

The Diabetic Retinopathy Barometer Report

United Arab Emirates



Contents

Introduction: Global Study	3
Goal	3
Background	3
Study Populations	4
Introduction: United Arab Emirates Study	5
Demographic Characteristics	5
Diabetes Profile	5
Study Populations: United Arab Emirates	5
United Arab Emirates DR Barometer Findings: Adults with Diabetes	8
Key Demographic Characteristics	8
Knowledge and Management of Diabetes	10
Nature and Information about Complications	11
Information about Diabetic Eye Disease and Diabetic Macular Edema	12
Screening for Diabetic Eye Disease	13
Treatment of Diabetic Eye Disease and Diabetic Macular Edema	14
Impact of Diabetic Eye Disease and Diabetic Macular Edema	15
Self-reported Quality of Life	17
United Arab Emirates DR Barometer Findings: Health Care Professionals	18
Key Demographic Characteristics	18
Clinical Practice Characteristics	19
Patient Education Information	20
Guidelines and Protocols	21
Screening Protocols and Barriers in the Care Pathway	22
United Arab Emirates DR Barometer Findings: Ophthalmologists	24
Screening	24
Treatment and Challenges	24
United Arab Emirates DR Barometer Summary	26
References and Acknowledgement	29
Appendices	30



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

Introduction

Global Study

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

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

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

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

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

Goal

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

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

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

Background

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

Phase II was a multi-country quantitative study conducted in 41 countries to investigate the current level of awareness of the risk of DR and of the need for prevention, screening and management to avert 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 of 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 2,329 respondents.

In the global analysis, respondents from each country were grouped into regions as defined by the WHO and into the WBIGs.

Study Populations

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

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

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

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

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

As reported by 4,340 adults with diabetes who responded to the survey, 20% were 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 health professionals.

Introduction

United Arab Emirates Study

Demographic Characteristics¹

The United Arab Emirates (UAE) is the ninth most populous country of the Middle East with an estimated population of approximately 9.2 million.

Currently it is estimated that ~14% of the population is under the age of 15 years (1.3 million) while only 1% is over the age of 65 years (116,000).

By 2050, the population distribution in the UAE is expected to increase by ~38%, but with the population actually ageing. Those 15 years and younger will make up ~12% of the country population while those aged 65 years or older will compromise some 16% of the population. This means that in just over 30 years the population aged 65 years or older is expected to increase exponentially by ~1700% and reach an all-time high of approximately 2 million.

Diabetes Profile²

There are 415 million people living with diabetes in the world. Of these, more than 35.4 million people are found in the Middle East and North Africa Region of which ~41% are undiagnosed. By 2040, this number is expected to rise to 72.1 million.

The UAE has over 1.1 million (966.3-1,270.5 \pm) adults living with diabetes, which accounts to ~3% of those with diabetes in this region. The diabetes national prevalence 20 – 79 years is 14.6% (13.0-17.1 \pm), making it well above the global average of 8.8%. The diabetes age-adjusted comparative prevalence is 19.3% (16.9-22.4 \pm).

Deaths attributed to diabetes in the UAE in 2015 were 1,384 and the estimated number of undiagnosed cases was 387,200 (500.7-658.4 \pm).

Study Populations: United Arab Emirates

As reported by 68 respondents with diabetes in the UAE 27% were diagnosed with DED and a further 8.8% with DME.

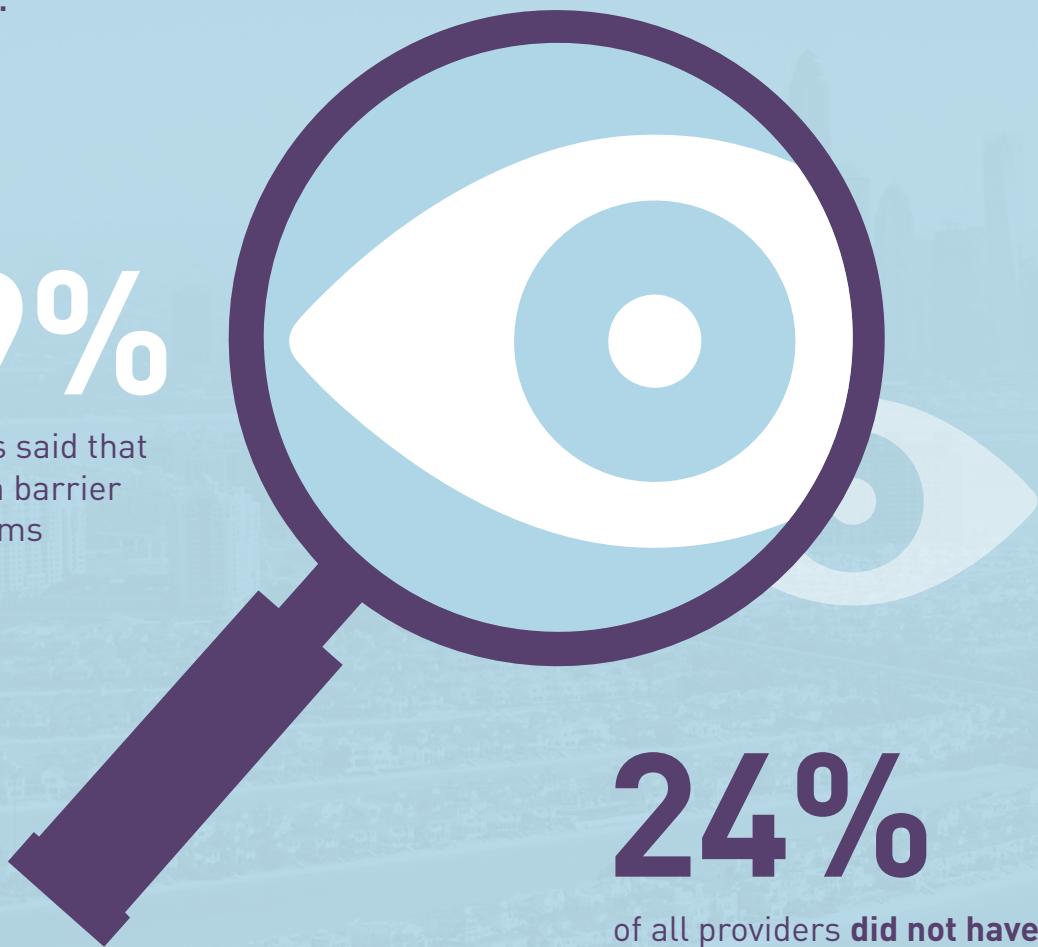
Thirty-one health care professionals completed the survey in the UAE. Of these, 13 were diabetes specialist providers (42%), five were ophthalmologists (16%), and two were primary care providers (6.5%). The remaining respondents were nurses, health educators, or other types of professionals.

The DR Barometer Study: United Arab Emirates Overview

The DR Barometer study was conducted in 41 countries. In United Arab Emirates, 68 adults with diabetes and 31 health care professionals provided new information about the experiences of living with, managing and treating diabetes, DR and DME.

49%

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



24%

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

DR: Diabetic Retinopathy
DME: Diabetic Macular Edema

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93%

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

40%

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



19%

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



The United Arab Emirates DR Barometer Findings: Adults with Diabetes

Key Demographic Characteristics

Sixty-eight adults with diabetes completed the patient survey in the United Arab Emirates: 22% were female and 78% were male. Eighty-eight percent lived in an urban setting and 12% in a non-urban setting (see Appendix Table 4.2).

The education level of all respondents comprised of 1.5% not completing primary school, 7.4% completing to a secondary school level, 56% to a college or university level, and 35% to a graduate or post-graduate level. Eighty-four percent of the respondents were in paid employment, 2% were retired, and 6% were not working (see Appendix Table 4.3 and Table 4.4).

Most respondents (63%) were aged between 18 and 39 years and the remaining 37% were in the 40-59 year age group. All respondents were of traditional working age (18- 59 years) (see Table 1).

Of the respondents, 32% had been diagnosed with type 1 diabetes and 43% with type 2 diabetes. One in four respondents (25%) respondents were either unsure or did not know their type of diabetes (see Appendix Table 2.1).

Most of those surveyed (46%) were diagnosed with diabetes within the last year. A further 41% were diagnosed 1 - 5 years ago, 9% 6 - 10 years ago, 3% 11 - 15 years ago, and 2% 16 - 20 years ago (see Appendix Table 2.2).

Consistent with findings in the global study, a younger population tended to be associated with type 1 diabetes and the older cohort with type 2 diabetes. Amongst 18 to 39 year-olds, 49% had type 1 and 30% had type 2 diabetes. In the 40-59 age group, 4% had type 1 and 64% had type 2 diabetes.

Twenty-seven percent of respondents (n=18) had been diagnosed with DED and a further 9% (n=6) with DME.

Because of the small sample size an association between time since diagnosis of diabetes and DED and DR could not be established. Of the subgroup of respondents diagnosed within the last year, 29% had DED and 13% had DME. This decreased to 25% for DED and 3.6% for DME in those diagnosed between 1-5 years ago and increased in those 6-10 years since diagnosis (sample size for this strata was n=1).

While most respondents (82%) reported that their diabetes was well controlled there were almost one in five who felt that this was not the case. For the subgroup of respondents who felt their diabetes was controlled, 30% had DED and 7 % had DME, and for those whose condition was not well controlled, 8% had DED and 17% had DME.

Table 1: Summary of key characteristics of adults with diabetes

Group	Subgroup	All Respondents	Type 1 diabetes	Type 2 diabetes	With DED	With DME
All respondents		68 (100.0%)	22 (32.4%)	29 (42.6%)	18 (26.5%)	6 (8.8%)
Gender	Male	52 (77.6%)	16 (30.8%)	23 (44.2%)	13 (25.0%)	4 (7.7%)
	Female	15 (22.4%)	5 (33.3%)	6 (40.0%)	4 (26.7%)	2 (13.3%)
	Total Missing	1	1	0	1	0
Age	18-39 yrs.	43 (63.2%)	21 (48.8%)	13 (30.2%)	11 (25.6%)	5 (11.6%)
	40-59 yrs.	25 (36.8%)	1 (4.0%)	16 (64.0%)	7 (28.0%)	1 (4.0%)
Time since diagnosis	Within the last year	31 (45.6%)	10 (32.3%)	13 (41.9%)	9 (29.0%)	4 (12.9%)
	1 - 5 yrs.	28 (41.2%)	11 (39.3%)	11 (39.3%)	7 (25.0%)	1 (3.6%)
	6 - 10 yrs.	6 (8.8%)	0 (0.0%)	4 (66.7%)	1 (16.7%)	1 (16.7%)
	11 - 15 yrs.	2 (2.9%)	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	16 - 20 yrs.	1 (1.5%)	0 (0.0%)	1 (100.0%)	1 (100.0%)	0 (0.0%)
Control of Diabetes	Controlled	56 (82.4%)	19 (33.9%)	24 (42.9%)	17 (30.4%)	4 (7.1%)
	Not controlled	12 (17.6%)	3 (25.0%)	5 (41.7%)	1 (8.3%)	2 (16.7%)

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

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

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

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

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

Knowledge and Management of Diabetes

Ninety-one percent of those surveyed saw a health care professional for their diabetes, with 50% seeing a diabetes specialist (on average 20 times per year) and 47% seeing a general or family doctor (on average 6.5 times per year) (see Appendix Table 2.3.1 and 2.3.2).

People were informed about their condition through a variety of channels. Eighty-seven percent received information from a doctor or nurse, 52% from the internet and 37% from traditional media sources such as TV, radio, newspaper, or magazines. Family, friends, diabetes organisations or other health organisations and social media were also valued sources (see Table 2 and Appendix Table 2.4).

Table 2: Source of information regarding diabetes

Information Source	All Respondents (n=68)
Doctor or nurse	59 (86.8%)
Internet	35 (51.5%)
TV/Radio/Newspaper/Magazines	25 (36.8%)
Family/Friends/Neighbours	23 (33.8%)
Diabetes organisation or other health organisation	22 (32.4%)
Health educator	18 (26.5%)
Nutritionist or dietician	18 (26.5%)
Social media (e.g. Facebook, Twitter, blogs)	14 (20.6%)
Pharmacist	14 (20.6%)

A range of strategies was used by respondents to manage their diabetes. For those with type 1 diabetes, apart from insulin, 73% managed their diabetes with diet, 64% with exercise, 41% with oral medicine, and 36% with natural or herbal medicine. Of the respondents with type 2 diabetes, 93% managed their condition with diet, 64% with exercise, 54% with oral medicine, 43% with insulin, and 18% with natural or herbal medicine.

Just over half of respondents (52%) were enrolled in diabetes management programmes and of these 88% said the programme included education on the importance of screening for diabetic eye complications (see Appendix Table 2.6).

The nature and frequency of tests that people with diabetes experienced included blood glucose checks and eye checks. For those who had eye checks (78%), these occurred at: less than 6 months (55%), 6 - 12 months (12%), and greater than 12 months (10%) (see Appendix Table 2.7).

The main challenges in controlling diabetes cited by respondents were: the cost of care was too high (44%), it was too hard to eat the right things (44%), the person did not want to think about having diabetes (29%), there were too many other things to do (28%), and there were long wait times for an appointment to see their doctor or specialist (27%) (see Appendix Table 2.9).

Health education and information (62%), support from family or friends (60%), free or low cost medicines or monitoring materials (56%), support groups (25%), and coordination of healthcare and services by a professional (24%) were all identified as important to improving the management of their diabetes (see Appendix Table 2.10).

Nature and Information about Complications

Sixty-one percent of respondents were aware of vision loss and believed other complications, such as: amputation (39%), foot ulcers (39%), neuropathy (39%) and kidney disease (39%), were associated with diabetes (see Appendix Table 2.11).

