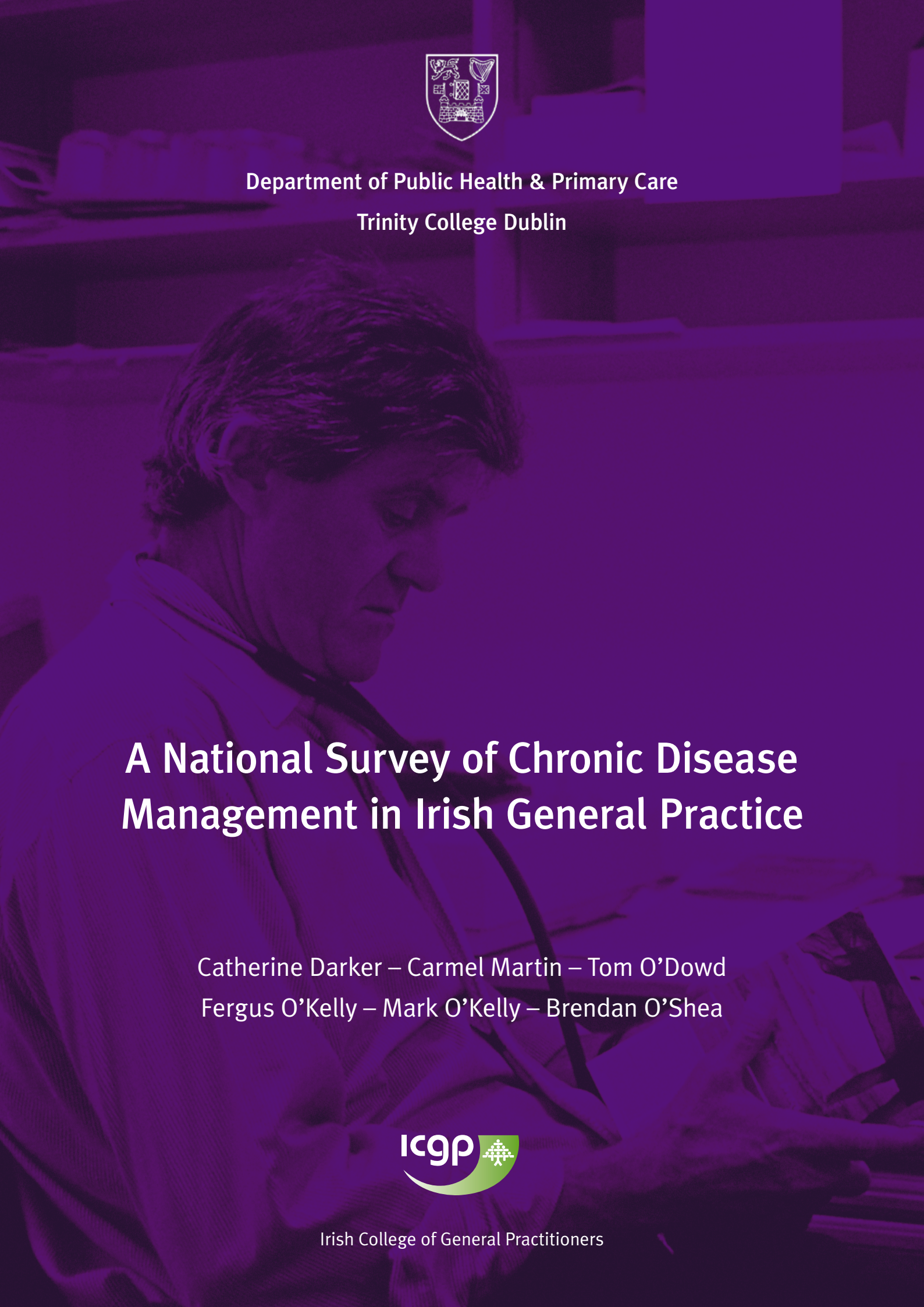


Department of Public Health & Primary Care
Trinity College Dublin

A National Survey of Chronic Disease Management in Irish General Practice

Catherine Darker – Carmel Martin – Tom O'Dowd
Fergus O'Kelly – Mark O'Kelly – Brendan O'Shea

Irish College of General Practitioners

Acknowledgements

The authors wish to acknowledge the following for their contributions to this research:

Dr. Cathy Schoen from the Commonwealth Fund for allowing us access to the original questionnaire that was used in the 11 Country Physician study, along with the results, which enabled us to create the comparative tables in this report.

Staff of the Department of Public Health and Primary Care, TCD, including Assistant Directors and staff of the TCD/HSE Specialist Training Programme in General Practice.

The ICGP for continuing support of general practice in Ireland.

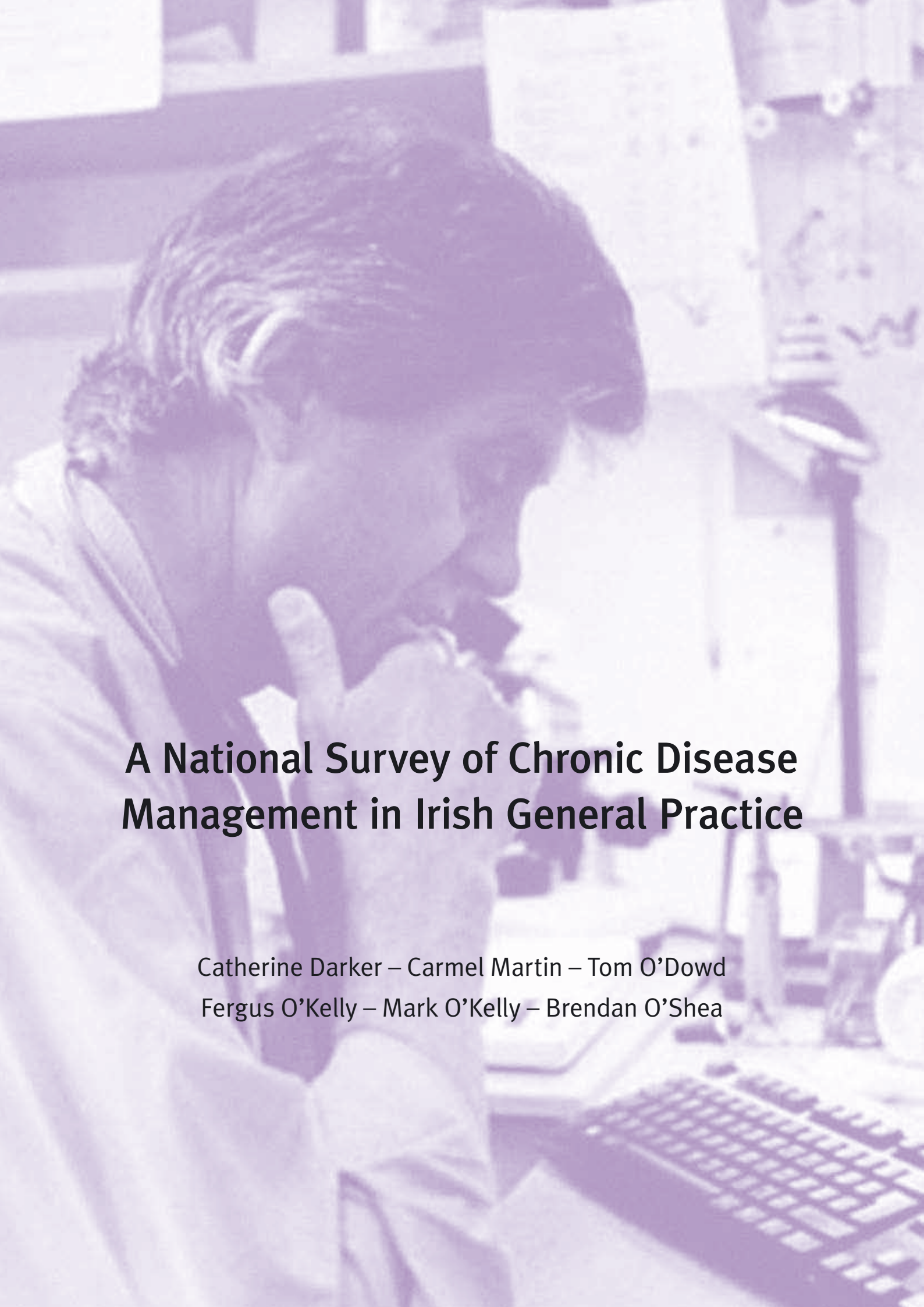
AVIVA Health for the unrestricted financial contribution for publication of this report.

And particularly, the General Practitioner respondents, who generously gave their time to complete and return the questionnaire. Without them, this research would not have been possible.

Tom O'Dowd et al
Department of Public Health and Primary Care
Trinity College Centre for Health Sciences
AMNCH
Tallaght
Dublin 24

June 2011

Sub-editing: **Deirdre Handy**
Design: **Janine Handy**
Photography: **Fionn McCann**



A National Survey of Chronic Disease Management in Irish General Practice

Catherine Darker – Carmel Martin – Tom O'Dowd
Fergus O'Kelly – Mark O'Kelly – Brendan O'Shea

Contents

List of Tables

List of Figures

Summary

- This study provides a baseline of the provision of chronic disease management in Irish general practice in 2010.
- It compares Ireland to survey data of primary care physicians in 11 countries, allowing Irish general practice to be measured against international counterparts.
- The study achieved a 72% response rate.
- 63% of GPs believe that there are some good things in our health service but significant changes are needed to facilitate the management of chronic care.
- GPs reported wide use of information technology systems within the practices.
- 99% of respondents indicated that they provide an out-of-hours service for their patients, which places Ireland as the leader of provision of access for patients outside of surgery hours, compared to their international counterparts.
- A small number of routine clinical audits are being performed.
- Irish GPs use evidence based guidelines for the treatment of diabetes, asthma or COPD and hypertension, to the same frequency as their international counterparts.
- The main barriers to delivering chronic care are an increased workload and a lack of appropriate funding for chronic disease management.
- GPs are interested in targeted payments for the management of chronic disease.
- 36% of respondents indicated that their practice was functioning as a part of a primary care team.
- GPs' perceptions indicate that they believe substantial differences remain between fee-paying patients and GMS entitled patients in terms of access to diagnostic tests, longer waiting times to see a hospital based specialist and longer waiting times to receive treatment after a diagnosis.
- GPs perceive that their fee-paying patients experience difficulties in paying for medications and other out-of-pocket expenses.
- GPs support the concept of shared care initiatives between themselves and local hospitals.

