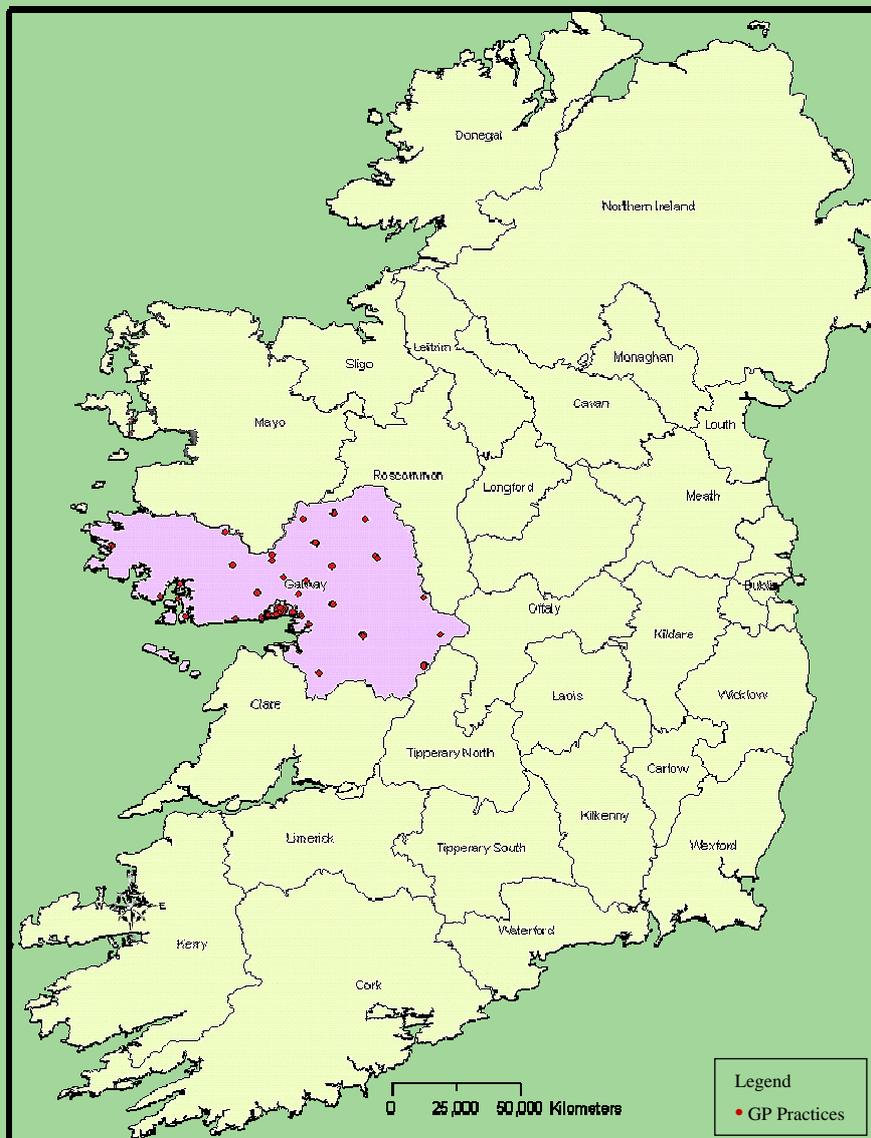


THE PROVISION OF GENERAL PRACTICE DIABETES SERVICES IN GALWAY CITY AND COUNTY:

A Survey of General Practitioners



THE PROVISION OF GENERAL PRACTICE DIABETES SERVICES IN GALWAY CITY AND COUNTY:

A Survey of General Practice

Report Prepared on Behalf of the Galway, Mayo and
Roscommon Diabetes Services Implementation Group

By

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CONTENTS

	Page
ACKNOWLEDGEMENTS.....	1
EXECUTIVE SUMMARY.....	4
1. INTRODUCTION.....	7
1.1 Background.....	7
1.2 Aims and Objectives.....	8
2. METHODOLOGY.....	9
3. RESULTS	11
3.1 Introduction.....	11
3.2 Practice Details.....	11
3.3 Utilisation of Computers.....	12
3.4 Number of Patients with Diabetes.....	13
3.5 Diabetes Patients in Nursing Homes/Residential Care.....	14
3.6 Diabetes Clinics.....	14
3.7 Managing Type 2 Diabetes.....	15
3.8 Screening for Diabetes.....	17
3.9 Use of Dietetic Services.....	18
3.10 Use of Podiatry (Chiropody) Services.....	20
3.11 Retinal Screening.....	22
3.12 Referring to Local Hospital Specialist Team.....	24
3.13 Use of Guidelines for the Care of patients With Diabetes.....	25
3.14 Opportunities for Developing Diabetes Care.....	25
3.15 Remuneration for Diabetes Care.....	26
3.16 Further Comments.....	27
4. DISCUSSION	30
4.1 Introduction.....	30
4.2 Number of Patients with Diabetes.....	30
4.3 Managing Patient Data.....	31
4.4 Managing Diabetes Care.....	32
4.5 Skills for Diabetes Management.....	34
4.6 Opportunistic Screening.....	34
4.7 Dietetic Services.....	35
4.8 Podiatry (Chiropody) Services.....	36
4.9 Retinal Screening.....	37

5. CONCLUSIONS AND RECOMMENDATIONS.....38
 5.1 *Conclusions*.....38
 5.2 *Recommendations*.....38

6. REFERENCES.....40

APPENDIX 144

EXECUTIVE SUMMARY

A baseline assessment of diabetes care in general practices in Galway was undertaken by the Galway Diabetes Services Advisory Group in 2007 (now known as the Galway, Mayo, and Roscommon Diabetes Services Implementation Group). The aim of the study was to determine the actual care provided to patients with diabetes in general practices in Galway City and County.

A postal questionnaire was sent to all 103 GP practices in County Galway. The questionnaire assessed prevalence, diabetes resources, maintenance of diabetes registers, use of guidelines, screening, specialist clinics and referral to other services. A 76% response rate was achieved.

The key findings can be summarised as follows:

- Estimated practice size ranged from 100 to 20,000 patients with over half reporting between 1,000 and 4,000 patients.
- Mean estimated prevalence of clinically diagnosed diabetes was 2.7%.
- A third of practices had GP(s) and 35% had Practice Nurse(s) with a special interest in diabetes.
- 33% maintained a diabetes register.
- Guidelines for the care of patients with diabetes were used by 56% of practices.
- 56% reported seeing patients at opportunistic appointments, with 46% providing care at patient initiated appointments and 41% seeing patients at doctor or nurse initiated appointments.

- 12% of respondents stated that their practice had a formal call and recall system for review of type 2 diabetes patients.
- 10% of practices had specific diabetes clinics with three quarters of these being led by a nurse funded by a pharmaceutical company.
- 32% of practices reported always referring patients with suspected type 2 diabetes to the local hospital specialist team.
- 96% of respondents reported that their practice did screen asymptomatic individuals for diabetes (although it is not known how often this screening is undertaken).
- 91% of respondents referred patients with diabetes to dietetic services, 82% to chiropody services and 68% for retinal screening. Non GMS patients were more likely to be referred to private practitioners resulting in significantly shorter waiting times for non GMS patients ($p < .01$).
- Principal opportunities for improving diabetes care included more training for GPs/practice nurses in diabetes care (67%), easier access to specialist advice (63%) and increased access to community services (62%).

There is considerable scope for development of primary care diabetes services in Ireland. This will require additional resources and incentives for GPs. The following ten recommendations have been made which have been categorised into either being 'system redesign' or 'resource dependent.'

System redesign

1. The development and maintenance of diabetes registers by all general practices should be facilitated.
2. GPs should be made aware of the availability of diabetes modules for each of the current software packages used in general practice.
3. Referral and qualification (GMS and non GMS) criteria to dietetic, podiatry, and retinal screening services should be

developed. Systems need to be developed to minimise overlap and duplication between hospital, community, and private services.

4. Targets need to be established for waiting times for dietetic, podiatry and retinal screening services. Systems need to be set up to monitor waiting times.
5. Clinical practice guidelines should be used for the management of patients with diabetes. These should be updated at regular intervals.
6. All GPs should be made aware of the factors to consider when screening for diabetes. A standard set of opportunistic screening criteria for practices should be developed.

Resource dependent

7. GPs and Practice Nurses should be given the opportunity to attend diabetes training programmes. Resources should be provided to help ensure that all practices receive training in high quality diabetes care.
8. Consideration should be given to providing incentives (e.g. financial or other) to GPs to manage diabetes within their practice.
9. A review of the resource requirements for community-based diabetes services should be undertaken within primary care teams.
10. Consideration should be given to providing diabetes clinics in practices with large numbers of people with diabetes, as part of a structured approach to diabetes care.

The over riding impression is that diabetes care in the Irish community today is being provided in spite of the health system, rather than because of it. Diabetes patients are currently receiving fragmentary, un-coordinated, discontinuous and inequitable diabetes care simply because that is what the Irish health system is designed to do.

1. INTRODUCTION

1.1 Background

The prevalence of diabetes is on the increase worldwide. Although accurate data do not exist for the Republic of Ireland it is likely that similar trends are occurring here. A recent report from the Institute of Public Health in Ireland (2006) estimated the prevalence of diabetes (diagnosed and undiagnosed) to be 4.7 percent of the population with the highest regional prevalence in the HSE West Region.

In order to address the issue of providing high quality care to people with diabetes in Ireland, the HSE established an Expert Advisory Group (EAG) for diabetes in 2006. Among the recommendations from the First Report of the Diabetes EAG (Health Service Executive, 2008) were the establishment of local Diabetes Services Advisory (or Implementation) Groups (DSAG). Such a group has been in existence in the Galway area since early 2005. It was initially referred to as the Galway Diabetes Services Advisory Group but has since evolved into the Galway, Mayo and Roscommon Diabetes Services Implementation Group. Part of the remit of this group is to bring together the many different healthcare professionals involved in delivering diabetes care in the area.