Patients were most concerned about amputation (21%), vision loss (19%), kidney disease (18%), cardiovascular disease or stroke (16%), and foot ulcers (10%) (see Appendix Table 2.12).

Twenty-seven percent of respondents reported that they had no complications of diabetes. However, of those who did have complications, 24% had neuropathy, vision loss (23%), foot ulcers (15%), kidney disease (9.1%), and amputation (6.1%) (see Figure 1 and Appendix Table 2.13).

Most with DED (94%) and all with DME had additional complications with their condition. Aside from vision loss, there was an increase in the frequency of those with DED and DME experiencing certain complications compared to people without DED (see Table 3 and Appendix EXP 1).

The frequency of neuropathy increased from 19% in those without DED to 33% in DED and 33% in DME; as with the reporting of foot ulcers increasing from 4.8% for those without DED to 39% with DED and to 17% for those with DME.

Figure 1: Presence of complications

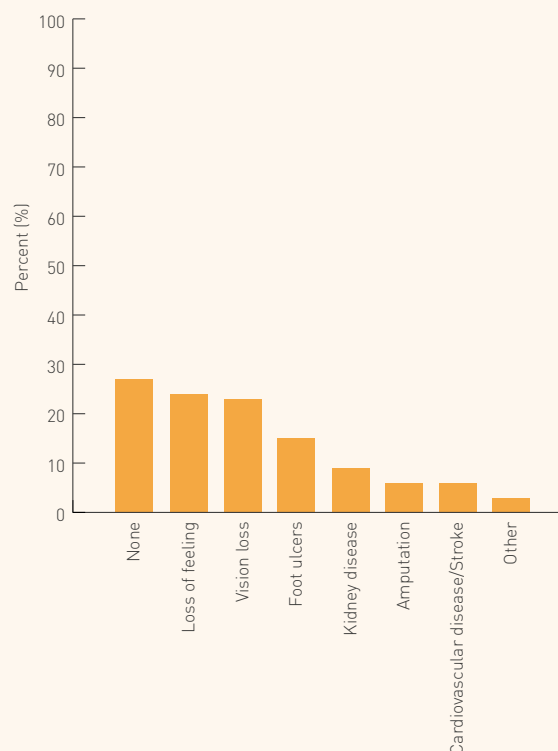


Table 3: Presence of complications without DED, with DED or DME

Complication	Without DED (n=42)	With DED (n=18)	With DME (n=6)
Any	25 (59.5%)	17 (94.4%)	6 (100.0%)
Foot ulcers	2 (4.8%)	7 (38.9%)	1 (16.7%)
Loss of feeling in hands or toes (neuropathy)	8 (19.0%)	6 (33.3%)	2 (33.3%)
Vision loss	9 (21.4%)	4 (22.2%)	2 (33.3%)
Amputation	1 (2.4%)	2 (11.1%)	1 (16.7%)
Kidney disease	3 (7.1%)	1 (5.6%)	2 (33.3%)
Cardiovascular disease/Stroke	4 (9.5%)	0 (0.0%)	0 (0.0%)
Other	1 (2.4%)	1 (5.6%)	0 (0.0%)
None	17 (40.5%)	1 (5.6%)	0 (0.0%)

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

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

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

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

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

Ninety percent of respondents said that eye complications were discussed with their health care professionals. Notwithstanding this, nearly one in every five patients (19%) either never discussed eye complications with their health providers (7%) or discussions only took place once symptoms arose (12%). The frequency of regular discussions varied from every visit (35%), multiple times a year (27%), and once a year (16%) (see Appendix Table 2.14).

Only 50% of the respondents did what they could to prevent vision problems (e.g. having routine screenings and visiting specialists). Yet myths and misperceptions around vision

changes and preventions were evident with a startling 48% thinking that vision problems were a normal part of ageing and 15% made no special effort to have a preventative approach to their eye health (see Appendix Table 2.15).

Eighty-four percent of the respondents had received information about DR and DME, with the doctor or nurse being the most common source (50%) and health educators and the internet being the second most common source (28%) (see Table 4 and Appendix Table 3.9).

Table 4: Source of information about DR and DME

Source	All respondents (n=68)
Doctor/Nurse	34 (50.0%)
Health educator	19 (27.9%)
Internet	19 (27.9%)
Diabetes organisation or other health organisation	16 (23.5%)
Family/Friends/Neighbours	15 (22.1%)
TV/Radio/Newspaper/Magazines	11 (16.2%)
None of the above	11 (16.2%)

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

Screening for Diabetic Eye Disease

Fifty-nine percent of respondents reported having an eye exam for DED, with 73% having it within the last year and a further 18% more than one year ago but less than two years ago (see Appendix Table 3.2).

While 62% of those surveyed thought they should have their eyes examined for DED once a year, 15% thought it should only happen when symptoms occur, 10% thought every two years and there were varied smaller numbers of respondents who thought that testing should happen less often than every two years or not at all (see Appendix Table 3.4).

The biggest barriers to eye exams were that they were too expensive (49%), not available near the respondents' homes (29%) and wait times for appointments were too long (25%) (see Table 5 and Appendix Table 3.5).

Table 5: Barriers to eye examinations

Identified Barriers	All Respondents (n=68)
They are expensive	33 (48.5%)
Eye exams are not available near my home	20 (29.4%)
Long wait time for appointment	17 (25.0%)
Referral process is complicated or takes too long	16 (23.5%)
Don't know much about my condition	15 (22.1%)
I'm not likely to have eye complications	14 (20.6%)
Fear of treatment/results	12 (17.6%)
Long wait time on the day of the visit	11 (16.2%)
Burden on my family/friends	9 (13.2%)
Too many other things to do or worry about	9 (13.2%)
Recommended treatments for eye problems are not available	7 (10.3%)
Limited access to diabetes specialists	7 (10.3%)
Clinics are too small or lack necessary equipment/staff	5 (7.4%)
Eye exams are not important	3 (4.4%)
Other	2 (2.9%)

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, 50% received treatment, which was on going for one of the respondents; the most common treatment was anti-VEGF (67%). Most (89%) felt that treatment had been successful and their vision had either improved (56%) or stayed the same (33%) (see Table 6).

For the nine respondents (50%) with DED who had not received treatment, the most common reasons reported was that their doctor did not recommend treatment or that they were still waiting for treatment.

All respondents with DME (n=4) had received treatment, that being laser, and all felt that the treatment had been successful and their vision had improved. There was a strong preference by all those with DME to have a proactive approach in the treatment pathway to prevent further vision loss rather than a reactive approach once further vision loss occurred (see Appendix Table 3.8).

Table 6: Treatment characteristics of patients with DED and DME

Question	Response	With DED (n=18)	With DME (n=4)
Have you had any treatment for diabetic eye disease?	Yes	9 (50.0%)	4 (100.0%)
	No	9 (50.0%)	0 (0.0%)
What treatment did you receive?	Laser	2 (22.2%)	3 (75.0%)
	Anti-VEGF	6 (66.7%)	0 (0.0%)
	Surgery	1 (11.1%)	1 (25.0%)
	Other	1 (11.1%)	1 (25.0%)
Did you complete the treatment?	Yes	8 (88.9%)	2 (50.0%)
	No	0 (0.0%)	2 (50.0%)
	Still receiving treatment	1 (11.1%)	0 (0.0%)
Do you feel that the treatment worked?	Yes, and vision improved	5 (55.6%)	2 (100.0%)
	Yes, but vision stayed the same	3 (33.3%)	0 (0.0%)
	Still waiting to know	1 (11.1%)	0 (0.0%)
What is/are the reason(s) that you did not complete the treatment?	Treatment was not effective	0 (0.0%)	2 (100.0%)
	Appointment times were not convenient	0 (0.0%)	1 (50.0%)
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	4 (44.4%)	0 (0.0%)
	Treatment is not accessible	1 (11.1%)	0 (0.0%)
	Still waiting for treatment	3 (33.3%)	0 (0.0%)
	I'm fearful of treatment	1 (11.1%)	0 (0.0%)
	Other	1 (11.1%)	0 (0.0%)

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

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

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

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

Impact of Diabetic Eye Disease and Diabetic Macular Edema

Over two-third (64%) of those with DED or DME said that their vision was affected (9% significantly, 55% slightly) (see Appendix Table 3.6).

Ninety-three percent of these respondents reported vision issues impacted their daily lives in various ways such as: driving a vehicle (64%), social interactions with family or friends (29%), travelling (21%), leisure activities or exercise (21%), working or keeping a job (21%), and household responsibilities, such as cooking or cleaning (14%) (see Table 7).

Table 7: Activities affected through vision impairment and loss

	All Respondents (n=14)
Driving (a car/vehicle)	9 (64.3%)
Social interactions with family/friends	4 (28.6%)
Travelling	3 (21.4%)
Leisure activities/exercise	3 (21.4%)
Work or keeping a job	3 (21.4%)
Household responsibilities, such as cooking or cleaning	2 (14.3%)
None	1 (7.1%)

Seventy-eight percent of those with DED and all with DME were in paid employment compared with 84% of respondents without DED. Patients with DED who were not in paid employment were either working at home without pay (11%), retired (6%), or not working at all (6%) (see Table 8 and Appendix EXP 5.1).

Almost two-thirds of all respondents (63%) did not receive government assistance; however, for those who did, 25% received medical assistance (see Appendix Table 4.5).

While two-third of respondents said they had no trouble paying for food at any time during the past year, 34% reported this as a problem. In addition, 24% said that their access to health care was affected, and for 50% it was affected by their income (see Appendix Table 4.6 and Table 4.7).

Forty-six percent of respondents said they worried about their health, 24% about family while 4.5% 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=44)	With DED (n=18)	With DME (n=6)
Are you currently working?	Working for pay	37 (84.1%)	14 (77.8%)	6 (100.0%)
	Working without pay at home (e.g. housework, farming)	4 (9.1%)	2 (11.1%)	0 (0.0%)
	Retired	0 (0.0%)	1 (5.6%)	0 (0.0%)
	Not working	3 (6.8%)	1 (5.6%)	0 (0.0%)
Question	Response	Without DED (n=44)	With DED (n=18)	With DME (n=6)
Do you receive assistance from the government?	Income assistance	1 (2.3%)	4 (22.2%)	1 (16.7%)
	Medical assistance	8 (18.2%)	6 (33.3%)	3 (50.0%)
	Food assistance	2 (4.5%)	3 (16.7%)	2 (33.3%)
	Housing assistance	4 (9.1%)	2 (11.1%)	1 (16.7%)
	Pension assistance	2 (4.5%)	0 (0.0%)	1 (16.7%)
	None of the above	33 (75.0%)	8 (44.4%)	2 (33.3%)
Question	Response	Without DED (n=44)	With DED (n=18)	With DME (n=6)
Did you have trouble paying for food at anytime during the past year?	Yes	12 (27.3%)	8 (44.4%)	3 (50.0%)
	No	32 (72.7%)	10 (55.6%)	3 (50.0%)

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

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

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

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

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

Self-reported Quality of Life

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

Twenty-eight percent of people with DED, and 23% without DED, reported their health as poor. All respondents with DME reported good self-rated health. While reported health was reasonably consistent whether the respondent had DED or not, there was a surprising 13% increase in the activity limitation days between those without DED compared to those with DED.

Twenty-seven percent of those without DED, 28% with DED, and 33% with DME experienced limitations to their daily activities as a result of poor health. Where health impacted daily activities, the primary limitations were: diabetes, hypertension or high blood pressure, and back or neck problems.

People living with DED had a higher proportion for some impairments. Of note were potential mobility challenges manifested through back and neck problems, mental or emotional health, and diabetes. 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	33 (76.7%)	13 (72.2%)	6 (100.0%)
Self-rated health: Poor	10 (23.3%)	5 (27.8%)	0 (0.0%)
Physically unhealthy days	19 (48.7%)	8 (61.5%)	2 (40.0%)
Mentally unhealthy days	22 (55.0%)	9 (64.3%)	1 (20.0%)
Unhealthy days	27 (67.5%)	10 (76.9%)	2 (40.0%)
Activity limitation days	20 (76.9%)	7 (63.6%)	2 (100.0%)

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

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

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

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

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

United Arab Emirates DR Barometer Findings: Health Care Professionals

Key Demographic Characteristics

There were 31 health care professionals who answered at least one of the survey questions in United Arab Emirates. Of these, two were primary care providers (6.5%), 13 were diabetes specialist providers (42%) and five were ophthalmologists (16%). The remaining respondents were nurses, health educators or other professionals (see Appendix PT 1.3).

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

As a group, health care professionals had been practicing for an average of 16 years, with the ophthalmologist group practicing for an average of 17 years (see Appendix PT 1.5).

Health care professionals were well-educated (86% with graduate or advanced degree); 33% were female and 67% male and, the largest proportion (43%) were aged 50 - 59 years with a further 33% in the 40-49 age group (see Table 10 and Appendix PT 3.1).

Table 10: Summary of key characteristics of health care professionals

Group	Subgroup	All Respondents	Primary Care Provider	Diabetes Specialist	Ophthalmologist
All respondents		31 (100.0%)	2 (6.5%)	13 (41.9%)	5 (16.1%)
Age group	18 - 29 yrs.	1 (4.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	30 - 39 yrs.	3 (14.3%)	0 (0.0%)	1 (11.1%)	1 (33.3%)
	40 - 49 yrs.	7 (33.3%)	0 (0.0%)	1 (11.1%)	1 (33.3%)
	50 - 59 yrs.	9 (42.9%)	1 (100.0%)	6 (66.7%)	1 (33.3%)
	60 - 69 yrs.	1 (4.8%)	0 (0.0%)	1 (11.1%)	0 (0.0%)
Gender	Female	7 (33.3%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
	Male	14 (66.7%)	1 (100.0%)	9 (100.0%)	2 (66.7%)
Education	College/University	3 (14.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Graduate or advanced degree (e.g. PhD, MD, etc.)	18 (85.7%)	1 (100.0%)	9 (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

Forty-one percent of providers had their main practice setting in a diabetes clinic and for ophthalmologists only, the settings were hospital (60%) and eye clinic (40%). Ninety-six percent of health care professionals worked in an urban setting (see Appendix PT 2.1 and PT 2.2).

