country of the Middle East with an estimated population of approximately 93.2 million. Currently it is estimated that ~33% of the population is under the age of 15 (31.2 million) while only 5% is over the age of 65 (4.9 million).

By 2050, the population distribution in Egypt is expected to increase by ~68%, but with the population actually ageing. Those 15 and younger will make up ~26% of the country population while those aged 65 or older will make up ~10% of Egypt's population.

Although those aged younger than 15 will still represent over a quarter of the population, in just over 30 years the population aged 65 years or older will almost quadruple and reach an all-time high of approximately 15.7 million.

Diabetes Profile[2]

There are 415 million people living with diabetes and more than 35.4 million people are in the Middle East and North Africa region. By 2040, this number if expected to rise to 72.1 million.

The Middle East and North Africa region ranges from Iran, Pakistan, Sudan, and Morocco. This region, over the past three decades, has experienced major social and economic changes that have transformed many of the countries. With 35.4 million people living with diabetes in this region, it is important to note that 40.6% of these are undiagnosed and the vast majority (83.9%) of people living with diabetes are living in low- or middle-income countries.

Egypt has the highest number of people living with diabetes in the Middle East and North African region at ~7.8 million (3,759.2-8,972.4‡), which accounts to ~22% of people living with diabetes in this region. Globally, Egypt is the 8th country in the world for the number of people living with diabetes. Egypt will continue to be in the top ten countries for the highest adult populations living with diabetes in 2040 at an estimated 15.1 million (7.3-17.3‡).

Egypt's national prevalence (20-79 years) is 14.9% (7.2-17.1‡) and the diabetes age-adjusted comparative prevalence is 16.7% (8.1-19.2‡). Deaths attributed to diabetes in Egypt in 2015 were 78,184, which accounted to ~23% of the diabetes-related deaths experienced in this region. The estimated number of undiagnosed cases were ~3.2 million (1,948.0-4,649.5‡).

Study Populations: Egypt

As reported by 80 respondents with diabetes in Egypt, 14% were diagnosed with DED and a further 11% with DME.

Twenty-one health care professionals completed the survey in Egypt. Of these, 12 were diabetes specialist providers (57%), four were ophthalmologists (19%), and two were primary care providers (9.5%). The remaining respondents were either nurses or other types of professionals.

The DR Barometer Study: Egypt Overview

The DR Barometer study was conducted in 41 countries. In Egypt, 80 adults with diabetes and 21 health care professionals provided new information about the experiences of living with, managing and treating diabetes, DR and DME.

43%

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

13%

of respondents said their vision impairment due to DR or DME made it **difficult to manage their diabetes**
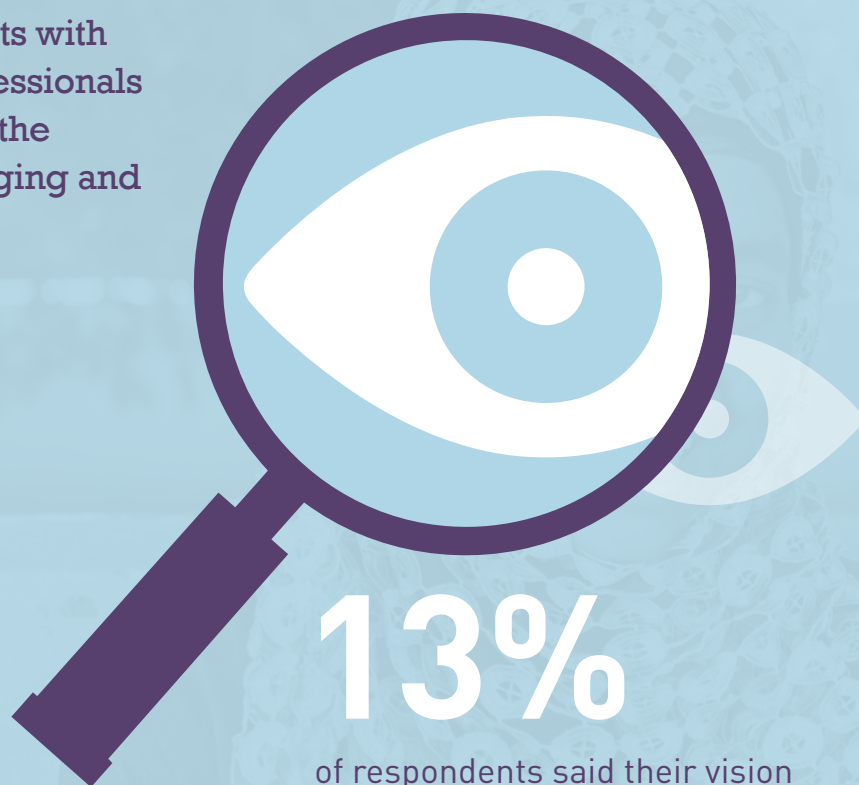
53%

of all providers **did not have written protocols/guidelines** for detection and management of diabetes-related vision loss available
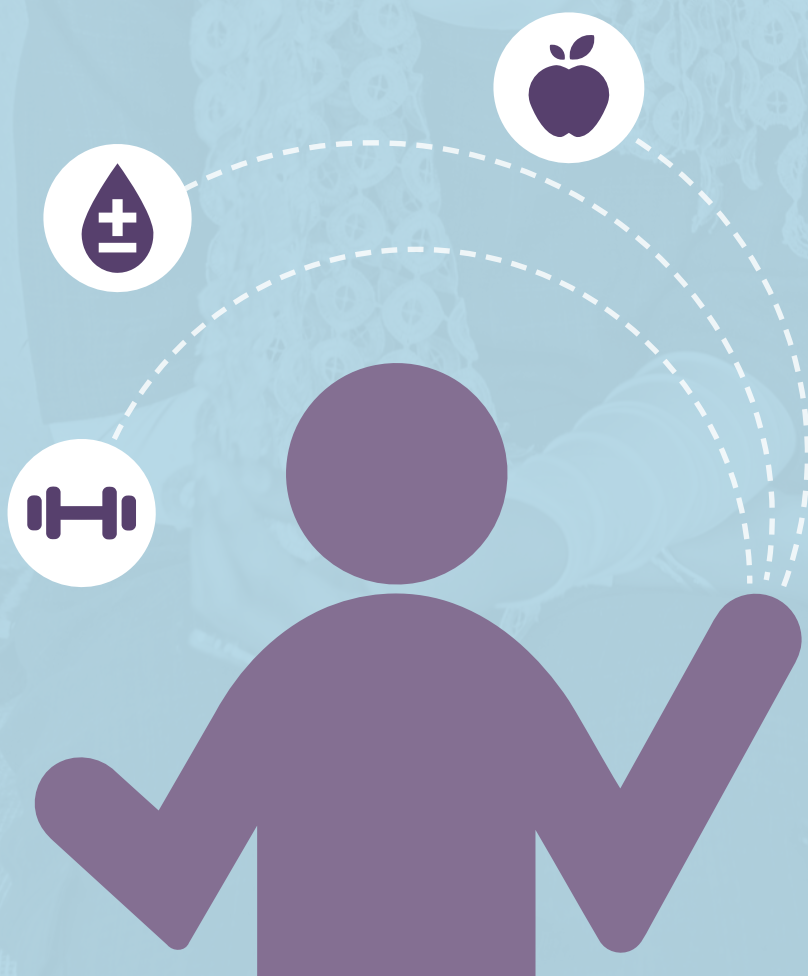
DR: Diabetic Retinopathy
DME: Diabetic Macular Edema

DRBarometer.com

IFA · IAPB · International Diabetes Federation · BAYER

100%

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

50%

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

37%

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

67%

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

Egypt
DR Barometer Findings:
Adults with Diabetes

Key Demographic Characteristics

Eighty adults with diabetes completed the patients' survey in Egypt: 21% were female and 79% were male.

Seventy-nine percent lived in an urban setting and 21% in a non-urban setting. The education levels of all respondents were as follows: 2.7% did not complete primary school, 14% were educated to a secondary school level, 70% to a college or university level, and 14% to a graduate or post-graduate level (see Appendix Table 4.2 and 4.3).

Sixty-three percent of all respondents were in paid employment, 9.3% were retired, and 9.3% were not working (see Appendix Table 4.4).

Most respondents (68%) were aged between 18 and 39 years (24% were 40-59 years and 8.8% were 60-79 years). Ninety-one percent were of traditional working age (18- 59 years) (see Table 1).

Of the respondents in Egypt, 43% had been diagnosed with type 1 diabetes and 28% with type 2 diabetes. A further 30% were either unsure of or did not know their type of diabetes (see Appendix Table 2.1). Fourteen percent of respondents (n=11) had been diagnosed with DED and a further 11% (n=9) with DME.

Thirty percent of those surveyed were diagnosed with diabetes within the last year, 1 - 5 years ago (39%), 6 - 10 years ago (9.1%), 11 - 15 years ago (12%), 16 - 20 years ago (3.9%) and 21 years ago or more (3.9%) (see Appendix Table 2.2).

Amongst 18 to 39-year-olds, 54% had type 1 diabetes (20% type 2); in the 40-59 age group, 16% had type 1 diabetes (42% type 2), 29% of 60-79-year-olds had type 1 diabetes (43% type 2).

In people aged 18-39 years, 11% had DED and 13% had DME. In those aged 40-59 years, 11% had had DED and 11% had DME. For people aged 60-79 years, 43% had DED and no respondent had DME. For those diagnosed within the last year 8.7% had DED (n=2) and one respondent had DME (4.3%). This increased to 29% of those with DED and 14% with DME in those with 6-10 years since diagnosis and for those diagnosed 11-15 years ago 33% had DED and 11% had DME. A third of respondents diagnosed more than 21 years had DED.

While most (70%) respondents said that their diabetes was well controlled almost one in four felt that this was not the case. For those who felt their diabetes was controlled, 9.4% had DED, 11% had DME, and for those not well controlled 29% had DED and 14% had DME. The number of respondents however was notable small.

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		80 (100.0%)	34 (42.5%)	22 (27.5%)	11 (13.8%)	9 (11.3%)
Gender	Male	59 (78.7%)	24 (40.7%)	17 (28.8%)	6 (10.2%)	7 (11.9%)
	Female	16 (21.3%)	8 (50.0%)	3 (18.8%)	5 (31.3%)	2 (12.5%)
	Total Missing	5	2	2	0	0
Age	18-39 yrs.	54 (67.5%)	29 (53.7%)	11 (20.4%)	6 (11.1%)	7 (13.0%)
	40-59 yrs.	19 (23.8%)	3 (15.8%)	8 (42.1%)	2 (10.5%)	2 (10.5%)
	60-79 yrs.	7 (8.8%)	2 (28.6%)	3 (42.9%)	3 (42.9%)	0 (0.0%)
Time since diagnosis	Within the last year	23 (29.9%)	8 (34.8%)	2 (8.7%)	2 (8.7%)	1 (4.3%)
	1 - 5 yrs.	30 (39.0%)	13 (43.3%)	10 (33.3%)	3 (10.0%)	5 (16.7%)
	6 - 10 yrs.	7 (9.1%)	4 (57.1%)	1 (14.3%)	2 (28.6%)	1 (14.3%)
	11 - 15 yrs.	9 (11.7%)	3 (33.3%)	5 (55.6%)	3 (33.3%)	1 (11.1%)
	16 - 20 yrs.	3 (3.9%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	21 yrs. plus	3 (3.9%)	2 (66.7%)	1 (33.3%)	1 (33.3%)	0 (0.0%)
	Don't know/ Not sure	2 (2.6%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)
	Total Missing	3	1	2	0	0
Control of Diabetes	Controlled	53 (69.7%)	23 (43.4%)	13 (24.5%)	5 (9.4%)	6 (11.3%)
	Not controlled	21 (27.6%)	9 (42.9%)	7 (33.3%)	6 (28.6%)	3 (14.3%)
	Don't know/ Not sure	2 (2.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	4	2	2	0	0
	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

Eighty-four percent of those surveyed saw a health care professional for their diabetes, with 45% seeing a diabetes specialist (on average 8.3 times per year) and 51% seeing a general/family doctor (on average 8.2 times per year) (see Appendix Table 2.3.1 and 2.3.2).

People were informed about their condition through a variety of channels. Seventy-eight percent received information from a doctor or nurse, 62% from the internet and 40% from family/friends/neighbours (see Table 2 and Appendix Table 2.4).

Table 2: Source of information regarding diabetes

Information Source	All Respondents (n=77)
Doctor or nurse	60 (77.9%)
Internet	48 (62.3%)
Family/Friends/Neighbours	31 (40.3%)
Pharmacist	31 (40.3%)
Social media (e.g. Facebook, Twitter, blogs)	27 (35.1%)
TV/Radio/Newspaper/Magazines	24 (31.2%)
Nutritionist or dietician	15 (19.5%)
Health educator	12 (15.6%)
Diabetes organisation or other health organisation	10 (13.0%)

A range of strategies was used by respondents to manage their diabetes. For those with type 1 diabetes, apart from insulin, 58% managed their diabetes with diet, 46% with oral medicine, 24% with exercise and 12% with natural or herbal medicine. Of the respondents with type 2 diabetes, 65% managed their condition with diet, 45% with oral medicine, 40% with insulin, and 30% with exercise.

Twenty-six percent of respondents were enrolled in diabetes management programmes and of these 74% 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 (58%) these occurred at less than 6 months (35%), 6 - 12 months (13%) and greater than 12 months (8.3%) (see Appendix Table 2.7).

The main challenges in controlling diabetes cited by respondents were: it was too hard to eat the right things (57%), the high cost of care (30%), the respondent did not want to think about having diabetes (30%), lack of medical or health insurance (29%), and the respondent did not know enough about their condition of diabetes (29%) (see Appendix Table 2.9).

Health education and information (55%), free or low cost medicines or monitoring materials (41%), support from family or friends (40%), coordination of healthcare and services by a professional (19%) and support groups (16%) were identified as important to improving the management of their diabetes (see Appendix Table 2.10).

Nature and Information about Complications

Forty-nine percent of respondents were aware of amputation as a complication along with other complications, such as: neuropathy (49%), vision loss (45%), foot ulcers (41%), and cardiovascular disease or stroke (32%) associated with diabetes (see Appendix Table 2.11).