It became clear to members of the former Galway DSAG that a baseline assessment of the current provision of diabetes care in general practices in Galway would be a useful exercise. This report represents the output of a DSAG working group established in early 2007 to undertake this baseline assessment of the provision of general practice-based diabetes care in our area.

1.2 Aims and Objectives

The aim of the study was to determine the actual care provided to patients with diabetes in general practices in Galway City and County. More specifically, the objectives of the study were to:

1. Determine the level of diabetes care currently delivered to patients in general practice.
2. Identify gaps in current service provision.
3. Prioritise initiatives which General Practitioners consider would make a difference to the quality of diabetes care they can deliver.

2. METHODOLOGY

A confidential self-completion questionnaire was sent to a named GP for all 103 General Practices in Galway City and County. Practices were identified from the register maintained by the Primary Care Unit, HSE West. Prior to this, a letter was sent to GPs to advise them of the forthcoming survey. GPs were asked to complete the questionnaire for the practice as a whole. Those who had not completed the survey were sent a reminder letter two weeks after the initial questionnaire. After a further two weeks a second reminder letter and another questionnaire was sent to non responders. Practices who did not respond to the second postal reminder were phoned by a member of the research team.

The Working Group detailed and prioritised the areas of interest to be covered by the questionnaire. Several relevant questionnaires informed the development of the questionnaire (Kenny et al 2002, O' Sullivan 2006, Pierce et al 2000, Ryan et al 2006 and Williams et al 2002). The questionnaire aimed to ascertain:

- Practice size and management.
- Number of patients with diabetes and maintenance of a diabetes register.
- Use of guidelines for the care of diabetes.
- Screening for diabetes.
- The provision of specialised diabetes clinics in general practice.
- Referral to ancillary services.
- Opportunities for the development of diabetes care.

The questionnaire was administered in June 2007. Prior to administration, it was piloted with a group of final year General Practice registrars and feedback obtained in terms of structure, content and layout. A number of minor alterations were made. A copy of the questionnaire is given in Appendix 1. Ethical approval for the study was obtained from the Irish College of General Practitioners. Data was analysed using SPSS V15 (SPSS Ireland Ltd, Dublin, Ireland).

3. RESULTS

3.1 Introduction

Of the 103 practices that were contacted, 78 returned completed questionnaires and three returned blank questionnaires (of the latter, two reported that they had no patients with diabetes). This represents an overall 76% response rate.

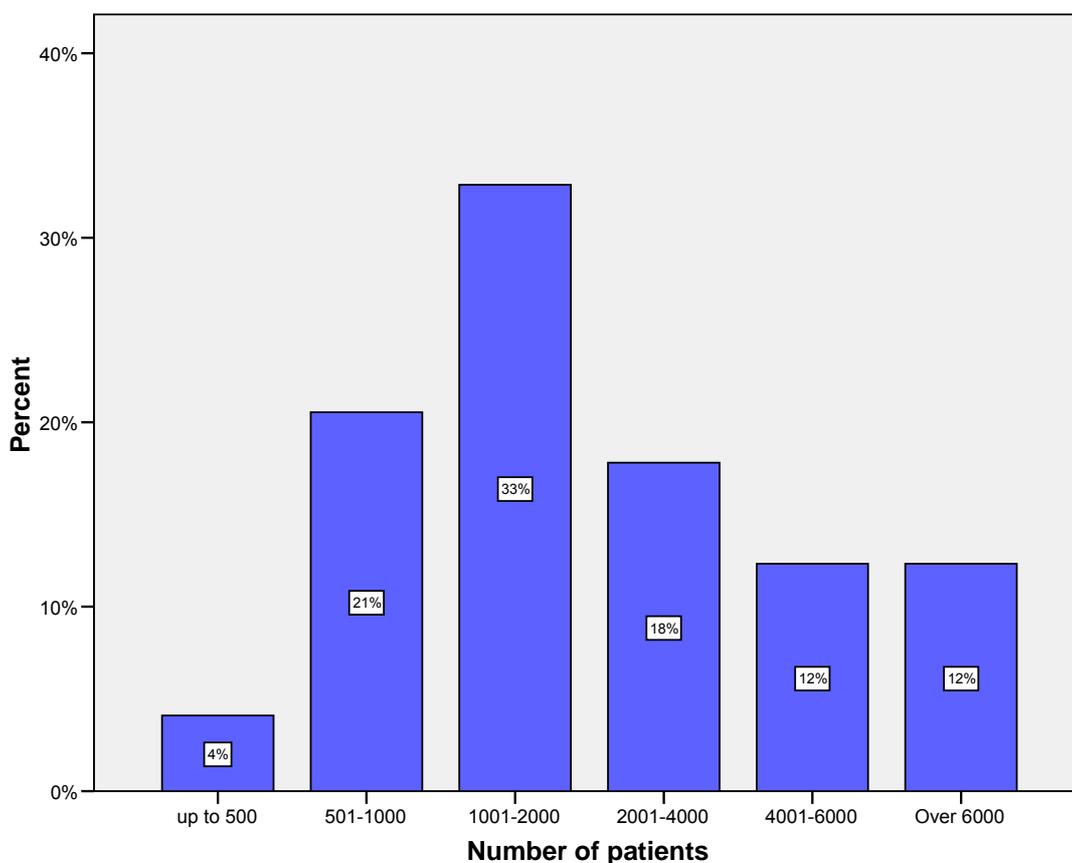
3.2 Practice Details

Figure 3.1 shows that three quarters of practices had over 1,000 patients, with a quarter having under 1,000 patients and almost a quarter (24%) having over 4,000 patients. The average number of patients per practice was 3,344 (SD = 3,663, median = 2,000).

Over a third (35%) of practices had a practice manager. In addition, over a third (35%) reported that their practice had GP(s) with a special interest in diabetes with a third (33%) stating there was a nurse(s) with a special interest in diabetes. The majority of practices that had a GP with a special interest in diabetes also had a nurse(s) with a special interest in diabetes (88%).

Diabetes registers were maintained by a third (33%) of practices. A significantly larger proportion of practices that had a GP or a nurse with a special interest in diabetes maintained a diabetes register (72% compared to 28%; Pearson's Chi square, $p = 0.000$).

Figure 3.1: Estimated Number of Patients in Practice



3.3 Utilisation of Computers

The majority of hospital letters (62%), laboratory results (61%), and patient consultations (67%) are created and maintained in electronic format. It can be seen from table 3.1 that the main software used for those that create electronic patient consultations are Medicom Dynamic GP (57%) and GP Mac (22%). Under a third (31%) reported that their software had a diabetes module. However ten of the practices did not know if they had this module. Half the practices with a diabetes module stated that they used it.

Table 3.1: Software Used by Practices that Create Electronic Consultations

Software used	No. of practices	%
Medicom Dynamic GP	28	57
GP Mac	11	22
Socrates	3	6
GP Clinical	3	6
Health 1	2	4
Easy GP	2	4

3.4 Number of Patients with Diabetes

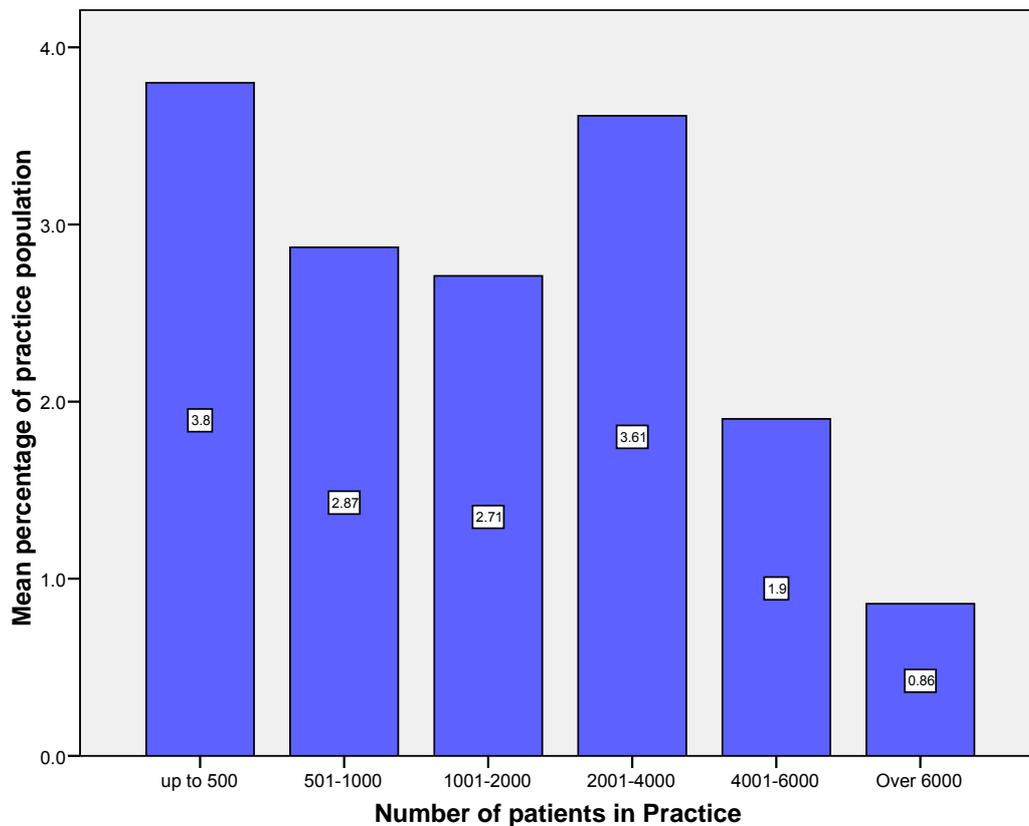
Respondents were asked to estimate the number of individuals with clinically diagnosed diabetes in their practice. Estimates were given by 86% of respondents. For respondents that were able to provide estimates, table 3.2 shows that 38% of practices have over 50 individuals with diabetes (mean = 57.9).