About two-thirds (68%) of all health care professionals worked in the government sector and ophthalmologists worked mainly in the private (60%) and government sector (40%) (see Appendix PT 2.3).

Regarding payment of health services, the health care professionals reported that 56% of patients pay through insurance for services, 40% share the cost, in which they and insurance pays for services, and 20% pay out-of-pocket (full fees) for services. Ophthalmologists reported that 75% of patients share the cost of service with insurance, 50% of patients pay out-of-pocket (full fees) for services, and 50% of patients pay through insurance for services (see Appendix PT 2.7).

All providers saw an average of 182 patients per week and 57% (on average) of their patients had diabetes. Ophthalmologists alone saw on average fewer patients each week (74), and proportional few (46%) patients had diabetes (see Appendix PT 2.6).

For all health care professionals, the average waiting time for an appointment was most commonly less than one week (32%), or between one week and a month (32%). For an appointment with an ophthalmologist, it was usually between a week and a month for 50% of practices but for a further 25% of practices, the wait time was less than one week (see Table 11 and Appendix PT 2.5).

Table 11: Average wait times to schedule an appointment

Wait Time Intervals	All Respondents (n=25)	Ophthalmologist (n=4)
Less than 1 week	8 (32.0%)	1 (25.0%)
More than 1 week but less than 1 month	8 (32.0%)	2 (50.0%)
More than 1 month but less than 2 months	5 (20.0%)	0 (0.0%)
More than 2 months but less than 3 months	1 (4.0%)	1 (25.0%)
Do not take appointments	1 (4.0%)	0 (0.0%)
Don't know/Not sure	2 (8.0%)	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. Thirty-eight percent of providers had sufficient information about diabetes and eye complications; yet 33% said the information on eye complications was insufficient. Overall, 24% of those surveyed had no written information available for their patients (see Table 12 and Appendix PT 2.11).

Only a third of ophthalmologists had written information about diabetes and potential eye complications. However, of serious concern was that 67% reported having no written information available at all.

Guidelines and Protocols

Sixty-seven percent of providers, including 33% of ophthalmologists, had written protocols for the management of diabetes, which were used by staff. However, 9.5% had no such protocols (see Appendix PT 2.12).

With the respect to the management of diabetes-related vision issues, 48% of health care professionals, including 67% of ophthalmologists, had written protocols and these were used by staff but for some 19%, the available protocols were not used by staff. Twenty-four percent of providers, including a third of ophthalmologists, 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=21)	Ophthalmologist (n=3)
Is there written information about diabetes available for patients in your main practice?	Yes, and information on eye complications is sufficient	8 (38.1%)	1 (33.3%)
	Yes, but information on eye complications is not sufficient	7 (33.3%)	0 (0.0%)
	No written information is available for patients	5 (23.8%)	2 (66.7%)
	Don't know/Not sure	1 (4.8%)	0 (0.0%)
Question	Response	All Respondents (n=21)	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	10 (47.6%)	2 (66.7%)
	Yes, available but not used by staff	4 (19.0%)	0 (0.0%)
	Not available	5 (23.8%)	1 (33.3%)
	Don't know/Not sure	2 (9.5%)	0 (0.0%)

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

Screening Protocols and Barriers in the Care Pathway

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

For those with type 1 diabetes, 33% of providers reported that the initial eye exam should occur at time of the diagnosis of diabetes and 52% said that it should occur after a predetermined number of years. For patients with type 2 diabetes, almost all (95%) of providers recommended an eye exam at time of diagnosis while 5% believed that it should occur after a predetermined number of years (see Appendix PT 2.14).

Overall, 86% of health care professionals, 75% of ophthalmologists, reported that follow-up eye examinations should be conducted every year. Most health care professionals (87%) and ophthalmologists (75%) screen patients for DR (see Appendix PT 2.15 and PT 2.16).

Across all health care professionals, 80% send appointment reminders for general follow-up appointments. Ninety-five percent of health care professionals, including all ophthalmologists, shared information to optimise patient care management (see Appendix PT 2.19 and PT 2.20).

The most common patient characteristics influencing the referral process for eye complications for health care professionals and ophthalmologists respectively were: diabetes duration (85%) (67%), presence of comorbidities such as hypertension (65%) (67%), high glucose levels (55%) (100%) and the person's age (50%) (33%) (see Appendix PT 2.17).

As reported by health care professionals, the major barriers to optimising eye health faced by patients with diabetes were a lack of knowledge and/or awareness (63%), the high cost of care (47%), and patients feeling that eye complications were unlikely (47%) (see Table 13 and Appendix PT 2.18).

The barriers reported by ophthalmologists were slightly different apart from high cost. A lack of knowledge and/or awareness and proximity to care played important roles in being able to optimise eye health.

Table 13: Major barriers to optimising eye health

Response	All Respondents (n=19)	Ophthalmologists (n=3)
Cost of care	9 (47.4%)	3 (100.0%)
Lack of knowledge and/or awareness	12 (63.2%)	3 (100.0%)
Proximity to care	4 (21.1%)	2 (66.7%)
Referral process	5 (26.3%)	2 (66.7%)
Patients fear of treatment/results	8 (42.1%)	2 (66.7%)
Patients feel eye complications are unlikely	9 (47.4%)	2 (66.7%)
Long wait time for appointment	5 (26.3%)	1 (33.3%)
Limited access to diabetes specialists	2 (10.5%)	1 (33.3%)
Limited access to eye specialists	8 (42.1%)	1 (33.3%)
Patients feel eye exams are not important	9 (47.4%)	1 (33.3%)
Long wait time on the day of visit	3 (15.8%)	0 (0.0%)
Recommended treatments are not available	2 (10.5%)	0 (0.0%)
Patients feel they are a burden on family/friends	3 (15.8%)	0 (0.0%)
Patients have competing responsibilities and priorities	4 (21.1%)	0 (0.0%)
Clinic too small or lack necessary equipment/staff	1 (5.3%)	0 (0.0%)

The United Arab Emirates

DR Barometer Findings:

Ophthalmologists

Screening

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

On average, 34% of patients seen by ophthalmologists had DR and 24% DME (see Appendix PT 4.1 and PT 4.2).

The most common waiting time for a screening appointment for DED was less than one week (67%) with one in three stating between a week and a month (see Appendix PT 4.3).

Two of the ophthalmologists said there was no wait time from screening to diagnosis, and one reported a wait time of more than one week but less than one month (see Appendix PT 4.4).

Treatment and Challenges

All ophthalmologists personally administer treatment for DR. The most common factors influencing treatment for DR or DME were: high glucose levels (100%), the ability or inability to pay (67%), and insurance restrictions (67%) (see Appendix PT 4.6 and PT 4.7).

The most common outreach venues for screening for DED were at health fairs for all (33%) and vision centres (33%) (see Appendix PT 4.13).

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

Two of the ophthalmologists said that most of their patients present “in time” for screening and one said that patients present when visual problems have already occurred (see Appendix PT 4.10).

All had received specific training on the treatment and diagnosis of DR and or DME, with two in three being trained between one and five years ago. Three-quarters would be interested in online education and certification on DME, angiogenesis and anti-VEGF therapies (see Appendix PT 4.11 and PT 4.12).

Ophthalmologists reported that the greatest challenges for improving patient outcomes in DED were a late diagnosis (67%, n=2), and complex and sometimes inadequate referral pathways (67%, n=2) (see Table 14 and Appendix PT 4.14).

Table 14: Challenges for improving outcomes in DED

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

The United Arab Emirates DR Barometer Summary

In the United Arab Emirates, 68 adults with diabetes and 31 health care professionals provided insights about their experiences of living with, managing and treating diabetes, DR and DME. The results of the DR Barometer Study country report from the United Arab Emirates, aims to help improve the level of awareness around diabetes and eye complications as well as access and barriers to diabetes management, including screening and timely treatment for those diagnosed with DED and DME.

The United Arab Emirates is the ninth most populous country of the Middle East with an estimated population of approximately 9.2 million. One of the major influences in the region is that its population is ageing which has serious policy and programme implications. By 2050, 16% of the total population will be aged 65 years and older while those aged 0-14 years of age will make up about 12% of the population.

Alongside the demographic changes, the prevalence of people with diabetes is climbing rapidly. Today the United Arab Emirates has over 1.1 million people living with diabetes, which accounts for some 3% of people living with diabetes in this region.

The DR Barometer Study findings suggest that overall a younger population was more likely to be associated with type 1 diabetes, and an older population with type 2 diabetes. Almost half (49%) of those in the youngest age group (18-39 years) had type 1 diabetes and in the 40 – 59 age group 4% had type 1 while 64% had type 2. This is an important but well-known finding in the context of the United Arab Emirates' rapidly ageing population.

Health professionals such as the doctor, nurse or nutritionist most commonly informed patients about their condition. A trend globally, which was reflected in the United Arab Emirates study, was the increasing use of the internet by over half of the respondents.

Just over half (52%) of respondents were enrolled in a diabetes management programme and of these 88% said that there was information in the programme about the importance of screening for eye complications.

Many respondents struggled with the management of their diabetic condition with some issues that were within their control such as the person not wanting to think about having diabetes and there were too many other things to do. In addition, the high cost of care and long wait times for appointments were sometimes insurmountable challenges.

There was a relatively high awareness of the complications associated with diabetes. Vision loss (61%) was by far the most concerning followed by amputation, foot ulcers, and neuropathy. Though 27% had no complications there were still many who reported having neuropathy, vision loss, foot ulcers, kidney disease, and amputations.

Knowing that diabetic-related vision loss is preventable addressing barriers to eye screening is an important policy issue. In large part, respondents had received an eye exam, which is understandable considering the purposeful sample; however, there were many barriers to eye exams including the high costs of exams, eye test not being available near respondents' homes, and long wait times on the day of the appointment.

Evidence shows that the relationship between the patient and the health care professional is critical to ensure realistic and optimal patient outcomes. Nearly all (93%) surveyed stated that eye complications were discussed with their health care professionals. Of concern though are the myths and perceptions around vision changes with 48% reporting that vision problems were a normal part of ageing and the same percentage not making any special effort to prevent vision problems.

Most people diagnosed with DED or DME said that their vision was slightly or significantly affected which in turn affected their health, lifestyle, and life choices with many experiencing difficulty in driving a vehicle, engaging in social interactions with family or friends, travelling, enjoying or pursuing leisure activities or exercise, working or keeping a job, and undertaking household responsibilities such as cooking or cleaning.

Almost two-thirds (64%) of those with DED reported that some days they felt mentally unhealthy and 63% experienced days where activities were limited because of their poor physical or mental health. Similarly, 55% of those without DED felt mentally unhealthy and 77% experienced days where activities were limited because of their poor physical or mental health.

Respondents with DME said that they preferred a proactive approach to prevent further vision loss rather than only receiving treatment when their vision deteriorates. Almost a quarter (24%) of respondents reported having trouble accessing healthcare services with 50% of these noting that it was affected by their income. Health and family were the top two 'worries' on the minds of the respondents surveyed

Patient education is very much at the heart of a proactive approach so it was somewhat unexpected to find that 33% of providers said that the written information diabetes and eye complications available was not sufficient. Furthermore, only 48% of providers and 67% of ophthalmologists only had written protocols for the detection and management of diabetes-related vision issues, that were used by staff. In some practices, education material and necessary protocols did not exist.

Recommendations for the timing of the initial eye exam for persons with diabetes varied depending upon the type of diabetes and the provider. For patients with type 1 diabetes 33% of providers recommended an exam at the time of diagnosis and 52% after a predetermined number of years. Ninety-five percent of providers recommended an initial eye exam at the time of diagnosis for those with type 2 diabetes.

Certain factors influenced the referral process for respondents with eye complications, the main being, diabetes duration, presence of comorbidities such as hypertension, high glucose levels, and the patient's age. Lack of knowledge and/or awareness, high cost of care, and patients feeling that eye complications were unlikely were viewed by ophthalmologists as some of the greatest challenges for improving patient outcomes in DED. Of note is the additional challenge of complicated and lengthy referral processes between health care professionals.

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 is not reflective the national situation, the findings illustrate important trends, and certainly highlight specific areas of concern and potential calls for policy action in the United Arab Emirates.