Patients were most concerned about vision loss (31%), amputation (21%), cardiovascular disease or stroke (8%), and neuropathy (5.3%) (see Appendix Table 2.12).

Thirty-nine percent of respondents reported that they had no complications of diabetes. However, of those who did have complications 26% had neuropathy (26%), kidney disease (9.5%), vision loss (8.1%), cardiovascular disease or stroke (8.1%) and amputation (5.4%) (see Figure 1 and Appendix Table 2.13).

Over two-thirds of people with DED (70%) and all people with DME had complications with their condition (see Table 3). Aside from vision loss, there was an increase in the frequency of those with DED and DME experiencing complications compared to people without DED, e.g. 3.6% without DED vs 22% with DME reported amputations; 3.6% without DED vs 22% with DME reported foot ulcers (see EXP 1).
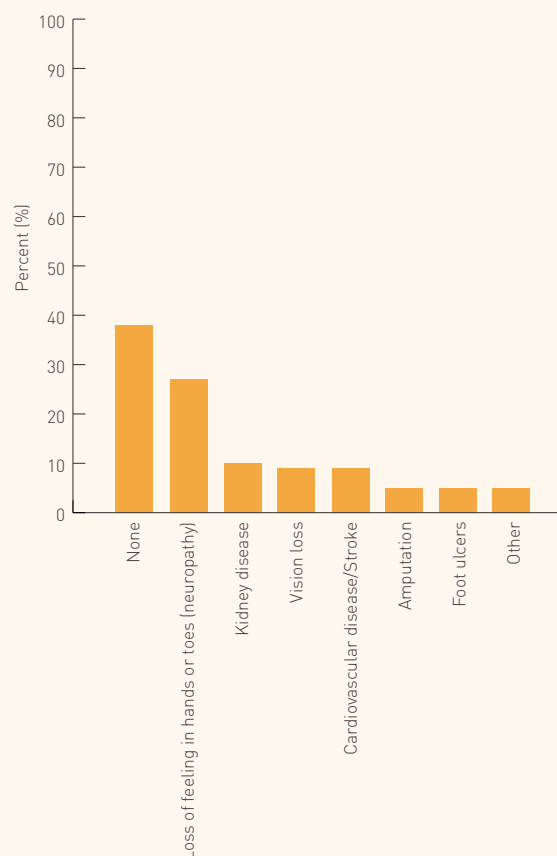
Figure 1: Presence of complications

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

Complication	Without DED (n=55)	With DED (n=10)	With DME (n=9)
Any	29 (52.7%)	7 (70%)	9 (100.0%)
Loss of feeling in hands or toes (neuropathy)	13 (23.6%)	4 (40.0%)	2 (22.2%)
Vision loss	3 (5.5%)	1 (10.0%)	2 (22.2%)
Cardiovascular disease/Stroke	5 (9.1%)	1 (10.0%)	0 (0.0%)
Amputation	2 (3.6%)	0 (0.0%)	2 (22.2%)
Foot ulcers	2 (3.6%)	0 (0.0%)	2 (22.2%)
Kidney disease	6 (10.9%)	0 (0.0%)	1 (11.1%)
Other	4 (7.3%)	0 (0.0%)	0 (0.0%)
None	26 (47.3%)	3 (30.0%)	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]: 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

Seventy-seven percent of respondents said that eye complications were discussed with their health care professionals. Notwithstanding this, more than a third (37%), either never discussed eye complications with their health provider (21%) or discussions only took place once symptoms arose (16%). The frequency of regular discussions varied from every visit (20%), multiple times a year (25%), and once a year (16%) (see Appendix Table 2.14).

Over half of all patients (53%) said that they did what they could to prevent vision problems (e.g. get routine screenings, visit specialists), yet unexpectedly 43% thought that vision problems were a normal part of ageing and 20% made no special effort to have a preventative approach to their eye health (see Appendix Table 2.15).

Sixty-four percent of all respondents had received information about DR and DME with the doctor or nurse being the most common source (36%). An important finding to note, over a third (36%) of respondents did not receive such information from any of the traditional sources listed (see Appendix Table 3.9).

Table 4: Source of information about DR and DME

Source	All respondents (n=75)
Doctor/Nurse	27 (36.0%)
Internet	21 (28.0%)
Family/Friends/Neighbours	12 (16.0%)
Health educator	11 (14.7%)
TV/Radio/Newspaper/Magazines	8 (10.7%)
Diabetes organisation or other health organisation	5 (6.7%)
None of the above	27 (36.0%)

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

Just over half of respondents (51%) reported having an eye exam for DED, with 66% having the exam within the last year and a further 18% more than one year ago but less than two years ago. One-fifth of respondents were aware of government sponsored screening programmes for DED (see Appendix Table 3.1 and 3.2).

While 57% of those surveyed thought they should have their eyes examined for DED once a year, 17% said that testing should only happen when symptoms occur and a varied small number of respondents thought testing should happen every two years or not at all (see Appendix Table 3.4).

The biggest barriers to eye exams were the high cost of exams (43%), eye exams not being available near their homes (32%) and the long wait times for an appointment (29%) (see Table 5 and Appendix Table 3.5).

Table 5: Barriers to eye examinations

Identified Barriers	All Respondents (n=75)
They are expensive	32 (42.7%)
Eye exams are not available near my home	24 (32.0%)
Long wait time for appointment	22 (29.3%)
Long wait time on the day of the visit	20 (26.7%)
Don't know much about my condition	13 (17.3%)
Too many other things to do or worry about	12 (16.0%)
Limited access to diabetes specialists	11 (14.7%)
I'm not likely to have eye complications	11 (14.7%)
Fear of treatment/results	10 (13.3%)
Burden on my family/friends	6 (8.0%)
Clinics are too small or lack necessary equipment/staff	6 (8.0%)
Recommended treatments for eye problems are not available	5 (6.7%)
Eye exams are not important	5 (6.7%)
Referral process is complicated or takes too long	4 (5.3%)
Other	2 (2.7%)

Treatment of Diabetic Eye Disease and Diabetic Macular Edema

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

For those with DED receiving treatment, the majority (67%) reported receiving a treatment option that was not included in available survey responses. For the six respondents (55%) with DED who had not received treatment, the most common reason reported was that their doctor had not recommended any treatment (see Table 6).

Eighty-nine percent of patients with DME (n=8) had received treatment, the most common being laser and all reported that it had been successful and either their vision had improved (88%) or stayed the same (13%).

Half of those with DME said they would prefer proactive treatment to prevent further vision loss while the remaining preferred treatment only when vision loss occurred (50%) (see Appendix Table 3.8).

Table 6: Treatment characteristics of patients with DED and DME

Question	Response	With DED (n=11)	With DME (n=9)
Have you had any treatment for diabetic eye disease?	Yes	3 (27.3%)	8 (88.9%)
	No	6 (54.5%)	1 (11.1%)
	Don't know/Not sure	2 (18.2%)	0 (0.0%)
What treatment did you receive?	Laser	1 (33.3%)	6 (75.0%)
	Anti-VEGF	1 (33.3%)	2 (25.0%)
	Surgery	0 (0.0%)	1 (12.5%)
	Other	2 (66.7%)	1 (12.5%)
Did you complete the treatment?	Yes	0 (0.0%)	8 (100.0%)
	Still receiving treatment	2 (66.7%)	0 (0.0%)
	Don't know/Not sure	1 (33.3%)	0 (0.0%)
Do you feel that the treatment worked?	Yes, and vision improved	1 (50.0%)	7 (87.5%)
	Yes, but vision stayed the same	0 (0.0%)	1 (12.5%)
	Still waiting to know	1 (50.0%)	0 (0.0%)
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	3 (50.0%)	0 (0.0%)
	Treatment would not be effective	1 (16.7%)	0 (0.0%)
	Treatment is not accessible	0 (0.0%)	1 (100.0%)
	Still waiting for treatment	2 (33.3%)	0 (0.0%)
	Too expensive	1 (16.7%)	0 (0.0%)
	No insurance	0 (0.0%)	1 (100.0%)

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 three-quarters of those diagnosed with DED or DME said that their vision was affected (15% significantly, 65% slightly) (see Appendix Table 3.6).

All respondents said that vision issues impacted their daily lives in various ways such as difficulty in driving a vehicle (50%), travelling (44%), undertaking household responsibilities, such as cooking or cleaning (31%), social interactions with family and friends (19%), leisure activities or exercise (13%), managing their underlying diabetes (13%), and working or keeping a job (6.3%) (see Table 7).

Table 7: Activities affected through vision impairment and loss

	All Respondents (n=16)
Driving (a car/vehicle)	8 (50.0%)
Travelling	7 (43.8%)
Household responsibilities, such as cooking or cleaning	5 (31.3%)
Social interactions with family/ friends	3 (18.8%)
Leisure activities/exercise	2 (12.5%)
Managing my diabetes	2 (12.5%)
Work or keeping a job	1 (6.3%)

Sixty-four percent of those with DED and 89% with DME were in paid employment compared with 58% of respondents without DED (see Table 8 and Appendix EXP 5.2). Those with vision complications reported difficulties with work or keeping a job (6.3%) and 9% of those with DED were not working at all.

Seventy-four percent of those surveyed did not receive assistance from the government while 14% did in the form of income assistance (see Appendix Table 4.5). Nineteen percent of respondents without DED, 30% of those with DED, and 67% of those with DME received assistance from the government.

Forty-two percent of those surveyed had no trouble paying for food at any time during the past year (see Appendix Table 4.6). However, 67% stated that their access to health care was affected, and for 41% it was affected by income (see Appendix Table 4.7).

Twenty-four percent said they worried about their health, 24% family while 6.7% were not worried about any of the items in the survey (see Appendix Table 4.8).

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

Question	Response	Without DED (n=55)	With DED (n=11)	With DME (n=9)
Are you currently working?	Working for pay	32 (58.2%)	7 (63.6%)	8 (88.9%)
	Working without pay at home (e.g. housework, farming)	4 (7.3%)	0 (0.0%)	0 (0.0%)
	Retired	5 (9.1%)	2 (18.2%)	0 (0.0%)
	Student	8 (14.5%)	1 (9.1%)	1 (11.1%)
	Not working	6 (10.9%)	1 (9.1%)	0 (0.0%)
Question	**Response**	**Without DED (n=53)**	**With DED (n=10)**	**With DME (n=9)**
Do you receive assistance from the government?	Income assistance	2 (3.8%)	2 (20.0%)	6 (66.7%)
	Medical assistance	7 (13.2%)	1 (10.0%)	0 (0.0%)
	Food assistance	1 (1.9%)	1 (10.0%)	1 (11.1%)
	Housing assistance	1 (1.9%)	1 (10.0%)	0 (0.0%)
	Pension assistance	1 (1.9%)	2 (20.0%)	0 (0.0%)
	None of the above	43 (81.1%)	7 (70.0%)	3 (33.3%)
Question	**Response**	**Without DED (n=54)**	**With DED (n=11)**	**With DME (n=9)**
Did you have trouble paying for food at any time during the past year?	Yes	31 (57.4%)	5 (45.5%)	7 (77.8%)
	No	23 (42.6%)	6 (54.5%)	2 (22.2%)

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).

Thirty-eight percent of people without DED reported their health as poor compared with 30% of those with DED and 11% of those with DME. Eighty-three percent of those without DED had unhealthy days compared to half of those with DME and 83% of those with DED.

Compared with 24% of those without DED, 36% of people with DED and 67% with DME experienced limitations to their daily activities due to poor health. Where health impacted daily activities, the primary limitations were diabetes, back or neck problems and hypertension or high blood pressure.

People living with DED and DME had a higher proportion for some impairments. Of note were potential mobility challenges manifest through arthritis/rheumatism. 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	34 (61.8%)	7 (70.0%)	8 (88.9%)
Self-rated health: Poor	21 (38.2%)	3 (30.0%)	1 (11.1%)
Physically unhealthy days	28 (73.7%)	4 (57.1%)	3 (37.5%)
Mentally unhealthy days	31 (75.6%)	5 (83.3%)	2 (28.6%)
Unhealthy days	34 (82.9%)	5 (83.3%)	3 (50.0%)
Activity limitation days	26 (83.9%)	4 (80.0%)	1 (25.0%)

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.

Egypt
DR Barometer Findings:
Health Care Professionals

Key Demographic Characteristics

There were 21 health care professionals who answered at least one of the survey questions in Egypt. Of these, two were primary care providers (9.5%), 12 were diabetes specialist providers (57%) and four were ophthalmologists (19%). The remaining respondents were nurses 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 18 years, with the ophthalmologists practicing for an average of 16 years (see Appendix PT 1.5). All were well educated (100% with graduate or advanced degree); 31% were female and 69% male; and 36% were aged 40 - 49 years (see Appendix PT 3.1 and Table 10).

Table 10: Summary of key characteristics of health care professionals

Group	Subgroup	All Respondents	Primary Care Provider	Diabetes Specialist	Ophthalmologist
All respondents		21 (100.0%)	2 (9.5%)	12 (57.1%)	4 (19.0%)
Age group	30 - 39 yrs.	2 (14.3%)	0 (0.0%)	1 (12.5%)	0 (0.0%)
	40 - 49 yrs.	5 (35.7%)	0 (0.0%)	4 (50.0%)	1 (33.3%)
	50 - 59 yrs.	5 (35.7%)	1 (100.0%)	2 (25.0%)	2 (66.7%)
	60 - 69 yrs.	2 (14.3%)	0 (0.0%)	1 (12.5%)	0 (0.0%)
Gender	Female	4 (30.8%)	0 (0.0%)	1 (14.3%)	1 (33.3%)
	Male	9 (69.2%)	1 (100.0%)	6 (85.7%)	2 (66.7%)
Education	Graduate or advanced degree (e.g. PhD, MD)	14 (100.0%)	1 (100.0%)	8 (100.0%)	3 (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

The main practice setting for all health care professionals was a diabetes clinic (37%) and for ophthalmologists it was an eye clinic (67%) and hospital (33%) (see Appendix PT 2.1).