Table 3.2: Estimated Number of Individuals with Clinically Diagnosed Diabetes

Estimated number	No. of practices	%
1-10	6	9
11-20	9	13
21-30	12	18
31-50	15	22
51-100	14	21
Over 100	11	17

An estimated 2.7% of patients attending each practice had diabetes. Figure 3.2 shows that the proportion of people with diabetes does vary by practice size. Practices which have up to 500 patients have the largest proportion (3.7%) and practices with over 6000 patients have the lowest proportion of their patient population that have diabetes. Differences in the proportion of people with diabetes by practice size were not statistically significant (Oneway ANOVA, $p = 0.085$).

Figure 3.2: People with Diabetes as a Percentage of Practice Population by Practice Size



3.5 Diabetes Patients in Nursing Homes/Residential Care

Over half (56%) of respondents reported that their practice had diabetes patients that were in nursing homes/residential care. For these practices, the average number of patients in this type of care was 3.6, with 82% having 1-5 patients and 18% having over five patients. Two respondents reported that their practice had ten or more patients in nursing homes/residential care. Diabetes care for practices with patients in nursing homes/residential care was provided by the GP (97%), hospital specialist services (83%), and the nursing home nurse (3%).

3.6 Diabetes Clinics

Specific clinics for patients with diabetes were reported by 10% of respondents. Table 3.3 shows that three quarters of these clinics were led by a nurse funded by a pharmaceutical company.

Table 3.3: Individuals Leading Specific Diabetes Clinics

Individuals leading clinics	No.	% *
Pharmaceutical nurse led	6	75
Practice nurse led	2	25
Combined Practice nurse and GP	1	12
GP led	0	0

* Multiple response, therefore percentages may not add to 100%

Respondents were also asked about other times (other than specific clinics) when patients are seen for diabetes care (table 3.4). Over half reported seeing patients at opportunistic appointments (55%), with 46% providing care at patient initiated appointments and 41% seeing patients at doctor or nurse initiated appointments.

Table 3.4: Other Times When Patients Seen by Practice for Diabetes Care

Other times	No.	% *
Opportunistic appointments (patient is being seen for something else other than diabetes)	43	55
Patient initiated appointments specifically for diabetes	36	46
Doctor or nurse initiated appointments specifically for diabetes	32	41
Other	4	5

* Multiple response, therefore percentages may not add to 100%

3.7 Managing Type 2 Diabetes

Twelve percent of respondents stated that their practice had a formal call and recall system for review of type 2 diabetes patients. Table 3.5 shows the tests/procedures that would be undertaken as part of a check up of type 2 diabetes patients. For 13 out of the 17 specified procedures, over three quarters of all respondents stated that the procedures were undertaken. Procedures undertaken by lower proportions of respondents included microalbuminuria (59%), albumin: creatinine ratio (53%), feet examination (55%), and eye examination (42%). Those not reporting that they examined feet stated that they occasionally checked (11%), checked if symptomatic (17%), asked patients about their feet (14%) or referred to chiropody (11%). Those not reporting that they examined eyes stated that they referred patients to other services

(51%), checked if symptomatic (7%), occasionally checked (7%), or that this was done at hospital (2%).

Table 3.5: Procedures Undertaken as part of a check up of Type 2 Diabetes Patients

Procedures undertaken	No.	% *
Review medication	78	100
Blood pressure	77	99
Smoking status	77	99
Lipids	76	97
Review of blood glucose monitoring diary	73	94
HbA _{1c}	73	94
Serum creatinine	72	92
Dietary review	71	91
Fasting glucose	67	86
Dipstick	64	82
Aspirin therapy status	62	79
Height/weight (body mass index)	52	67
Microalbuminuria	46	59
Random glucose	45	58
Feet examination	43	55
Albumin: creatinine ratio	41	53
Eye examination	33	42
Other	24	31

* Multiple response, therefore percentages may not add to 100%

Respondents were asked (in an open ended question) how they would manage a patient with newly diagnosed type 2 diabetes. Responses were received from 87% of participants (table 3.6). A wide variety of responses were received, with the most frequently stated being to give education, information, and advice (54%), test bloods (50%), refer to diabetes hospital services (46%), and start oral medication if required (35%).

Table 3.6: How patients with newly diagnosed Type 2 Diabetes are managed

How managed	No.	% *
Provide education/information/advice on type 2 diabetes (e.g. diet, complications etc)	37	54
Blood tests (e.g. fasting glucose, cholesterol, lipids)	34	50
Refer to hospital diabetes services	31	46
Start oral medication if required	24	35
Refer to dietician	18	26
Refer to ophthalmologist for retinal screening	13	19
Refer to Chiropodist	9	13
Give glucometer/self blood glucose monitoring	12	18
Regular review in practice	11	16
Physical examination	8	12
Blood pressure measurement/control	8	12
Managed in practice, referred if complications	4	6
Routine tests	4	6
Test urine/urine monitoring	6	9
Weight\BMI measurement	5	7
Confirm diagnosis	3	4
Medication referral	2	3
Other	6	9

* Multiple response, therefore percentages may not add to 100%

3.8 Screening for Diabetes

Screening asymptomatic patients was reported to be undertaken in 96% of practices. Those that did screen for diabetes were given a list of 10 factors and asked if they were considered when screening patients for diabetes (table 3.7). It can be seen that eight out of ten factors were considered by 70-100% of respondents. Factors considered by the highest proportion of respondents included family history of diabetes (100%), obesity (99%), and hypertension (95%). Factors considered by the lowest proportion of respondents included ethnic origin (43%), and pregnant women (58%).

Table 3.7: Factors Considered when Screening Patients for Diabetes

Factors considered	No.	% *
Family history of diabetes	74	100
Obesity	73	99
Patients with hypertension	70	95
Patients with ischemic heart disease	67	91
Women with history of gestational diabetes	66	89
Patients with peripheral vascular disease	66	89
Age	60	81
Patients with cerebrovascular disease	52	70
All pregnant women	43	58
Ethnic Origin	32	43
Other	10	14

* Multiple response, therefore percentages may not add to 100%

Respondents that screened patients for diabetes were also given a list of tests and asked which ones they used (table 3.8). Over half reported using five of the six tests. Urinalysis (81%) and fasting venous glucose (87%) were used by the largest proportion of respondents. Glucose tolerance testing (51%) and random capillary glucose (49%) were used by the lowest proportion of respondents. On average, 3.6 out of the six listed tests were used.

Table 3.8: Tests used when Screening Patients for Diabetes

Tests used	No.	% *
Fasting venous glucose	64	87
Urinalysis	60	81
Random venous glucose	44	60
Glucose tolerance testing in the Practice	38	51
Fasting capillary glucose (using glucose meter)	37	50
Random capillary glucose	36	49

* Multiple response, therefore percentages may not add to 100%

3.9 Use of Dietetic Services

Dietetic Services are referred to by 91% of respondents. Respondents were asked an open-ended question about where they referred patients to for Dietetic Services. Responses were received from 72% of respondents for patients with medical cards and 62% for patients without medical cards. Table 3.9 shows that medical card patients are mainly referred to Community Nutrition & Dietetic Service (48%) and UCHG/hospital (18%). Non medical card patients

are mainly referred to the Community Nutrition & Dietetic Service (33%) and to private Dietitians (31%).

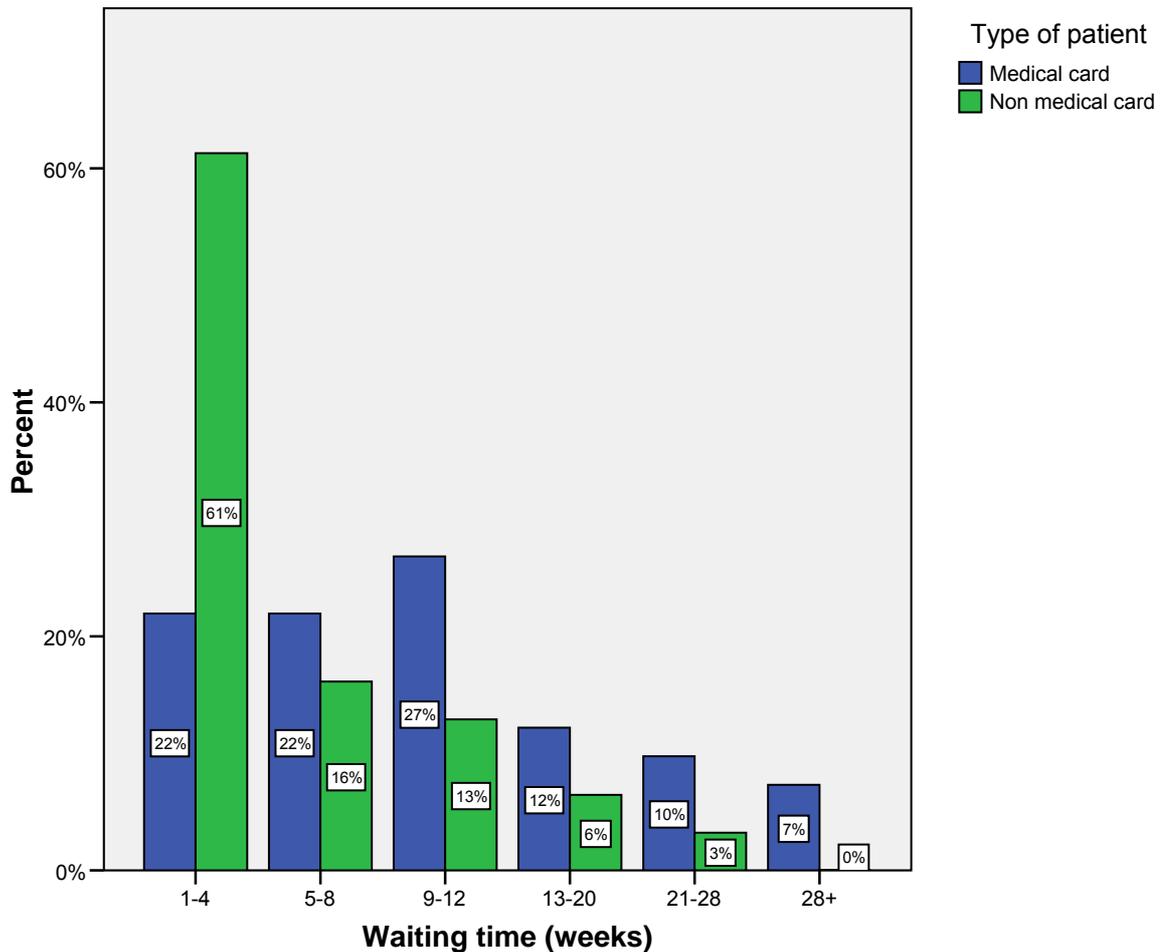
Table 3.9: Where Refer Medical card and non Medical card Patients for Appointment with Dietitian