Introduction

It is ten years since the Primary Care Strategy (2) was launched and progress has been slow and hesitant. Now many of the certainties and practices of previous decades are likely to be replaced, and the prospect of change is more likely especially in the area of chronic disease management. It is timely to look at how we deliver chronic disease care in General Practice, and also to consider what aspects of this we may care to change, to augment, to dispense with, or to maintain.

The Chronic Care Model (3) has broad international acceptance as a model to provide guidance on the shift from our current predominantly acute and episodic model of care to a lifelong model of promotion, prevention, early intervention and chronic care. The Chronic Care Model encompasses both non-communicable disease such as diabetes, heart disease, chronic obstructive pulmonary disease, cancers and depression and communicable diseases such as AIDS, and sometimes tobacco, alcohol and problem drug use are included. The core elements revolve around organizational changes in health care delivery – better connected teams with clinical informatics and decision support, proactive planned care around evidence, and patient and care giver specific needs with greater support for self-care. Many countries are engaged in the transition to a Chronic Care Model. These range from the West including the US, Europe, Canada, Australia, New Zealand, as well as Ireland to the developing world including China, India and South East Asia (4). However the transition in well established systems is difficult to make if initiatives are 'top down', particularly without patient centred approaches (5) and physician leadership or active involvement (6).

Primary Care, and General Practice as a core provider of healthcare, are central to this transition (7) and provide cost effective alternatives to other models of care delivery. Making change and transforming Primary Care into effective working models is challenging, and needs to be undertaken with appropriate supporting research (8). The Chronic Care Model contains several key elements. Many elements of the model clearly exist in Irish General Practice, and it is important to build improvements on existing strengths. The roll out of Primary Care Teams in Ireland presents an opportunity to make this shift. It is important to have baseline data against which to measure the impact of the ongoing care transition.

Irish general practice places strong emphasis on person centred care (9) of the individual with complex multimorbidity (10), yet it is important to incorporate additional elements in the prevention and management of chronic disease (11). Less well developed areas, where more structured care is required to address the elements of the chronic care model include clinical information systems, decision support, use of evidence based guidelines and self-management support (12,13). International literature on successful chronic disease care points to key infrastructural elements in general practice, including disease registers, information systems, use of guidelines, and greater interaction between secondary and primary care (9). These elements have been associated with improvement in quality of care (14) and have been widely implemented in some countries including the UK. However, there are concerns that the emphasis on the technical aspects of care compromises the traditional doctor-patient relationship and is the focus of intense debate (15).

Section One: Rationale, Aims and Objectives

Rationale

Within the Irish healthcare system, there is considerable momentum in relocating the care of individuals with chronic disease from the hospital environment to primary care. Nationally stated policy (16), together with varied levels of support within the medical and allied professions, favours a shift of such care out of the tertiary and secondary care environment, and more completely into the primary care environment (2) General Practice is understood to have a central role in this policy.

Within General Practice, it is assumed that individual GPs vary in their beliefs regarding the capacity of General Practice to manage this development in a manner, which is consistent with delivering an appropriate level of care. While GPs have been involved in population-based initiatives, uncertainties exist in relation to the capacity, organisation and ability of General Practice to address the anticipated demand in the transfer of such care from the hospital to the community.

Examples of programmes where GP involvement in Ireland has been directly and significantly engaged in such initiatives include Heartwatch (17), The North Dublin Diabetes Shared Care project (18) and more recently, The National Cervical Screening Programme (19).

This report examines elements of current Irish general practice, which are relevant to its degree of readiness to engage with chronic disease management, in keeping with current best practice internationally.

Given the importance of the interaction between primary and secondary care (20), the study includes data on the experiences of those GPs included in the study in relation to the interface between general practice and hospital services as GPs perceive it.

It includes data on the experiences of individual GPs as they relate to features of the mixed public private healthcare system, which presently remains a characteristic feature of the Irish healthcare system, and which requires to be properly considered, in the planned transfer of chronic disease management into general practice.

The data collected in this report are presented in a complete and direct manner. It will serve as a baseline on relevant organisational aspects of general practice in Ireland for 2010, against which future change can be measured.

Finally, given that the survey instrument is closely based on an internationally validated questionnaire, with recent comparative data available from 11 countries (1), this report places Irish general practice in an international context, in the area of Chronic Disease Management (CDM).

Aim of Research

The aim of this research is to survey Irish general practitioners to identify what elements of the Chronic Care Model are currently in place. This will provide a baseline measure of Chronic Disease Management (CDM) for benchmarking against ongoing transformation in the future.

Objectives

1. To conduct a survey to deliver a baseline measure of CDM.
2. To identify strengths and weaknesses of CDM in Irish general practice.
3. To inform the wider profession and policy makers.
4. To examine which elements of the Chronic Care Model are in place.
5. To compare CDM in Ireland with international data.

Section Two: Method

Design

This study utilised a cross-sectional design whereby a survey questionnaire was posted to a random selection of GPs nationally.

Sampling

We compiled a comprehensive national database of general practitioners in Ireland. This task was achieved through cross-referencing the General Medical Scheme, Mother and Infant scheme, cervical screening and Medical directory databases. The database was then checked to remove doctors whom we knew to be no longer in practice. This resulted in a database with 2,636 doctors actively in general practice. A 20% random sample was generated from this database using a random numbers generator. This resulted in a total of 527 doctors from a possible 2,636 selected to participate in the study.

Survey instrument

The questionnaire was developed, by combining relevant questions from two international questionnaires on chronic disease management. First, the Use of Chronic Care Model Elements Survey (3) and secondly, questions from A Survey Of Primary Care Physicians In Eleven Countries (1). This resulted in a thirty-one item questionnaire which covered topics such as respondents' perception of CDM, access to care for patients, evidence of managed care within the practices, resources available to the GP, the use of information technology within the practices, respondents' perceptions of the barriers to effective CDM, future development of CDM and demographic details (see Appendix). The questionnaire was piloted for comprehension and ease of completion before dissemination as the final study instrument.

Procedure

The postal questionnaire was conducted in three separate waves at one-month intervals, to secure a good response rate. The sample was circulated in March, April and May 2010 with a questionnaire accompanied by a stamped addressed envelope for ease of return and a cover letter outlining the purpose of the study and assuring respondents of total confidentiality within the research team. A unique identifying number (UIN) ensured the anonymity of the respondent. Respondents who had completed and returned the questionnaire in a previous wave were checked off the database using their UIN to ensure that they did not receive another questionnaire in a subsequent wave.

Section Three: Results

Response rate

The first postal questionnaire wave was sent in March 2010 to all GPs who were randomly selected to receive a questionnaire (N=527).

A total of 240 completed questionnaires were returned within Wave 1 (46% response rate – Wave 1). The non-responders were sent a follow-up reminder letter and the survey questionnaire again in April 2010 (Wave 2). A total of 92 completed questionnaires were returned within Wave 2 (17% response rate - Wave 2). In May 2010 a third and final reminder letter plus an additional questionnaire was sent to all non-responders. This resulted in an additional 48 completed questionnaires being returned (9% response rate – Wave 3). This cumulated to a total of 380 completed questionnaires returned to us throughout the three postal waves, resulting in an overall response rate of 72%.

Respondent profile

This section outlines the age and sex of respondents as well as the location and size of their practices, the profile of the patients attending the practices and whether the practice is involved in medical education/training.

Practice location

A total of 97 (25%) respondents indicated that their practice is based within a city. 82 (22%) indicated that their practice was located within a suburb. 129 (34%) indicated that their practice was located within a small town. 71 (19%) indicated that their practice was located within a rural setting.

Age of respondents

Thirty (8%) respondents indicated that their age was under 35 years. 157 (42%) indicated that their age was between 35-49 years. 166 (44%) indicated that their age was between 50-64 years. 24 (6%) indicated that their age was 65 years or older.

Gender of respondents

A total of 239 (63%) respondents were male, 139 (37%) of respondents were female, which is in line with national proportions (21).

Practice description

A total of 158 (42%) respondents indicated that they are working within a practice that has three or more doctors. 108 (28%) of respondents indicated that they are working within practices with two doctors. 113 (30%) of respondents indicated that they are working in single-handed practices.