Eighty-four percent of health care professionals worked in an urban setting. Providers and ophthalmologists only mainly worked in the combined or mixed sector (47% and 67% respectively) (see Appendix PT 2.2 and PT 2.3).

The health care professionals reported that 28% of patients pay a reduced or subsidised rate for services, 28% pay out-of-pocket (full fees), and 28% pay through insurance. For ophthalmologists, 67% of patients split the cost for services between themselves and their insurance company, 33% of pay a reduced or subsidised rate, and 33% of patients pay out-of-pocket (full fees) (see Appendix PT 2.7).

On average providers and ophthalmologists see on average 100 and 180 patients per week and about 60% of these have diabetes (see Appendix PT 2.6).

For all health care professionals, the average waiting time for an appointment was mostly less than one week (39%), and 33% did not schedule appointments. Similarly, 33% of ophthalmologist said that it was less than one week for an appointment and for a further 33% the wait time was less than one month (see Appendix PT 2.5).

Table 11: Average wait times to schedule an appointment

Wait Time Intervals	All Respondents (n=18)	Ophthalmologist (n=3)
Less than 1 week	7 (38.9%)	1 (33.3%)
More than 1 week but less than 1 month	3 (16.7%)	1 (33.3%)
More than 1 month but less than 2 months	1 (5.6%)	0 (0.0%)
Do not take appointments	6 (33.3%)	1 (33.3%)
Don't know/Not sure	1 (5.6%)	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
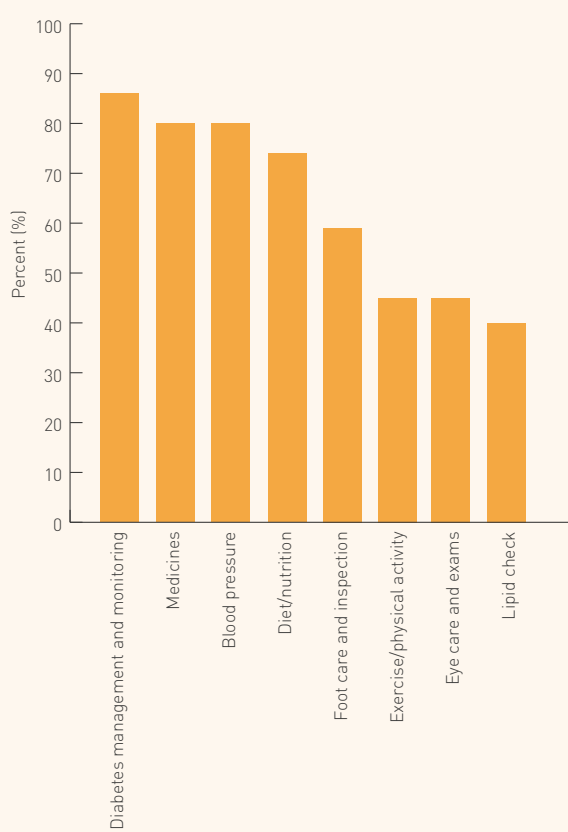
Health care professionals stated that written information about diabetes is available yet the adequacy of that related to eye complications varies.

Only 27% of all providers said that there was sufficient information about eye complications, 20% reported the information on eye complications was insufficient, and for 20% information regarding eye complications was not included. Of serious concern was those 33% surveyed reporting no written information available for their patients (see Table 12 and Appendix PT 2.11).

Guidelines and Protocols

Forty-seven percent of providers, including 33% of ophthalmologists, had written protocols for the management of diabetes, which were used by staff. The finding that 47% of providers, including 67% of ophthalmologists, had no protocols highlights a serious gap (see Appendix PT 2.12).

With respect to management of diabetes related vision issues, 40% of health care professions had written protocols and these were used by staff but for some 6% the protocols available were not used by staff. Consistent with earlier findings 53% of providers, including 67% of ophthalmologists (n=2) 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=15)	Ophthalmologist (n=3)
Is there written information about diabetes available for patients in your main practice?	Yes, and information on eye complications is sufficient	4 (26.7%)	3 (100.0%)
	Yes, but information on eye complications is not sufficient	3 (20.0%)	0 (0.0%)
	Yes, but no information on eye complications is included	3 (20.0%)	0 (0.0%)
	No written information is available for patients	5 (33.3%)	0 (0.0%)
Question	**Response**	**All Respondents (n=15)**	**Ophthalmologist (n=3)**
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	6 (40.0%)	1 (33.3%)
	Yes, available but not used by staff	1 (6.7%)	0 (0.0%)
	Not available	8 (53.3%)	2 (66.7%)

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

Screening Protocols and Barriers in the Care Pathway

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

For those with type 1 diabetes 40% of all providers reported that the initial eye exam should occur after a predetermined number of years (average 6.5 years). For patients with type 2 diabetes 53% of providers recommended an eye exam at time of diagnosis (see Appendix PT 2.14).

Overall, 67% of health care professionals and all ophthalmologists reported that follow-up eye examinations should be conducted every year. Most ophthalmologists (75%) and health care professionals (75%) screen patients for DR (see Appendix PT 2.15 and PT 2.16).

Across all health care professionals, only 36% send appointment reminders and 64% did not. Over half of all providers (53%) and two-thirds of ophthalmologists shared patient relevant information to optimise patient care management (see Appendix PT 2.19 and PT 2.20).

The most common patient characteristics influencing the referral process for eye complications for all health care professionals were: the duration of diabetes (79%), the presence of comorbidities such as hypertension (64%), high glucose levels (50%), a patient's age (43%), and a patient's ability to adhere to recommendations (43%) (see Appendix PT 2.17).

Major barriers to optimising eye health, according to providers, faced by patients with diabetes were the high cost of care (71%), the lack of knowledge and/or awareness (36%) and the clinic being too small or lacking necessary equipment or trained staff (36%) (see Table 13 and Appendix PT 2.18).

Ophthalmologists reported that the major barriers to optimising eye health faced by patients with diabetes were the high cost of care (33%), long wait times on the day of visit (33%) and the complex or inadequate referral process (33%).

Table 13: Major barriers to optimising eye health

Response	All Respondents (n=14)	Ophthalmologists (n=3)
Cost of care	10 (71.4%)	1 (33.3%)
Long wait time on the day of visit	4 (28.6%)	1 (33.3%)
Referral process	4 (28.6%)	1 (33.3%)
Lack of knowledge and/or awareness	5 (35.7%)	1 (33.3%)
Patients fear of treatment/results	3 (21.4%)	1 (33.3%)
Patients feel they are a burden on family/friends	2 (14.3%)	1 (33.3%)
Patients feel eye complications are unlikely	3 (21.4%)	1 (33.3%)
Patients feel eye exams are not important	4 (28.6%)	1 (33.3%)
Proximity to care	1 (7.1%)	0 (0.0%)
Long wait time for appointment	1 (7.1%)	0 (0.0%)
Recommended treatments are not available	4 (28.6%)	0 (0.0%)
Limited access to diabetes specialists	3 (21.4%)	0 (0.0%)
Limited access to eye specialists	3 (21.4%)	0 (0.0%)
Patients have competing responsibilities and priorities	3 (21.4%)	0 (0.0%)
Clinic too small or lack necessary equipment/staff	5 (35.7%)	0 (0.0%)

Egypt
DR Barometer Findings:
Ophthalmologists

Screening

There were two ophthalmologists who answered at least one of the supplementary questions (see Appendix PT 4.1 to PT 4.14). On average 20% of patients seen by the ophthalmologists had DR and 25% DME (see Appendix PT 4.1 and PT 4.2).

The most common waiting time for screening for DED was less than one week (33%) with 33% stating more than one week but less than one month. Sixty-seven percent of ophthalmologists reported that there was no wait from time of screening to diagnosis (see Appendix PT 4.3 and PT 4.4).

Treatment and Challenges

All ophthalmologists personally administer treatment for DR and the most common factors influencing treatment were: a patient's age (100%), the duration of diabetes (50%), and a patient's gender (50%) (see Appendix PT 4.6 and PT 4.7).

The most common outreach venues for screening for DED were health fairs for all (100%), health fairs for people with diabetes (50%) and vision centres (50%) (see Appendix PT 4.13).

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

All ophthalmologists (n=2) said that patients mostly present when visual problems have already occurred (see Appendix PT 4.10).

Thirty-three percent of ophthalmologists had received specific training on the treatment and diagnosis of DR and or DME, with all having had training within the past year, and 67% 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 challenge for improving patient outcomes in DED was late diagnosis (100%, n=2) (see Table 14 and PT 4.14).

Table 14: Challenges for improving outcomes in DED

Question	Response	Ophthalmologist (n=2)
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Late diagnosis	2 (100.0%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	2 (100.0%)
	Reimbursement/restrictions on approved therapy	1 (50.0%)
	Referral pathways	1 (50.0%)
	Multi-disciplinary team integration is poor	1 (50.0%)
	Ineffective screening services	1 (50.0%)

Egypt
DR Barometer Summary

In Egypt, 80 adults with diabetes and 21 health care professionals provided insights about their experiences of living with, managing and treating diabetes, DR and DME.

A younger population was more likely to be The results of the DR Barometer Study, Egypt were intended to improve the level of awareness around diabetes and eye complications, and access and barriers to diabetes management, including screening for DED and DME and timely treatment.

Egypt is the second most populous country of the Middle East with an estimated population of approximately 93.2 million. By 2050, the population distribution in Egypt is expected to increase by ~68%, but with the population actually ageing. Those 15 years and younger will make up ~26% of the country population while those aged 65 years or older will be ~10% of Egypt's population. In just over 30 years the population of those 65 years or older will almost quadruple and reach an all-time high of approximately 15.7 million.

Alongside the demographic changes Egypt has the highest number of people living with diabetes in the Middle East and North African region at ~7.8 million (3,759.2-8,972.4‡), which accounts to ~22% of people living with diabetes in this region. Egypt will continue to be in the top ten countries with diabetes in 2040 affecting an estimated 15.1 million (7.3-17.3‡).

The DR Barometer findings indicate that overall a younger population was more likely to be associated with type 1 diabetes, which was the opposite for those with type 2 diabetes, which tended to be an older population. Amongst 18 to 39 year-olds, 54% had type 1 and 20% had type 2 diabetes. In the 40-59 age group, 16% had type 1 and 42% had type 2 diabetes, 29% of 60-79 year-olds had type 1 diabetes and 43% had type 2. This is an important in the context of the demographic shifts in Egypt in the coming decades.

People were most often informed about their condition by health professionals such as the doctor, and nurse. Family, friends, and the pharmacist also played important roles and were viewed as valuable sources of information. A trend globally, which was reflected in the Egypt study, was the increasing use of the internet by 62% of respondents. Of surprise was the lack of contact with diabetes and other health organisations (13%) and the health educator (16%).

About one-quarter of respondents were enrolled in diabetes management programmes and most (74%) noted there was information on the importance of screening for eye complications.

Many of those surveyed struggled with the management of their diabetic condition with some issues that were within their personal control such as eating the right foods although many respondents did not want to think about having diabetes (30%) and did not know enough about their condition (29%). In addition, the high cost of care, and not having insurance were challenges.

There was overall a poor awareness of the complications associated with diabetes (49%). This could also explain the general lack of concern for complications, which were far less than those from respondents in other countries studied. Vision loss (31%) was the most concerning followed by amputation (21%) and increased risk of fractures (9%).

Only 39% reported of those surveyed had no complications coupled with the low awareness of potential complications could suggest that either many did not know whether they had complications or did not know what they potentially were. Those with complications had neuropathy (26%), kidney disease (26%) vision loss (8.1%) with less respondents reporting cardiovascular disease, stroke or amputation.

Knowing that diabetic-related vision loss is preventable addressing barriers to eye screening is an important policy issue. Only half (51%) of all respondents had received an eye exam yet the reported barriers were either the cost of the exams or the lack of availability near their home.

Evidence shows that the relationship between the patient and the health care professional is critical to ensure realistic and optimal patient outcomes. It was therefore surprising that more than a third of patients surveyed had either never had a conversation about eye complications with their health care professional or it only took place only when symptoms were present. Only just more than a half (53%) did what they could to prevent vision problems (e.g. get routine screenings, visit specialists). Equally concerning is the myths and perceptions around vision changes with 43% of patients reporting that vision problems were a normal part of ageing and one in five (20%) not making any special effort to prevent vision problems.

Nearly three out of every four of those with DED or DME said that their vision was slightly or significantly affected which in turn impacted their health, lifestyle, and life choices including difficulty in driving a vehicle, travelling, undertaking household responsibilities, such as cooking or cleaning, and social interacting with family and friends.

Surprisingly only half of those with eye complications surveyed preferred a proactive treatment approach to prevent further vision loss and the remaining would rather wait until vision changes and loss had occurred. The reasons for this finding are unclear, but may be explained in part by the lack of education about diabetes, its complications, and treatments. Equally concerning was the finding that over two-thirds said that access to healthcare was affected, and for 41% it was because of their income.

Patient education is very much at the heart of a proactive approach so it was somewhat unexpected that only 27% of providers said that the written information diabetes and eye complications available was sufficient and over a third had no written information. Furthermore, 67% of ophthalmologists did not have written protocols for the management of diabetes-related vision issues.

For those with type 1 diabetes 40% of providers said that the initial eye exam should occur after a predetermined number of years (average 6.5 years) and for those with type 2 diabetes more than half (53%) recommended an eye exam at time of diagnosis. About two thirds of providers (including ophthalmologists) said that follow-up eye examinations should be conducted annually yet only 36% send reminders for general follow-up appointments.

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

High cost of care, long wait times on the day of the visit and complex or inadequate referral pathways, were viewed by ophthalmologists as some of the greatest challenges for improving patient outcomes in DED.