Where refer	Medical card patients		Non Medical card patients	
	No.	% *	No.	% *
Community Nutrition & Dietetic Service	29	48	16	33
UCHG/Hospital	10	18	5	10
Dietitian (Health Service Executive)	5	9	3	6
Dietetics Department/Service	4	7	2	4
Outpatients department	2	4	2	4
Diabetic clinic	2	4		
Dietitian	2	4	1	2
Dietitian nurse	1	2		
Private Dietitian	1	2	15	31
Specialists			1	2
Private endocrinologist			1	2
Hospital Dietitian			2	2

* Multiple response, therefore percentages may not add to 100%

Respondents referring patients to dietetic services also gave an estimate of how long their patients had to wait for an appointment. Responses were received from 53% of respondents for patients with medical cards and 40% for patients without medical cards (figure 3.3). It can be seen that 56% of patients with medical cards are perceived as waiting over 9 weeks compared to 22% of those without a medical card. The perceived wait for the majority (61%) of non medical card holders for an appointment was 1-4 weeks compared to 22% of those with a medical card waiting 1-4 weeks. The average (perceived) waiting time for patients with a medical card was 12.65 weeks compared to 5.46 weeks for those without a medical card. These differences are statistically significant (paired T test, $p = 0.006$).

Figure 3.3: Waiting Time to see Dietitian for Medical card and non Medical card Patients



3.10 Use of Podiatry (Chiropody) Services

Podiatry (chiropody) Services are referred to by 82% of respondents. Respondents were asked an open-ended question about where they referred patients to for Podiatry (chiropody) Services. Responses were received from 71% of respondents regarding patients with medical cards and 67% for patients without medical cards. Table 3.10 shows that medical card patients are mainly referred to a HSE Clinic (37%) and Community Care (21%). Non medical card patients are mainly referred privately (87%).

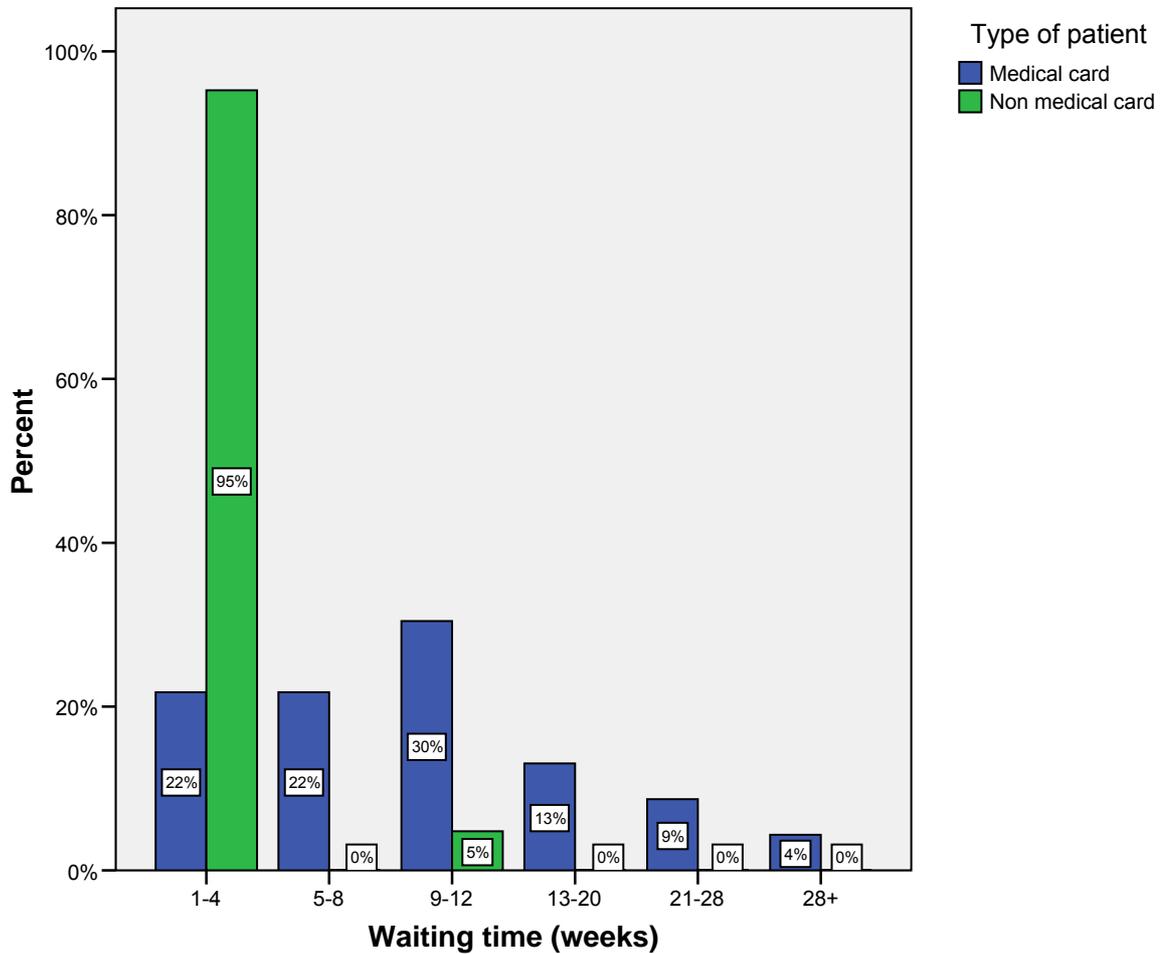
Table 3.10: Where Refer Medical card and non Medical card Patients for Appointment with Chiropodist

Where refer	Medical card patients		Non Medical card patients	
	No.	% *	No.	% *
HSE Clinic	20	37	1	2
Community Care/community chiropody	11	21		
Local health centre/clinic	5	9		
Local Chiropodist/chiropody service	5	9	2	4
HSE Service	6	11		
HSE Chiropodist	4	7	2	4
HSE day centre for elderly	2	4		
UCHG	1	2		
Don't know	1	2	1	2
Privately			45	87
Oranmore/Claregalway			1	2

* Multiple response, therefore percentages may not add to 100%

Respondents referring patients to chiropody services also gave an estimate of how long their patients had to wait for an appointment. Responses were received from 30% of respondents for patients with medical cards and 27% for patients without medical cards (figure 3.4). It can be seen that 56% of patients with medical cards are perceived as waiting over 9 weeks compared to 5% of those without a medical card. The majority (95%) of non medical card holders are perceived to have waited 1-4 weeks for an appointment compared to 22% of those with a medical card. The average (perceived) waiting time for patients with a medical card was 11.04 weeks compared to 1.85 weeks for those without a medical card. These differences are statistically significant (paired T test, $p = 0.002$).

Figure 3.4: Waiting Time to see Chiropodist for Medical Card and non Medical Card Patients



3.11 Retinal Screening

Patients are referred for retinal screening by 68% of respondents. Respondents were asked an open-ended question about where they referred patients to for retinal screening. Responses were received from 63% of respondents for patients with medical cards and 55% for patients without medical cards. Table 3.11 shows that medical card patients are mainly referred to the Ophthalmology Department, UCHG (43%), to UCHG (20%), and to the Endocrinology/Diabetes Clinic (14%). Non medical card patients are mainly referred to a private Ophthalmologist (21%), an eye Consultant/Specialist (18%), a private referral (12%), and to the Ophthalmology Department, UCHG (12%).