Profile of patients attending respondents' practices

Table 1: Profile of patients attending the practices

Practice type	Percentage
GMS and Private (N=357; 93%)	96%
Private only (N=358; 94%)	2.5%
'Doctor Only' card holders (N=358; 94%)	1%
Percentage of 'other' patients (N=358; 94%)	0.5%

Involvement in Medical Education/Training

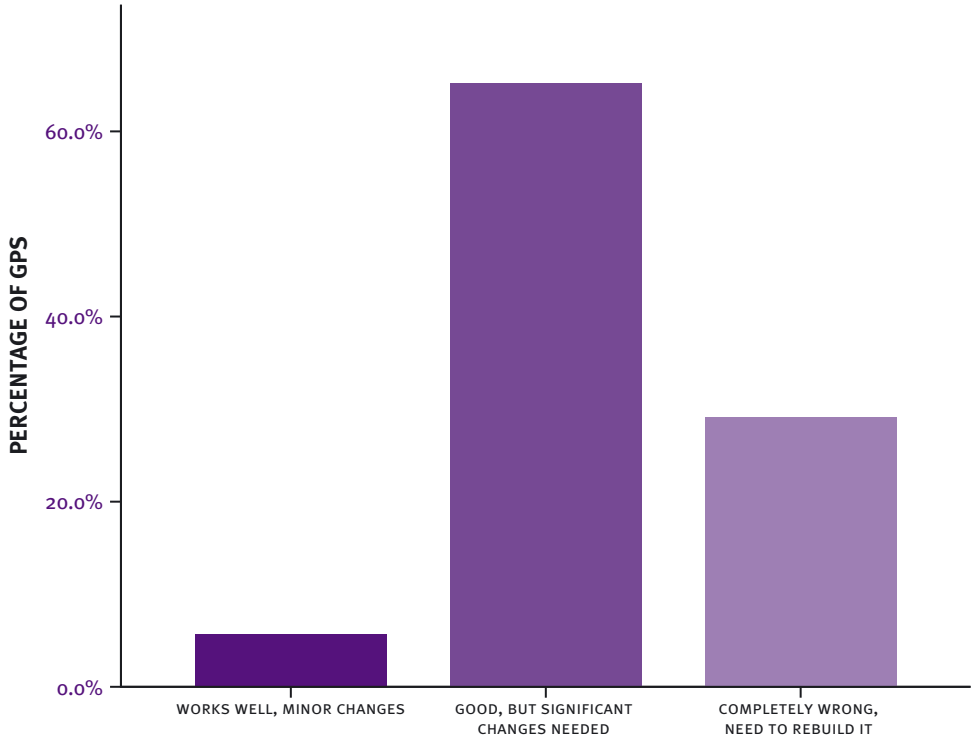
A total of 198 (52%) respondents indicated that their practice was involved in medical education or training. Of the 198 respondents who reported that they were involved in medical education, 156 (79%) reported that this was at undergraduate level and 120 (61%) indicated that this involvement was at postgraduate level. A total of 79 (40%) respondents indicated that their practices are involved in both undergraduate and postgraduate medical education or training.

Perception of chronic disease management

This section examines GPs' perception of chronic disease management within the Irish health care system.

Which of the following statements come closest to expressing your overall view of chronic disease management (CDM) in our health care system?

Figure 1: GPs perception of Chronic Disease Management in the Irish health care system (N=368)



GPs overall view of CDM within the Irish health care system

A total of 368 (96.8%) respondents answered this question. Missing data = 12 (3.2%)

Twenty-one (5.5%) respondents indicated that on the whole, the health care system works pretty well, and only minor changes are necessary to make CDM work better. 240 (63%) respondents indicated that there are some good things in our health system, but significant changes are needed to make CDM work better. 107 (28.2%) respondents indicated that our health care system has so much wrong with it that we need to completely rebuild it for CDM.

Male GPs were more likely than female GPs to think that significant changes are needed in the health care system to make CDM work better. GPs working in larger practices were also more likely to think that significant changes are needed. The age of the respondents made no difference.

Table 2: GPs' perception of chronic disease management in their indigenous healthcare systems (%). Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	On the whole the health care system works pretty well and only minor changes are necessary to make it work better	There are some good things in our health system, but fundamental changes are needed to make it work better	Our health care system has so much wrong with it that we need to completely rebuild it
Ireland	**5.5**	**63**	**28.2**
Australia	23	71	6
Canada	33	62	4
France	41	53	6
Germany	18	51	31
Italy	38	58	4
Netherlands	60	37	1
New Zealand	42	57	1
Norway	56	40	2
Sweden	37	54	7
UK	47	50	3
US	17	67	15

Footnote: Ireland (N=380); Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Irish GPs display much more discontent with the health care system than most other countries with only 5.5% thinking it works well. The remainder thinks it needs fundamental change.

Access

This section outlines GPs' perception of the ease of access that their patients experience when attempting to access health care services and types of health care providers and ease of paying for medical costs. It also reports on the types of out-of-hours services respondents provide for their patients.

How often do your fee-paying patients experience the following?

Table 3: GPs' perception of how often *fee-paying patients* experience difficulties in accessing services and paying for medical costs.

	Often	Sometimes	Rarely	Never
Experience long waiting times to see a hospital-based specialist (N=376; 99%)	132 (35%)	129 (34%)	98 (26%)	17 (5%)
Have difficulty getting specialised diagnostic tests (e.g., CT imaging) (N=376; 99%)	120 (32%)	135 (36%)	106 (28%)	15 (4%)
Experience long waiting times to receive treatment after diagnosis (N=376; 99%)	76 (20%)	148 (39%)	133 (35%)	19 (6%)
Have difficulty paying for medications or other out-of-pocket costs (N=373; 98%)	151 (40%)	178 (47%)	43 (11%)	1 (0.3%)

The majority of GPs feel that their fee-paying patients experience difficulties in paying for medications or other out-of-pocket expenses. Two thirds of GPs believe that their fee-paying patients have difficulty getting specialised diagnostic tests, experience long waiting times to see a hospital based specialist and to receive treatment after a diagnosis.

Age, gender or size of the practice did not have an effect on GPs' perceptions of their fee-paying patients experiences in accessing services or paying for medical costs.

How often do your GMS entitled patients experience the following?

Table 4: GPs' perception of how often *GMS entitled patients* experience difficulties in accessing services and paying for medical costs.

	Often	Sometimes	Rarely	Never
Experience long waiting times to see a hospital-based specialist (N=369; 97%)	342 (93%)	25 (7%)	1 (0.3%)	1 (0.3%)
Have difficulty getting specialised diagnostic tests (e.g., CT imaging) (N=369; 97%)	326 (88%)	34 (9%)	6 (2%)	3 (1%)
Experience long waiting times to receive treatment after diagnosis (N=368; 96%)	253 (69%)	93 (25%)	20 (5%)	2 (0.5%)
Have difficulty paying for medications or other out-of-pocket costs (N=368; 96%)	87 (24%)	92 (25%)	123 (33%)	66 (18%)

Over half of GPs believe their General Medical Scheme (GMS: a medical card issued by the Health Services Executive in Ireland which allows the holder to receive certain health services free of charge) entitled patients rarely or never have difficulty paying for medications or other out-of-pocket costs. The majority of GPs believe that their GMS entitled patients have difficulty getting specialised diagnostic tests, experience long waiting times to see a hospital based specialist and to receive treatment after diagnosis.

Age, gender or size of the practice did not have an effect on GPs' perceptions of their GMS entitled patients experiences in accessing services or paying for medical costs.

Table 5: GPs' perception of the *long waiting times* their patients' experience, when trying to *see a specialist*. Comparison between Ireland and data collected by the Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Often	Sometimes	Rarely	Never
Experience long waiting times to see a specialist				
Ireland (N=358; fee paying patients)	**35%**	**34%**	**26%**	**5%**
Ireland (N=357; GMS entitled patients)	**93%**	**7%**	**0.3%**	**0.3%**
Australia (N=1016)	34%	55%	10%	*
Canada (N=1401)	75%	23%	2%	*
France (N=502)	53%	31%	13%	2%
Germany (N=715)	66%	24%	8%	1%
Italy (N=844)	75%	20%	5%	*
Netherlands (N=614)	36%	55%	9%	*
New Zealand (N=500)	45%	49%	6%	*
Norway (N=744)	55%	38%	6%	1%
Sweden (N=1450)	63%	31%	5%	*
UK (N=1062)	22%	57%	19%	2%
US (N=1442)	28%	47%	22%	2%

The majority of the respondents (93%) believe that their GMS entitled patients often experience long waiting times, compared to 35% perceiving that their fee-paying patients often experience long waiting times. The percentage perceiving that their GMS entitled patients often have long waiting times is higher than in any of the other 11 countries surveyed by the Commonwealth Fund.

Table 6: GPs perceptions of the difficulty that their patients have in getting *specialised diagnostic tests*. Comparison between Ireland and the Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Often	Sometimes	Rarely	Never
Have difficulty getting specialised diagnostic tests				
Ireland (N=358; fee paying patients)	**32%**	**36%**	**28%**	**4%**
Ireland (N=357; GMS entitled patients)	**88%**	**9%**	**2%**	**1%**
Australia (N=1016)	21%	56%	20%	2%
Canada (N=1401)	47%	38%	13%	2%
France (N=502)	42%	32%	18%	7%
Germany (N=715)	26%	35%	28%	10%
Italy (N=844)	52%	33%	12%	2%
Netherlands (N=614)	15%	51%	30%	4%
New Zealand (N=500)	60%	32%	8%	*
Norway (N=744)	5%	50%	43%	2%
Sweden (N=1450)	6%	48%	42%	4%
UK (N=1062)	14%	48%	30%	8%
US (N=1442)	58%	38%	3%	1%

More Irish GPs (88%) believe that their GMS entitled patients experience difficulty in getting specialised diagnostic tests compared to the perceptions of their international counterparts, of difficulty for their patients. The Irish GPs' perception of the difficulty in getting specialised tests for their fee-paying patients, was about average for their international counterparts.