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

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

References and Acknowledgement

[1] The World Bank. (2016). *Health nutrition and population statistics: Population estimates and projections* (World Data Bank). Washington, D.C.: The World Bank. Retrieved from http://databank.worldbank.org/data/reports.aspx?source=Health%20Nutrition%20and%20Population%20Statistics:%20Population%20estimates%20and%20projections

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

Appendices

The Diabetic Retinopathy Barometer Survey: Appendices for Egypt

APPENDIX 1 : National Results

Table 1.1

Survey Information	Number of Respondents (%)
All valid respondents [1]	85 (100.0%)
Respondents aged 18 or over	85 (100.0%)
Respondents with diabetes	80 (94.1%)

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

Table 1.2

Survey Information	Number of Respondents (%)
All valid respondents	85 (100.0%)
Included in Diabetic Analysis Set	80 (94.1%)
Excluded from Diabetic Analysis Set	5 (5.9%)
Reasons for exclusion from diabetic analysis set	.
Not diagnosed with diabetes	3
Missing information on diabetes diagnosis	2

Table 1.3

Survey Information	Number of Respondents (%)
Diabetic Analysis Set	80 (100.0%)
Persons with diabetic eye disease (DED)	11 (13.8%)
Persons with diabetic macular edema (DME)	9 (11.3%)
Persons with Type I diabetes	34 (42.5%)
Persons with Type II diabetes	22 (27.5%)
Persons not seeing health care professional for diabetes	12 (15.0%)
Persons seeing health care professional for diabetes	65 (81.3%)
Persons with eye disease & not received treatment	7 (8.8%)
Persons with eye disease & received treatment	11 (13.8%)

Table 2.1

Question	Response	Number of Respondents (%)
With which type of diabetes have you been diagnosed?	Type I	34 (42.5)
	Type II	22 (27.5)
	Don't know/Not sure	24 (30.0)
	Total Valid Response	80 (100.0)

Table 2.2

Question	Response	Number of Respondents (%)
When was your diabetes diagnosed?	Within the last year	23 (29.9)
	1 - 5 years ago	30 (39.0)
	6 - 10 years ago	7 (9.1)
	11 - 15 years ago	9 (11.7)
	16 - 20 years ago	3 (3.9)
	21 years ago or longer	3 (3.9)
	Don't know/Not sure	2 (2.6)
	Total Valid Response	77 (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	65 (84.4)
	No	12 (15.6)
	Total Valid Response	77 (100.0)
	Total missing	3
What kind of health care professional?	General/Family Doctor	33 (50.8)
	Nurse	1 (1.5)
	Diabetes Specialist	29 (44.6)
	Don't know/Not sure of kind	2 (3.1)
	Total Valid Response	65 (100.0)
	Total missing	15

Table 2.3.2

Type of health care professional	Times per year seen for diabetes	Value
General/Family Doctor	Total valid numeric response (n)	21
	Mean	8.2
	SD	7.6
	Median	6.0
	Min	1
	Max	36
	Don't know/Not sure	8
	Total missing	4
Nurse	Total valid numeric response (n)	1
	Mean	50.0
	SD	
	Median	50.0
	Min	50
	Max	50
Diabetes Specialist	Total valid numeric response (n)	19
	Mean	8.3
	SD	6.7
	Median	5.0
	Min	2
	Max	30
	Don't know/Not sure	8
	Total missing	2
Don't know/Not sure of kind	Total valid numeric response (n)	1
	Mean	6.0
	SD	
	Median	6.0
	Min	6
	Max	6
	Don't know/Not sure	1

Table 2.4

Question	Response	Number of Respondents (%)
How have you received information about diabetes?	Doctor or nurse	60 (77.9%)
	Health educator	12 (15.6%)
	Nutritionist or dietitian	15 (19.5%)
	Diabetes organization or other health organization	10 (13.0%)
	Family/Friends/Neighbors	31 (40.3%)
	TV/Radio/Newspaper/Magazines	24 (31.2%)
	Internet	48 (62.3%)
	Social media (e.g. Facebook, Twitter, blogs)	27 (35.1%)
	Pharmacist	31 (40.3%)
	Total Valid Response	77 (100.0%)
	Total missing	3

Table 2.5

Question	Response	Number of Respondents (%)
How do you manage your diabetes?	Diet	42 (54.5%)
	Oral medicine	33 (42.9%)
	Exercise	19 (24.7%)
	Insulin	29 (37.7%)
	Natural/Herbal medicine	11 (14.3%)
	None of the above	2 (2.6%)
	Total Valid Response	77 (100.0%)
	Total missing	3

Table 2.6

Question	Response	Number of Respondents (%)
Are you currently enrolled in a diabetes patient management support programme?	Yes	20 (26.0)
	No	57 (74.0)
	Total Valid Response	77 (100.0)
	Total missing	3

Question	Response	Number of Respondents (%)
Who sponsors the programme?	Hospital support program	8 (42.1)
	Clinic support program	4 (21.1)
	Pharmaceutical support program	2 (10.5)
	Patient organization support program	2 (10.5)
	Don't know/Not sure	3 (15.8)
	Total Valid Response	19 (100.0)
	Total missing	61
Does the programme include education on the importance of screening for diabetic eye complications?	Yes	14 (73.7)
	No	5 (26.3)
	Total Valid Response	19 (100.0)
	Total missing	61

Table 2.7

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
Blood glucose test	Yes	75 (97.4%)
	Less than 6 months	53 (68.8%)
	6 - 12 months	14 (18.2%)
	Greater than 12 months	5 (6.5%)
	Total valid response	72 (93.5%)
	Total missing	8
	No	1 (1.3%)
	Don't know/Not sure	1 (1.3%)
	Total valid response	77 (100.0%)
	Total missing	3

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
Urine check	Yes	59 (84.3%)
	Less than 6 months	24 (34.3%)
	6 - 12 months	22 (31.4%)
	Greater than 12 months	12 (17.1%)
	Total valid response	58 (82.9%)
	Total missing	22
	No	11 (15.7%)
	Total valid response	70 (100.0%)
	Total missing	10
Weight check	Yes	59 (84.3%)
	Less than 6 months	40 (57.1%)
	6 - 12 months	12 (17.1%)
	Greater than 12 months	4 (5.7%)
	Total valid response	56 (80.0%)
	Total missing	24
	No	10 (14.3%)
	Don't know/Not sure	1 (1.4%)
	Total valid response	70 (100.0%)
	Total missing	10
Blood pressure check	Yes	62 (84.9%)
	Less than 6 months	49 (67.1%)
	6 - 12 months	7 (9.6%)
	Greater than 12 months	4 (5.5%)
	Total valid	60 (82.2%)

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
	response	
	Total missing	20
	No	11 (15.1%)
	Total valid response	73 (100.0%)
	Total missing	7
Foot check	Yes	20 (32.3%)
	Less than 6 months	12 (19.4%)
	6 - 12 months	5 (8.1%)
	Greater than 12 months	3 (4.8%)
	Total valid response	20 (32.3%)
	Total missing	60
	No	38 (61.3%)
	Don't know/Not sure	4 (6.5%)
	Total valid response	62 (100.0%)
	Total missing	18
Eye check	Yes	42 (58.3%)
	Less than 6 months	25 (34.7%)
	6 - 12 months	9 (12.5%)
	Greater than 12 months	6 (8.3%)
	Total valid response	40 (55.6%)
	Total missing	40
	No	27 (37.5%)
	Don't know/Not sure	3 (4.2%)
	Total valid response	72 (100.0%)

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
	Total missing	8

Table 2.8

Question	Response	Number of Respondents (%)
How well do you think your diabetes is controlled?	Very well	14 (18.4%)
	Well	39 (51.3%)
	Not very well	20 (26.3%)
	Not well at all	1 (1.3%)
	Don't know/Not sure	2 (2.6%)
	Total Valid Response	76 (100.0%)
	Total missing	4

Table 2.9

Question	Response	Number of Respondents (%)
What are the main challenges you face in controlling your diabetes?	High cost of care	23 (29.9%)
	No insurance	22 (28.6%)
	Travel to my regular doctor or specialist is difficult	16 (20.8%)
	Long wait time for an appointment to see my doctor or specialist	16 (20.8%)
	Health services needed are not available	10 (13.0%)
	Don't know enough about diabetes	22 (28.6%)
	Too hard to eat the right things	44 (57.1%)
	Too many other things to do	20 (26.0%)
	Stigma or discrimination because of diabetes	2 (2.6%)
	Don't want to think about having diabetes	23 (29.9%)

Question	Response	Number of Respondents (%)
	Other	4 (5.2%)
	Total Valid Response	77 (100.0%)
	Total missing	3

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	31 (41.3%)
	Support groups	12 (16.0%)
	Support from family or friends	30 (40.0%)
	Health education and information	41 (54.7%)
	Mobile services (services that travel to or near your home)	4 (5.3%)
	Coordination of healthcare and services by a professional	14 (18.7%)
	Emergency helpline	5 (6.7%)
	Other	4 (5.3%)
	None	6 (8.0%)
	Total Valid Response	75 (100.0%)
	Total missing	5

Table 2.11

Question	Response	Number of Respondents (%)
What complications (or problems), to your knowledge, arise from diabetes?	Amputation	37 (49.3%)
	Foot ulcers	31 (41.3%)
	Increased risk of broken bones or fractures	13 (17.3%)
	Loss of feeling in hands or toes (neuropathy)	37 (49.3%)
	Vision loss	34 (45.3%)
	Irritable bowel disease	13 (17.3%)
	Kidney disease	18 (24.0%)

Question	Response	Number of Respondents (%)
	Cardiovascular disease/Stroke	24 (32.0%)
	Other	6 (8.0%)
	Don't know/Not sure	2 (2.7%)
	None	5 (6.7%)
	Total Valid Response	75 (100.0%)
	Total missing	5

Table 2.12

Question	Response	Number of Respondents (%)
Which complication of diabetes are you most concerned about?	Amputation	16 (21.3)
	Foot ulcers	2 (2.7)
	Increased risk of broken bones or fractures	7 (9.3)
	Loss of feeling in hands or toes (neuropathy)	4 (5.3)
	Vision loss	23 (30.7)
	Irritable bowel disease	4 (5.3)
	Kidney disease	4 (5.3)
	Cardiovascular disease/Stroke	6 (8.0)
	Don't know/Not sure	6 (8.0)
	None	3 (4.0)
	Total Valid Response	75 (100.0)
	Total missing	5

Table 2.13

Question	Response	Number of Respondents (%)
Which of the following complications of diabetes do you have?	Amputation	4 (5.4%)
	Foot ulcers	4 (5.4%)
	Broken bones or fractures	6 (8.1%)
	Loss of feeling in hands or toes	19 (25.7%)

Question	Response	Number of Respondents (%)
	(neuropathy)	
	Vision loss	6 (8.1%)
	Irritable bowel disease	10 (13.5%)
	Kidney disease	7 (9.5%)
	Cardiovascular disease/Stroke	6 (8.1%)
	Other	4 (5.4%)
	Don't know/Not sure	3 (4.1%)
	None	29 (39.2%)
	Total Valid Response	74 (100.0%)
	Total missing	6

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	15 (20.0%)
	Multiple times per year	19 (25.3%)
	Once per year	12 (16.0%)
	Only when symptoms arise	12 (16.0%)
	Never	16 (21.3%)
	Don't know/Not sure	1 (1.3%)
	Total Valid Response	75 (100.0%)
	Total missing	5

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	32 (42.7%)
	I do what I can to prevent vision problems (e.g. get routine screenings, visit	40 (53.3%)

Question	Response	Number of Respondents (%)
	specialists)	
	I do not make any special effort to prevent vision problems	15 (20.0%)
	Total Valid Response	75 (100.0%)
	Total missing	5

Table 2.16

Question	Response	Number of Respondents (%)
What type of health insurance do you have?	Public	33 (44.6)
	Public - Private	11 (14.9)
	Private	11 (14.9)
	None	19 (25.7)
	Total Valid Response	74 (100.0)
	Total missing	6

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	9 (13.0)
	Insurance pays total cost	13 (18.8)
	Insurance and out-of-pocket/cash (e.g. co-pays)	11 (15.9)
	Out-of-pocket only (pay cash for all care)	28 (40.6)
	Do not use service	7 (10.1)
	Don't know/Not Sure	1 (1.4)
	Total Valid Response	69 (100.0)
	Total missing	11
Specialist medical visits (e.g. eye doctor, gynecologist, urologist)	Care is free	4 (5.9)
	Insurance pays total cost	9 (13.2)
	Insurance and out-of-pocket/cash (e.g. co-pays)	11 (16.2)

Question	Response	Number of Respondents (%)
Most often, how do you pay for the following types of medical care and services?		
	Out-of-pocket only (pay cash for all care)	39 (57.4)
	Do not use service	5 (7.4)
	Total Valid Response	68 (100.0)
	Total missing	12
Medicines	Care is free	5 (7.5)
	Insurance pays total cost	8 (11.9)
	Insurance and out-of-pocket/cash (e.g. co-pays)	10 (14.9)
	Out-of-pocket only (pay cash for all care)	39 (58.2)
	Do not use service	4 (6.0)
	Don't know/Not Sure	1 (1.5)
	Total Valid Response	67 (100.0)
	Total missing	13
Medical supplies (e.g. blood glucose meter/strips)	Care is free	8 (11.8)
	Insurance pays total cost	5 (7.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	7 (10.3)
	Out-of-pocket only (pay cash for all care)	38 (55.9)
	Do not use service	7 (10.3)
	Don't know/Not Sure	3 (4.4)
	Total Valid Response	68 (100.0)
	Total missing	12
Procedures	Care is free	7 (10.3)
	Insurance pays total cost	13 (19.1)
	Insurance and out-of-pocket/cash (e.g. co-pays)	12 (17.6)
	Out-of-pocket only (pay cash for all care)	29 (42.6)
	Do not use service	6 (8.8)
	Don't know/Not Sure	1 (1.5)

Question	Response	Number of Respondents (%)
Most often, how do you pay for the following types of medical care and services?		
	Total Valid Response	68 (100.0)
	Total missing	12
Tests/screenings	Care is free	4 (5.9)
	Insurance pays total cost	10 (14.7)
	Insurance and out-of-pocket/cash (e.g. co-pays)	14 (20.6)
	Out-of-pocket only (pay cash for all care)	36 (52.9)
	Do not use service	2 (2.9)
	Don't know/Not Sure	2 (2.9)
	Total Valid Response	68 (100.0)
	Total missing	12
Health education	Care is free	12 (17.6)
	Insurance pays total cost	8 (11.8)
	Insurance and out-of-pocket/cash (e.g. co-pays)	8 (11.8)
	Out-of-pocket only (pay cash for all care)	17 (25.0)
	Do not use service	21 (30.9)
	Don't know/Not Sure	2 (2.9)
	Total Valid Response	68 (100.0)
	Total missing	12
Counseling	Care is free	10 (14.7)
	Insurance pays total cost	10 (14.7)
	Insurance and out-of-pocket/cash (e.g. co-pays)	6 (8.8)
	Out-of-pocket only (pay cash for all care)	26 (38.2)
	Do not use service	12 (17.6)
	Don't know/Not Sure	4 (5.9)
	Total Valid Response	68 (100.0)
	Total missing	12