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/>

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Appendices



The Diabetic Retinopathy Barometer Survey: Appendices for United Arab Emirates

APPENDIX 1 : National Results

Table 1.1

Survey Information	Number of Respondents (%)
All valid respondents [1]	72 (100.0%)
Respondents aged 18 or over	71 (98.6%)
Respondents with diabetes	68 (94.4%)

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

Table 1.2

Survey Information	Number of Respondents (%)
All valid respondents	72 (100.0%)
Included in Diabetic Analysis Set	68 (94.4%)
Excluded from Diabetic Analysis Set	4 (5.6%)
Reasons for exclusion from diabetic analysis set	.
Under 18 years of age	1
Not diagnosed with diabetes	3

Table 1.3

Survey Information	Number of Respondents (%)
Diabetic Analysis Set	68 (100.0%)
World Bank Income Group: High Income	68 (100.0%)
Persons with diabetic eye disease (DED)	18 (26.5%)
Persons with diabetic macular edema (DME)	6 (8.8%)
Persons with Type I diabetes	22 (32.4%)
Persons with Type II diabetes	29 (42.6%)
Persons not seeing health care professional for diabetes	6 (8.8%)
Persons seeing health care professional for diabetes	62 (91.2%)
Persons with eye disease & not received treatment	9 (13.2%)

Survey Information	Number of Respondents (%)
Persons with eye disease & received treatment	13 (19.1%)

Table 2.1

Question	Response	Number of Respondents (%)
With which type of diabetes have you been diagnosed?	Type I	22 (32.4)
	Type II	29 (42.6)
	Don't know/Not sure	17 (25.0)
	Total Valid Response	68 (100.0)

Table 2.2

Question	Response	Number of Respondents (%)
When was your diabetes diagnosed?	Within the last year	31 (45.6)
	1 - 5 years ago	28 (41.2)
	6 - 10 years ago	6 (8.8)
	11 - 15 years ago	2 (2.9)
	16 - 20 years ago	1 (1.5)
	Total Valid Response	68 (100.0)

Table 2.3.1

Question	Response	Number of Respondents (%)
Do you see a health care professional for your diabetes?	Yes	62 (91.2)
	No	6 (8.8)
	Total Valid Response	68 (100.0)
What kind of health care professional?	General/Family Doctor	29 (46.8)
	Nurse	1 (1.6)
	Diabetes Specialist	31 (50.0)
	Don't know/Not sure of kind	1 (1.6)
	Total Valid Response	62 (100.0)
	Total missing	6

Table 2.3.2

Type of health care professional	Times per year seen for diabetes	Value
General/Family Doctor	Total valid numeric response (n)	25
	Mean	6.5
	SD	4.3
	Median	5.0
	Min	1
	Max	20
	Don't know/Not sure	3
	Total missing	1
Nurse	Total valid numeric response (n)	1
	Mean	6.0
	SD	
	Median	6.0
	Min	6
	Max	6
Diabetes Specialist	Total valid numeric response (n)	25
	Mean	20.1
	SD	72.0
	Median	5.0
	Min	2
	Max	365
	Don't know/Not sure	1
	Total missing	5
Don't know/Not sure of kind	Total valid numeric response (n)	1
	Mean	6.0
	SD	
	Median	6.0
	Min	6
	Max	6

Table 2.4

Question	Response	Number of Respondents (%)
How have you received information about diabetes?	Doctor or nurse	59 (86.8%)
	Health educator	18 (26.5%)
	Nutritionist or dietitian	18 (26.5%)
	Diabetes organization or other health organization	22 (32.4%)
	Family/Friends/Neighbors	23 (33.8%)
	TV/Radio/Newspaper/Magazines	25 (36.8%)
	Internet	35 (51.5%)
	Social media (e.g. Facebook, Twitter, blogs)	14 (20.6%)
	Pharmacist	14 (20.6%)
	Total Valid Response	68 (100.0%)

Table 2.5

Question	Response	Number of Respondents (%)
How do you manage your diabetes?	Diet	54 (80.6%)
	Oral medicine	30 (44.8%)
	Exercise	42 (62.7%)
	Insulin	26 (38.8%)
	Natural/Herbal medicine	19 (28.4%)
	None of the above	1 (1.5%)
	Total Valid Response	67 (100.0%)
	Total missing	1

Table 2.6

Question	Response	Number of Respondents (%)
Are you currently enrolled in a diabetes patient management support programme?	Yes	35 (51.5)
	No	33 (48.5)
	Total Valid Response	68 (100.0)
Who sponsors the programme?	Hospital support program	21 (60.0)
	Clinic support program	7 (20.0)

Question	Response	Number of Respondents (%)
	Pharmaceutical support program	1 (2.9)
	Patient organization support program	5 (14.3)
	Don't know/Not sure	1 (2.9)
	Total Valid Response	35 (100.0)
	Total missing	33
Does the programme include education on the importance of screening for diabetic eye complications?	Yes	30 (88.2)
	No	4 (11.8)
	Total Valid Response	34 (100.0)
	Total missing	34

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	64 (94.1%)
	Less than 6 months	49 (72.1%)
	6 - 12 months	9 (13.2%)
	Greater than 12 months	6 (8.8%)
	Total valid response	64 (94.1%)
	Total missing	4
	No	2 (2.9%)
	Don't know/Not sure	2 (2.9%)
	Total valid response	68 (100.0%)
Urine check	Yes	63 (92.6%)
	Less than 6 months	46 (67.6%)
	6 - 12 months	12 (17.6%)

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
	Greater than 12 months	5 (7.4%)
	Total valid response	63 (92.6%)
	Total missing	5
	No	5 (7.4%)
	Total valid response	68 (100.0%)
Weight check	Yes	62 (91.2%)
	Less than 6 months	54 (79.4%)
	6 - 12 months	4 (5.9%)
	Greater than 12 months	4 (5.9%)
	Total valid response	62 (91.2%)
	Total missing	6
	No	6 (8.8%)
	Total valid response	68 (100.0%)
Blood pressure check	Yes	62 (92.5%)
	Less than 6 months	52 (77.6%)
	6 - 12 months	6 (9.0%)
	Greater than 12 months	4 (6.0%)
	Total valid response	62 (92.5%)
	Total missing	6
	No	2 (3.0%)
	Don't know/Not sure	3 (4.5%)
	Total valid response	67 (100.0%)
	Total missing	1

Test	Response	Number of Respondents (%)
Have you ever had the following tests in a doctors office of clinic? And if yes, how long ago		
Foot check	Yes	35 (53.0%)
	Less than 6 months	25 (37.9%)
	6 - 12 months	6 (9.1%)
	Greater than 12 months	4 (6.1%)
	Total valid response	35 (53.0%)
	Total missing	33
	No	29 (43.9%)
	Don't know/Not sure	2 (3.0%)
	Total valid response	66 (100.0%)
	Total missing	2
Eye check	Yes	52 (77.6%)
	Less than 6 months	37 (55.2%)
	6 - 12 months	8 (11.9%)
	Greater than 12 months	7 (10.4%)
	Total valid response	52 (77.6%)
	Total missing	16
	No	13 (19.4%)
	Don't know/Not sure	2 (3.0%)
	Total valid response	67 (100.0%)
	Total missing	1

Table 2.8

Question	Response	Number of Respondents (%)
How well do you think your diabetes is	Very well	25 (36.8%)

Question	Response	Number of Respondents (%)
controlled?		
	Well	31 (45.6%)
	Not very well	12 (17.6%)
	Total Valid Response	68 (100.0%)

Table 2.9

Question	Response	Number of Respondents (%)
What are the main challenges you face in controlling your diabetes?	High cost of care	30 (44.1%)
	No insurance	15 (22.1%)
	Travel to my regular doctor or specialist is difficult	16 (23.5%)
	Long wait time for an appointment to see my doctor or specialist	18 (26.5%)
	Health services needed are not available	9 (13.2%)
	Don't know enough about diabetes	8 (11.8%)
	Too hard to eat the right things	30 (44.1%)
	Too many other things to do	19 (27.9%)
	Stigma or discrimination because of diabetes	3 (4.4%)
	Don't want to think about having diabetes	20 (29.4%)
	Other	1 (1.5%)
	Total Valid Response	68 (100.0%)

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	38 (55.9%)
	Support groups	17 (25.0%)
	Support from family or friends	41 (60.3%)
	Health education and	42 (61.8%)

Question	Response	Number of Respondents (%)
	information	
	Mobile services (services that travel to or near your home)	10 (14.7%)
	Coordination of healthcare and services by a professional	16 (23.5%)
	Emergency helpline	16 (23.5%)
	Other	3 (4.4%)
	None	1 (1.5%)
	Total Valid Response	68 (100.0%)

Table 2.11

Question	Response	Number of Respondents (%)
What complications (or problems), to your knowledge, arise from diabetes?	Amputation	26 (38.8%)
	Foot ulcers	26 (38.8%)
	Increased risk of broken bones or fractures	16 (23.9%)
	Loss of feeling in hands or toes (neuropathy)	26 (38.8%)
	Vision loss	41 (61.2%)
	Irritable bowel disease	11 (16.4%)
	Kidney disease	26 (38.8%)
	Cardiovascular disease/Stroke	16 (23.9%)
	Other	2 (3.0%)
	Don't know/Not sure	8 (11.9%)
	None	2 (3.0%)
	Total Valid Response	67 (100.0%)
	Total missing	1

Table 2.12

Question	Response	Number of Respondents (%)
Which complication of diabetes are you most concerned about?	Amputation	14 (20.6)

Question	Response	Number of Respondents (%)
	Foot ulcers	7 (10.3)
	Increased risk of broken bones or fractures	1 (1.5)
	Loss of feeling in hands or toes (neuropathy)	3 (4.4)
	Vision loss	13 (19.1)
	Kidney disease	12 (17.6)
	Cardiovascular disease/Stroke	11 (16.2)
	Other	2 (2.9)
	Don't know/Not sure	4 (5.9)
	None	1 (1.5)
	Total Valid Response	68 (100.0)

Table 2.13

Question	Response	Number of Respondents (%)
Which of the following complications of diabetes do you have?	Amputation	4 (6.1%)
	Foot ulcers	10 (15.2%)
	Broken bones or fractures	4 (6.1%)
	Loss of feeling in hands or toes (neuropathy)	16 (24.2%)
	Vision loss	15 (22.7%)
	Irritable bowel disease	2 (3.0%)
	Kidney disease	6 (9.1%)
	Cardiovascular disease/Stroke	4 (6.1%)
	Other	2 (3.0%)
	Don't know/Not sure	6 (9.1%)
	None	18 (27.3%)
	Total Valid Response	66 (100.0%)
	Total missing	2

Table 2.14

Question	Response	Number of Respondents (%)
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Question	Response	Number of Respondents (%)
How often do you discuss the possibility of eye complications with your health care professional?	Every visit	24 (35.3%)
	Multiple times per year	18 (26.5%)
	Once per year	11 (16.2%)
	Only when symptoms arise	8 (11.8%)
	Never	5 (7.4%)
	Don't know/Not sure	2 (2.9%)
	Total Valid Response	68 (100.0%)

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 (47.8%)
	I do what I can to prevent vision problems (e.g. get routine screenings, visit specialists)	37 (55.2%)
	I do not make any special effort to prevent vision problems	10 (14.9%)
	Total Valid Response	67 (100.0%)
	Total missing	1

Table 2.16

Question	Response	Number of Respondents (%)
What type of health insurance do you have?	Public	13 (19.1)
	Public - Private	20 (29.4)
	Private	24 (35.3)
	None	11 (16.2)
	Total Valid Response	68 (100.0)

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	6 (9.0)
	Insurance pays total cost	29 (43.3)
	Insurance and out-of-pocket/cash (e.g. co-pays)	18 (26.9)
	Out-of-pocket only (pay cash for all care)	12 (17.9)
	Do not use service	2 (3.0)
	Total Valid Response	67 (100.0)
	Total missing	1
Specialist medical visits (e.g. eye doctor, gynecologist, urologist)	Care is free	4 (6.0)
	Insurance pays total cost	29 (43.3)
	Insurance and out-of-pocket/cash (e.g. co-pays)	17 (25.4)
	Out-of-pocket only (pay cash for all care)	14 (20.9)
	Do not use service	3 (4.5)
	Total Valid Response	67 (100.0)
	Total missing	1
Medicines	Care is free	3 (4.4)
	Insurance pays total cost	28 (41.2)
	Insurance and out-of-pocket/cash (e.g. co-pays)	20 (29.4)
	Out-of-pocket only (pay cash for all care)	16 (23.5)
	Do not use service	1 (1.5)
	Total Valid Response	68 (100.0)
Medical supplies (e.g. blood glucose meter/strips)	Care is free	7 (10.4)
	Insurance pays total cost	13 (19.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	11 (16.4)
	Out-of-pocket only (pay cash for all care)	30 (44.8)

Question	Response	Number of Respondents (%)
Most often, how do you pay for the following types of medical care and services?		
	Do not use service	5 (7.5)
	Don't know/Not Sure	1 (1.5)
	Total Valid Response	67 (100.0)
	Total missing	1
Procedures	Care is free	14 (20.9)
	Insurance pays total cost	18 (26.9)
	Insurance and out-of-pocket/cash (e.g. co-pays)	15 (22.4)
	Out-of-pocket only (pay cash for all care)	14 (20.9)
	Do not use service	2 (3.0)
	Don't know/Not Sure	4 (6.0)
	Total Valid Response	67 (100.0)
	Total missing	1
Tests/screenings	Care is free	9 (13.4)
	Insurance pays total cost	30 (44.8)
	Insurance and out-of-pocket/cash (e.g. co-pays)	14 (20.9)
	Out-of-pocket only (pay cash for all care)	13 (19.4)
	Don't know/Not Sure	1 (1.5)
	Total Valid Response	67 (100.0)
	Total missing	1
Health education	Care is free	25 (37.3)
	Insurance pays total cost	10 (14.9)
	Insurance and out-of-pocket/cash (e.g. co-pays)	7 (10.4)
	Out-of-pocket only (pay cash for all care)	11 (16.4)
	Do not use service	12 (17.9)
	Don't know/Not Sure	2 (3.0)
	Total Valid Response	67 (100.0)
	Total missing	1

Question	Response	Number of Respondents (%)
Most often, how do you pay for the following types of medical care and services?		
Counseling	Care is free	12 (17.9)
	Insurance pays total cost	19 (28.4)
	Insurance and out-of-pocket/cash (e.g. co-pays)	13 (19.4)
	Out-of-pocket only (pay cash for all care)	12 (17.9)
	Do not use service	8 (11.9)
	Don't know/Not Sure	3 (4.5)
	Total Valid Response	67 (100.0)
	Total missing	1