Table 7: GPs' perceptions of the long waiting times their patients experience when *waiting to receive treatment* after a diagnosis. Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Often	Sometimes	Rarely	Never
Experience long waiting times to receive treatment after diagnosis				
Ireland (N=358; fee paying patients)	**20%**	**39%**	**35%**	**6%**
Ireland (N=357; GMS entitled patients)	**69%**	**25%**	**5%**	**0.5%**
Australia (N=1016)	21%	60%	19%	1%
Canada (N=1401)	29%	48%	21%	1%
France (N=502)	19%	38%	33%	10%
Germany (N=715)	18%	45%	31%	5%
Italy (N=844)	40%	43%	15%	2%
Netherlands (N=614)	31%	57%	12%	*
New Zealand (N=500)	44%	46%	9%	1%
Norway (N=744)	23%	56%	20%	1%
Sweden (N=1450)	30%	48%	20%	2%
UK (N=1062)	17%	50%	29%	3%
US (N=1442)	8%	35%	48%	10%

69% of the Irish GPs perceive that their GMS entitled patients often experience long waiting times to receive treatment after diagnosis, higher than the rate for any of the other 11 countries; whereas only 20% of Irish GPs perceive that their fee paying patients often experience long waiting times, similar to the perceptions of their international colleagues.

Table 8: GPs' perception of the difficulty their patients have in *paying for medications*. Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Often	Sometimes	Rarely	Never
Have difficulty paying for medications or other out-of-pocket costs				
Ireland (N=358; fee paying patients)	**40%**	**47%**	**11%**	**0.3%**
Ireland (N=357; GMS entitled patients)	**24%**	**25%**	**33%**	**18%**
Australia (N=1016)	23%	63%	13%	1%
Canada (N=1401)	27%	56%	15%	1%
France (N=502)	17%	50%	26%	7%
Germany (N=715)	28%	48%	21%	2%
Italy (N=844)	37%	49%	13%	1%
Netherlands (N=614)	33%	50%	17%	1%
New Zealand (N=500)	25%	62%	13%	*
Norway (N=744)	5%	50%	43%	2%
Sweden (N=1450)	6%	48%	42%	4%
UK (N=1062)	14%	48%	30%	8%
US (N=1442)	58%	38%	3%	1%

Almost a quarter of Irish GP respondents believe that GMS entitled patients often have difficulty in paying for medications or other out of pocket expenses. This figure is about average cross the 11 countries in the Commonwealth Fund study.

However, 40% of the Irish GPs perceive that their fee-paying patients often experience this problem, with only the US GPs perceiving a higher incidence of the problem.

It is interesting that in most countries, even those with universal access, patients have difficulties paying for services, experience delays in seeing specialists and in receiving appropriate treatments.

What out of hours service does your practice utilise?

A total of 375 (99%) respondents indicated that they have an out-of-hours service for their patients. 62 (16%) respondents indicated that they have a local rota. 29 (76%) respondents indicated that they have a co-op service in place. 75 (20%) respondents indicated that they have a deputising service in place as their out-of-hours service for patients. 49 (13%) respondents had two or more out-of-hours services available for their patients.

Figure 2: Which type of out-of-hours service do GPs utilise?

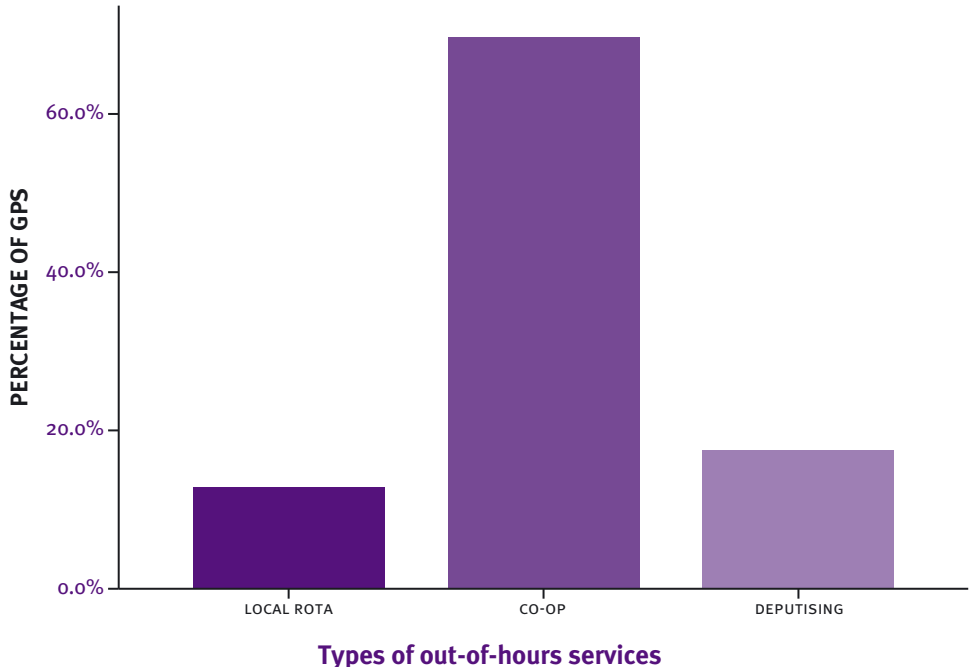


Table 9: Does your practice have an arrangement where patients can see a doctor or nurse if needed when the practice is closed (after-hours) without going to the hospital accident and emergency department? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

YES	Percent
Ireland	**99**
Australia	50
Canada	43
France	78
Germany	54
Italy	77
Netherlands	97
New Zealand	89
Norway	38
Sweden	54
UK	89
US	29

Footnote: Ireland (N=380); Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Ireland does well on this metric, which is a combination of out-of-hours co-ops, deputising and rotas.

Outside of your practice, do your patients have effective local access to the following?

Table 10: GPs' perception of effective local access to services for both private fee paying and GMS entitled patients.

	Yes (Private fee paying patients)	Yes (GMS entitled patients)
Physiotherapist	350 (93%)	238 (63%)
Chiropodist	284 (75%)	178 (47%)
Dietician	245 (65%)	189 (5%)
Psychologist	219 (58%)	92 (24%)
Speech and language therapist	151 (40%)	141 (37%)
Social worker	143 (38%)	197 (52%)
Occupational therapist	139 (37%)	156 (41%)

A total of 378 (99.4%) respondents answered this question. Missing data = 2 (0.6%).

Overall GPs reported that the majority of their private fee paying patients have effective access to a physiotherapist, a chiropodist, a psychologist and a dietician, whereas the majority of their GMS entitled patients only have effective access to a physiotherapist, with relatively poor levels of access to other disciplines. Neither the age nor gender of the GP, nor the size of the practice within which they worked, had any impact on effective access to local services.

Evidence of managed care

This section examines the use of evidence-based treatment guidelines and strategies for managing chronic conditions such as diabetes. It also describes the frequency of routine clinical audit completions within the practices.

Does your practice routinely use written evidence-based treatment guidelines to treat the following conditions?

Table 11: Number of practices that routinely use, written evidence-based treatment guidelines, for chronic disease conditions.

	Yes, routinely use guidelines	No, do not routinely use guidelines	No guidelines available
Hypertension (N=375; 98%)	297 (79%)	73 (20%)	5 (1.3%)
Asthma or COPD (N=375; 98%)	279 (74%)	89 (24%)	7 (2%)
Diabetes (N=375; 98%)	267 (71%)	103 (28%)	5 (1.3%)
Depression (N=375; 98%)	126 (34%)	227 (61%)	22 (6%)
ADHD (N=367; 96%)	54 (15%)	213 (58%)	100 (27%)

The majority of GPs reported that they are using evidence-based guidelines for diabetes, asthma or COPD and hypertension, and not using guidelines routinely for depression and ADHD.

The age of the GP had a role to play in whether guidelines were being routinely used. Older GPs (50+) were less likely to use guidelines for the treatment of asthma or COPD and hypertension. Neither the size of the practice nor the gender of the GP had any bearing on whether guidelines were utilised for management of the above five chronic conditions.

Table 12: Does your practice routinely use, written evidence-based guidelines to treat *hypertension*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, routinely use guidelines	No, do not routinely use guidelines	No guidelines available
Ireland (N=375)	**79%**	**20%**	**1.3%**
Australia (N=1016)	82%	16%	1%
Canada (N=1401)	76%	16%	1%
France (N=502)	50%	37%	12%
Germany (N=715)	70%	21%	2%
Italy (N=844)	94%	5%	1%
Netherlands (N=614)	90%	8%	*
New Zealand (N=500)	75%	24%	1%
Norway (N=744)	81%	17%	1%
Sweden (N=1450)	91%	7%	2%
UK (N=1062)	96%	3%	1%
US (N=1442)	69%	16%	2%

It appears that Irish GPs use written, evidence-based guidelines to treat hypertension to the same extent as their international counterparts.

Table 13: Does your practice routinely use, written evidence-based guidelines to treat *asthma or COPD*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, routinely use guidelines	No, do not routinely use guidelines	No guidelines available
Ireland (N=375)	**74%**	**24%**	**2%**
Australia (N=1016)	85%	13%	1%
Canada (N=1401)	72%	20%	1%
France (N=502)	44%	38%	14%
Germany (N=715)	73%	24%	1%
Italy (N=844)	89%	9%	1%
Netherlands (N=614)	87%	12%	1%
New Zealand (N=500)	87%	13%	*
Norway (N=744)	81%	18%	*
Sweden (N=1450)	84%	12%	3%
UK (N=1062)	96%	3%	1%
US (N=1442)	76%	19%	2%

Irish GPs report routinely using written, evidence-based guidelines, to treat asthma or COPD, to the same extent as their international counterparts.

Table 14: Does your practice routinely use, written evidence-based guidelines to treat *diabetes*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, routinely use guidelines	No, do not routinely use guidelines	No guidelines available
Ireland (N=375)	**71%**	**28%**	**1.3%**
Australia (N=1016)	87%	12%	1%
Canada (N=1401)	78%	14%	1%
France (N=502)	60%	28%	9%
Germany (N=715)	73%	20%	1%
Italy (N=844)	93%	5%	1%
Netherlands (N=614)	97%	2%	*
New Zealand (N=500)	93%	6%	*
Norway (N=744)	86%	14%	*
Sweden (N=1450)	93%	5%	1%
UK (N=1062)	96%	3%	*
US (N=1442)	74%	12%	2%

Irish GPs report routinely using written, evidence-based guidelines to treat diabetes, to a similar extent as their counterparts in Germany, the US and Canada; but to a lesser extent than those in the other countries surveyed.