Table 3.1

Question	Response	Number of Respondents (%)
Are you aware of any government sponsored screening programs for diabetic eye disease (diabetic retinopathy)?	Yes	21 (28.0%)
	No	54 (72.0%)
	Total valid response	75 (100.0%)
	Total missing	5

Table 3.2

Question	Response	Number of Respondents (%)
Have you ever had an eye exam for diabetic eye disease?	Yes	38 (50.7%)
	No	37 (49.3%)
	Total valid response	75 (100.0%)
	Total missing	5
How long ago was your last eye exam?	Within the last year	25 (65.8%)
	More than 1 year ago but less than 2 years	7 (18.4%)
	More than 2 years ago but less than 3 years	4 (10.5%)
	Five or more years ago	1 (2.6%)
	Don't know/Not sure	1 (2.6%)
	Total valid response	38 (100.0%)
	Total missing	42
Who did the last exam?	General/Family practitioner	11 (28.9%)
	Eye doctor/Eye clinic	27 (71.1%)
	Total valid response	38 (100.0%)
	Total missing	42

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	34 (45.3%)

Question	Response	Number of Respondents (%)
	No	33 (44.0%)
	Don't know/Not sure	8 (10.7%)
	Total valid response	75 (100.0%)
	Total missing	5

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	43 (57.3%)
	Every two years	3 (4.0%)
	Less often than every two years	2 (2.7%)
	Only when symptoms occur	13 (17.3%)
	Never	8 (10.7%)
	Don't know/Not sure	6 (8.0%)
	Total valid response	75 (100.0%)
	Total missing	5

Table 3.5

Question	Response	Number of Respondents (%)
For you, what are the biggest barriers to eye exams?	They are expensive	32 (42.7%)
	Eye exams are not available near my home	24 (32.0%)
	Long wait time for appointment	22 (29.3%)
	Long wait time on the day of the visit	20 (26.7%)
	Referral process is complicated or takes too long	4 (5.3%)
	Recommended treatments for eye problems are not available	5 (6.7%)
	Don't know much about my condition	13 (17.3%)

Question	Response	Number of Respondents (%)
	Fear of treatment/results	10 (13.3%)
	Burden on my family/friends	6 (8.0%)
	Limited access to diabetes specialists	11 (14.7%)
	I'm not likely to have eye complications	11 (14.7%)
	Eye exams are not important	5 (6.7%)
	Too many other things to do or worry about	12 (16.0%)
	Clinics are too small or lack necessary equipment/staff	6 (8.0%)
	Other	2 (2.7%)
	Total valid response	75 (100.0%)
	Total missing	5

Table 3.6

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic eye disease?	Yes	20 (26.7%)
	No	55 (73.3%)
	Total valid response	75 (100.0%)
	Total missing	5
Has your diabetic eye disease affected your vision?	Yes, slightly	13 (65.0%)
	Yes, significantly	3 (15.0%)
	No	4 (20.0%)
	Total valid response	20 (100.0%)
	Total missing	60
Have vision issues caused you to have difficulty with any of the following?	Traveling	7 (43.8%)
	Household responsibilities, such as cooking or cleaning	5 (31.3%)
	Social interactions with family/friends	3 (18.8%)
	Leisure activities/exercise	2 (12.5%)
	Work or keeping a job	1 (6.3%)

Question	Response	Number of Respondents (%)
	Managing my diabetes	2 (12.5%)
	Driving (a car/vehicle)	8 (50.0%)
	Total valid response	16 (100.0%)
	Total missing	64

Table 3.7

Question	Response	Number of Respondents (%)
Have you had any treatment for diabetic eye disease?	Yes	11 (55.0%)
	No	7 (35.0%)
	Don't know/Not sure	2 (10.0%)
	Total valid response	20 (100.0%)
	Total missing	60
What treatment did you receive?	Laser	7 (63.6%)
	Injection in the eye (Anti-VEGF)	3 (27.3%)
	Surgery	1 (9.1%)
	Other	3 (27.3%)
	Total valid response	11 (100.0%)
	Total missing	69
Did you complete the treatment?	Yes	8 (72.7%)
	Still receiving treatment	2 (18.2%)
	Don't know/Not sure	1 (9.1%)
	Total valid response	11 (100.0%)
	Total missing	69
Do you feel that the treatment worked?	Yes, and vision improved	8 (80.0%)
	Yes, but vision stayed the same	1 (10.0%)
	Still waiting to know	1 (10.0%)
	Total valid response	10 (100.0%)
	Total missing	70
What is/are the reason(s) that you did not complete the treatment?	Total missing	80

Question	Response	Number of Respondents (%)
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	3 (42.9%)
	Treatment would not be effective	1 (14.3%)
	Treatment is not accessible	1 (14.3%)
	Still waiting for treatment	2 (28.6%)
	Too expensive	1 (14.3%)
	No insurance	1 (14.3%)
	Total valid response	7 (100.0%)
	Total missing	73

Table 3.8

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic macular edema?	Yes	9 (12.0%)
	No	50 (66.7%)
	Don't know/Not sure	16 (21.3%)
	Total valid response	75 (100.0%)
	Total missing	5
If Yes, which of the following would you prefer	Treatment to prevent further vision loss	4 (50.0%)
	Only treatment when vision loss has occurred	4 (50.0%)
	Total valid response	8 (100.0%)
	Total missing	72

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	27 (36.0%)
	Health educator	11 (14.7%)
	Diabetes organization or other health	5 (6.7%)

Question	Response	Number of Respondents (%)
	organization	
	Family/Friends/Neighbors	12 (16.0%)
	TV/Radio/Newspaper/Magazines	8 (10.7%)
	Internet	21 (28.0%)
	None of the above	27 (36.0%)
	Total valid response	75 (100.0%)
	Total missing	5

Table 4.1

Question	Response	Number of Respondents (%)
What is your gender?	Female	16 (21.3)
	Male	59 (78.7)
	Total Valid Response	75 (100.0)
	Total missing	5
Please indicate your age	18 - 29	35 (43.8)
	30 - 39	19 (23.8)
	40 - 49	14 (17.5)
	50 - 59	5 (6.3)
	60 - 69	7 (8.8)
	Total Valid Response	80 (100.0)

Table 4.2

Question	Response	Number of Respondents (%)
Where do you live?	Urban setting	59 (78.7)
	Non-urban setting	16 (21.3)
	Total Valid Response	75 (100.0)
	Total missing	5

Table 4.3

Question	Response	Number of Respondents (%)
What is the highest level of education you completed?	Did not complete primary school	2 (2.7)

Question	Response	Number of Respondents (%)
	Secondary school	10 (13.5)
	College/University	52 (70.3)
	Graduate or post-graduate	10 (13.5)
	Total valid response	74 (100.0)
	Total missing	6

Table 4.4

Question	Response	Number of Respondents (%)
Are you currently working?	Working for pay	47 (62.7)
	Working without pay at home (e.g. housework, farming)	4 (5.3)
	Retired	7 (9.3)
	Student	10 (13.3)
	Not working	7 (9.3)
	Total Valid Response	75 (100.0)
	Total missing	5

Table 4.5

Question	Response	Number of Respondents (%)
Do you receive assistance from the government?	Income assistance	10 (13.9%)
	Medical assistance	8 (11.1%)
	Food assistance	3 (4.2%)
	Housing assistance	2 (2.8%)
	Pension assistance	3 (4.2%)
	None of the above	53 (73.6%)
	Total valid response	72 (100.0%)
	Total missing	8

Table 4.6

Question	Response	Number of Respondents (%)
Did you have trouble paying for food at anytime during the past year?	Yes	43 (58.1)
	No	31 (41.9)
	Total Valid Response	74 (100.0)
	Total missing	6

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	19 (26.0)
	Education	8 (11.0)
	Ethnicity	2 (2.7)
	Gender	12 (16.4)
	Income	30 (41.1)
	Language you speak	1 (1.4)
	Place of birth	4 (5.5)
	Place where you live	16 (21.9)
	Race	1 (1.4)
	Religion	9 (12.3)
	Sexual orientation	8 (11.0)
	None of the above	24 (32.9)
	Total valid response	73 (100.0)
	Total missing	7

Table 4.8

Question	Response	Number of Respondents (%)
Which of the following do you worry about most?	Food	9 (12.0)

Question	Response	Number of Respondents (%)
	Housing	4 (5.3)
	Money	21 (28.0)
	Health	18 (24.0)
	Family	18 (24.0)
	None of the above	5 (6.7)
	Total Valid Response	75 (100.0)
	Total missing	5

Table 5.1

Question	Response	Number of Respondents (%)
In general, would you say your health is:	Excellent	5 (6.8%)
	Very good	10 (13.5%)
	Good	34 (45.9%)
	Total good health	49 (66.2%)
	Fair	21 (28.4%)
	Poor	4 (5.4%)
	Fair or poor health	25 (33.8%)
	Total valid response	74 (100.0%)
	Total missing	6

Table 5.2

Question	Response	Number of Respondents (%)
How many days during last 30 days was your physical health not good	Any unhealthy days	35 (66.0%)
	1-5 unhealthy days	12 (22.6%)
	6-10 unhealthy days	10 (18.9%)
	11-20 unhealthy days	9 (17.0%)
	21-30 unhealthy days	4 (7.5%)
	No unhealthy	18 (34.0%)

Question	Response	Number of Respondents (%)
	days	
	Total valid response	53 (100.0%)
	Total missing	27

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	38 (70.4%)
	1-5 unhealthy days	6 (11.1%)
	6-10 unhealthy days	14 (25.9%)
	11-20 unhealthy days	9 (16.7%)
	21-30 unhealthy days	9 (16.7%)
	No unhealthy days	16 (29.6%)
	Total valid response	54 (100.0%)
	Total missing	26

Table 5.3.2

Question	Response	Number of Respondents (%)
Unhealthy days (physically or mentally unhealthy, max 30)	Any unhealthy days	42 (79.2%)
	1-5 unhealthy days	5 (9.4%)
	6-10 unhealthy days	7 (13.2%)
	11-20 unhealthy days	12 (22.6%)
	21-30 unhealthy days	18 (34.0%)
	No unhealthy days	11 (20.8%)

Question	Response	Number of Respondents (%)
	Total valid response	53 (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	31 (77.5%)
	1-5 unhealthy days	10 (25.0%)
	6-10 unhealthy days	13 (32.5%)
	11-20 unhealthy days	5 (12.5%)
	21-30 unhealthy days	3 (7.5%)
	No unhealthy days	9 (22.5%)
	Total valid response	40 (100.0%)
	Total missing	40

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	23 (34.3%)
	No	44 (65.7%)
	Total valid response	67 (100.0%)
	Total missing	13
Which impairment or health problem, if any, limits your activities?		
a) Arthritis/rheumatism	Yes	11 (45.8%)
	No	11 (45.8%)
	Refused	2 (8.3%)

Question	Response	Number of Respondents (%)
	Total valid response	24 (100.0%)
	Total missing	56
b) Back or neck problem	Yes	18 (72.0%)
	No	5 (20.0%)
	Don't know/Not sure	1 (4.0%)
	Refused	1 (4.0%)
	Total valid response	25 (100.0%)
	Total missing	55
c) Fractures, bone/joint injury	Yes	4 (17.4%)
	No	18 (78.3%)
	Refused	1 (4.3%)
	Total valid response	23 (100.0%)
	Total missing	57
d) Walking problem	Yes	8 (33.3%)
	No	13 (54.2%)
	Don't know/Not sure	3 (12.5%)
	Total valid response	24 (100.0%)
	Total missing	56
e) Lung/breathing problem	Yes	4 (17.4%)
	No	16 (69.6%)
	Don't know/Not sure	2 (8.7%)
	Refused	1 (4.3%)
	Total valid response	23 (100.0%)
	Total missing	57
f) Hearing problem	Yes	8 (34.8%)
	No	14 (60.9%)
	Don't know/Not sure	1 (4.3%)

Question	Response	Number of Respondents (%)
	Total valid response	23 (100.0%)
	Total missing	57
g) Eye/vision problem	Yes	7 (30.4%)
	No	16 (69.6%)
	Total valid response	23 (100.0%)
	Total missing	57
h) Heart problem	Yes	5 (22.7%)
	No	15 (68.2%)
	Don't know/Not sure	1 (4.5%)
	Refused	1 (4.5%)
	Total valid response	22 (100.0%)
	Total missing	58
i) Stroke problem	Yes	3 (13.6%)
	No	18 (81.8%)
	Refused	1 (4.5%)
	Total valid response	22 (100.0%)
	Total missing	58
j) Hypertension/high blood pressure	Yes	13 (56.5%)
	No	9 (39.1%)
	Refused	1 (4.3%)
	Total valid response	23 (100.0%)
	Total missing	57
k) Diabetes	Yes	22 (84.6%)
	No	4 (15.4%)
	Total valid response	26 (100.0%)
	Total missing	54
l) Cancer	Yes	1 (4.8%)
	No	17 (81.0%)

Question	Response	Number of Respondents (%)
	Don't know/Not sure	2 (9.5%)
	Refused	1 (4.8%)
	Total valid response	21 (100.0%)
	Total missing	59
m) Mental or emotional health	Yes	12 (50.0%)
	No	9 (37.5%)
	Don't know/Not sure	2 (8.3%)
	Refused	1 (4.2%)
	Total valid response	24 (100.0%)
	Total missing	56