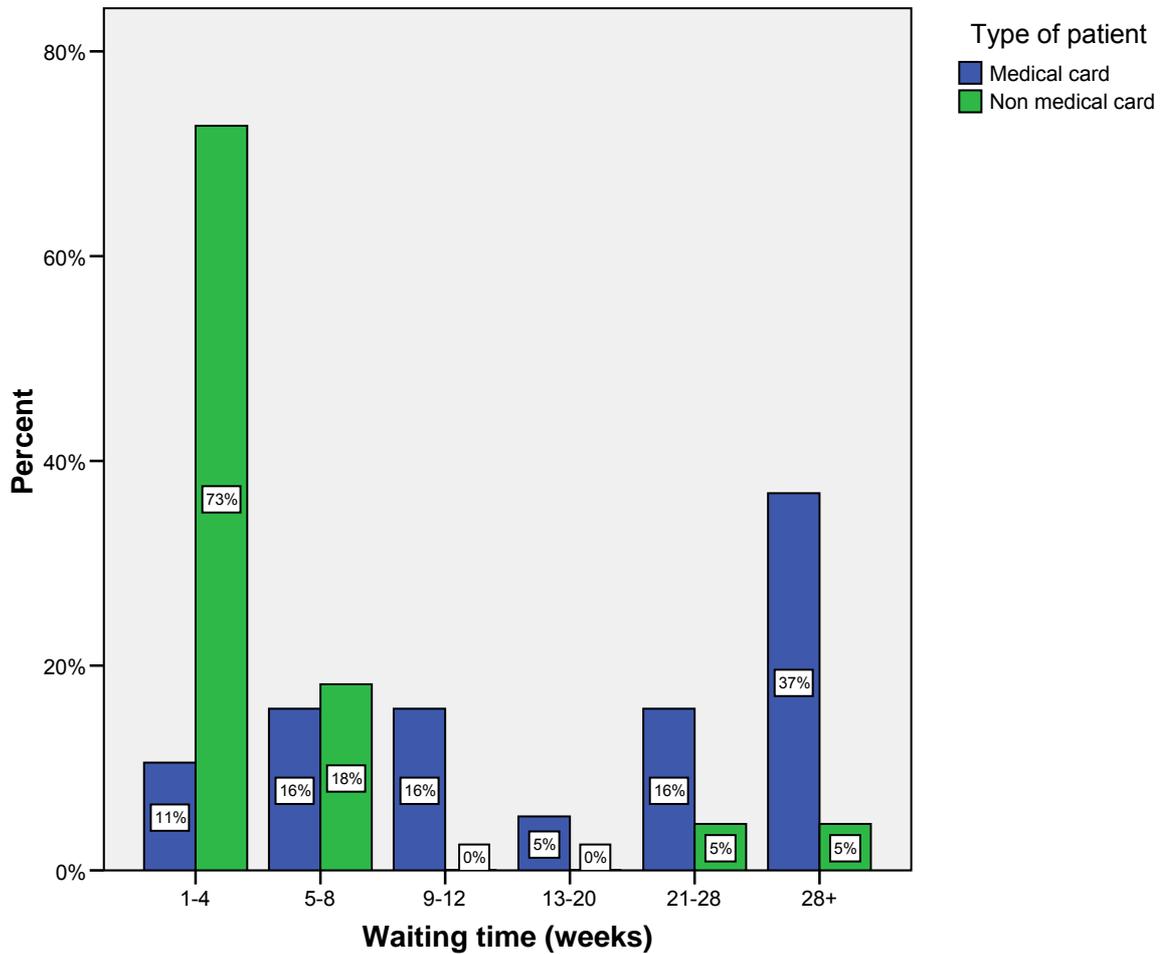
Table 3.11: Where Refer Medical card and non Medical card Patients for Appointment for Retinal Screening

Where refer	Medical card patients		Non Medical card patients	
	No.	% *	No.	% *
Eye clinic/ophthalmology Dept, UCHG	21	43	5	12
UCHG	10	20	2	4
Endocrinology/diabetes clinic	7	14	4	9
Community Ophthalmology Service	3	6	2	4
Sent for private assessment (e.g. spec savers)	2	4	1	2
Ophthalmologist	2	4	2	4
Ophthalmology	1	2	1	2
Galway eye clinic	1	2	1	2
HSE Ophthalmology Service	1	2	1	2
Eye consultant/specialist	1	2	8	18
Private Ophthalmologist			9	21
Local Optician			3	7
Private referral			5	12
Bons/Galway Clinic			1	2

* Multiple response, therefore percentages may not add to 100%

Respondents referring patients for retinal screening also gave an estimate of how long their patients had to wait for an appointment. Responses were received from 24% of respondents for patients with medical cards and 28% for patients without medical cards (figure 3.5). It can be seen that 74% of patients with medical cards waited over 9 weeks compared to 10% of those without a medical card. The majority (73%) of non medical card holders waited 1-4 weeks for an appointment compared to 11% of those with a medical card. The average waiting time for patients with a medical card was 30.3 weeks compared to 8.4 weeks for those without a medical card. These differences are statistically significant (paired T test, $p = 0.001$).

Figure 3.5: Waiting Time for Retinal Screening for Medical card and non Medical card Patients



3.12 Referring to Local Hospital Specialist Team

Eighty nine percent of respondents reported that they always referred to the local hospital specialist team at the time of transition from tablets to insulin in patients with type 2 diabetes. Almost a third (32%) of practices referred patients with suspected type 2 diabetes (table 3.12).

Table 3.12: Frequency of Referring to Local Hospital Based Specialist Team

Team members	Always		Sometimes		Rarely/ Never	
	No.	%	No.	%	No.	%
Patients with suspected type 2 diabetes	24	32	33	45	17	23
Transition to insulin in type 2 diabetes	66	89	8	10		
Other (depending on management, no better on medication, test diabetes)	6	100				

3.13 Use of Guidelines for the Care of patients With Diabetes

Guidelines were used by 56% of respondents for the care of their patients with diabetes. A variety of guidelines were used, with the most popular being the Irish College of General Practitioners (37%), and the Health Service Executive West Diabetes Resource Manual (16%).

3.14 Opportunities for Developing Diabetes Care

Respondents were given a list of seven issues and asked to state which of them they saw as being the principal opportunities for developing diabetes care in practice (table 3.13). It can be seen that the most frequently stated principal opportunities were GP/Practice Nurse training in diabetes care (67%), easier access to specialist diabetes advice (63%), and increased access to community services (62%). In addition, 18% stated that there were other opportunities for developing diabetes care in practice. Table 3.14 shows that a variety of other opportunities were given, with the most frequently stated being more financial resources (21%), more time (14%), and adequate retinal screening (14%).

Table 3.13: Principal Opportunities for Developing Diabetes Care in Practice

Principal Opportunities	No.	% *
GP/Practice Nurse training in diabetes care	52	67
Easier access to specialist diabetes advice	49	63
Increased access to community services (e.g. chiropody)	48	62
Local guidelines on diabetes care	34	44
Access for all diabetes patients to free GP care	28	36
Other	14	18
Access to phlebotomy services	8	10
Easier access to laboratory results	1	1

* Multiple response, therefore percentages may not add to 100%

Table 3.14: Other Opportunities for Developing Diabetes Care in Practice

Other Opportunities	No.	% *
More financial resources	3	21
Adequate retinal screening/retinal screening huge problem in community	2	14
Time	2	14
Training for eye screening	1	7
Allocation of nurse for regular sessions	1	7
Dietitian services	1	7
More help	1	7
Remuneration for structured care in primary care setting	1	7
Resources	1	7
Space	1	7
Virtual consultation	1	7
Need centralised HSE register (e.g. reminding patients about annual review)	1	7
Access to advice	1	7

* Multiple response, therefore percentages may not add to 100%

3.15 Remuneration for Diabetes Care

In terms of remuneration for providing diabetes care, 47% stated that there should be a mixture of capitation and fee per item, with almost a quarter (24%) reporting that remuneration should be on a fee per patient episode basis (table 3.15).

Table 3.15: How GPs should be remunerated for providing Diabetes Care

How should be remunerated	No.	%*
Mixture of capitation and fee per item	35	47
Fee per patient episode	18	24
Target driven payments	11	15
Grant to Practice	8	11
Capitation grant	2	3

3.16 Further Comments.

Respondents were given the opportunity to provide any comments regarding diabetes care. Comments were received from 54% of respondents (table 3.16). A wide variety of comments were received with the most frequently stated referring to grants/remuneration (24%), the need for extra staff such as Community Diabetes Nurse Specialists and Practice Nurses (22%), improving communication between primary and secondary services (16%), GP training (14%), access to chiropody (12%), and the time consuming nature of diabetes care (12%). The following are examples of comments that were received:

"We have an excellent service in Galway city; we are spoiled for choice. I would feel that diabetes management is a disease that should be totally managed and lends itself to virtual consultation, this would greatly reduce OPD numbers and allow easier access to problem cases....."

"We would use a diabetic clinic here given proper payments and backup but after 31 years in medicine and 24 of those is general practice I won't hold my breath waiting for any decent initiative from the HSE."

"Currently there is no grant/payment for care of diabetics in GP practice. To assume nearly complete care of our diabetics would be costly and also currently difficult - until we take on a practice nurse. There is no serious benefit (to patient, GP or health board) for the

majority of our diabetics to be attending the hosp clinics. Most of our diabetics are stable, in terms of medication. Unfortunately those that are not complying with testing or medication are not improved by attending clinics. It doesn't change their behaviour. I do not like us being out of touch with our diabetics either - never seeing them (for those solely going to clinics). The biggest gain for our diabetics going to hops - is enhanced education for them. At times specialist advice is necessary but rarely enough."

"I find the diabetic clinic in UCH Galway exceptional and have found no fault with it; my patients using it are of the same mind."

"I am very pleased with the care my diabetic patients receive when they attend the diabetic clinic, but I would welcome any initiative so that patients are not waiting over six months for an appointment."