Table 15: Does your practice routinely use, written evidence-based guidelines to treat *depression*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, routinely use guidelines	No, do not routinely use guidelines	No guidelines available
Ireland (N=375)	**34%**	**61%**	**6%**
Australia (N=1016)	70%	26%	2%
Canada (N=1401)	43%	43%	8%
France (N=502)	29%	49%	19%
Germany (N=715)	23%	50%	15%
Italy (N=844)	38%	45%	13%
Netherlands (N=614)	31%	60%	9%
New Zealand (N=500)	65%	34%	1%
Norway (N=744)	49%	47%	4%
Sweden (N=1450)	63%	30%	7%
UK (N=1062)	79%	17%	3%
US (N=1442)	42%	35%	8%

Irish GPs report routinely using written, evidence-based guidelines to treat depression, to a similar extent as their counterparts in France, Italy and the Netherlands, but to a lesser extent with regard to the other countries.

Table 16: Does your practice routinely use, written evidence-based guidelines to treat *ADHD*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

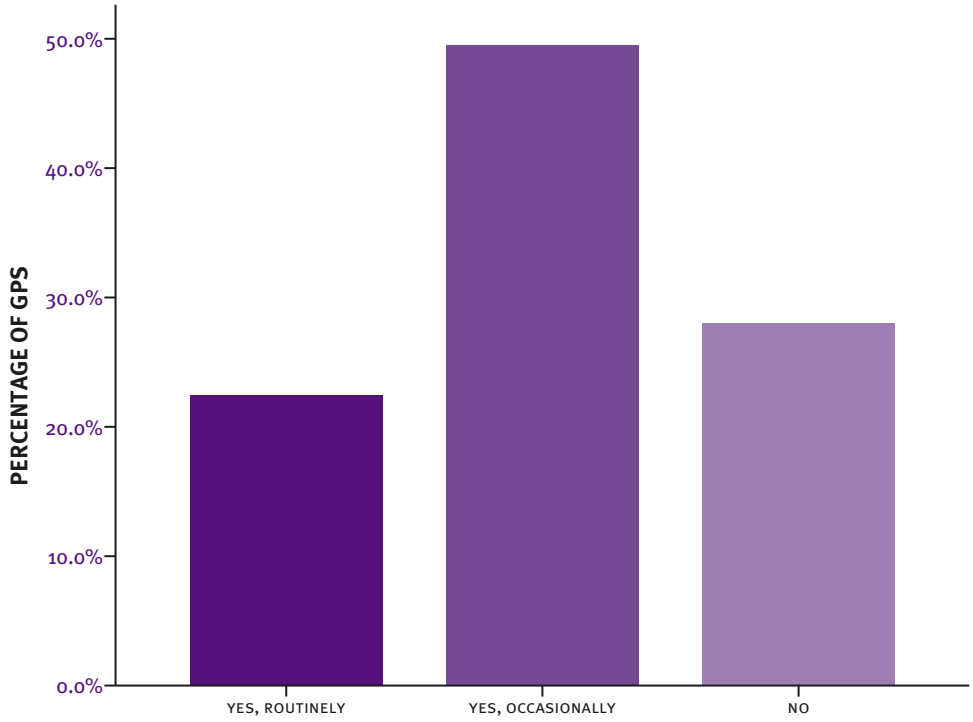
	Yes, routinely use guidelines	No, do not routinely use guidelines	No guidelines available
Ireland (N=367)	**15%**	**58%**	**27%**
Australia (N=1016)	36%	29%	13%
Canada (N=1401)	26%	40%	14%
France (N=502)	13%	35%	34%
Germany (N=715)	13%	22%	18%
Italy (N=844)	13%	38%	13%
Netherlands (N=614)	6%	44%	40%
New Zealand (N=500)	42%	36%	10%
Norway (N=744)	56%	27%	5%
Sweden (N=1450)	6%	13%	21%
UK (N=1062)	34%	18%	11%
US (N=1442)	37%	28%	8%

Irish GPs report routinely use written, evidence-based guidelines to treat ADHD, to a greater extent than counterparts in France, Germany, Italy the Netherlands and Sweden, but to a lesser extent than their counterparts in the other countries surveyed.

On the whole, guidelines are widely used in Ireland, except in the management of depression and ADHD, where they lag behind some of the other clinical areas. Guidelines in depression and to a lesser extent ADHD are more often dominated by pharmaceutical rather than professionally led advice and GPs are perhaps resistant to the source of such advice. It is an area for further dialogue between psychiatrists and GPs.

Do you provide your patients who take multiple medications (e.g. 5 or more) with a written list of their medications?

Figure 3: Provision of a written list of medications for patients taking multiple medications (N=378)



Frequency of provision of a written list of multiple medications

A total of 378 (99.4%) respondents answered this question. Missing data = 2 (0.6%)

Eighty-five (23%) respondents indicated that they routinely provide patients who take multiple medications, with a written list of all their medications, in addition to their prescriptions. 187 (49%) respondents indicated that they occasionally provide patients who take multiple medications with a written list of their medications. 106 (28%) respondents indicated that they do not provide patients who take multiple medications with a written list of their medications.

Neither the age, gender of the GP, nor the size of the practice nor whether the practice used electronic patients medical records had any impact on the frequency of the provision of a written list of multiple medications.

Table 17: Do you provide your patients who take multiple medications (e.g. 5 or more) with a written list of their medications? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

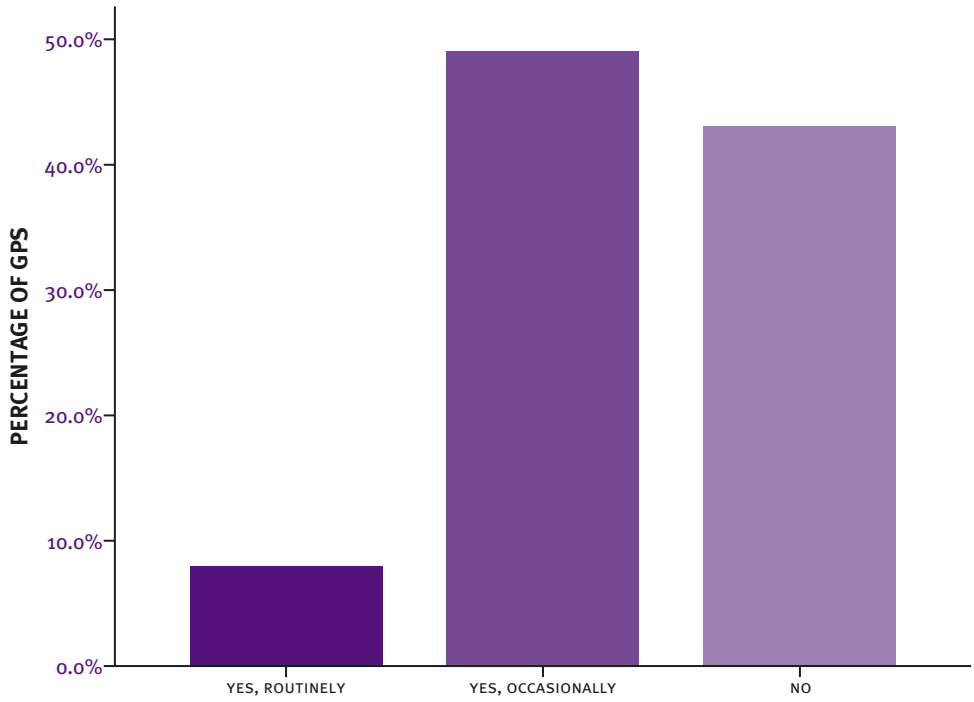
	Yes, routinely	Yes, occasionally	No
Ireland (N=378)	**23%**	**49%**	**28%**
Australia	12%	68%	20%
Canada	16%	36%	47%
France	43%	20%	37%
Germany	66%	31%	3%
Italy	59%	38%	2%
Netherlands	4%	65%	32%
New Zealand	5%	70%	25%
Norway	20%	69%	11%
Sweden	29%	61%	9%
UK	83%	10%	6%
US	30%	43%	26%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Almost a quarter of Irish GPs, report routinely providing their patients on multiple medications, with a written list of the medications. There is wide variation in this metric, from the Netherlands (4%) to the UK (83%). At 23%, Irish GPs are about mid-way on this table.

Do you give your patients with chronic diseases written instructions about how to manage their own care at home?

Figure 4: Provision of written instructions to patients with a chronic disease about how to manage their own care at home (N=379)



Frequency of provision of written instructions about home care for patients with a chronic disease

A total of 379 (99.7%) respondents answered this question. Missing data = 1 (0.3%)

Thirty (8%) respondents indicated that they routinely provide their patients with chronic diseases written instructions about how to manage their own care at home. 186 (49%) respondents indicated that they occasionally provide their patients with chronic diseases written instructions about how to manage their own care at home. 163 (43%) respondents indicated that they do not provide their patients with chronic diseases written instructions about how to manage their own care at home.

Neither the age, gender of the GP nor the size of the practice nor whether the practice had electronic patient medical records had any impact on the frequency of provision of written instructions about home care for patients with a chronic disease.