Table 3.1

Question	Response	Number of Respondents (%)
Are you aware of any government sponsored screening programs for diabetic eye disease (diabetic retinopathy)?	Yes	38 (55.9%)
	No	30 (44.1%)
	Total valid response	68 (100.0%)

Table 3.2

Question	Response	Number of Respondents (%)
Have you ever had an eye exam for diabetic eye disease?	Yes	40 (58.8%)
	No	28 (41.2%)
	Total valid response	68 (100.0%)
How long ago was your last eye exam?	Within the last year	29 (72.5%)
	More than 1 year ago but less than 2 years	7 (17.5%)
	More than 2 years ago but less than 3 years	3 (7.5%)
	Don't know/Not sure	1 (2.5%)
	Total valid response	40 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	28
Who did the last exam?	General/Family practitioner	9 (23.1%)
	Eye doctor/Eye clinic	30 (76.9%)
	Total valid response	39 (100.0%)
	Total missing	29

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 (50.7%)
	No	27 (40.3%)
	Don't know/Not sure	6 (9.0%)
	Total valid response	67 (100.0%)
	Total missing	1

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	42 (61.8%)
	Every two years	7 (10.3%)
	Less often than every two years	3 (4.4%)
	Only when symptoms occur	10 (14.7%)
	Never	3 (4.4%)
	Don't know/Not sure	3 (4.4%)
	Total valid response	68 (100.0%)

Table 3.5

Question	Response	Number of Respondents (%)
For you, what are the biggest	They are expensive	33 (48.5%)

Question	Response	Number of Respondents (%)
barriers to eye exams?		
	Eye exams are not available near my home	20 (29.4%)
	Long wait time for appointment	17 (25.0%)
	Long wait time on the day of the visit	11 (16.2%)
	Referral process is complicated or takes too long	16 (23.5%)
	Recommended treatments for eye problems are not available	7 (10.3%)
	Don't know much about my condition	15 (22.1%)
	Fear of treatment/results	12 (17.6%)
	Burden on my family/friends	9 (13.2%)
	Limited access to diabetes specialists	7 (10.3%)
	I'm not likely to have eye complications	14 (20.6%)
	Eye exams are not important	3 (4.4%)
	Too many other things to do or worry about	9 (13.2%)
	Clinics are too small or lack necessary equipment/staff	5 (7.4%)
	Other	2 (2.9%)
	Total valid response	68 (100.0%)

Table 3.6

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic eye disease?	Yes	22 (32.4%)
	No	46 (67.6%)
	Total valid response	68 (100.0%)
Has your diabetic eye disease affected your vision?	Yes, slightly	12 (54.5%)
	Yes, significantly	2 (9.1%)
	No	8 (36.4%)
	Total valid response	22 (100.0%)
	Total missing	46

Question	Response	Number of Respondents (%)
Have vision issues caused you to have difficulty with any of the following?	Traveling	3 (21.4%)
	Household responsibilities, such as cooking or cleaning	2 (14.3%)
	Social interactions with family/friends	4 (28.6%)
	Leisure activities/exercise	3 (21.4%)
	Work or keeping a job	3 (21.4%)
	None	1 (7.1%)
	Driving (a car/vehicle)	9 (64.3%)
	Total valid response	14 (100.0%)
	Total missing	54

Table 3.7

Question	Response	Number of Respondents (%)
Have you had any treatment for diabetic eye disease?	Yes	13 (59.1%)
	No	9 (40.9%)
	Total valid response	22 (100.0%)
	Total missing	46
What treatment did you receive?	Laser	5 (38.5%)
	Injection in the eye (Anti-VEGF)	6 (46.2%)
	Surgery	2 (15.4%)
	Other	2 (15.4%)
	Total valid response	13 (100.0%)
	Total missing	55
Did you complete the treatment?	Yes	10 (76.9%)
	No	2 (15.4%)
	Still receiving treatment	1 (7.7%)
	Total valid response	13 (100.0%)
	Total missing	55
Do you feel that the treatment worked?	Yes, and vision improved	7 (63.6%)
	Yes, but vision stayed the	3 (27.3%)

Question	Response	Number of Respondents (%)
	same	
	Still waiting to know	1 (9.1%)
	Total valid response	11 (100.0%)
	Total missing	57
What is/are the reason(s) that you did not complete the treatment?	Treatment was not effective	2 (100.0%)
	Appointment times were not convenient	1 (50.0%)
	Total valid response	2 (100.0%)
	Total missing	66
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	4 (44.4%)
	Treatment is not accessible	1 (11.1%)
	Still waiting for treatment	3 (33.3%)
	I'm fearful of treatment	1 (11.1%)
	Other	1 (11.1%)
	Total valid response	9 (100.0%)
	Total missing	59

Table 3.8

Question	Response	Number of Respondents (%)
Have you been diagnosed with diabetic macular edema?	Yes	6 (8.8%)
	No	51 (75.0%)
	Don't know/Not sure	11 (16.2%)
	Total valid response	68 (100.0%)
If Yes, which of the following would you prefer	Treatment to prevent further vision loss	5 (83.3%)
	Only treatment when vision loss has occurred	1 (16.7%)
	Total valid response	6 (100.0%)
	Total missing	62

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	34 (50.0%)
	Health educator	19 (27.9%)
	Diabetes organization or other health organization	16 (23.5%)
	Family/Friends/Neighbors	15 (22.1%)
	TV/Radio/Newspaper/Magazines	11 (16.2%)
	Internet	19 (27.9%)
	None of the above	11 (16.2%)
	Total valid response	68 (100.0%)

Table 4.1

Question	Response	Number of Respondents (%)
What is your gender?	Female	15 (22.4)
	Male	52 (77.6)
	Total Valid Response	67 (100.0)
	Total missing	1
Please indicate your age	18 - 29	20 (29.4)
	30 - 39	23 (33.8)
	40 - 49	21 (30.9)
	50 - 59	4 (5.9)
	Total Valid Response	68 (100.0)

Table 4.2

Question	Response	Number of Respondents (%)
Where do you live?	Urban setting	60 (88.2)
	Non-urban setting	8 (11.8)
	Total Valid Response	68 (100.0)

Table 4.3

Question	Response	Number of Respondents (%)
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Question	Response	Number of Respondents (%)
What is the highest level of education you completed?	Did not complete primary school	1 (1.5)
	Secondary school	5 (7.4)
	College/University	38 (55.9)
	Graduate or post-graduate	24 (35.3)
	Total valid response	68 (100.0)

Table 4.4

Question	Response	Number of Respondents (%)
Are you currently working?	Working for pay	57 (83.8)
	Working without pay at home (e.g. housework, farming)	6 (8.8)
	Retired	1 (1.5)
	Not working	4 (5.9)
	Total Valid Response	68 (100.0)

Table 4.5

Question	Response	Number of Respondents (%)
Do you receive assistance from the government?	Income assistance	6 (8.8%)
	Medical assistance	17 (25.0%)
	Food assistance	7 (10.3%)
	Housing assistance	7 (10.3%)
	Pension assistance	3 (4.4%)
	None of the above	43 (63.2%)
	Total valid response	68 (100.0%)

Table 4.6

Question	Response	Number of Respondents (%)
Did you have trouble paying for food at anytime during the past year?	Yes	23 (33.8)

Question	Response	Number of Respondents (%)
	No	45 (66.2)
	Total Valid Response	68 (100.0)

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	15 (39.5)
	Education	6 (15.8)
	Ethnicity	9 (23.7)
	Gender	13 (34.2)
	Income	19 (50.0)
	Language you speak	6 (15.8)
	Place of birth	8 (21.1)
	Place where you live	12 (31.6)
	Race	8 (21.1)
	Religion	8 (21.1)
	Sexual orientation	7 (18.4)
	Tribal affiliation	3 (7.9)
	None of the above	29 (76.3)
	Total valid response	38 (100.0)
	Total missing	6

Table 4.8

Question	Response	Number of Respondents (%)
Which of the following do you worry about most?	Food	4 (6.0)
	Housing	2 (3.0)
	Money	11 (16.4)

Question	Response	Number of Respondents (%)
	Health	31 (46.3)
	Family	16 (23.9)
	None of the above	3 (4.5)
	Total Valid Response	67 (100.0)
	Total missing	1

Table 5.1

Question	Response	Number of Respondents (%)
In general, would you say your health is:	Excellent	6 (9.0%)
	Very good	21 (31.3%)
	Good	25 (37.3%)
	Total good health	52 (77.6%)
	Fair	13 (19.4%)
	Poor	2 (3.0%)
	Fair or poor health	15 (22.4%)
	Total valid response	67 (100.0%)
	Total missing	1

Table 5.2

Question	Response	Number of Respondents (%)
How many days during last 30 days was your physical health not good	Any unhealthy days	29 (50.9%)
	1-5 unhealthy days	21 (36.8%)
	6-10 unhealthy days	5 (8.8%)
	11-20 unhealthy days	3 (5.3%)
	No unhealthy days	28 (49.1%)
	Total valid response	57 (100.0%)
	Total missing	11

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	32 (54.2%)
	1-5 unhealthy days	21 (35.6%)
	6-10 unhealthy days	3 (5.1%)
	11-20 unhealthy days	6 (10.2%)
	21-30 unhealthy days	2 (3.4%)
	No unhealthy days	27 (45.8%)
	Total valid response	59 (100.0%)
	Total missing	9

Table 5.3.2

Question	Response	Number of Respondents (%)
Unhealthy days (physically or mentally unhealthy, max 30)	Any unhealthy days	39 (67.2%)
	1-5 unhealthy days	22 (37.9%)
	6-10 unhealthy days	7 (12.1%)
	11-20 unhealthy days	5 (8.6%)
	21-30 unhealthy days	5 (8.6%)
	No unhealthy days	19 (32.8%)
	Total valid response	58 (100.0%)

Table 5.4

Question	Response	Number of Respondents (%)
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Question	Response	Number of Respondents (%)
How many days during last 30 days did poor health limit your usual activities	Any unhealthy days	29 (74.4%)
	1-5 unhealthy days	22 (56.4%)
	6-10 unhealthy days	4 (10.3%)
	11-20 unhealthy days	2 (5.1%)
	21-30 unhealthy days	1 (2.6%)
	No unhealthy days	10 (25.6%)
	Total valid response	39 (100.0%)
	Total missing	29

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	19 (31.7%)
	No	41 (68.3%)
	Total valid response	60 (100.0%)
	Total missing	8
Which impairment or health problem, if any, limits your activities?		
a) Arthritis/rheumatism	Yes	6 (25.0%)
	No	18 (75.0%)
	Total valid response	24 (100.0%)
	Total missing	44
b) Back or neck problem	Yes	15 (62.5%)
	No	8 (33.3%)
	Don't know/Not sure	1 (4.2%)
	Total valid	24 (100.0%)

Question	Response	Number of Respondents (%)
	response	
	Total missing	44
c) Fractures, bone/joint injury	Yes	3 (13.0%)
	No	20 (87.0%)
	Total valid response	23 (100.0%)
	Total missing	45
d) Walking problem	Yes	8 (32.0%)
	No	16 (64.0%)
	Refused	1 (4.0%)
	Total valid response	25 (100.0%)
	Total missing	43
e) Lung/breathing problem	Yes	8 (33.3%)
	No	15 (62.5%)
	Don't know/Not sure	1 (4.2%)
	Total valid response	24 (100.0%)
	Total missing	44
f) Hearing problem	Yes	4 (17.4%)
	No	19 (82.6%)
	Total valid response	23 (100.0%)
	Total missing	45
g) Eye/vision problem	Yes	11 (47.8%)
	No	12 (52.2%)
	Total valid response	23 (100.0%)
	Total missing	45
h) Heart problem	Yes	8 (36.4%)
	No	13 (59.1%)
	Don't know/Not sure	1 (4.5%)
	Total valid	22 (100.0%)

Question	Response	Number of Respondents (%)
	response	
	Total missing	46
i) Stroke problem	Yes	5 (21.7%)
	No	17 (73.9%)
	Don't know/Not sure	1 (4.3%)
	Total valid response	23 (100.0%)
	Total missing	45
j) Hypertension/high blood pressure	Yes	15 (57.7%)
	No	10 (38.5%)
	Don't know/Not sure	1 (3.8%)
	Total valid response	26 (100.0%)
	Total missing	42
k) Diabetes	Yes	17 (68.0%)
	No	6 (24.0%)
	Don't know/Not sure	1 (4.0%)
	Refused	1 (4.0%)
	Total valid response	25 (100.0%)
	Total missing	43
l) Cancer	Yes	3 (13.0%)
	No	20 (87.0%)
	Total valid response	23 (100.0%)
	Total missing	45
m) Mental or emotional health	Yes	13 (54.2%)
	No	9 (37.5%)
	Don't know/Not sure	1 (4.2%)
	Refused	1 (4.2%)
	Total valid response	24 (100.0%)

Question	Response	Number of Respondents (%)
	Total missing	44

PT 1.2

Analysis Sets	Number of Respondents (%)
All valid respondents	31 (100.0%)
Included in Provider Analysis Set (PAS)	31 (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	31
Included in the Eye Care Professional Set (Eye Specialist)	5 (16.1%)
Excluded in the Eye Care Professional Set (Eye Specialist)	26 (83.9%)
Reasons for exclusion from Eye Care Professional Set:	
Missing required speciality	26
No valid (non-missing) response for the supplemental eye questionnaire	0

PT 1.3

Subgroups	Number of Respondents (%)
Provider Analysis Set	31 (100.0%)
Primary Care Provider	2 (6.5%)
Diabetes Specialist Provider	13 (41.9%)
Eye Care Professional	5 (16.1%)
Ophthalmologist	5 (16.1%)

NB [1]: Primary Care Provider = General Practitioner/Family practitioner (but not diabetes specialist or eye care professional)