PT 1.2

Analysis Sets	Number of Respondents (%)
All valid respondents	21 (100.0%)
Included in Provider Analysis Set (PAS)	21 (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	21
Included in the Eye Care Professional Set (Eye Specialist)	4 (19.0%)
Excluded in the Eye Care Professional Set (Eye Specialist)	17 (81.0%)
Reasons for exclusion from Eye Care Professional Set:	
Missing required speciality	17
No valid (non-missing) response for the supplemental eye questionnaire	0

PT 1.3

Subgroups	Number of Respondents (%)
Provider Analysis Set	21 (100.0%)

Subgroups	Number of Respondents (%)
Primary Care Provider	2 (9.5%)
Diabetes Specialist Provider	12 (57.1%)
Eye Care Professional	4 (19.0%)
Ophthalmologist	4 (19.0%)

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

PT 1.4

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your specialty?	General primary care/Family practitioner	2 (100.0%)	2 (16.7%)	0 (0.0%)	4 (19.0%)
	Diabetes specialist	0 (0.0%)	12 (100.0%)	1 (25.0%)	13 (61.9%)
	General ophthalmologist	0 (0.0%)	0 (0.0%)	2 (50.0%)	2 (9.5%)
	Optometrist	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Retinal specialist	0 (0.0%)	0 (0.0%)	2 (50.0%)	2 (9.5%)
	Nurse	0 (0.0%)	1 (8.3%)	0 (0.0%)	1 (4.8%)
	Health educator	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	None of the above	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (14.3%)
	Total valid response	2 (100.0%)	12 (100.0%)	4 (100.0%)	21 (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)	2	12	4	21
	Mean	5.5	21.9	16.0	18.0
	SD	6.4	8.7	10.2	10.6
	Median	5.5	20.0	17.0	20.0

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Min.	1	7	3	0
	Max.	10	34	27	34
	Total missing	0	0	0	0

PT 2.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your main practice setting?	Diabetes clinic/practice	0 (0.0%)	7 (58.3%)	0 (0.0%)	7 (36.8%)
	Eye clinic/practice	0 (0.0%)	0 (0.0%)	2 (66.7%)	2 (10.5%)
	General medical clinic/practice	1 (50.0%)	3 (25.0%)	0 (0.0%)	4 (21.1%)
	Hospital	1 (50.0%)	2 (16.7%)	1 (33.3%)	6 (31.6%)
	Other	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	2 (100.0%)	12 (100.0%)	3 (100.0%)	19 (100.0%)
	Total missing	0	0	1	2

PT 2.2

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Where is your main practice located?	Urban setting	2 (100.0%)	10 (83.3%)	3 (100.0%)	16 (84.2%)
	Non-urban setting	0 (0.0%)	2 (16.7%)	0 (0.0%)	3 (15.8%)
	Total Valid Response	2 (100.0%)	12 (100.0%)	3 (100.0%)	19 (100.0%)
	Total missing	0	0	1	2

PT 2.3

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In which sector is your main practice?	Government	1 (50.0%)	3 (25.0%)	1 (33.3%)	7 (36.8%)
	Private	1 (50.0%)	2 (16.7%)	0 (0.0%)	3 (15.8%)
	Non profit	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Combined/mixed	0 (0.0%)	7 (58.3%)	2 (66.7%)	9 (47.4%)
	Total Valid Response	2 (100.0%)	12 (100.0%)	3 (100.0%)	19 (100.0%)
	Total missing	0	0	1	2

PT 2.4

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is your main practice limited to certain populations?	No	1 (50.0%)	9 (75.0%)	3 (100.0%)	14 (73.7%)
	Yes, limited by age	0 (0.0%)	1 (8.3%)	0 (0.0%)	2 (10.5%)
	Yes, limited to low income or uninsured persons	0 (0.0%)	3 (25.0%)	0 (0.0%)	3 (15.8%)
	Yes, limited to persons who pay out-of-pocket	1 (50.0%)	0 (0.0%)	0 (0.0%)	1 (5.3%)
	Total valid response	2 (100.0%)	12 (100.0%)	3 (100.0%)	19 (100.0%)
	Total missing	0	0	1	2

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%)	5 (45.5%)	1 (33.3%)	7 (38.9%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	More than 1 week but less than 1 month	0 (0.0%)	2 (18.2%)	1 (33.3%)	3 (16.7%)
	More than 1 month but less than 2 months	0 (0.0%)	1 (9.1%)	0 (0.0%)	1 (5.6%)
	Do not take appointments	2 (100.0%)	2 (18.2%)	1 (33.3%)	6 (33.3%)
	Don't know/Not sure	0 (0.0%)	1 (9.1%)	0 (0.0%)	1 (5.6%)
	Total Valid Response	2 (100.0%)	11 (100.0%)	3 (100.0%)	18 (100.0%)
	Total missing	0	1	1	3

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)	2	10	3	17
	Mean	40	88	180	105.9
	SD	14.1	61.6	34.6	68
	Median	40	75	200	100
	Min.	30	10	140	10
	Max.	50	200	200	200
	Total missing	0	2	1	4
What percentage of the patients in your main practice have diabetes [% patients]	Total valid response (n)	2	10	3	17
	Mean	52.5	68.5	60	60.6
	SD	31.8	28.3	40	30.5
	Median	52.5	67.5	60	60
	Min.	30	10	20	10

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Max.	75	100	100	100
	Total missing	0	2	1	4

PT 2.7

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, how do patients pay for the care and services that you provide?	Don't pay	1 (50.0%)	1 (9.1%)	0 (0.0%)	2 (11.1%)
	Pay a reduced/subsidized rate	0 (0.0%)	4 (36.4%)	1 (33.3%)	5 (27.8%)
	Pay out-of-pocket (full fees)	1 (50.0%)	3 (27.3%)	1 (33.3%)	5 (27.8%)
	Pay through insurance	0 (0.0%)	0 (0.0%)	1 (33.3%)	2 (11.1%)
	Patient pays some, insurance pays some	0 (0.0%)	3 (27.3%)	2 (66.7%)	5 (27.8%)
	Other	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (5.6%)
	Total valid response	2 (100.0%)	11 (100.0%)	3 (100.0%)	18 (100.0%)
	Total missing	0	1	1	3

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 (50.0%)	10 (83.3%)	4 (100.0%)	16 (80.0%)
	No	1 (50.0%)	2 (16.7%)		4 (20.0%)
	Total valid	2	12	4 (100.0%)	20

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	response	(100.0%)	(100.0%)		(100.0%)
	Total missing				1
In which other practice setting(s) do you work?	Hospital		3 (33.3%)	2 (66.7%)	5 (35.7%)
	General medical clinic/practice	1 (100.0%)	2 (22.2%)		3 (21.4%)
	Diabetes clinic/practice		3 (33.3%)		3 (21.4%)
	Eye clinic/practice			1 (33.3%)	1 (7.1%)
	Other		1 (11.1%)		2 (14.3%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	3	1	7
In which sector(s) is(are) the practice(s)?	Government	1 (100.0%)	1 (11.1%)		3 (21.4%)
	Private		5 (55.6%)	2 (66.7%)	7 (50.0%)
	Combined/mixed		3 (33.3%)	1 (33.3%)	4 (28.6%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	3	1	7
Is there a major difference between your practices with respect to how diabetic eye disease is screened and managed?	Yes		5 (55.6%)	1 (33.3%)	7 (50.0%)
	No	1 (100.0%)	4 (44.4%)	2 (66.7%)	7 (50.0%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	3	1	7

PT 2.9

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Blood glucose	Yes		2 (100.0%)	10 (100.0%)	2 (100.0%)	16 (100.0%)
		Total valid numeric response (n)	2 (100.0%)	9 (90.0%)	2 (100.0%)	15 (93.8%)
		Mean	9.0	11.2	184.0	33.1
		SD	4.2	6.1	256.0	92.0
		Median	9.0	12.0	184.0	12.0
		Min	6	1	3	1
		Max	12	24	365	365
		Total missing	0	3	2	6
	Total valid response		2 (100.0%)	10 (100.0%)	2 (100.0%)	16 (100.0%)
	Total missing			2	2	5
HbA1c	Yes			8 (80.0%)	2 (66.7%)	10 (66.7%)
		Total valid numeric response (n)	0 (0.0%)	8 (80.0%)	2 (66.7%)	10 (66.7%)
		Mean		3.0	183.5	39.1
		SD		0.9	256.7	114.5
		Median		3.0	183.5	3.0
		Min		2	2	2
		Max		4	365	365
		Total missing	2	4	2	11
	No		1 (100.0%)	2 (20.0%)	1 (33.3%)	5 (33.3%)
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing		1	2	1	6
Urine check	Yes			9 (90.0%)	2 (100.0%)	13

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
						(86.7%)
		Total valid numeric response (n)	0 (0.0%)	8 (80.0%)	2 (100.0%)	12 (80.0%)
		Mean		6.1	188.5	36.8
		SD		5.0	249.6	103.5
		Median		4.0	188.5	8.5
		Min		1	12	1
		Max		12	365	365
		Total missing	2	4	2	9
	No		1 (100.0%)	1 (10.0%)		2 (13.3%)
	Total valid response		1 (100.0%)	10 (100.0%)	2 (100.0%)	15 (100.0%)
	Total missing		1	2	2	6
Weight check	Yes		2 (100.0%)	9 (90.0%)		11 (73.3%)
			2 (100.0%)	8 (80.0%)	0 (0.0%)	10 (66.7%)
		Mean	12.0	12.8		12.6
		SD	0.0	5.0		4.4
		Median	12.0	12.0		12.0
		Min	12	6		6
		Max	12	24		24
		Total missing	0	4	4	11
	No			1 (10.0%)	2 (100.0%)	4 (26.7%)
	Total valid response		2 (100.0%)	10 (100.0%)	2 (100.0%)	15 (100.0%)
	Total missing			2	2	6
Blood pressure	Yes		2	10	2 (100.0%)	16

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
check			(100.0%)	(100.0%)		(100.0%)
		Total valid numeric response (n)	2 (100.0%)	9 (90.0%)	2 (100.0%)	15 (93.8%)
		Mean	12.0	14.1	185.5	36.3
		SD	0.0	5.6	253.9	91.1
		Median	12.0	12.0	185.5	12.0
		Min	12	6	6	6
		Max	12	24	365	365
		Total missing	0	3	2	6
	Total valid response		2 (100.0%)	10 (100.0%)	2 (100.0%)	16 (100.0%)
	Total missing			2	2	5
Foot check	Yes		1 (50.0%)	9 (90.0%)	2 (100.0%)	13 (86.7%)
		Total valid numeric response (n)	1 (50.0%)	8 (80.0%)	2 (100.0%)	12 (80.0%)
		Mean	12.0	7.5	184.0	37.0
		SD		8.0	256.0	103.5
		Median	12.0	4.0	184.0	4.0
		Min	12	1	3	1
		Max	12	24	365	365
		Total missing	1	4	2	9
	No		1 (50.0%)	1 (10.0%)		2 (13.3%)
	Total valid response		2 (100.0%)	10 (100.0%)	2 (100.0%)	15 (100.0%)
	Total missing			2	2	6
Eye examination -	Yes		2 (100.0%)	4 (40.0%)	3 (100.0%)	10 (62.5%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Un-dilated						
		Total valid numeric response (n)	2 (100.0%)	3 (30.0%)	3 (100.0%)	9 (56.3%)
		Mean	1.5	2.3	124.3	42.8
		SD	0.7	1.5	208.4	120.8
		Median	1.5	2.0	4.0	2.0
		Min	1	1	4	1
		Max	2	4	365	365
		Total missing	0	9	1	12
	No			6 (60.0%)		6 (37.5%)
	Total valid response		2 (100.0%)	10 (100.0%)	3 (100.0%)	16 (100.0%)
	Total missing			2	1	5
Eye examination - Optical Coherence Tomography	Yes			1 (10.0%)	3 (100.0%)	4 (26.7%)
		Total valid numeric response (n)	0 (0.0%)	0 (0.0%)	3 (100.0%)	3 (20.0%)
		Mean			122.3	122.3
		SD			210.2	210.2
		Median			1.0	1.0
		Min			1	1
		Max			365	365
		Total missing	2	12	1	18
	No		1 (100.0%)	9 (90.0%)		11 (73.3%)
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	15 (100.0%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total missing		1	2	1	6
Eye examination - Fundoscopy	Yes			5 (50.0%)	2 (100.0%)	8 (57.1%)
		Total valid numeric response (n)	0 (0.0%)	5 (50.0%)	2 (100.0%)	8 (57.1%)
		Mean		1.2	184.5	47.1
		SD		0.4	255.3	128.4
		Median		1.0	184.5	1.5
		Min		1	4	1
		Max		2	365	365
		Total missing	2	7	2	13
	No		1 (100.0%)	5 (50.0%)		6 (42.9%)
	Total valid response		1 (100.0%)	10 (100.0%)	2 (100.0%)	14 (100.0%)
	Total missing		1	2	2	7
Eye examination - Fluorescein Angiography	Yes			1 (10.0%)	3 (100.0%)	4 (26.7%)
		Total valid numeric response (n)	0 (0.0%)	1 (10.0%)	3 (100.0%)	4 (26.7%)
		Mean		1.0	122.3	92.0
		SD			210.2	182.0
		Median		1.0	1.0	1.0
		Min		1	1	1
		Max		1	365	365
		Total missing	2	11	1	17
	No		1 (100.0%)	9 (90.0%)		11 (73.3%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing		1	2	1	6
Eye examination - Lipid check	Yes			6 (60.0%)	2 (100.0%)	8 (57.1%)
		Total valid numeric response (n)	0 (0.0%)	5 (50.0%)	2 (100.0%)	7 (50.0%)
		Mean		6.0	183.0	56.6
		SD		9.0	257.4	136.2
		Median		2.0	183.0	2.0
		Min		1	1	1
		Max		22	365	365
		Total missing	2	7	2	14
	No		1 (100.0%)	4 (40.0%)		6 (42.9%)
	Total valid response		1 (100.0%)	10 (100.0%)	2 (100.0%)	14 (100.0%)
	Total missing		1	2	2	7