Table 3.16: Further Comments/Suggestions

Further comments	No.	% *
Grants/remuneration	10	24
Need extra staff (e.g. Community Diabetic Nurse Specialist, Practice Nurse)	9	22
Improve communication (e.g. primary and secondary services)	7	16
GP Training/upskilling to provide total care in the community	6	14
Access to chiropody/streamline chiropody services	5	12
Access to specialist advice (e.g. by phone or email)	5	12
Diabetes care very time consuming	5	12
Type 2 diabetes can be managed in primary care	4	10
Guidelines/protocols for diabetes care	4	10
Improve eye services (e.g. fundal screening, mobile service)	4	10
Excellent service from UCHG	4	10
Develop a shared care card	3	7
Long waiting time for Dietitian/need to streamline service	3	7
Need for regular review of patients (e.g. every three months)	2	5
Patients should have annual eye appointment	2	5
Community phlebotomy	2	5
Need programme for diabetic patients similar to heartwatch	2	5
All diabetic patients should be given a glucometer	1	2
Patients should see chiropodist annually	1	2
Not confident with eye screening	1	2
Follow template from structured diabetes care software program	1	2
Computerised database, recall system, and register	1	2
Need extra resources	1	2
Information about diabetic services	1	2
Would like to be a visiting supernumerary for day in OPD	1	2
Great improvement in diabetic care in last 3-5 years	1	2
Need to reduce waiting time to diabetic clinic, UCHG	1	2
Diabetic module on PC (medicom) not user friendly	1	2
Overall happy with consultants service	1	2
Excellent service in Galway city	1	2
Query need to annually apply to GMS to pay for funduscopy	1	2
More links with psychiatric service	1	2
Fast track service for urgent cases	1	2

* Multiple response, therefore percentages may not add to 100%

4. DISCUSSION

4.1 Introduction

The study aimed to establish the care provided for patients with diabetes in the general practice setting and involved a postal survey of all GP Practices in Galway City and County. By achieving a 76% response rate, the study does provide a valuable insight into diabetes care in the general practice setting. The key issues arising from the study will now be discussed.

4.2 Number of Patients with Diabetes

Estimates from each practice showed that each on average have 58 patients with diabetes. There was however considerable variation between practices. An estimated 2.7% of patients attending each practice have clinically diagnosed diabetes. This compares to an estimated 4.7% (diagnosed and undiagnosed) for Ireland (Institute of Public Health in Ireland (2006)). Whilst acknowledging that GPs estimates would not be as accurate as an audit of diabetes prevalence within each practice, the results do highlight the issue of undiagnosed diabetes and the need to have a systematic process for opportunistic screening within practices.

4.3 Managing Patient Data

Having a register of patients with diabetes in the primary care setting is fundamental in terms of developing a systematic approach to diabetes care. Registers are particularly useful in terms of identifying inadequate levels of care provision, providing annual reviews and screening programmes, tracking non attendance at appointments, and monitoring patterns of diabetes at a primary care, regional, and national level. It has been shown that having a computerised register within general practice contributes to better quality of care (Harris et al, 2002).

Our study found that only a third of practices in the Galway area maintain a diabetes register. This is somewhat lower than that found in a national study of General Practices in Ireland (41%, O' Sullivan, 2006). A similar study undertaken in Northern Ireland found that 92% of practices had diabetes registers (Kenny et al, 2002). In a UK study by Williams et al (2002) 69% of Primary Care Organisations had a local diabetes register.

There is a clear need for diabetes registers to be established within General Practices in Galway. Systems should be established to facilitate the development and maintenance of registers in GP Practices. This could help contribute towards the development of a national diabetes register. This does raise the issue of the provision of incentives for GPs to manage diabetes. The higher proportion of practices and Primary Care organisations with diabetes registers in the UK (Kenny et al, 2002, Williams et al, 2002) may reflect the funding of General Practice within the NHS. GP practices can earn significant extra funding for improving the health and care of people with long-term conditions, including diabetes. To do this they are required to be proactive and ensure people with diabetes maintain the best health possible by getting the right care at the right time.

Management of patients with diabetes can also be enhanced by utilising computer software packages designed specifically for diabetes consultations. It is possible for such packages to incorporate electronic diabetes registers. It is disappointing that only 31% of respondents reported that the computer software in their practice had a diabetes module with only half of these respondents using the module. One respondent reported that their

diabetes module was not user friendly and that despite linking with the provider company the difficulties had not been resolved. Other than this, it is unclear why practices that have diabetes modules do not use them. Some anecdotal evidence suggests that there may be a need to improve systems of classification. However, as ten respondents did not know if they had a diabetes module, there is scope to raise awareness of the availability of diabetes modules for each of the current software packages used to create electronic consultations within general practice.

4.4 Managing Diabetes Care

To provide effective care within the primary care setting, it is important that a structured system of diabetes management is adopted. The study findings suggest that there is a lack of structured care in a significant proportion of the practices. Only 41% of respondents stated that they have doctor or nurse initiated appointments specifically for diabetes. In addition, only 12% stated that their practice had a formal call and recall system for reviews of type 2 diabetes, with one in ten having specific diabetes clinics. When undertaking a check-up for type 2 diabetes, there also seems to be a lack of standardisation in terms of the procedures undertaken. When asked about managing newly diagnosed type 2 diabetes, responses highlighted the need to employ standardised protocols. Indeed, only just over a half of respondents used guidelines for the care of their patients with diabetes. The overall lack of a structured approach is of concern as it has been shown that unstructured primary health care provision for diabetes leads to poor outcomes due to reduced monitoring, screening, and patient follow up (Smith et al, 2004). A more structured form of diabetes management in primary care settings should therefore be employed following agreed protocols.

Evidence-based guidelines should be used for the management of patients with diabetes. GPs in the West of Ireland currently have a choice of guidelines that they can use to inform their management of patients with Type 2 diabetes. In 2008 the Irish College of General Practitioners released "A Practical Guide to Integrated Type 2 Diabetes Care". This document has been endorsed by the Diabetes Expert Advisory Group of the HSE and by the Irish

Endocrine Society. A locally developed "HSE West Diabetes Resource Manual" was released in 2007 with an update planned for 2009. As well as providing clinical practice recommendations, it also includes a guide to local diabetes services in each of the former health board areas of the HSE West.

Guidelines in the absence of remuneration initiatives will not be adequate to improve the quality of diabetes care. Adherence to guidelines does have resource implications for practices and for those using services. For example, if a practice sets up a call and recall system for people with type 2 diabetes, the additional workload would not be remunerated for those with GMS cards, whilst those without GMS cards would have to pay for these services. In practices with large numbers of patients, consideration should be given to providing diabetes clinics as part of a structured approach. In such cases it will be important to liaise with local specialist services to ensure that duplication of service provision does not take place.

The study has also demonstrated that more diabetes care could potentially be managed in the community. For example, when asked about managing patients with suspected type 2 diabetes, almost a third of respondents reported always referring such patients to the local hospital specialist team. Newly diagnosed type 2 diabetes can be effectively managed within the primary care setting if services such as diabetes education are made accessible to them within the community. For this to occur, adequate resources need to be provided. In particular the study highlighted the need for funding, skills and training, and access to services within the community. With no incentives to provide diabetes care, it is not surprising that many practices refer newly diagnosed patients to the local hospital specialist team. Indeed, the issue of grants and remuneration was highlighted by 24% of GPs as a suggestion to improve the service. A review of the resource requirements for community based diabetic services within primary care teams should be undertaken. In addition, the provision of incentives to GPs to manage people with diabetes should also be considered.

4.5 Skills for Diabetes Management

With the shift in the care and management of people with diabetes to community based settings, it is important that GP practices have access to the necessary skills for this to be effectively achieved. Currently only a third of practices report having either a GP or Practice Nurse with a special interest in diabetes. This does not compare favourably with the UK (Williams et al, 2002) where 73% of general practices reported having a GP and 87% reported having a Practice Nurse with a special interest in diabetes. To promote best practice diabetes management, it would be important that all practices have access to the necessary skills for this to be achieved. The need to provide additional training is reinforced by the fact that over two thirds of respondents stated that training for GPs and Practice Nurses was a principal opportunity for developing diabetes care. Further training was also stated by 14% of GPs as a suggestion to improve the service. There is also evidence to suggest that increased interest in diabetes through training could increase the development of diabetes registers which should also contribute to improving the quality of care (Harris et al, 2002).

4.6 Opportunistic Screening

It is possible for an individual to have type 2 diabetes for many years without experiencing any symptoms. It is estimated that approximately one third of all people with diabetes may be undiagnosed (American Diabetes Association, 2004). As those with undiagnosed diabetes can exhibit complications at diagnosis (Wareham and Griffin, 2004), screening for diabetes in patients can be effective in minimising the impact of late diagnosis (World Health Organisation, 2003, Ealovega et al, 2004). It is therefore promising that 96% of respondents reported that their practice did screen people without symptoms (although it is not known how often this is undertaken). The results also suggest that practices are targeting screening at specific subgroups which has been shown to be the most appropriate screening method (Wareham and Griffin, 2004). In terms of the risk factors considered when screening, eight out of the ten factors (that GPs were asked about in the survey) were considered by almost three quarters of respondents. Having a family history of diabetes was the only factor considered by all respondents. Minority ethnic groups have an increased risk of

diabetes (Agency for Healthcare Research and Quality, 2001). With Ireland's changing ethnic composition, this should be taken into consideration when screening. Overall, it would be important to ensure that all GPs are made aware of the factors to be considered when screening patients for diabetes. The development of a standardised set of screening criteria may facilitate the adoption of best practice.

In terms of diagnostic tests, the majority of respondents are using a combination of tests. It would be important for GPs to be kept up to date with the best tests for screening. For example, the usefulness of urinary glucose testing (used by 80% of respondents) has been found to be limited (World Health Organisation, 2003, p10).

4.7 Dietetic Services

As diet plays a key role in the management of diabetes (The Diabetes and Nutrition Study Group of the European Association for the Study of Diabetes, 2000, Nutrition Subcommittee of the Diabetes Care Advisory Committee of Diabetes UK, 2003, American Diabetes Association et al, 2005), it is important that practices have access to dietetic support. Although the frequency of referral was not sought, 91% of respondents stated that they referred patients to dietetic services. The main sources of referral were the Community Nutrition & Dietetic Service, Hospital based Services, and private Dietitians.