NB [2]: Diabetes specialist provider = Diabetes specialist (but not eye care professional)

NB [4]: Ophthalmologist = General ophthalmologist or retinal specialist

NB [5]: Note that providers may have selected more than one specialty

PT 1.4

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is your specialty?	General primary care/Family	2 (100.0%)	1 (7.7%)	0 (0.0%)	3 (9.7%)

Item	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	practitioner				
	Diabetes specialist	0 (0.0%)	13 (100.0%)	0 (0.0%)	13 (41.9%)
	General ophthalmologist	0 (0.0%)	0 (0.0%)	3 (60.0%)	3 (9.7%)
	Optometrist	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Retinal specialist	0 (0.0%)	0 (0.0%)	2 (40.0%)	2 (6.5%)
	Nurse	0 (0.0%)	1 (7.7%)	0 (0.0%)	9 (29.0%)
	Health educator	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (12.9%)
	None of the above	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.2%)
	Total valid response	2 (100.0%)	13 (100.0%)	5 (100.0%)	31 (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	13	5	31
	Mean	19.5	16.1	16.6	15.5
	SD	7.8	10.3	8.8	8.8
	Median	19.5	18.0	15.0	15.0
	Min.	14	2	8	2
	Max.	25	30	30	30
	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%)	6 (50.0%)	0 (0.0%)	12 (41.4%)
	Eye clinic/practice	0 (0.0%)	0 (0.0%)	2 (40.0%)	4 (13.8%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	General medical clinic/practice	1 (100.0%)	2 (16.7%)	0 (0.0%)	4 (13.8%)
	Hospital	0 (0.0%)	4 (33.3%)	3 (60.0%)	9 (31.0%)
	Other	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Total Valid Response	1 (100.0%)	12 (100.0%)	5 (100.0%)	29 (100.0%)
	Total missing	1	1	0	2

PT 2.2

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Where is your main practice located?	Urban setting	1 (100.0%)	12 (100.0%)	5 (100.0%)	27 (96.4%)
	Non-urban setting	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.6%)
	Total Valid Response	1 (100.0%)	12 (100.0%)	5 (100.0%)	28 (100.0%)
	Total missing	1	1	0	3

PT 2.3

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In which sector is your main practice?	Government	1 (100.0%)	8 (66.7%)	2 (40.0%)	19 (67.9%)
	Private	0 (0.0%)	4 (33.3%)	3 (60.0%)	8 (28.6%)
	Non profit	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	Combined/mixed	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.6%)
	Total Valid Response	1 (100.0%)	12 (100.0%)	5 (100.0%)	28 (100.0%)
	Total missing	1	1	0	3

PT 2.4

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is your main practice limited to certain populations?	No	1 (100.0%)	7 (58.3%)	4 (80.0%)	19 (67.9%)
	Yes, limited by age	0 (0.0%)	2 (16.7%)	1 (20.0%)	4 (14.3%)
	Yes, limited to persons with health insurance	0 (0.0%)	3 (25.0%)	0 (0.0%)	4 (14.3%)
	Yes, other	0 (0.0%)	2 (16.7%)	1 (20.0%)	4 (14.3%)
	Total valid response	1 (100.0%)	12 (100.0%)	5 (100.0%)	28 (100.0%)
	Total missing	1	1	0	3

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	1 (100.0%)	3 (30.0%)	1 (25.0%)	8 (32.0%)
	More than 1 week but less than 1 month	0 (0.0%)	3 (30.0%)	2 (50.0%)	8 (32.0%)
	More than 1 month but less than 2 months	0 (0.0%)	2 (20.0%)	0 (0.0%)	5 (20.0%)
	More than 2 months but less than 3 months	0 (0.0%)	0 (0.0%)	1 (25.0%)	1 (4.0%)
	Do not take appointments	0 (0.0%)	1 (10.0%)	0 (0.0%)	1 (4.0%)
	Don't know/Not sure	0 (0.0%)	1 (10.0%)	0 (0.0%)	2 (8.0%)
	Total Valid Response	1 (100.0%)	10 (100.0%)	4 (100.0%)	25 (100.0%)
	Total missing	1	3	1	6

PT 2.6

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
On average, how many patients do you see per week in your main practice [n patients]	Total valid response (n)	1	10	4	25
	Mean	100	119.5	73.8	182
	SD	.	104.8	46.1	208.1
	Median	100	90	72.5	100
	Min.	100	50	20	10
	Max.	100	400	130	700
	Total missing	1	3	1	6
What percentage of the patients in your main practice have diabetes [% patients]	Total valid response (n)	1	10	4	24
	Mean	40	56.5	46.3	56.8
	SD	.	25.4	31.5	29.6
	Median	40	60	50	60
	Min.	40	15	10	10
	Max.	40	100	75	100
	Total missing	1	3	1	7

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	0 (0.0%)	2 (20.0%)	0 (0.0%)	4 (16.0%)
	Pay a reduced/subsidized rate	0 (0.0%)	1 (10.0%)	1 (25.0%)	2 (8.0%)
	Pay out-of-pocket (full fees)	0 (0.0%)	2 (20.0%)	2 (50.0%)	5 (20.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Pay through insurance	0 (0.0%)	5 (50.0%)	2 (50.0%)	14 (56.0%)
	Patient pays some, insurance pays some	1 (100.0%)	4 (40.0%)	3 (75.0%)	10 (40.0%)
	Other	0 (0.0%)	1 (10.0%)	0 (0.0%)	1 (4.0%)
	Total valid response	1 (100.0%)	10 (100.0%)	4 (100.0%)	25 (100.0%)
	Total missing	1	3	1	6

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		3 (30.0%)	1 (25.0%)	5 (19.2%)
	No	1 (100.0%)	7 (70.0%)	3 (75.0%)	21 (80.8%)
	Total valid response	1 (100.0%)	10 (100.0%)	4 (100.0%)	26 (100.0%)
	Total missing	1	3	1	5
In which other practice setting(s) do you work?	Hospital		3 (100.0%)	1 (100.0%)	4 (80.0%)
	General medical clinic/practice		1 (33.3%)		1 (20.0%)
	Diabetes clinic/practice		1 (33.3%)		2 (40.0%)
	Other		1 (33.3%)		1 (20.0%)
	Total valid response		3 (100.0%)	1 (100.0%)	5 (100.0%)
	Total missing		10	4	26
In which sector(s) is(are) the practice(s)?	Government		1 (33.3%)	1 (100.0%)	3 (60.0%)
	Private		2 (66.7%)		2 (40.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total valid response		3 (100.0%)	1 (100.0%)	5 (100.0%)
	Total missing	2	10	4	26
Is there a major difference between your practices with respect to how diabetic eye disease is screened and managed?	Yes		1 (33.3%)		1 (20.0%)
	No		2 (66.7%)	1 (100.0%)	4 (80.0%)
	Total valid response		3 (100.0%)	1 (100.0%)	5 (100.0%)
	Total missing	2	10	4	26

PT 2.9

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Blood glucose	Yes		1 (100.0%)	10 (100.0%)	3 (100.0%)	23 (95.8%)
		Total valid numeric response (n)	1 (100.0%)	9 (90.0%)	3 (100.0%)	20 (83.3%)
		Mean	6.0	5.3	2.3	5.0
		SD		2.8	2.1	4.3
		Median	6.0	4.0	3.0	4.0
		Min	6	2	0	0
		Max	6	12	4	20
		Total missing	1	4	2	11
	No					1 (4.2%)
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
	Total missing		1	3	2	7
HbA1c	Yes		1	9 (90.0%)	2 (100.0%)	21

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
			(100.0%)			(91.3%)
		Total valid numeric response (n)	1 (100.0%)	9 (90.0%)	2 (100.0%)	19 (82.6%)
		Mean	4.0	3.4	2.5	3.5
		SD		1.4	0.7	1.1
		Median	4.0	4.0	2.5	4.0
		Min	4	1	2	1
		Max	4	6	3	6
		Total missing	1	4	3	12
	No			1 (10.0%)		2 (8.7%)
	Total valid response		1 (100.0%)	10 (100.0%)	2 (100.0%)	23 (100.0%)
	Total missing		1	3	3	8
Urine check	Yes		1 (100.0%)	9 (90.0%)	2 (100.0%)	20 (87.0%)
		Total valid numeric response (n)	1 (100.0%)	8 (80.0%)	2 (100.0%)	17 (73.9%)
		Mean	64.0	2.0	2.5	6.4
		SD		1.3	0.7	15.1
		Median	64.0	1.5	2.5	2.0
		Min	64	1	2	0
		Max	64	4	3	64
		Total missing	1	5	3	14
	No			1 (10.0%)		3 (13.0%)
	Total valid response		1 (100.0%)	10 (100.0%)	2 (100.0%)	23 (100.0%)
	Total missing		1	3	3	8
Weight check	Yes		1	10	3 (100.0%)	24

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
			(100.0%)	(100.0%)		(100.0%)
		Total valid numeric response (n)	1 (100.0%)	9 (90.0%)	3 (100.0%)	21 (87.5%)
		Mean	4.0	3.9	1.7	4.2
		SD		2.1	1.5	2.9
		Median	4.0	4.0	2.0	4.0
		Min	4	0	0	0
		Max	4	6	3	12
		Total missing	1	4	2	10
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
	Total missing		1	3	2	7
	Blood pressure check		1 (100.0%)	10 (100.0%)	3 (100.0%)	23 (95.8%)
		Total valid numeric response (n)	1 (100.0%)	9 (90.0%)	3 (100.0%)	20 (83.3%)
		Mean	4.0	5.2	2.3	5.2
		SD		3.0	2.1	3.1
		Median	4.0	4.0	3.0	4.0
		Min	4	1	0	0
		Max	4	12	4	12
		Total missing	1	4	2	11
	No					1 (4.2%)
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
	Total missing		1	3	2	7
Foot check	Yes		1 (100.0%)	10 (100.0%)	1 (50.0%)	21 (91.3%)
		Total valid	1	9 (90.0%)	1 (50.0%)	18

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
		numeric response (n)	(100.0%)			(78.3%)
		Mean	1.0	2.0	2.0	3.2
		SD		1.7		3.2
		Median	1.0	1.0	2.0	2.0
		Min	1	1	2	1
		Max	1	6	2	12
		Total missing	1	4	4	13
	No				1 (50.0%)	2 (8.7%)
	Total valid response				2 (100.0%)	23 (100.0%)
	Total missing				3	8
Eye examination - Un-dilated	Yes				3 (100.0%)	20 (83.3%)
		Total valid numeric response (n)	1 (100.0%)	7 (70.0%)	3 (100.0%)	17 (70.8%)
		Mean	0.0	1.9	1.3	1.7
		SD		1.9	1.5	1.6
		Median	0.0	1.0	1.0	1.0
		Min	0	1	0	0
		Max	0	6	3	6
		Total missing	1	6	2	14
	No				2 (20.0%)	4 (16.7%)
	Total valid response				3 (100.0%)	24 (100.0%)
	Total missing				2	7
Eye examination - Optical	Yes				3 (100.0%)	12 (50.0%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Coherence Tomography						
		Total valid numeric response (n)	0 (0.0%)	2 (20.0%)	3 (100.0%)	10 (41.7%)
		Mean		0.5	123.0	37.7
		SD		0.7	209.6	115.0
		Median		0.5	3.0	1.0
		Min		0	1	0
		Max		1	365	365
		Total missing	2	11	2	21
	No		1 (100.0%)	8 (80.0%)		12 (50.0%)
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
	Total missing		1	3	2	7
	Yes		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
		Total valid numeric response (n)	1 (100.0%)	9 (90.0%)	3 (100.0%)	21 (87.5%)
		Mean	0.0	1.8	123.0	18.9
		SD		1.6	209.6	79.3
		Median	0.0	1.0	3.0	1.0
		Min	0	1	1	0
		Max	0	6	365	365
		Total missing	1	4	2	10
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
	Total missing		1	3	2	7
Eye examination - Fundoscopy	Yes					

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Eye examination - Fluorescein Angiography	Yes			3 (30.0%)	3 (100.0%)	14 (58.3%)
		Total valid numeric response (n)	0 (0.0%)	3 (30.0%)	3 (100.0%)	12 (50.0%)
		Mean		0.3	68.0	17.7
		SD		0.6	114.3	57.4
		Median		0.0	3.0	1.0
		Min		0	1	0
		Max		1	200	200
		Total missing	2	10	2	19
	No		1 (100.0%)	7 (70.0%)		10 (41.7%)
	Total valid response		1 (100.0%)	10 (100.0%)	3 (100.0%)	24 (100.0%)
	Total missing		1	3	2	7
Eye examination - Lipid check	Yes		1 (100.0%)	9 (90.0%)	2 (100.0%)	19 (82.6%)
		Total valid numeric response (n)	1 (100.0%)	9 (90.0%)	2 (100.0%)	17 (73.9%)
		Mean	4.0	2.7	2.5	2.7
		SD		1.7	0.7	1.4
		Median	4.0	2.0	2.5	2.0
		Min	4	1	2	1
		Max	4	6	3	6
		Total missing	1	4	3	14
	No			1 (10.0%)		4 (17.4%)
	Total valid		1 (100.0%)	10 (100.0%)	2 (100.0%)	23 (100.0%)

Type of Test	Yes/No	How often/year	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	response					
	Total missing		1	3	3	8