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	2 (100.0%)	8 (100.0%)	1 (33.3%)	13 (86.7%)
	Diet/nutrition	2 (100.0%)	8 (100.0%)	0 (0.0%)	11 (73.3%)
	Exercise/physical	1 (50.0%)	5 (62.5%)	0 (0.0%)	7

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	activity				(46.7%)
	Medicines	2 (100.0%)	8 (100.0%)	0 (0.0%)	12 (80.0%)
	Foot care and inspection	1 (50.0%)	8 (100.0%)	0 (0.0%)	9 (60.0%)
	Blood pressure	2 (100.0%)	8 (100.0%)	0 (0.0%)	12 (80.0%)
	Eye care and exams	1 (50.0%)	4 (50.0%)	2 (66.7%)	7 (46.7%)
	Lipid check	2 (100.0%)	3 (37.5%)	1 (33.3%)	6 (40.0%)
	Total valid response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing	0	4	1	6

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%)	1 (12.5%)	3 (100.0%)	4 (26.7%)
	Yes, but information on eye complications is not sufficient	0 (0.0%)	2 (25.0%)	0 (0.0%)	3 (20.0%)
	Yes, but no information on eye complications is included	0 (0.0%)	3 (37.5%)	0 (0.0%)	3 (20.0%)
	No written information is available for patients	2 (100.0%)	2 (25.0%)	0 (0.0%)	5 (33.3%)
	Total Valid Response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing	0	4	1	6

PT 2.12

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you have written protocols/guidelines available in your main practice for the management of diabetes?	Yes, available and used by staff	1 (50.0%)	5 (62.5%)	1 (33.3%)	7 (46.7%)
	Yes, available but not used by staff	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (6.7%)
	Not available	1 (50.0%)	2 (25.0%)	2 (66.7%)	7 (46.7%)
	Total Valid Response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing	0	4	1	6

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	2 (100.0%)	3 (37.5%)	1 (33.3%)	6 (40.0%)
	Yes, available but not used by staff	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (6.7%)
	Not available	0 (0.0%)	4 (50.0%)	2 (66.7%)	8 (53.3%)
	Total Valid Response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing	0	4	1	6

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)	1 (50.0%)	5 (62.5%)	0 (0.0%)	6 (40.0%)
	Mean	10.0	5.8		6.5
	SD		2.4		2.7
	Median	10.0	5.0		5.0
	Min	10	4		4
	Max	10	10		10
	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			2 (66.7%)	2 (13.3%)
	When a patient reports eye/vision problems		2 (25.0%)	1 (33.3%)	3 (20.0%)
	No standard practice, timing varies case by case	1 (50.0%)	1 (12.5%)		4 (26.7%)
	Total valid response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing		4	1	6
What is the protocol in your main practice for timing of initial eye exams for persons with diabetes - Type II?	After a predetermined number of years (numeric response) (n)	0 (0.0%)	0 (0.0%)	1 (33.3%)	1 (6.7%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Mean			10.0	10.0
	SD				
	Median			10.0	10.0
	Min			10	10
	Max			10	10
	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 (50.0%)	5 (62.5%)	1 (33.3%)	8 (53.3%)
	When a patient reports eye/vision problems		2 (25.0%)		2 (13.3%)
	No standard practice, timing varies case by case	1 (50.0%)	1 (12.5%)	1 (33.3%)	4 (26.7%)
	Total valid response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing		4	1	6

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 (50.0%)	6 (75.0%)	3 (100.0%)	10 (66.7%)
	Every two years	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (6.7%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Only when symptoms are present	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (6.7%)
	Other	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (6.7%)
	Don't know/Not sure	1 (50.0%)	0 (0.0%)	0 (0.0%)	2 (13.3%)
	Total Valid Response	2 (100.0%)	8 (100.0%)	3 (100.0%)	15 (100.0%)
	Total missing	0	4	1	6

PT 2.16

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you screen patients for DR?	Yes	1 (50.0%)	7 (87.5%)	3 (75.0%)	12 (75.0%)
	No	1 (50.0%)	1 (12.5%)	1 (25.0%)	4 (25.0%)
	Total valid response	2 (100.0%)	8 (100.0%)	4 (100.0%)	16 (100.0%)
	Total missing		4		5
Where do you screen patients?	In clinic		5 (71.4%)	3 (100.0%)	9 (81.8%)
	Outreach		3 (42.9%)		3 (27.3%)
	Other		1 (14.3%)		1 (9.1%)
	Total valid response		7 (100.0%)	3 (100.0%)	11 (100.0%)
	Total missing	2	5	1	10

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 (75.0%)	2 (66.7%)	11 (78.6%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Patient's age	1 (100.0%)	2 (25.0%)	1 (33.3%)	6 (42.9%)
	Presence of comorbidities such as hypertension, etc.	1 (100.0%)	5 (62.5%)	1 (33.3%)	9 (64.3%)
	High glucose levels	1 (100.0%)	2 (25.0%)	2 (66.7%)	7 (50.0%)
	Ability or inability to pay	0 (0.0%)	4 (50.0%)	0 (0.0%)	5 (35.7%)
	Insurance restrictions	0 (0.0%)	3 (37.5%)	0 (0.0%)	4 (28.6%)
	Patient educational level	0 (0.0%)	2 (25.0%)	0 (0.0%)	3 (21.4%)
	Patient adherence to recommendations	0 (0.0%)	4 (50.0%)	0 (0.0%)	6 (42.9%)
	None of the above	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (7.1%)
	Total valid response	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	4	1	7

PT 2.18

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What are the major barriers to optimizing eye health faced by patients with diabetes in your main practice?	Cost of care	1 (100.0%)	6 (75.0%)	1 (33.3%)	10 (71.4%)
	Proximity to care	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (7.1%)
	Long wait time for appointment	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (7.1%)
	Long wait time on the day of visit	0 (0.0%)	2 (25.0%)	1 (33.3%)	4 (28.6%)
	Referral process	0 (0.0%)	1 (12.5%)	1 (33.3%)	4 (28.6%)
	Recommended	1	2 (25.0%)	0 (0.0%)	4

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	treatments are not available	(100.0%)			(28.6%)
	Lack of knowledge and/or awareness	0 (0.0%)	2 (25.0%)	1 (33.3%)	5 (35.7%)
	Patients fear of treatment/results	0 (0.0%)	1 (12.5%)	1 (33.3%)	3 (21.4%)
	Patients they are a burden on family/friends	0 (0.0%)	0 (0.0%)	1 (33.3%)	2 (14.3%)
	Limited access to diabetes specialists	1 (100.0%)	1 (12.5%)	0 (0.0%)	3 (21.4%)
	Limited access to eye specialists	0 (0.0%)	2 (25.0%)	0 (0.0%)	3 (21.4%)
	Patients feel eye complications are unlikely	0 (0.0%)	1 (12.5%)	1 (33.3%)	3 (21.4%)
	Patients feel eye exams are not important	0 (0.0%)	2 (25.0%)	1 (33.3%)	4 (28.6%)
	Patients have competing responsibilities and priorities	0 (0.0%)	2 (25.0%)	0 (0.0%)	3 (21.4%)
	Clinic too small or lack necessary equipment/staff	0 (0.0%)	3 (37.5%)	0 (0.0%)	5 (35.7%)
	Total valid response	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	4	1	7

PT 2.19

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, are patients contacted with reminders for general follow-up appointments?	Yes	1 (100.0%)	3 (37.5%)	1 (33.3%)	5 (35.7%)
	No	0 (0.0%)	5 (62.5%)	2 (66.7%)	9 (64.3%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total Valid Response	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	4	1	7

PT 2.20

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you share relevant patient information with other health care professionals involved in the patients care e.g. his or her general practitioner, ophthalmologist, podiastrist?	Yes	0 (0.0%)	5 (62.5%)	2 (66.7%)	7 (50.0%)
	No	1 (100.0%)	3 (37.5%)	1 (33.3%)	7 (50.0%)
	Total Valid Response	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	4	1	7

PT 3.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Please indicate your age:	30 - 39		1 (12.5%)		2 (14.3%)
	40 - 49		4 (50.0%)	1 (33.3%)	5 (35.7%)
	50 - 59	1 (100.0%)	2 (25.0%)	2 (66.7%)	5 (35.7%)
	60 - 69		1 (12.5%)		2 (14.3%)
	Total valid response	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	4	1	7
What is your gender?	Female		1 (14.3%)	1 (33.3%)	4 (30.8%)
	Male	1 (100.0%)	6 (85.7%)	2 (66.7%)	9 (69.2%)
	Total valid	1 (100.0%)	7 (100.0%)	3 (100.0%)	13

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	response				(100.0%)
	Total missing	1	5	1	8
What is your highest level of education completed?	Graduate or advanced degree (e.g. PhD, MD, etc)	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total valid response	1 (100.0%)	8 (100.0%)	3 (100.0%)	14 (100.0%)
	Total missing	1	4	1	7

PT 4.1

Question	Response	Ophthalmologist
What percentage of your patients have diabetic retinopathy	Total valid numeric response (n)	4
	Mean	20.0
	SD	21.6
	Median	15.0
	Min	0
	Max	50

PT 4.2

Question	Response	Ophthalmologist
What percentage of your patients have diabetic macular edema?	Total valid numeric response (n)	4
	Mean	25.0
	SD	17.3
	Median	30.0
	Min	0
	Max	40

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	1 (33.3%)

Question	Response	Ophthalmologist
	More than 1 week but less than 1 month	1 (33.3%)
	Do not take appointment	1 (33.3%)
	Total Valid Response	3 (100.0%)
	Total missing	1

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?	Don't know/Not sure	1 (33.3%)
	There is not wait, diagnosis is given when screened	2 (66.7%)
	Total Valid Response	3 (100.0%)
	Total missing	1

PT 4.5

Type of Treatment	Question	Response/time	Ophthalmologist
Laser photocoagulation	Is the treatment available?	Available within country	1 (33.3%)
		Available locally	1 (33.3%)
		Available in practice	3 (100.0%)
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	2 (66.7%)
		Mean	1.0
		SD	0.0
		Median	1.0
		Min	1
		Max	1
		Don't know/not sure	1 (33.3%)

Type of Treatment	Question	Response/time	Ophthalmologist
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	1.0
		SD	0.0
		Median	1.0
		Min	1
		Max	1
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	2.5
		SD	2.1
		Median	2.5
		Min	1
		Max	4
		Total valid response	2 (100.0%)
		Total missing	2
Anti-VEGF therapies	Is the treatment available?	Available within country	1 (33.3%)
		Available locally	1 (33.3%)
		Available in practice	3 (100.0%)
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	2 (66.7%)
		Mean	2.5

Type of Treatment	Question	Response/time	Ophthalmologist
		SD	2.1
		Median	2.5
		Min	1
		Max	4
		Don't know/not sure	1 (33.3%)
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	1.0
		SD	0.0
		Median	1.0
		Min	1
		Max	1
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	4.5
		SD	4.9
		Median	4.5
		Min	1
		Max	8
		Total valid response	2 (100.0%)
		Total missing	2
Intravitreal steroid	Is the treatment available?	Available within country	1 (33.3%)
		Available locally	1 (33.3%)
		Available in practice	3 (100.0%)
		Total valid	3 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
		response	
		Total missing	1
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	2 (66.7%)
		Mean	1.5
		SD	0.7
		Median	1.5
		Min	1
		Max	2
		Don't know/not sure	1 (33.3%)
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	1.0
		SD	0.0
		Median	1.0
		Min	1
		Max	1
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	3.5
		SD	3.5
		Median	3.5
		Min	1
		Max	6
		Total valid response	2 (100.0%)
		Total missing	2

Type of Treatment	Question	Response/time	Ophthalmologist
Uncomplicated vitrectomy	Is the treatment available?	Available within country	1 (33.3%)
		Available locally	2 (66.7%)
		Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	3.0
		SD	1.4
		Median	3.0
		Min	2
		Max	4
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	1.5
		SD	0.7
		Median	1.5
		Min	1
		Max	2
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a second treatment?(weeks)	Total valid numeric response (n)	1 (50.0%)
		Mean	2.0
		SD	
		Median	2.0
		Min	2

Type of Treatment	Question	Response/time	Ophthalmologist
		Max	2
		Don't know/not sure	1 (50.0%)
		Total valid response	2 (100.0%)
		Total missing	2
Complex vitreo-retinal surgery	Is the treatment available?	Available within country	1 (33.3%)
		Available locally	2 (66.7%)
		Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	1
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	3.0
		SD	1.4
		Median	3.0
		Min	2
		Max	4
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	2 (100.0%)
		Mean	1.5
		SD	0.7
		Median	1.5
		Min	1
		Max	2
		Total valid response	2 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a second	Total valid numeric	1 (50.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
	treatment?(weeks)	response (n)	
		Mean	2.0
		SD	
		Median	2.0
		Min	2
		Max	2
		Don't know/not sure	1 (50.0%)
		Total valid response	2 (100.0%)
		Total missing	2

PT 4.6

Question	Response	Ophthalmologist
Do you personally administer treatment for diabetic retinopathy?	Yes	3 (100.0%)
	Total valid response	3 (100.0%)
	Total missing	1
Who administer it?	Total missing	4

PT 4.7

Question	Response	Ophthalmologist
Do any of the following influence how you treat diabetic retinopathy or diabetic macular edema?	Diabetes duration	1 (50.0%)
	Patient's age	2 (100.0%)
	Patient's gender	1 (50.0%)
	Presence of comorbidities such as hypertension, etc.	1 (50.0%)
	High glucose levels	1 (50.0%)
	Insurance restrictions	1 (50.0%)
	Total valid response	2 (100.0%)
	Total missing	2

PT 4.8

Question	Response	Ophthalmologist
Do you treat diabetic retinopathy and diabetic macular edema based on:	Both	2 (100.0%)
	Total Valid Response	2 (100.0%)
	Total missing	2

PT 4.9

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

PT 4.10

Question	Response	Ophthalmologist
In your opinion, do the majority of your patients present:	When visual problems have already occurred	2 (100.0%)
	Total Valid Response	2 (100.0%)
	Total missing	2

PT 4.11

Question	Response	Ophthalmologist
Have you received training specifically on treatment and diagnosis of diabetic retinopathy and/or clinically significant diabetic macular edema?	Yes	1 (33.3%)
	No	2 (66.7%)
	Total valid response	3 (100.0%)
	Total missing	1
If yes, When was your last training?	Within the past year	1 (100.0%)