Dietitians based in University Hospital Galway only take referrals from hospital consultants. Any referrals that they receive from GPs are redirected to the Community Nutrition & Dietetic Service. It is clear that services need to be better integrated, with clients referred to the appropriate service, and with clients not receiving the same service from more than one service provider. This issue has been recognised by the Community Nutrition & Dietetic Service, who appointed a Community Diabetes Dietitian for County Galway in 2007. A key role of this position is the integration of dietetic services for all patients with diabetes. Further integration between services may also be achieved by ensuring that the current GP referral criteria for dietetic services explicitly states when and how (if ever) a referral should be made to hospital and community

dietetic services. This will require the development of new referral criteria. In addition, systems will need to be developed to check which services patients have attended. The Community Nutrition & Dietetic Service is currently addressing this issue. This could also help to reduce waiting times for dietetic services, as the results suggest that waiting times for HSE services are over double that of a private dietician. Although the number of respondents giving waiting times was small, targets need to be set to reduce waiting times for dietetic services, particularly for those individuals with newly diagnosed diabetes. To achieve this, systems need to be set up to monitor waiting times. This will help to reduce inequalities between public and private patients.

4.8 Podiatry (Chiropody) Services

Foot problems such as ulcers and amputations are a dreaded complication for people with diabetes. Early recognition and management can help prevent or delay the onset of adverse outcomes (American Diabetes Association, 2004). Although the frequency of referrals was not sought in the current study, it is noteworthy that 82% of respondents referred patients to Chiropody Services. As with Dietetic Services, Hospital based Services, Community based Services, and private Chiropodists were referred to, suggesting a need to ensure services are integrated by developing referral criteria and systems for checking which services patients have attended. With the recent establishment of the School of Podiatry in NUI Galway, it is hoped that Podiatry Services will be enhanced in the region, and that standards can be set and monitored for reviewing foot care for people with diabetes. In addition, there may be scope to develop GP training programmes in foot care. As with Dietetic Services (but to a greater extent), the results suggest waiting times for HSE services are six times longer than that for private services. However, it must be noted that there are no waiting lists to HSE Chiropody services for people with diabetes that are classified as high risk. Although the number of respondents giving waiting times was small, there is a need to ensure equitable access to services. Systems need to be developed to monitor waiting times and achieve standards.

4.9 Retinal Screening

Diabetic retinopathy is the most common cause of new cases of blindness among those aged 20-74 years (American Diabetes Association, 2008). Diabetic retinopathy can be prevented with good glycaemic control, and early recognition and treatment can reduce the risk of blindness (Kristensen et al, 2004). The American Diabetes Association (2008) recommends annual screening for diabetic retinopathy. In our study over two thirds of respondents did refer patients for retinal screening; however, the frequency of retinal screening was not established. Other international studies have found that a large proportion of patients do not receive an annual eye examination (Kristensen et al, 2004). A number of GPs highlighted the need to improve retinal screening services. A screening programme has been planned for the west of Ireland, which should be implemented in 2009. This development should be prioritised.

As with Dietetic and Podiatry Services, Hospital, Community, and private Ophthalmology Services were utilised by GPs, suggesting a need to ensure services are integrated by developing referral criteria and systems for checking which services patients have attended. Similarly, the results suggest that waiting times for HSE services are four times longer than that for private services. Although the number of respondents giving waiting times was small, there is a need to ensure equitable access to services. Systems need to be developed to monitor waiting times and set targets to achieve.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 *Conclusions*

This study provides a valuable insight into diabetes care delivery in Primary Care in the Galway area. These results can be utilised by the Galway, Mayo and Roscommon Diabetes Services Implementation Group (formerly Galway Diabetes Services Advisory Group), the Health Service Executive, and other organisations to develop a more integrated approach to diabetes care. With appropriate caution, the results may also be generalised to other regions of Ireland.

The over riding impression is that diabetes care in the Irish community today is being provided in spite of the health system, rather than because of it. Donald Berwick (1996), an American health systems analyst, states that:

“Every system is perfectly designed to achieve the results it achieves.”

Irish patients are currently receiving fragmentary, un-coordinated, discontinuous and inequitable diabetes care simply because that is what the Irish health system is designed to do.

5.2 *Recommendations*

The following ten recommendations seem appropriate and have been categorised into either being ‘system redesign’ or ‘resource dependent.’

System redesign

1. The development and maintenance of diabetes registers in General Practice should be facilitated.

2. GPs should be made aware of the availability of diabetes modules for each of the current software packages used in general practice.
3. Referral and qualification (GMS and non GMS) criteria to dietetic, podiatry, and retinal screening services should be developed. Systems need to be developed to minimise overlap and duplication between hospital, community, and private services.
4. Targets need to be established for waiting times for dietetic, podiatry and retinal screening services. Systems need to be set up to monitor waiting times.
5. Clinical practice guidelines should be used for the management of patients with diabetes. These should be updated at regular intervals.
6. All GPs should be made aware of the factors to consider when screening for diabetes. A standard set of opportunistic screening criteria for practices should be developed.

Resource dependent

7. GPs and Practice Nurses should be given the opportunity to attend diabetes training programmes. Resources should be provided to help ensure that all practices receive training in high quality diabetes care.
8. Consideration should be given to providing incentives (e.g. financial or other) to GPs to manage diabetes within their practice.
9. A review of the resource requirements for community-based diabetes services should be undertaken within primary care teams.
10. Consideration should be given to providing diabetes clinics in practices with large numbers of people with diabetes, as part of a structured approach to diabetes care.

6. REFERENCES

Agency for Healthcare Research and Quality (2001) Diabetes Disparities among Racial and Ethnic Minorities, Rockville, USA.

Available at:

<http://www.ahrq.gov/research/diabdisp.pdf> Accessed 6th October 2008.

American Diabetes Association (2004). Preventative Foot care in Diabetes, Diabetes Care V27 (supplement1). S63-s64.

Available at:

http://care.diabetesjournals.org/cgi/reprint/27/suppl_1/s63

Accessed 6th October 2008.

American Diabetes Association (2004). Screening for Type 2 Diabetes, Position Statement, Diabetes Care V27 Supplement 1.

Available at:

http://care.diabetesjournals.org/cgi/reprint/27/suppl_1/s11

Accessed 3rd October 2008.

American Diabetes Association, North American Association for the Study of Obesity, American Society for Clinical Nutrition (2005). Weight Management Using Lifestyle Modification in the Prevention and management of Type 2 Diabetes: Rationale and Strategies

Available at:

<http://clinical.diabetesjournals.org/cgi/reprint/23/3/130>

Accessed 6th October 2008.

American Diabetes Association (2008). Standards of Medical Care in Diabetes-2008, Diabetes Care, V31 (S1), S12-S54.

Available at:

http://care.diabetesjournals.org/cgi/reprint/31/Supplement_1/S12

Accessed 9th October 2008.

Berwick, D. (1996) A primer on leading the improvement of systems, BMJ V312, p619-622.

Available at:

<http://www.bmj.com/cgi/content/full/312/7031/619?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=%93Every+system+is+perfectly+designed+to+achieve+the+results+it+does.%94&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT>

Accessed 13th February 2009.

Ealovega, M.W. T. Abael, B.P. Brandle, M. Burke, R. Herman, W.H. (2004). Opportunistic Screening for Diabetes in Routine Clinical Practice, Diabetes Care v27 (1), p9-12.

Available at:

<http://care.diabetesjournals.org/cgi/reprint/27/1/9.pdf>

Accessed 3rd October 2008.

Harris, M.F. Priddin, D. Ruscoe, W., Infante, F.A., O'Toole, B. (2002). Quality of care provided by general practitioners using or not using division-based diabetes registers, The Medical Journal of Australia V177, p 250-252.

Available at:

http://www.mja.com.au/public/issues/177_05_020902/har10709_fm.pdf Accessed Sept 15 2008.

Health Service Executive (2008). Diabetes Expert Advisory Group First Report: April 2008, Health Service Executive, Oak House, Millennium Park, Naas, Co. Kildare.

http://www.diabetes.ie/WebSite/Images/Diabetes_EAG_First_Report_08.pdf Accessed December 30 2008.

Institute of Public Health in Ireland (2006). Making diabetes count, A systematic approach to estimating population prevalence on the island of Ireland in 2005, Institute of Public Health in Ireland, Dublin, April 2006.

Available at:

<http://www.inispho.org/files/file/Making%20Diabetes%20Count%201.pdf> Accessed Sept 09 2008.

Kenny, C.J. Pierce, M. McGerty, S. (2002). A survey of diabetes care in general practice in Northern Ireland, *The Ulster Medical journal*, V71 (1), p10-16.

Available at:

[http://www.users.zetnet.co.uk/jil/ums/umj071/071\(1\)010.pdf](http://www.users.zetnet.co.uk/jil/ums/umj071/071(1)010.pdf)

Accessed Sept 15 2008.

Kristensen, J.K. Sandbaek, A. Bro, F. Lassen, J.F. (2004) Routine screening for diabetic eye complications in a population based cohort of 4438 persons with type 2 diabetes in a Danish county, *Danish Medical Bulletin* V51 (1), p104-107.

Available at:

http://www.danmedbul.dk/DMB_2004/0104/0104-artikler/DMB3430.pdf Accessed Oct 10 2008.

Nutrition Subcommittee of the Diabetes Care Advisory Committee of Diabetes UK (2003), The implementation of nutritional advice for people with diabetes, *Diabetes Medicine* V20, p786-807.

http://www.diabetes.org.uk/Documents/Professionals/nutrition_guidelines.pdf Accessed 30th January 2009.