PT 2.10

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
In your main practice, what topics do you cover during a routine visit with a patient who has diabetes?	Diabetes management and monitoring	1 (100.0%)	8 (88.9%)	3 (100.0%)	19 (90.5%)
	Diet/nutrition	1 (100.0%)	8 (88.9%)	1 (33.3%)	16 (76.2%)
	Exercise/physical activity	1 (100.0%)	8 (88.9%)	1 (33.3%)	16 (76.2%)
	Medicines	1 (100.0%)	8 (88.9%)	1 (33.3%)	17 (81.0%)
	Foot care and inspection	1 (100.0%)	8 (88.9%)	0 (0.0%)	15 (71.4%)
	Blood pressure	1 (100.0%)	8 (88.9%)	3 (100.0%)	19 (90.5%)
	Eye care and exams	1 (100.0%)	6 (66.7%)	3 (100.0%)	16 (76.2%)
	Lipid check	1 (100.0%)	8 (88.9%)	1 (33.3%)	16 (76.2%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

PT 2.11

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Is there written information about diabetes available	Yes, and information on eye complications is	1 (100.0%)	3 (33.3%)	1 (33.3%)	8 (38.1%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
for patients in your main practice?	sufficient				
	Yes, but information on eye complications is not sufficient	0 (0.0%)	3 (33.3%)	0 (0.0%)	7 (33.3%)
	No written information is available for patients	0 (0.0%)	2 (22.2%)	2 (66.7%)	5 (23.8%)
	Don't know/Not sure	0 (0.0%)	1 (11.1%)	0 (0.0%)	1 (4.8%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

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 (100.0%)	5 (55.6%)	1 (33.3%)	14 (66.7%)
	Yes, available but not used by staff	0 (0.0%)	3 (33.3%)	0 (0.0%)	3 (14.3%)
	Not available	0 (0.0%)	1 (11.1%)	1 (33.3%)	2 (9.5%)
	Don't know/Not sure	0 (0.0%)	0 (0.0%)	1 (33.3%)	2 (9.5%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

PT 2.13

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you have written protocols/guidelines for detection and management of diabetes-related vision issue available in your main practice?	Yes, available and used by staff	1 (100.0%)	3 (33.3%)	2 (66.7%)	10 (47.6%)
	Yes, available but not used by staff	0 (0.0%)	4 (44.4%)	0 (0.0%)	4 (19.0%)
	Not available	0 (0.0%)	2 (22.2%)	1 (33.3%)	5 (23.8%)
	Don't know/Not sure	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (9.5%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

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 (100.0%)	5 (55.6%)	1 (33.3%)	11 (52.4%)
	Mean	5.0	4.4	5.0	4.7
	SD		1.3		0.9
	Median	5.0	5.0	5.0	5.0
	Min	5	2	5	2
	Max	5	5	5	5
	After a predetermined age	0 (0.0%)	0 (0.0%)	1 (33.3%)	1 (4.8%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	(numeric response) (n)				
	Mean			14.0	14.0
	SD				
	Median			14.0	14.0
	Min			14	14
	Max			14	14
	As soon as they are diagnosed		2 (22.2%)	1 (33.3%)	7 (33.3%)
	No standard practice, timing varies case by case		2 (22.2%)		2 (9.5%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10
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%)	1 (11.1%)	0 (0.0%)	1 (4.8%)
	Mean			2.0	2.0
	SD				
	Median			2.0	2.0
	Min			2	2
	Max			2	2
	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	1	8 (88.9%)	3 (100.0%)	20

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	diagnosed	(100.0%)			(95.2%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

PT 2.15

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
What is the protocol in your main practice for timing of follow-up eye examinations for persons with diabetes?	Once a year	1 (100.0%)	8 (88.9%)	2 (66.7%)	18 (85.7%)
	Other	0 (0.0%)	1 (11.1%)	1 (33.3%)	2 (9.5%)
	Don't know/Not sure	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.8%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

PT 2.16

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you screen patients for DR?	Yes	1 (100.0%)	9 (100.0%)	3 (75.0%)	20 (87.0%)
	No			1 (25.0%)	3 (13.0%)
	Total valid response	1 (100.0%)	9 (100.0%)	4 (100.0%)	23 (100.0%)
	Total missing	1	4	1	8
Where do you screen patients?	In clinic		6 (66.7%)	3 (100.0%)	16 (80.0%)
	Outreach	1 (100.0%)	1 (11.1%)		2 (10.0%)
	Other		3 (33.3%)		3 (15.0%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	20 (100.0%)
	Total missing	1	4	2	11

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	0 (0.0%)	8 (88.9%)	2 (66.7%)	17 (85.0%)
	Patient's age	0 (0.0%)	4 (44.4%)	1 (33.3%)	10 (50.0%)
	Patient's gender	0 (0.0%)	1 (11.1%)	1 (33.3%)	5 (25.0%)
	Presence of comorbidities such as hypertension, etc.	0 (0.0%)	6 (66.7%)	2 (66.7%)	13 (65.0%)
	High glucose levels	0 (0.0%)	3 (33.3%)	3 (100.0%)	11 (55.0%)
	Ability or inability to pay	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (10.0%)
	Insurance restrictions	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (10.0%)
	Patient educational level	0 (0.0%)	1 (11.1%)	0 (0.0%)	3 (15.0%)
	Patient adherence to recommendations	0 (0.0%)	2 (22.2%)	1 (33.3%)	8 (40.0%)
	Not applicable	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (5.0%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	20 (100.0%)
	Total missing	1	4	2	11

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	0 (0.0%)	2 (22.2%)	3 (100.0%)	9 (47.4%)
	Proximity to care	0 (0.0%)	1 (11.1%)	2 (66.7%)	4 (21.1%)
	Long wait time for appointment	0 (0.0%)	1 (11.1%)	1 (33.3%)	5 (26.3%)
	Long wait time on the day of visit	0 (0.0%)	1 (11.1%)	0 (0.0%)	3 (15.8%)
	Referral process	0 (0.0%)	1 (11.1%)	2 (66.7%)	5 (26.3%)
	Recommended treatments are not available	0 (0.0%)	1 (11.1%)	0 (0.0%)	2 (10.5%)
	Lack of knowledge and/or awareness	0 (0.0%)	6 (66.7%)	3 (100.0%)	12 (63.2%)
	Patients fear of treatment/results	0 (0.0%)	2 (22.2%)	2 (66.7%)	8 (42.1%)
	Patients they are a burden on family/friends	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (15.8%)
	Limited access to diabetes specialists	0 (0.0%)	0 (0.0%)	1 (33.3%)	2 (10.5%)
	Limited access to eye specialists	0 (0.0%)	5 (55.6%)	1 (33.3%)	8 (42.1%)
	Patients feel eye complications are unlikely	0 (0.0%)	2 (22.2%)	2 (66.7%)	9 (47.4%)
	Patients feel eye exams are not important	0 (0.0%)	4 (44.4%)	1 (33.3%)	9 (47.4%)
	Patients have competing responsibilities and priorities	0 (0.0%)	1 (11.1%)	0 (0.0%)	4 (21.1%)
	Clinic too small or lack necessary	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (5.3%)

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
	equipment/staff				
	Total valid response	0	9 (100.0%)	3 (100.0%)	19 (100.0%)
	Total missing	2	4	2	12

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%)	7 (77.8%)	2 (66.7%)	16 (80.0%)
	No	0 (0.0%)	2 (22.2%)	1 (33.3%)	4 (20.0%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	3 (100.0%)	20 (100.0%)
	Total missing	1	4	2	11

PT 2.20

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Do you share relevant patient information with other health care professionals involved in the patients care e.g. his or her general practitioner, ophthalmologist, podiatrist?	Yes	1 (100.0%)	9 (100.0%)	3 (100.0%)	19 (95.0%)
	Don't know/Not sure	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (5.0%)
	Total Valid Response	1 (100.0%)	9 (100.0%)	3 (100.0%)	20 (100.0%)
	Total missing	1	4	2	11

PT 3.1

Question	Response	Primary Care Provider	Diabetes Specialist Provider	Ophthalmologist	PAS
Please indicate your age:	18 - 29				1 (4.8%)
	30 - 39				3 (14.3%)
	40 - 49				7 (33.3%)
	50 - 59	1 (100.0%)	6 (66.7%)	1 (33.3%)	9 (42.9%)
	60 - 69		1 (11.1%)		1 (4.8%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10
What is your gender?	Female				7 (33.3%)
	Male	1 (100.0%)	9 (100.0%)	2 (66.7%)	14 (66.7%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10
What is your highest level of education completed?	College/University				3 (14.3%)
	Graduate or advanced degree (e.g. PhD, MD, etc)	1 (100.0%)	9 (100.0%)	3 (100.0%)	18 (85.7%)
	Total valid response	1 (100.0%)	9 (100.0%)	3 (100.0%)	21 (100.0%)
	Total missing	1	4	2	10

PT 4.1

Question	Response	Ophthalmologist
What percentage of your patients have diabetic retinopathy	Total valid numeric response (n)	4
	Mean	33.8
	SD	30.9
	Median	30.0

Question	Response	Ophthalmologist
	Min	0
	Max	75
	Total missing	1

PT 4.2

Question	Response	Ophthalmologist
What percentage of your patients have diabetic macular edema?	Total valid numeric response (n)	4
	Mean	23.8
	SD	21.4
	Median	22.5
	Min	0
	Max	50
	Total missing	1

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	2 (66.7%)
	More than 1 week but less than 1 month	1 (33.3%)
	Total Valid Response	3 (100.0%)
	Total missing	2

PT 4.4

Question	Response	Ophthalmologist
From the time a patient is screened, what is the average length of time he/she waits for diagnosis?	More than 1 week but less than 1 month	1 (33.3%)
	There is not wait, diagnosis is given when screened	2 (66.7%)
	Total Valid Response	3 (100.0%)
	Total missing	2

PT 4.5

Type of Treatment	Question	Response/time	Ophthalmologist
Laser photocoagulation	Is the treatment available?	Available within country	1 (33.3%)
		Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a consultation appointment? (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	3
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	3 (100.0%)
		Mean	1.3
		SD	0.6
		Median	1.0
		Min	1
		Max	2
		Total valid response	3 (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

Type of Treatment	Question	Response/time	Ophthalmologist
		Total valid response	2 (100.0%)
		Total missing	3
Anti-VEGF therapies	Is the treatment available?	Available within country	1 (33.3%)
		Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	2
	What is the average amount of time your patients wait for a consultation appointment? (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	3
	What is the average amount of time your patients wait for a first treatment?(weeks)	Total valid numeric response (n)	3 (100.0%)
		Mean	1.3
		SD	0.6
		Median	1.0
		Min	1
		Max	2
		Total valid response	3 (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)	3 (100.0%)
		Mean	2.3
		SD	1.5

Type of Treatment	Question	Response/time	Ophthalmologist
		Median	2.0
		Min	1
		Max	4
		Total valid response	3 (100.0%)
		Total missing	2
Intravitreal steroid	Is the treatment available?	Available within country	1 (33.3%)
		Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	2
	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%)
		Total valid response	3 (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 (66.7%)
		Mean	1.0
		SD	0.0
		Median	1.0
		Min	1
		Max	1
		Don't know/not sure	1 (33.3%)
		Total valid	3 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
	What is the average amount of time your patients wait for a second treatment?(weeks)	response	
		Total missing	2
		Total valid numeric response (n)	2 (66.7%)
		Mean	6.5
		SD	7.8
		Median	6.5
		Min	1
		Max	12
		Don't know/not sure	1 (33.3%)
		Total valid response	3 (100.0%)
		Total missing	2
Uncomplicated vitrectomy	Is the treatment available?	Available within country	1 (33.3%)
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	2
		Total valid numeric response (n)	3 (100.0%)
		Mean	3.3
		SD	4.0
		Median	1.0
		Min	1
		Max	8
		Total valid response	3 (100.0%)
		Total missing	2
		Total valid numeric response (n)	3 (100.0%)
		Mean	2.0

Type of Treatment	Question	Response/time	Ophthalmologist
	What is the average amount of time your patients wait for a second treatment?(weeks)	SD	1.7
		Median	1.0
		Min	1
		Max	4
		Total valid response	3 (100.0%)
		Total missing	2
		Total valid numeric response (n)	2 (100.0%)
		Mean	7.5
		SD	4.9
		Median	7.5
		Min	4
		Max	11
		Total valid response	2 (100.0%)
		Total missing	3
Complex vitreo-retinal surgery	Is the treatment available?	Available within country	1 (33.3%)
	What is the average amount of time your patients wait for a consultation appointment? (weeks)	Available in practice	2 (66.7%)
		Total valid response	3 (100.0%)
		Total missing	2
		Total valid numeric response (n)	3 (100.0%)
		Mean	4.7
		SD	6.4
		Median	1.0
		Min	1
		Max	12
		Total valid response	3 (100.0%)
		Total missing	2
		Total valid numeric response (n)	2 (100.0%)

Type of Treatment	Question	Response/time	Ophthalmologist
	your patients wait for a first treatment?(weeks)	response (n)	
		Mean	4.5
		SD	4.9
		Median	4.5
		Min	1
		Max	8
		Total valid response	2 (100.0%)
		Total missing	3
	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	3

PT 4.6

Question	Response	Ophthalmologist
Do you personally administer treatment for diabetic retinopathy?	Yes	4 (100.0%)
	Total valid response	4 (100.0%)
	Total missing	1
Who administer it?	Total missing	5

PT 4.7

Question	Response	Ophthalmologist
Do any of the following influence how you treat diabetic retinopathy or diabetic macular edema?	Diabetes duration	1 (33.3%)
	Patient's age	1 (33.3%)

Question	Response	Ophthalmologist
	High glucose levels	3 (100.0%)
	Ability or inability to pay	2 (66.7%)
	Insurance restrictions	2 (66.7%)
	Patient educational level	1 (33.3%)
	Patient adherence to recommendations	2 (66.7%)
	Total valid response	3 (100.0%)
	Total missing	2