Table 18: Do you give your patients with chronic diseases written instructions about how to manage their own care at home? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, routinely	Yes, occasionally	No
Ireland (N=379)	**8%**	**49%**	**43%**
Australia	24%	69%	7%
Canada	16%	51%	32%
France	9%	57%	34%
Germany	23%	64%	12%
Italy	63%	35%	2%
Netherlands	22%	57%	21%
New Zealand	15%	76%	9%
Norway	9%	72%	20%
Sweden	11%	51%	38%
UK	33%	52%	14%
US	30%	50%	18%

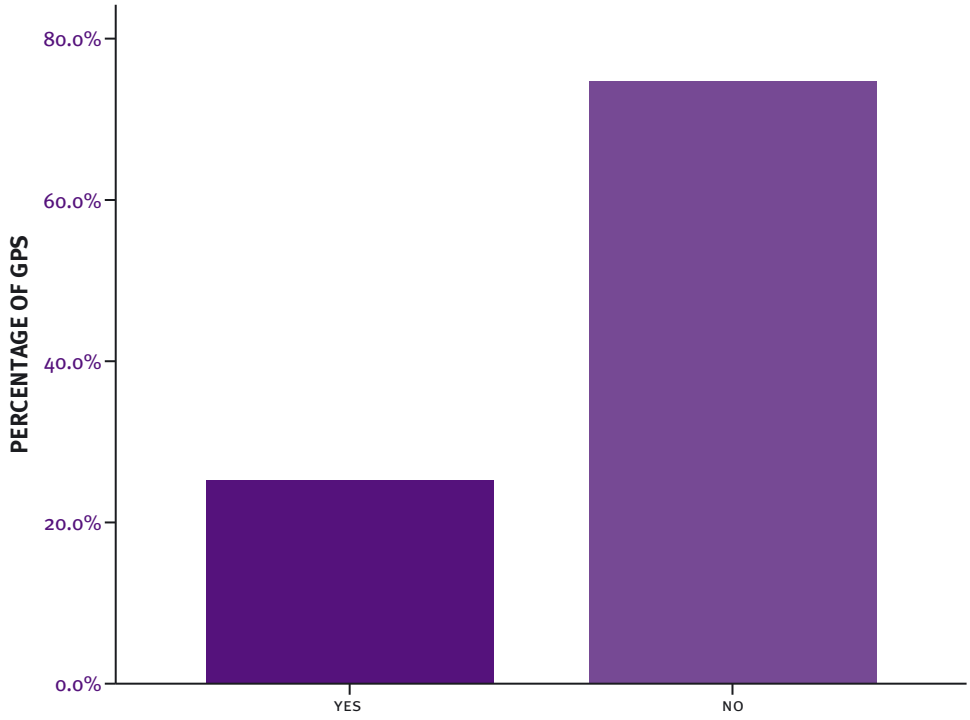
Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Irish GPs provide their patients with chronic diseases, with written instructions on managing their condition at home, to a lesser extent than most of their international counterparts, although to the same extent as in France and Norway.

There is some variation in the use of written advice on medications internationally which is hardly surprising, as it is an undertaking that requires the supply of complex technical information for each patient who may be on multiple medications with a variety of possible interactions.

Have you completed a full Audit Cycle within the last 5 years on 1 or more chronic diseases?

Figure 5: Numbers of GPs who had completed a full Audit cycle within the last five years on one or more chronic diseases (N=376)



A total of 376 (98.9%) respondents answered this question. Missing data = 4 (1.1%)

A total of 95 (25%) respondents indicated that they had completed a full Audit Cycle within the last 5 years on 1 or more chronic diseases. 281 (75%) respondents indicated that they had not completed a full Audit Cycle within the last 5 years on 1 or more chronic diseases.

The GPs who had completed an Audit Cycle in the last five years were more likely to have electronic patient medical records, have a practice nurse available to them, be younger (⇠49 years of age), be working within a three or more doctor practice and be involved in medical training. Also of those GPs who have completed an Audit Cycle in the last five years the majority were more likely to routinely use evidence-based guidelines for diabetes care. The gender of the GP had no impact on whether an Audit Cycle had been completed.

Table 19: Are any areas of clinical performance reviewed against targets at least annually? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	YES
Ireland (N=380)	**25%**
Australia	52%
Canada	32%
France	30%
Germany	55%
Italy	29%
Netherlands	41%
New Zealand	81%
Norway	18%
Sweden	46%
UK	92%
US	61%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Audit of performance is low in Ireland but is poised to change with the new Medical Council requirement to carry out clinical audit from May 2011.

How often do you currently use the following approaches to improving patient care for patients with diabetes?

Table 20: Use of approaches to improve care for diabetic patients.

	Never	Rarely	Occasionally	Usually	Always
Use a register to identify and/ or track care of your patients (N=375; 99%)	120 (32%)	60 (16%)	84 (22%)	57 (15%)	54 (15%)
Use a tracking system to remind patients about needed visits (N=376; 99%)	166 (44%)	83 (22%)	55 (15%)	43 (11%)	29 (8%)
Follow up patients between visit by telephone (you or staff)	79 (21%)	57 (15%)	126 (33%)	89 (24%)	25 (7%)
Use published practice guidelines as the basis for your management (N=375; 99%)	51 (14%)	42 (11%)	81 (22%)	136 (36%)	65 (17%)
Involve office staff in reminding patients in need of follow-up or other services (N=376; 99%)	68 (18%)	45 (12%)	102 (27%)	128 (34%)	33 (9%)
Assist patients in setting and attaining self-management goals (N=378; 99%)	28 (7%)	29 (8%)	90 (24%)	178 (47%)	53 (14%)
Refer patients to someone within your practice for education about their diabetes (N=373; 98%)	87 (23%)	46 (12%)	51 (14%)	119 (32%)	70 (19%)
Refer patients to someone outside your practice for education about their diabetes (N=374; 98%)	34 (9%)	53 (14%)	98 (26%)	133 (36%)	56 (15%)
Use flow charts to track critical elements of care (N=373; 98%)	169 (45%)	83 (22%)	61 (17%)	33 (9%)	27 (7%)

The majority of GPs usually or always use published practice guidelines as the basis for the management of diabetes; assist patients in setting and attaining self-management goals; refer diabetic patients to someone either within or outside the practice for education about their diabetes. Approximately one third of GPs usually or always use a diabetic register; follow up patients between visits by telephone and involve office staff in reminding diabetic patients about follow-ups or other services available to them. Less than one fifth of GPs usually or routinely use a tracking system to remind diabetic patients about visits or use flow charts to track critical elements of care.

Those GPs who have a practice nurse in their practice are more likely to follow up their diabetic patients between visits by telephone, more likely to assist patients in setting and attaining self-management goals, and are more likely to refer their diabetic patients to someone within their practice for education about their diabetes. Those GPs who have a receptionist are more likely to involve office staff in reminding patients in need of follow-up or other services. GPs with an electronic record system were more likely to use a register to identify and track the care of diabetic patients. However having a computer based records system had little influence on whether a GP used a tracking system to remind patients about needed visits or whether a flow chart was used to track critical elements of care. Having completed a full clinical audit cycle had little bearing on whether a GP use published practice guidelines as the basis of diabetic management. Being part of a functioning PCT had little influence on whether GPs referred their patients with diabetes to someone outside their practice for diabetes education.

Use of disease registers is a key aspect of good chronic disease management, and documenting this metric, as a baseline in 2010, is an important benchmark against which to measure future progress, in an important and fundamental marker of good care.

Resources

This section examines what other types of healthcare providers and administrative staff each participating practice has available and the resources for the provision of CDM within the practice itself. It describes whether respondents believe that they are functioning as a part of a primary care team. It also outlines the severity of problems relating to shortages of GPs within practice areas and time spent on coordination of care.

In your own practice, other than doctors, does your practice include any other health care providers?

A total of 379 (99.7%) respondents answered this question. Missing data = 1 (0.3%)

Table 21: The types of health care providers and administrative staff within the respondents' practices.

	Yes
Receptionist	348 (92%)
Practice Nurse	306 (81%)
Administrator/Practice Manager	293 (78%)
Dietician	94 (25%)
Counsellor	70 (18%)
Psychologist	52 (14%)
Chiropodist	52 (14%)
Other	51 (13%)

The majority of GPs have both administrative assistants and a practice nurse within their practices. These data also provide a key baseline against which future progress in expanding Practice Teams and Primary Care Team development can be measured.

Please rate the strength of your agreement with the following statements:

Table 22: Strength of agreement on levels of resources for chronic disease management

	Strongly disagree	Disagree	Neither agree /disagree	Agree	Strongly agree
I am happy with CDM as it is (N=370; 97%)	108 (29%)	158 (43%)	69 (19%)	22 (6%)	13 (3%)
I want to put more time and energy in the practice into CDM (N=372; 98%)	14 (4%)	35 (9%)	87 (23%)	173 (47%)	63 (17%)
PCT will enhance CDM in my practice (N=369; 97%)	31 (8%)	65 (18%)	110 (30%)	115 (31%)	48 (13%)
My local hospital should put more time and energy into CDM (N=372; 98%)	23 (6%)	56 (15%)	102 (28%)	139 (37%)	52 (14%)
I am willing to share the CDM workload with my local hospital (N=374; 98%)	11 (3%)	25 (7%)	50 (13%)	202 (54%)	86 (23%)
CDM should take place largely at a practice level and delivered largely by GPs (N=373; 98%)	18 (5%)	36 (10%)	76 (20%)	159 (42%)	84 (23%)
CDM should largely take place at practice level by nurses, under GP supervision (N=373; 98%)	19 (5%)	55 (15%)	103 (28%)	139 (37%)	57 (15%)

Seventy-two percent of GPs are not happy with CDM as it is currently delivered. Sixty-four percent of GPs either agree or strongly agree that they want to put more time and energy in their practice into CDM. GPs who work in large practices were more disposed to putting more time and energy into CDM. Neither age nor gender had any effect. Forty-four percent of GPs believe that PCT will enhance CDM in their practices, compared to twenty-six percent who do not hold this belief. Fifty-one percent of GPs believe that their local hospital should put more time and energy into CDM. Seventy-seven percent of GPs are willing to share the CDM workload with their local hospital.