O'Sullivan, T. (2006). National survey of diabetes care in general practice, *Irish Medical Journal*, V99 (4), p104-106.

Available at:

http://www.imj.ie//Issue_detail.aspx?issueid=+&pid=934&type=Papers Accessed Sept 19 2008.

Pierce M, Agarwal G, Ridout D. (2000). A survey of diabetes care in general practice in England and Wales. *British Journal of General Practice*, 50, 542-545.

Available at:

<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1313748&blobtype=pdf> Accessed February 2nd 2009.

Ryan J, Jafar-Mohammadi B, Brassill MJ, Healy C, Hayes R, O'Halloran D. (2006). Helping to improve Adult Diabetes Care in the Community: A survey of General Practitioners in the Southern Area Health Board. Department of Endocrinology and Diabetes Mellitus, Cork University Hospital, Wilton, Cork.

Smith, S. Bury, G. O'Leary, M. Shannon, W. Tynan, A. Staines, A. Thompson, C. (2004). The North Dublin randomized controlled trial of structured diabetes shared care, *Family Practice* V21 (1), p39-45. Available at:

<http://fampra.oxfordjournals.org/cgi/reprint/21/1/39> Accessed Sept 19 2008.

The Diabetes and Nutrition Study Group of the European Association for the Study of Diabetes (2000). Recommendations for the nutritional management of patients with diabetes mellitus, *European Journal of Clinical Nutrition* V54, p353-355.

Available at:

<http://www.nature.com/ejcn/journal/v54/n4/pdf/1600962a.pdf>

Accessed 30th January 2009.

Wareham, N.J. Griffin, S. (2001). Should we screen for type 2 diabetes? Evaluation against National Screening Committee criteria, *BMJ* V322 (21), p986-988

Available at:

<http://www.bmj.com/cgi/reprint/322/7292/986>

Accessed 3rd October 2008.

Williams, D. R. R. Baxter, H. S. Airey, C. M. Ali, S. Turner B. (2002). Diabetes UK funded surveys of the structural provision of primary care diabetes services in the UK, *Diabetic Medicine*, V19 (S4), p21–26.

Available at:

<http://www3.interscience.wiley.com/journal/118953914/abstract?CARTY=1&SRETRY=0> (abstract) Accessed Oct 10 2008.

World Health Organisation (2003). Screening for Type 2 Diabetes, Report of a World Health organisation and International Diabetes Federation Meeting, World Health Organisation, Department of Non-communicable Disease Management, Geneva, p16-20.

Available at:

http://www.who.int/diabetes/publications/en/screening_mnc03.pdf

Accessed 3rd October 2008.

APPENDIX 1

Survey of the Provision of Diabetes Services in Galway City & County

Office use only: Nr _____

Please complete all questions as fully and accurately as you can. This should take no more than 12 minutes. If you have any questions please contact or telephone Dr. Emer O' Connell at 091 775200. We would be grateful if you would answer the following questions by circling the number which corresponds to your answer (e.g. (2)) and return by using the attached **FREEPOST** envelope. *The questions should be answered on the basis of overall policy as opposed to any individual doctor's practice.*

Thank you for your time.

1. About the practice

Q1. Do you have a practice manager?

YES	1
NO	2

Q2a. Are the following created or maintained in electronic format?

	YES	NO
Hospital Letters	1	2
Laboratory Results	1	2
Patient consultations	1 GO TO Q2b	2 GO TO Q3

Q2b. If yes electronic consultations are created, what is the name of the software used by the practice?

Q3. What is the total patient number approximately?

2. Diabetes care delivery

Q4. Do you maintain a diabetes register in the practice?

YES	1
NO	2

Q5. What is the estimated number of individuals with clinically diagnosed diabetes in your practice?

Type 1	
Type 2	

Q6a. Is there a diabetes module on the computer?

YES	1	CONTINUE
NO	2	GO TO Q7
Don't know	3	GO TO Q7

Q6b. If yes, is this module used?

Yes	1
No	2

Q7. Are there any professionals in your practice with a special interest in diabetes?

	YES	NO
GP's	1	2
Nurses	1	2

Q8a. How many diabetic patients does the practice have in nursing homes/residential care?

IF NONE PLEASE GO TO Q9a

Q8b. From whom do these patients receive their medical diabetic care? i.e. reviewing HbA_{1c}
Please circle as many that apply

	YES	NO
GP	1	2
Hospital specialist services	1	2
Other If other, please give details	1	2

Q8c. Do you have any comments on providing diabetic services to patients in these settings-practicalities/suggestions?

Q9a. Does your practice hold specific clinics for diabetic patients?

YES	1	CONTINUE
NO	2	IF NO PLEASE GO TO Q9d

Q9b. If yes, how are these clinics led and how often are they held?

Please circle as many as apply and complete

	YES	NO	Frequency of clinic
GP led	1	2	
Practice nurse led	1	2	
Combined practice nurse & GP	1	2	
Pharmaceutical nurse led	1	2	
Other If other, please give details _____	1	2	

Q9c. Other than specific diabetes clinics, when are patients with diabetes seen in your practice for diabetes care?

Please circle as many as apply

	YES	NO
Yes, Patient initiated appointments specifically for diabetes	1	2
Yes, Doctor or nurse initiated appointments specifically for diabetes (recall for regular review)	1	2
Yes, Opportunistic appointments (patient is being seen for something else other than diabetes)	1	2
Yes, Other	1	2

If other please give details

Q10a Does the practice have a formal call and recall system for reviews of Type 2 diabetic patients?

YES	1
NO	2

Q10b As part of a check up of Type 2 patients which of the following would you do?	Test/Procedure	YES	NO
	Review their medication	1	2
	Review of Blood Glucose monitoring diary	1	2
	Height/weight (BMI)	1	2
	Blood Pressure	1	2
Blood tests:	Fasting glucose	1	2
	Random glucose	1	2
	HbA _{1c}	1	2
	Serum creatinine	1	2
	Lipids	1	2
Urinalysis	Dipstick	1	2
	Microalbuminuria	1	2
	Albumin:creatinine ratio	1	2
Feet examination: Please give details			
Eye Examination: Please give details			
	Dietary Review	1	2
	Smoking status	1	2
	Aspirin therapy status	1	2
Other, please specify			

Q1 How do you manage a newly diagnosed (by you) Type 2 diabetic e.g. referrals, tests etc?

Q12a. Do you screen patients for diabetes in the practice?
 (Of people without symptoms of the target disorder)

YES	1	CONTINUE
NO	2	GO TO Q13

Q12b. If yes, which factors do you consider, when screening your patients for diabetes?

	YES	NO
Age	1	2
Ethnic Origin	1	2
Obesity	1	2
Patients with hypertension	1	2
Family history of diabetes	1	2
Patients with ischaemic heart disease	1	2
Women with history of gestational diabetes	1	2
Patients with peripheral vascular disease	1	2
All pregnant women	1	2
Patients with cerebrovascular disease	1	2
<i>Other, if other please specify</i>		

Q12c. If yes do screen, which tests do you use?

	YES	NO
Urinalysis	1	2
Random capillary glucose	1	2
Fasting capillary glucose (using a glucose meter)	1	2
Random venous glucose	1	2
Fasting venous glucose	1	2
Glucose tolerance testing in the practice	1	2
Refer to hospital laboratory	1	2

3. Use of Services

Q13a Do you refer to dietician services?

YES	1	CONTINUE
NO	2	GO TO Q14a

Q13b. If yes, where do you refer the GMS patient AND how long do these patients have to wait for an appointment?

Q13c. If yes, where do you refer the non-GMS patient AND how long do these patients have to wait for an appointment?

Q14a Do you refer to chiropody services?

YES	1	CONTINUE
NO	2	GO TO Q15a

Q14b. If yes, where do you refer the GMS patient AND how long do these patients have to wait for an appointment?

Q14c. If yes, where do you refer the non-GMS patient AND how long do these patients have to wait for an appointment?

Q15a Do you refer to retinal screening?

YES	1	CONTINUE
NO	2	GO TO Q16

Q15b. If yes, where do you refer the GMS patient AND how long do these patients have to wait for an appointment?

Q15c. If yes, where do you refer the non-GMS patient AND how long do these patients have to wait for an appointment?

Q16. Do you usually refer the following patients to your local hospital based specialist team?

Please tick the appropriate boxes

Patients with suspected Type 2 diabetes
 Transition to insulin in Type 2 diabetics
 Other *please specify*

	Always	Sometimes	Rarely/ Never
Patients with suspected Type 2 diabetes	1	2	3
Transition to insulin in Type 2 diabetics	1	2	3
Other <i>please specify</i>	1	2	3

Q17a Do you use guidelines for the care of your patients with diabetes?

YES	1	CONTINUE
NO	2	GO TO Q18

Q17b. If yes, which guidelines do you use?

4. Opportunities in developing diabetes care

Q18. What do you see as the principal opportunities for developing diabetes care in practice?

Please circle 3 from the following that you consider the most important

GP/Practice nurse training in diabetes care	1
Access to phlebotomy services	2
Easier access to specialist diabetic advice	3
Access for all diabetic patients to free GP care	4
Increased access to community services e.g. chiropody	5
Local guidelines on diabetic care	6
Easier access to laboratory results	7
Other, please detail	8

Q19. How do you think you should be remunerated for providing diabetic care?
*Please circle **one** only*

Grant to a practice?	1
Target driven payments?	2
Fee per patient episode?	3
Capitation grant?	4
Mixture of capitation and fee per item	5

Q.20 We welcome your insight into diabetic care and thus any comments you have are appreciated; whether positive/negative/suggestions for improvements.

Q.21 If you are happy for your practice to be contacted regarding educational or other initiatives, please tick this box

**Thank you for your time.
 Go raibh míle maith agat.**