PT 4.8

Question	Response	Ophthalmologist
Do you treat diabetic retinopathy and diabetic macular edema based on:	Both	3 (100.0%)
	Total Valid Response	3 (100.0%)
	Total missing	2

PT 4.9

Question	Response	Ophthalmologist
How are your patients with diabetes screened for diabetic eye disease?	Fundoscopy dilated	3 (100.0%)
	Retinal photo	3 (100.0%)
	Optical Coherence Tomography	2 (66.7%)
	Fluorescein Angiography	2 (66.7%)
	Total valid response	3 (100.0%)
	Total missing	2

PT 4.10

Question	Response	Ophthalmologist
In your opinion, do the majority of your patients present:	In time for screening	2 (66.7%)
	When visual problems have already occurred	1 (33.3%)
	Total Valid Response	3 (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	4 (100.0%)
	Total valid response	4 (100.0%)
	Total missing	1
If yes, When was your last training?	Don't know/Not sure	1 (33.3%)
	Greater than 1 year ago but less than 5 years	2 (66.7%)
	Total valid response	3 (100.0%)
	Total missing	2

PT 4.12

Question	Response	Ophthalmologist
Would you be interested in online education and certification on DME, Angiogenesis and Anti-VEGF therapies?	Yes	3 (75.0%)
	No	1 (25.0%)
	Total Valid Response	4 (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	1 (33.3%)
	At vision centers	1 (33.3%)
	Don't know/Not sure	1 (33.3%)
	Total valid response	3 (100.0%)
	Total missing	2

PT 4.14

Question	Response	Ophthalmologist
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Question	Response	Ophthalmologist
What do you perceive to be the greatest challenges for improving patient outcomes in diabetic eye disease?	Late diagnosis	2 (66.7%)
	Referral pathways	2 (66.7%)
	Limited access to patient education on diabetic retinopathy and diabetic macular edema	2 (66.7%)
	No universal guidelines on referral/screening	2 (66.7%)
	Government/insurance not able to cover patient costs	2 (66.7%)
	Multi-disciplinary team integration is poor	1 (33.3%)
	Total valid response	3 (100.0%)
	Total missing	2

EXP 1

Question	Response	Without DED (%)	With DED (%)	With DME (%)
Which of the following complications of diabetes do you have?	Amputation	1 (2.4%)	2 (11.1%)	1 (16.7%)
	Foot ulcers	2 (4.8%)	7 (38.9%)	1 (16.7%)
	Kidney disease	3 (7.1%)	1 (5.6%)	2 (33.3%)
	Loss of feeling in hands or toes (neuropathy)	8 (19.0%)	6 (33.3%)	2 (33.3%)
	Vision loss	9 (21.4%)	4 (22.2%)	2 (33.3%)
	Broken bones or fractures	0 (0.0%)	2 (11.1%)	2 (33.3%)
	Irritable bowel disease	1 (2.4%)	1 (5.6%)	0 (0.0%)
	Cardiovascular disease/Stroke	4 (9.5%)	0 (0.0%)	0 (0.0%)
	Other	1 (2.4%)	1 (5.6%)	0 (0.0%)
	None	17 (40.5%)	1 (5.6%)	0 (0.0%)
	Don't know/Not sure	5 (11.9%)	0 (0.0%)	1 (16.7%)
	Total Valid Response	42 (100.0%)	18 (100.0%)	6 (100.0%)

Question	Response	Without DED (%)	With DED (%)	With DME (%)
	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".

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	12 (27.3%)	5 (27.8%)	2 (33.3%)
Impairment or health problem			
Back or neck problem	13 (81.3%)	1 (14.3%)	1 (100.0%)
Mental or emotional health	10 (62.5%)	2 (33.3%)	1 (50.0%)
Diabetes	10 (58.8%)	5 (83.3%)	2 (100.0%)
Hypertension/high blood pressure	9 (50.0%)	5 (71.4%)	1 (100.0%)
Eye/vision problem	6 (40.0%)	4 (57.1%)	1 (100.0%)
Lung/breathing problem	5 (31.3%)	3 (42.9%)	0 (0.0%)
Walking problem	5 (29.4%)	2 (28.6%)	1 (100.0%)
Heart problem	4 (28.6%)	4 (57.1%)	0 (0.0%)
Arthritis/rheumatism	4 (25.0%)	1 (14.3%)	1 (100.0%)
Hearing problem	3 (20.0%)	0 (0.0%)	1 (100.0%)
Fractures, bone/joint injury	3 (20.0%)	0 (0.0%)	0 (0.0%)
Stroke problem	2 (13.3%)	2 (28.6%)	1 (100.0%)
Cancer	1 (6.7%)	0 (0.0%)	2 (100.0%)

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

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

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

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	33 (76.7%)	13 (72.2%)	6 (100.0%)
Self-rated health: Poor	10 (23.3%)	5 (27.8%)	0 (0.0%)
Physically unhealthy days	19 (48.7%)	8 (61.5%)	2 (40.0%)
Mentally unhealthy days	22 (55.0%)	9 (64.3%)	1 (20.0%)
Unhealthy days	27 (67.5%)	10 (76.9%)	2 (40.0%)
Activity limitation days	20 (76.9%)	7 (63.6%)	2 (100.0%)

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

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

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

EXP 4

Item	Response	All respondents	Respondents with Type I diabetes	Respondents with Type II diabetes
How do you manage your diabetes?	Diet	54 (80.6%)	16 (72.7%)	26 (92.9%)
	Oral medicine	30 (44.8%)	9 (40.9%)	15 (53.6%)
	Exercise	42 (62.7%)	14 (63.6%)	18 (64.3%)
	Insulin	26 (38.8%)	10 (45.5%)	12 (42.9%)
	Natural/Herbal medicine	19 (28.4%)	8 (36.4%)	5 (17.9%)
	None of the above	1 (1.5%)		

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	37 (84.1%)	14 (77.8%)	6 (100.0%)
	Working without pay at home (e.g. housework, farming)	4 (9.1%)	2 (11.1%)	0 (0.0%)
	Retired	0 (0.0%)	1 (5.6%)	0 (0.0%)
	Not working	3 (6.8%)	1 (5.6%)	0 (0.0%)
	Total Valid Response	44 (100.0%)	18 (100.0%)	6 (100.0%)
Do you receive assistance from the government?	Income assistance	1 (2.3%)	4 (22.2%)	1 (16.7%)
	Medical assistance	8 (18.2%)	6 (33.3%)	3 (50.0%)
	Food assistance	2 (4.5%)	3 (16.7%)	2 (33.3%)
	Housing assistance	4 (9.1%)	2 (11.1%)	1 (16.7%)
	Pension assistance	2 (4.5%)	0 (0.0%)	1 (16.7%)
	None of the above	33 (75.0%)	8 (44.4%)	2 (33.3%)
	Total valid response	44 (100.0%)	18 (100.0%)	6 (100.0%)
	Total missing	0	0	0

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Did you have trouble paying for food at anytime during the past year?	Yes	12 (27.3%)	8 (44.4%)	3 (50.0%)
	No	32 (72.7%)	10 (55.6%)	3 (50.0%)
	Total Valid Response	44 (100.0%)	18 (100.0%)	6 (100.0%)

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

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

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

NB [4]: 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 (81.5%)	9 (81.8%)	5 (100.0%)
	Working without pay at home (e.g. housework, farming)	3 (11.1%)	2 (18.2%)	0 (0%)
	Not working	2 (7.4%)	0 (0%)	0 (0%)
	Total Valid Response	27 (100.0%)	11 (100.0%)	5 (100.0%)
Do you receive assistance from the government?	Income assistance	1 (3.7%)	2 (18.2%)	0 (0%)
	Medical assistance	4 (14.8%)	4 (36.4%)	2 (40.0%)
	Food assistance	1 (3.7%)	2 (18.2%)	1 (20.0%)
	Housing assistance	3 (11.1%)	2 (18.2%)	0 (0%)
	Pension assistance	2 (7.4%)	0 (0%)	0 (0%)
	None of the above	21 (77.8%)	5 (45.5%)	2 (40.0%)
	Total valid response	27 (100.0%)	11 (100.0%)	5 (100.0%)
Did you have trouble paying for food at anytime during the past year?	Yes	9 (33.3%)	5 (45.5%)	2 (40.0%)
	No	18 (66.7%)	6 (54.5%)	3 (60.0%)
	Total Valid Response	27 (100.0%)	11 (100.0%)	5 (100.0%)

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

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

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

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

EXP 5.3: Age group 40-59 years

Item	Response	Without DED (%)	With DED (%)	With DME (%)
Are you currently working?	Working for pay	15 (88.2%)	5 (71.4%)	1 (100.0%)
	Working without pay at home (e.g. housework, farming)	1 (5.9%)	0 (0%)	0 (0%)
	Retired	0 (0%)	1 (14.3%)	0 (0%)
	Not working	1 (5.9%)	1 (14.3%)	0 (0%)
	Total Valid Response	17 (100.0%)	7 (100.0%)	1 (100.0%)
Do you receive assistance from the government?	Income assistance	0 (0%)	2 (28.6%)	1 (100.0%)
	Medical assistance	4 (23.5%)	2 (28.6%)	1 (100.0%)
	Food assistance	1 (5.9%)	1 (14.3%)	1 (100.0%)
	Housing assistance	1 (5.9%)	0 (0%)	1 (100.0%)
	Pension assistance	0 (0%)	0 (0%)	1 (100.0%)
	None of the above	12 (70.6%)	3 (42.9%)	0 (0%)
	Total valid response	17 (100.0%)	7 (100.0%)	1 (100.0%)
	Total missing	0	0	0
Did you have trouble paying for food at anytime during the past year?	Yes	3 (17.6%)	3 (42.9%)	1 (100.0%)
	No	14 (82.4%)	4 (57.1%)	0 (0%)
	Total Valid Response	17 (100.0%)	7 (100.0%)	1 (100.0%)

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

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

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

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

EXP 5.4: Age group 60-79 years – no data to display

EXP 5.5: Age group 80+ years – no data to display

EXP 6

Group	Subgroup	All respondents	Type 1 diabetes	Type 2 diabetes	With DED (%)	With DME (%)
All respondents		68 (100%)	22 (32.4%)	29 (42.6%)	18 (26.5%)	6 (8.8%)
Gender	Male	52 (77.6%)	16 (30.8%)	23 (44.2%)	13 (25.0%)	4 (7.7%)
	Female	15 (22.4%)	5 (33.3%)	6 (40.0%)	4 (26.7%)	2 (13.3%)
	Total Missing	1	1	0	1	0
Age	18-39 yrs	43 (63.2%)	21 (48.8%)	13 (30.2%)	11 (25.6%)	5 (11.6%)
	40-59 yrs	25 (36.8%)	1 (4.0%)	16 (64.0%)	7 (28.0%)	1 (4.0%)
Time since diagnosis	Within the last year	31 (45.6%)	10 (32.3%)	13 (41.9%)	9 (29.0%)	4 (12.9%)
	1 - 5 years ago	28 (41.2%)	11 (39.3%)	11 (39.3%)	7 (25.0%)	1 (3.6%)
	6 - 10 years ago	6 (8.8%)	0 (0.0%)	4 (66.7%)	1 (16.7%)	1 (16.7%)
	11 - 15 years ago	2 (2.9%)	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
	16 - 20 years ago	1 (1.5%)	0 (0.0%)	1 (100.0%)	1 (100.0%)	0 (0.0%)
Control of Diabetes	Controlled	56 (82.4%)	19 (33.9%)	24 (42.9%)	17 (30.4%)	4 (7.1%)
	Not controlled	12 (17.6%)	3 (25.0%)	5 (41.7%)	1 (8.3%)	2 (16.7%)

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 (%)
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Question	Response	With DED n (%)	With DME n (%)
Have you had any treatment for diabetic eye disease?	Yes	9 (50.0%)	4 (100.0%)
	No	9 (50.0%)	0 (0.0%)
	Total valid response	18 (100.0%)	4 (100.0%)
	Total missing	0	2
What treatment did you receive?	Laser	2 (22.2%)	3 (75.0%)
	Anti-VEGF	6 (66.7%)	0 (0.0%)
	Surgery	1 (11.1%)	1 (25.0%)
	Other	1 (11.1%)	1 (25.0%)
	Total valid response	9 (100.0%)	4 (100.0%)
	Total missing	9	2
Did you complete the treatment?	Yes	8 (88.9%)	2 (50.0%)
	No	0 (0.0%)	2 (50.0%)
	Still receiving treatment	1 (11.1%)	0 (0.0%)
	Total valid response	9 (100.0%)	4 (100.0%)
	Total missing	9	2
Do you feel that the treatment worked?	Yes, and vision improved	5 (55.6%)	2 (100.0%)
	Yes, but vision stayed the same	3 (33.3%)	0 (0.0%)
	Still waiting to know	1 (11.1%)	0 (0.0%)
	Total valid response	9 (100.0%)	2 (100.0%)
	Total missing	9	4
What is/are the reason(s) that you did not complete the treatment?	Treatment was not effective	0 (0.0%)	2 (100.0%)
	Appointment times were not convenient	0 (0.0%)	1 (50.0%)
	Total valid response	0 (0.0%)	2 (100.0%)
	Total missing	18	4
What are the reason(s) that you have not had treatment for diabetic eye disease?	My doctor did not recommend any treatment	4 (44.4%)	0 (0.0%)
	Treatment is not accessible	1 (11.1%)	0 (0.0%)
	Still waiting for treatment	3 (33.3%)	0 (0.0%)
	I'm fearful of treatment	1 (11.1%)	0 (0.0%)

Question	Response	With DED n (%)	With DME n (%)
	Other	1 (11.1%)	0 (0.0%)
	Total valid response	9 (100.0%)	0 (0.0%)
	Total missing	9	6

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

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

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



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