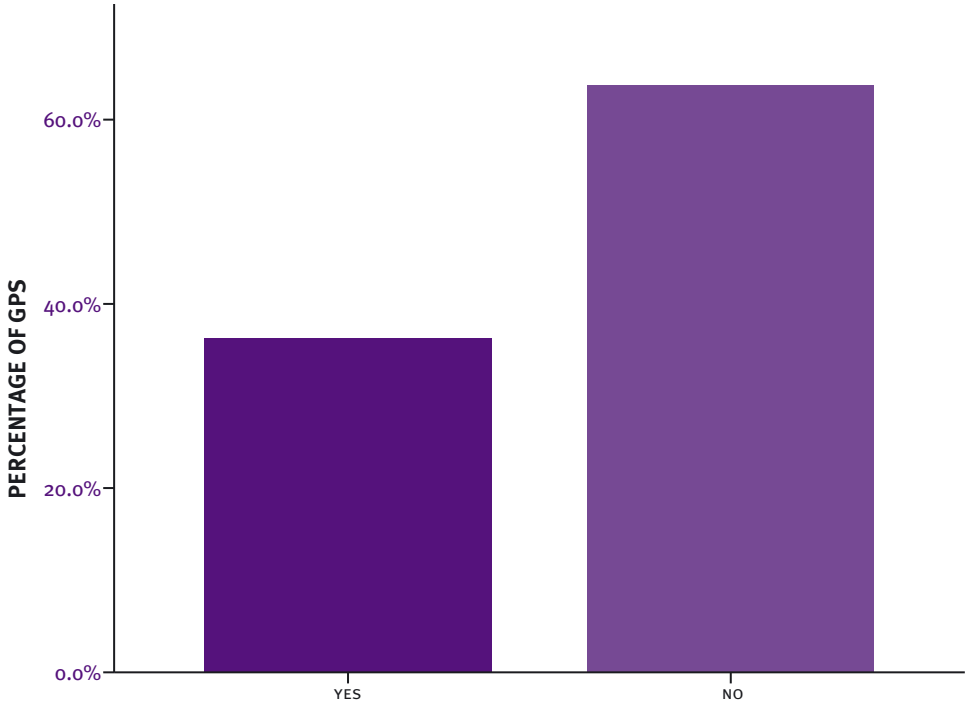
There is support for CDM to be managed within the practices, with sixty-five percent of GPs thinking that CDM should take place largely at practice level and delivered largely by GPs. Fifty-two percent of GPs think that CDM should take place largely at practice level, delivered

by nurses, under GP supervision. Of those who responded positively to this question relating to nurse input into CDM, the majority (57%) actually had a nurse working in their practice. However, seventy-nine percent do not agree that CDM should take place largely at practice level by nurses working independently of GPs. Neither age, gender of the GP nor the size of the practice within which they worked had any effect on their opinion of nurses being involved in CDM.

This table indicates positivity towards more chronic disease management being undertaken by GPs and Practice Nurses, and in general practice. As such, it provides grounds for some optimism regarding the changes currently underway in transferring care from the hospital to the practice setting.

Is your practice functioning as part of a primary care team?

Figure 6: Numbers of GPs who indicated whether their practice is functioning as a part of a primary care team (N=372)



A total of 372 (97.8%) respondents answered this question. Missing data = 8 (2.1%)

A total of 135 (36%) respondents indicated that their practice was functioning as part of a primary care team. One-quarter of those GPs who responded that they are functioning as part of a PCT also have a practice nurse working with them. Neither age nor gender, nor practice size had any impact on GPs' perceptions of functioning as a part of a PCT.

Table 23: Is your practice part of a network of other practices that share resources for managing patient care? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	YES
Ireland (N=380)	**36%**
Australia	16%
Canada	37%
France	21%
Germany	24%
Italy	67%
Netherlands	48%
New Zealand	56%
Norway	25%
Sweden	61%
UK	38%
US	33%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

The proportion of Irish GPs who report being part of a network of practices that share resources for management of patient care, is on par with the proportions reported by most of the countries surveyed by the Commonwealth Fund.

Table 24: GPs' perception on whether PCT will enhance their practice.

	Strongly disagree	Disagree	Neither agree /disagree	Agree	Strongly agree
PCT will enhance CDM in my practice N=369; 97%)	31 (8%)	65 (18%)	110 (30%)	115 (31%)	48 (13%)

Data in this table indicate that at present Irish GPs are largely positive in their disposition towards PCT development in 2010. Male GPs were more likely than female GPs to disagree that PCT would enhance their practice. Neither age of the GP nor practice size nor whether the GPs had previously indicated that they were currently functioning as a part of a PCT, had any impact.

How much of a problem, if any, are the following?

Table 25: Severity of problems relating to administrative workload and time spent on coordination of care and shortages of GPs within practice areas.

	Major problem	Minor problem	Not a problem
Amount of time you or your staff spends on administration (N=379; 99%)	245 (65%)	102 (27%)	28 (7%)
Amount of time you spend coordinating care for your patients (N=379; 99%)	212 (56%)	127 (33%)	36 (10%)
Shortage of GPs where you practice (N=379; 99%)	51 (13%)	122 (32%)	189 (50%)

Half of GPs believe that there is a shortage of GPs in the area in which they practice. The majority of GPs believe that the amount of time spent on administration and the amount of time spent coordinating care for their patients is a major problem.

GPs who indicated that they were functioning as a part of a PCT were more likely to perceive there being no shortage of GPs in the area in which they practice and less likely to see the amount of time spent on administration and coordinating care for patients as a major problem.

Table 26: Amount of time you or your staff, spend on *administrative issues*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Major problem	Minor problem	Not a problem
Ireland (N=380)	**65 %**	**27 %**	**7 %**
Australia (N=1016)	24 %	54 %	21 %
Canada (N=1401)	27 %	52 %	17 %
France (N=502)	49 %	36 %	12 %
Germany (N=715)	54 %	33 %	11 %
Italy (N=844)	85 %	12 %	2 %
Netherlands (N=614)	56 %	33 %	8 %
New Zealand (N=500)	29 %	56 %	16%
Norway (N=744)	13 %	55 %	30 %
Sweden (N=1450)	37 %	50 %	11 %
UK (N=1062)	19 %	49 %	27 %
US (N=1442)	57 %	27 %	9 %

Irish GPs perceive time spent on administrative tasks to be a major problem (65%), with Italy being the only country in the Commonwealth Fund study to report a higher figure (85%).

Table 27: Amount of time you spend on *coordinating care* for your patients? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Major problem	Minor problem	Not a problem
Ireland (N=380)	**56%**	**33%**	**10%**
Australia (N=1016)	17%	54%	29%
Canada (N=1401)	33%	49%	15%
France (N=502)	30%	36%	29%
Germany (N=715)	29%	45%	23%
Italy (N=844)	22%	52%	21%
Netherlands (N=614)	20%	54%	25%
New Zealand (N=500)	18%	51%	31%
Norway (N=744)	12%	63%	21%
Sweden (N=1450)	18%	60%	18%
UK (N=1062)	20%	48%	30%
US (N=1442)	30%	52%	14%

More than half of Irish GPs (56%) report that the time they spend on coordinating care for their patients is a major problem. This is a higher proportion than reported elsewhere among their international counterparts.

General practice in Ireland seems to be heavy on administration and management compared to international systems. It is difficult to explain this but it has to be remembered that two systems operate in Irish general practice – public and private – which are not administratively coherent. Clearly changes involving chronic disease care needs to address the issue of administration workload, as it is a costly part of the system.

Table 28: Shortage of primary care doctors where you practice? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Major problem	Minor problem	Not a problem
Ireland (N=380)	**13 %**	**32 %**	**50 %**
Australia (N=1016)	30 %	51 %	19 %
Canada (N=1401)	69 %	23 %	6 %
France (N=502)	20 %	25 %	49 %
Germany (N=715)	12 %	23 %	52 %
Italy (N=844)	14 %	31 %	42 %
Netherlands (N=614)	5 %	15 %	60 %
New Zealand (N=500)	25 %	51 %	23 %
Norway (N=744)	9 %	35 %	53 %
Sweden (N=1450)	51 %	31 %	15 %
UK (N=1062)	9 %	29 %	57 %
US (N=1442)	26 %	34 %	37 %

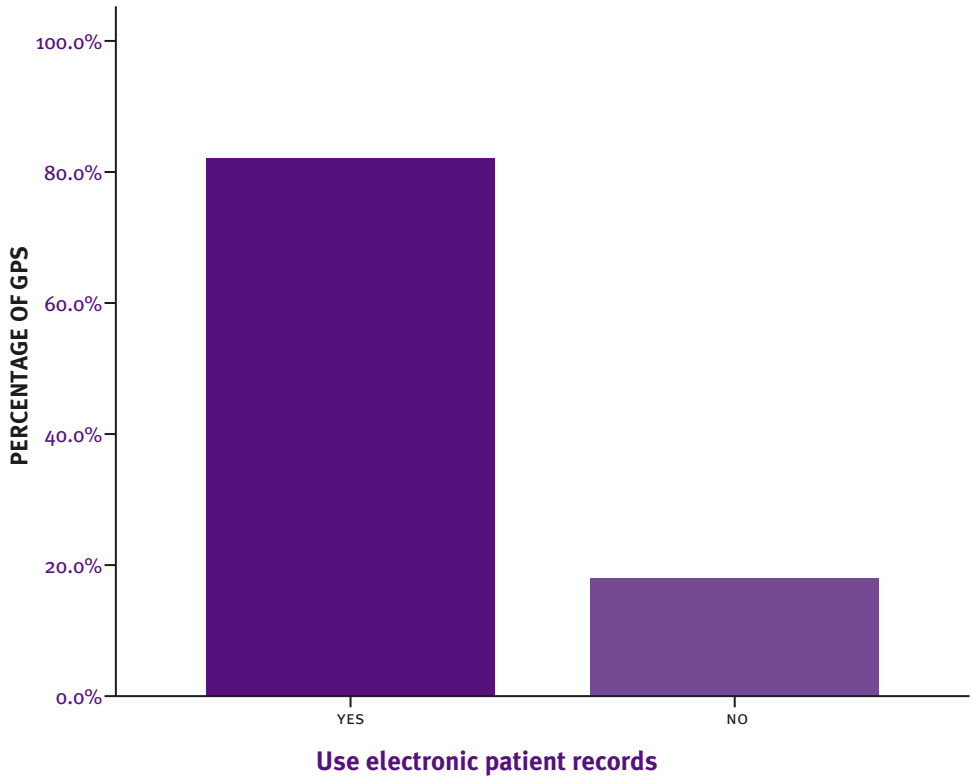
There has been an improvement in the supply of GPs in Ireland with only 13% indicating it to be a big problem currently. The numbers applying to GP training schemes and the increase in training places would seem to ensure that there will be enough GPs in most parts of Ireland in the near to medium future. However, with a projected increase in workload through the management of chronic disease for example, the situation needs to be kept under review.