Question	Response	Ophthalmologist
	Total valid response	1 (100.0%)
	Total missing	3

PT 4.12

Question	Response	Ophthalmologist
Would you be interested in online education and certification on DME, Angiogenesis and Anti-VEGF therapies?	Yes	2 (66.7%)
	No	1 (33.3%)
	Total Valid Response	3 (100.0%)
	Total missing	1

PT 4.13

Question	Response	Ophthalmologist
How is outreach for screening for diabetic eye disease done in your main practice?	Health fairs for all	2 (100.0%)
	Health fairs for people with diabetes	1 (50.0%)
	At vision centers	1 (50.0%)
	Total valid response	2 (100.0%)
	Total missing	2

PT 4.14

Question	Response	Ophthalmologist
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Reimbursement/restrictions on approved therapy	1 (50.0%)
	Late diagnosis	2 (100.0%)
	Referral pathways	1 (50.0%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	2 (100.0%)
	Multi-disciplinary team integration is poor	1 (50.0%)
	Ineffective screening services	1 (50.0%)
	Total valid response	2 (100.0%)

Question	Response	Ophthalmologist
	Total missing	2

EXP 1

Question	Response	Without DED (%)	With DED (%)	With DME (%)
Which of the following complications of diabetes do you have?	Broken bones or fractures	3 (5.5%)	1 (10.0%)	2 (22.2%)
	Irritable bowel disease	5 (9.1%)	1 (10.0%)	4 (44.4%)
	Loss of feeling in hands or toes (neuropathy)	13 (23.6%)	4 (40.0%)	2 (22.2%)
	Vision loss	3 (5.5%)	1 (10.0%)	2 (22.2%)
	Amputation	2 (3.6%)	0 (0.0%)	2 (22.2%)
	Kidney disease	6 (10.9%)	0 (0.0%)	1 (11.1%)
	Foot ulcers	2 (3.6%)	0 (0.0%)	2 (22.2%)
	Cardiovascular disease/Stroke	5 (9.1%)	1 (10.0%)	0 (0.0%)
	Other	4 (7.3%)	0 (0.0%)	0 (0.0%)
	None	26 (47.3%)	3 (30.0%)	0 (0.0%)
	Don't know/Not sure	3 (5.5%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	55 (100.0%)	10 (100.0%)	9 (100.0%)
	Total missing	5	1	0

NB [1]: Without DED = respondents who did not select "Yes" for both DED and DME.
NB [2]: DED = respondents with DED ="Yes" minus respondents with DME ="Yes".
NB [3]: DME = respondents with DME ="Yes".
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	13 (23.6%)	4 (36.4%)	6 (66.7%)
Impairment or health problem			
Diabetes	14 (93.3%)	4 (80.0%)	4 (66.7%)
Back or neck problem	9 (64.3%)	3 (60.0%)	6 (100.0%)
Mental or emotional health	8 (61.5%)	3 (60.0%)	1 (16.7%)
Hypertension/high blood pressure	5 (41.7%)	3 (60.0%)	5 (83.3%)

Limitations	Without DED n (%)	With DED n (%)	With DME n (%)
Hearing problem	4 (33.3%)	2 (40.0%)	2 (33.3%)
Arthritis/rheumatism	4 (30.8%)	2 (40.0%)	5 (83.3%)
Walking problem	4 (30.8%)	2 (40.0%)	2 (33.3%)
Eye/vision problem	3 (25.0%)	2 (40.0%)	2 (33.3%)
Heart problem	2 (18.2%)	1 (20.0%)	2 (33.3%)
Fractures, bone/joint injury	2 (16.7%)	1 (20.0%)	1 (16.7%)
Lung/breathing problem	2 (16.7%)	0 (0.0%)	2 (33.3%)
Stroke problem	1 (9.1%)	0 (0.0%)	2 (33.3%)
Cancer	0 (0.0%)	0 (0.0%)	1 (16.7%)

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	34 (61.8%)	7 (70.0%)	8 (88.9%)
Self-rated health: Poor	21 (38.2%)	3 (30.0%)	1 (11.1%)
Physically unhealthy days	28 (73.7%)	4 (57.1%)	3 (37.5%)
Mentally unhealthy days	31 (75.6%)	5 (83.3%)	2 (28.6%)
Unhealthy days	34 (82.9%)	5 (83.3%)	3 (50.0%)
Activity limitation days	26 (83.9%)	4 (80.0%)	1 (25.0%)

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	42 (54.5%)	19 (57.6%)	13 (65.0%)
	Oral medicine	33 (42.9%)	15 (45.5%)	9 (45.0%)
	Exercise	19 (24.7%)	8 (24.2%)	6 (30.0%)
	Insulin	29 (37.7%)	15 (45.5%)	8 (40.0%)
	Natural/Herbal medicine	11 (14.3%)	4 (12.1%)	2 (10.0%)
	None of the	2 (2.6%)		

Item	Response	All respondents	Respondents with Type I diabetes	Respondents with Type II diabetes
	above			

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	32 (58.2%)	7 (63.6%)	8 (88.9%)
	Working without pay at home (e.g. housework, farming)	4 (7.3%)	0 (0.0%)	0 (0.0%)
	Retired	5 (9.1%)	2 (18.2%)	0 (0.0%)
	Student	8 (14.5%)	1 (9.1%)	1 (11.1%)
	Not working	6 (10.9%)	1 (9.1%)	0 (0.0%)
	Total Valid Response	55 (100.0%)	11 (100.0%)	9 (100.0%)
	Total missing	5	0	0
Do you receive assistance from the government?	Income assistance	2 (3.8%)	2 (20.0%)	6 (66.7%)
	Medical assistance	7 (13.2%)	1 (10.0%)	0 (0.0%)
	Food assistance	1 (1.9%)	1 (10.0%)	1 (11.1%)
	Housing assistance	1 (1.9%)	1 (10.0%)	0 (0.0%)
	Pension assistance	1 (1.9%)	2 (20.0%)	0 (0.0%)
	None of the above	43 (81.1%)	7 (70.0%)	3 (33.3%)
	Total valid response	53 (100.0%)	10 (100.0%)	9 (100.0%)
	Total missing	7	1	0
Did you have trouble paying for food at anytime during the past year?	Yes	31 (57.4%)	5 (45.5%)	7 (77.8%)
	No	23 (42.6%)	6 (54.5%)	2 (22.2%)
	Total Valid Response	54 (100.0%)	11 (100.0%)	9 (100.0%)
	Total missing	6	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	22 (59.5%)	5 (83.3%)	6 (85.7%)
	Working without pay at home (e.g. housework, farming)	3 (8.1%)	0 (0.0%)	0 (0.0%)
	Student	8 (21.6%)	1 (16.7%)	1 (14.3%)
	Not working	4 (10.8%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	37 (100.0%)	6 (100.0%)	7 (100.0%)
	Total missing	4	0	0
Do you receive assistance from the government?	Income assistance	2 (5.4%)	1 (16.7%)	5 (71.4%)
	Medical assistance	4 (10.8%)	1 (16.7%)	0 (0.0%)
	Food assistance	1 (2.7%)	1 (16.7%)	1 (14.3%)
	Housing assistance	1 (2.7%)	1 (16.7%)	0 (0.0%)
	Pension assistance	0 (0.0%)	1 (16.7%)	0 (0.0%)
	None of the above	31 (83.8%)	5 (83.3%)	2 (28.6%)
	Total valid response	37 (100.0%)	6 (100.0%)	7 (100.0%)
	Total missing	4	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	21 (56.8%)	2 (33.3%)	5 (71.4%)
	No	16 (43.2%)	4 (66.7%)	2 (28.6%)
	Total Valid Response	37 (100.0%)	6 (100.0%)	7 (100.0%)
	Total missing	4	0	0

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

EXP 5.3: Age group 40-59 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	10 (71.4%)	1 (50.0%)	2 (100.0%)
	Working without pay at home (e.g. housework, farming)	1 (7.1%)	0 (0.0%)	0 (0.0%)
	Retired	1 (7.1%)	1 (50.0%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	Not working	2 (14.3%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	14 (100.0%)	2 (100.0%)	2 (100.0%)
	Total missing	1	0	0
Do you receive assistance from the government?	Income assistance	0 (0.0%)	0 (0.0%)	1 (50.0%)
	Medical assistance	2 (15.4%)	0 (0.0%)	0 (0.0%)
	Pension assistance	0 (0.0%)	1 (50.0%)	0 (0.0%)
	None of the above	11 (84.6%)	1 (50.0%)	1 (50.0%)
	Total valid response	13 (100.0%)	2 (100.0%)	2 (100.0%)
	Total missing	2	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	8 (61.5%)	1 (50.0%)	2 (100.0%)
	No	5 (38.5%)	1 (50.0%)	0 (0.0%)
	Total Valid Response	13 (100.0%)	2 (100.0%)	2 (100.0%)
	Total missing	2	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	0 (0.0%)	1 (33.3%)	0 (0.0%)
	Retired	4 (100.0%)	1 (33.3%)	0 (0.0%)
	Not working	0 (0.0%)	1 (33.3%)	0 (0.0%)
	Total Valid Response	4 (100.0%)	3 (100.0%)	0 (0.0%)
Do you receive assistance from the government?	Income assistance	0 (0.0%)	1 (50.0%)	0 (0.0%)
	Medical assistance	1 (33.3%)	0 (0.0%)	0 (0.0%)
	Pension assistance	1 (33.3%)	0 (0.0%)	0 (0.0%)

Item	Response	Without DED (%)	With DED (%)	With DME (%)
	None of the above	1 (33.3%)	1 (50.0%)	0 (0.0%)
	Total valid response	3 (100.0%)	2 (100.0%)	0
	Total missing	1	1	0
Did you have trouble paying for food at anytime during the past year?	Yes	2 (50.0%)	2 (66.7%)	0 (0.0%)
	No	2 (50.0%)	1 (33.3%)	0 (0.0%)
	Total Valid Response	4 (100.0%)	3 (100.0%)	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 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		80 (100%)	34 (42.5%)	22 (27.5%)	11 (13.8%)	9 (11.3%)
Gender	Male	59 (78.7%)	24 (40.7%)	17 (28.8%)	6 (10.2%)	7 (11.9%)
	Female	16 (21.3%)	8 (50.0%)	3 (18.8%)	5 (31.3%)	2 (12.5%)
	Total Missing	5	2	2	0	0
Age	18-39 yrs	54 (67.5%)	29 (53.7%)	11 (20.4%)	6 (11.1%)	7 (13.0%)
	40-59 yrs	19 (23.8%)	3 (15.8%)	8 (42.1%)	2 (10.5%)	2 (10.5%)
	60-79 yrs	7 (8.8%)	2 (28.6%)	3 (42.9%)	3 (42.9%)	0 (0.0%)
Time since	Within the	23 (29.9%)	8 (34.8%)	2 (8.7%)	2 (8.7%)	1 (4.3%)

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
diagnosis	last year					
	1 - 5 years ago	30 (39.0%)	13 (43.3%)	10 (33.3%)	3 (10.0%)	5 (16.7%)
	6 - 10 years ago	7 (9.1%)	4 (57.1%)	1 (14.3%)	2 (28.6%)	1 (14.3%)
	11 - 15 years ago	9 (11.7%)	3 (33.3%)	5 (55.6%)	3 (33.3%)	1 (11.1%)
	16 - 20 years ago	3 (3.9%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	21 years ago or longer	3 (3.9%)	2 (66.7%)	1 (33.3%)	1 (33.3%)	0 (0.0%)
	Don't know/Not sure	2 (2.6%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)
	Total Missing	3	1	2	0	0
Control of Diabetes	Controlled	53 (69.7%)	23 (43.4%)	13 (24.5%)	5 (9.4%)	6 (11.3%)
	Not controlled	21 (27.6%)	9 (42.9%)	7 (33.3%)	6 (28.6%)	3 (14.3%)
	Don't know/Not sure	2 (2.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Total Missing	4	2	2	0	0

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

EXP 7

Question	Response	With DED n (%)	With DME n (%)
Have you had any treatment for diabetic eye disease?	Yes	3 (27.3%)	8 (88.9%)
	No	6 (54.5%)	1 (11.1%)
	Don't know/Not sure	2 (18.2%)	0 (0.0%)
	Total valid response	11 (100.0%)	9 (100.0%)
What treatment did you receive?	Laser	1 (33.3%)	6 (75.0%)
	Anti-VEGF	1 (33.3%)	2 (25.0%)
	Surgery	0 (0.0%)	1 (12.5%)
	Other	2 (66.7%)	1 (12.5%)

Question	Response	With DED n (%)	With DME n (%)
	Total valid response	3 (100.0%)	8 (100.0%)
	Total missing	8	1
Did you complete the treatment?	Yes	0 (0.0%)	8 (100.0%)
	Still receiving treatment	2 (66.7%)	0 (0.0%)
	Don't know/Not sure	1 (33.3%)	0 (0.0%)
	Total valid response	3 (100.0%)	8 (100.0%)
	Total missing	8	1
Do you feel that the treatment worked?	Yes, and vision improved	1 (50.0%)	7 (87.5%)
	Yes, but vision stayed the same	0 (0.0%)	1 (12.5%)
	Still waiting to know	1 (50.0%)	0 (0.0%)
	Total valid response	2 (100.0%)	8 (100.0%)
	Total missing	9	1
What is/are the reason(s) that you did not complete the treatment?	Total valid response	0 (0.0%)	0 (0.0%)
	Total missing	11	9
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	3 (50.0%)	0 (0.0%)
	Treatment would not be effective	1 (16.7%)	0 (0.0%)
	Treatment is not accessible	0 (0.0%)	1 (100.0%)
	Still waiting for treatment	2 (33.3%)	0 (0.0%)
	Too expensive	1 (16.7%)	0 (0.0%)
	No insurance	0 (0.0%)	1 (100.0%)
	Total valid response	6 (100.0%)	1 (100.0%)
	Total missing	5	8

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.

DR
Barometer
Shifting the needle

DRBarometer.com