Information technology

This section illustrates the number of GPs who use electronic patient medical records within their practice and the types of systems utilised. It highlights the scale of usage of information technology systems for communication with patients through email, text messaging, etc. It describes the ease with which respondents can generate patient information and perform tasks using their current IT systems.

Do you use electronic patient medical records in your practice?

Figure 7: Numbers of GPs who use electronic patient records within their practice (N=378)



A total of 378 (99.4%) of respondents answered this question. Missing data = 2 (0.6%)

A total of 310 (82%) respondents indicated that they use electronic patient medical records in their practices. Sixty eight (18%) respondents indicated that they do not use electronic patient medical records. GPs who had electronic patient medical records were more likely to have completed an audit cycle in the last 5 years. The gender of the GP had no bearing on whether they used electronic patient medical records. Younger GPs were more likely to use patient medical records than older GPs. GPs in larger practices with three or more doctors working within the practice were more likely than single-handed GPs to use electronic patient medical records.

Table 29: Do you use electronic patient medical records in your practice? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

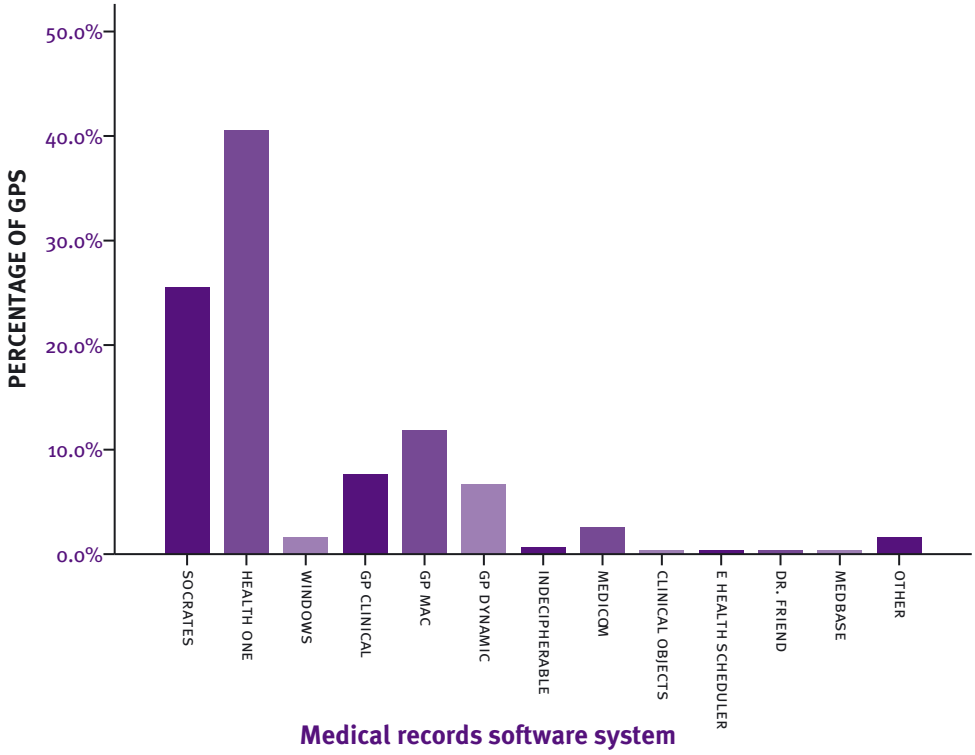
	YES
Ireland (N=380)	**82%**
Australia	95%
Canada	37%
France	68%
Germany	72%
Italy	94%
Netherlands	99%
New Zealand	97%
Norway	97%
Sweden	94%
UK	96%
US	46%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Irish GPs have invested in IT systems in their practices and this is reflected in the proportion of Irish GPs (82%) who use patient medical records, which compares well with their international counterparts.

If yes, which [patient medical record] system?

Figure 8: Medical records software systems in use (N=310)



A total of 310 (100%) respondents answered this question. No missing data.

While there are many software systems in use the main electronic records systems are Socrates and Health One.

Do you use any of the following technologies in your practice?

Table 30: The use of technology within the practices.

	Yes, used routinely	Yes, used occasionally	No
Electronic prescribing of medication (N=377; 99%)	311 (83%)	8 (2%)	58 (15%)
Electronic entry of clinical notes, including medical history and follow-up (N=378; 99%)	292 (77%)	13 (3%)	73 (20%)
Electronic access to your patients' laboratory test results (N=378; 99%)	272 (72%)	11 (3%)	95 (25%)
Electronic alerts or prompts about ADRs or drug interaction (N=376; 98%)	240 (64%)	35 (9%)	101 (27%)
Electronic ordering of laboratory tests (N=373; 98%)	85 (23%)	6 (2%)	282 (75%)

The majority of GPs do not electronically order laboratory tests. The majority of GPs do have routine electronic access to patients' laboratory test results, have electronic alerts or prompts about drug interactions, electronic entry or clinical notes or electronic prescribing of medication. The gender of the GP had no bearing on the use of different types of technology for clinical management. Younger GPs and GPs who work in larger practices were more likely to use a variety of technologies within their practices, compared to older GPs and GPs who work in single-handed practices.

Table 31: Do you use *electronic prescribing of medication*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, used routinely	Yes, used occasionally	No
Ireland (N=380)	**83%**	**2%**	**15%**
Australia (N=1016)	93%	2%	5%
Canada (N=1401)	27%	5%	65%
France (N=502)	57%	6%	37%
Germany (N=715)	60%	2%	33%
Italy (N=844)	90%	1%	8%
Netherlands (N=614)	98%	1%	1%
New Zealand (N=500)	94%	*	5%
Norway (N=744)	41%	4%	54%
Sweden (N=1450)	93%	2%	5%
UK (N=1062)	89%	2%	8%
US (N=1442)	40%	7%	49%

Irish GPs report amongst the highest of their international counterparts for electronic prescribing of medication.

Table 32: Do you have *electronic entry of clinical notes*, including medical history and follow-up notes? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, used routinely	Yes, used occasionally	No
Ireland (N=380)	**77%**	**3%**	**20%**
Australia (N=1016)	92%	4%	5%
Canada (N=1401)	30%	5%	64%
France (N=502)	60%	9%	31%
Germany (N=715)	59%	10%	30%
Italy (N=844)	82%	6%	11%
Netherlands (N=614)	96%	2%	2%
New Zealand (N=500)	96%	1%	3%
Norway (N=744)	81%	7%	11%
Sweden (N=1450)	89%	4%	7%
UK (N=1062)	97%	2%	1%
US (N=1442)	42%	5%	51%

Irish GPs' reported use of electronic entry of clinical notes (77%) is comparable to GPs represented in the International Survey of Primary Care Doctors.

Table 33: Do you have *electronic access to your patients' laboratory test results*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, used routinely	Yes, used occasionally	No
Ireland (N=380)	**72%**	**3%**	**25%**
Australia (N=1016)	93%	4%	4%
Canada (N=1401)	41%	16%	42%
France (N=502)	36%	10%	54%
Germany (N=715)	80%	2%	18%
Italy (N=844)	50%	14%	34%
Netherlands (N=614)	76%	8%	15%
New Zealand (N=500)	92%	1%	7%
Norway (N=744)	94%	2%	4%
Sweden (N=1450)	91%	1%	7%
UK (N=1062)	89%	6%	5%
US (N=1442)	59%	15%	23%

Irish GPs (72%) report a comparable level of electronic access to patients' laboratory results, as their international counterparts.

Table 34: Do you get *electronic alerts* or *prompts* about a potential problem with drug dose or drug interaction? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, used routinely	Yes, used occasionally	No
Ireland (N=380)	**64%**	**9%**	**27%**
Australia (N=1016)	92%	3%	4%
Canada (N=1401)	20%	11%	68%
France (N=502)	43%	14%	43%
Germany (N=715)	24%	18%	56%
Italy (N=844)	74%	10%	15%
Netherlands (N=614)	95%	2%	2%
New Zealand (N=500)	90%	2%	7%
Norway (N=744)	10%	19%	71%
Sweden (N=1450)	58%	18%	23%
UK (N=1062)	93%	4%	3%
US (N=1442)	37%	11%	49%

Irish GPs report availability of electronic alerts to potential drug interactions to an extent which is comparable to that reported by GPs in the Commonwealth Fund study.

Table 35: Do you use *electronic ordering of laboratory test results*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

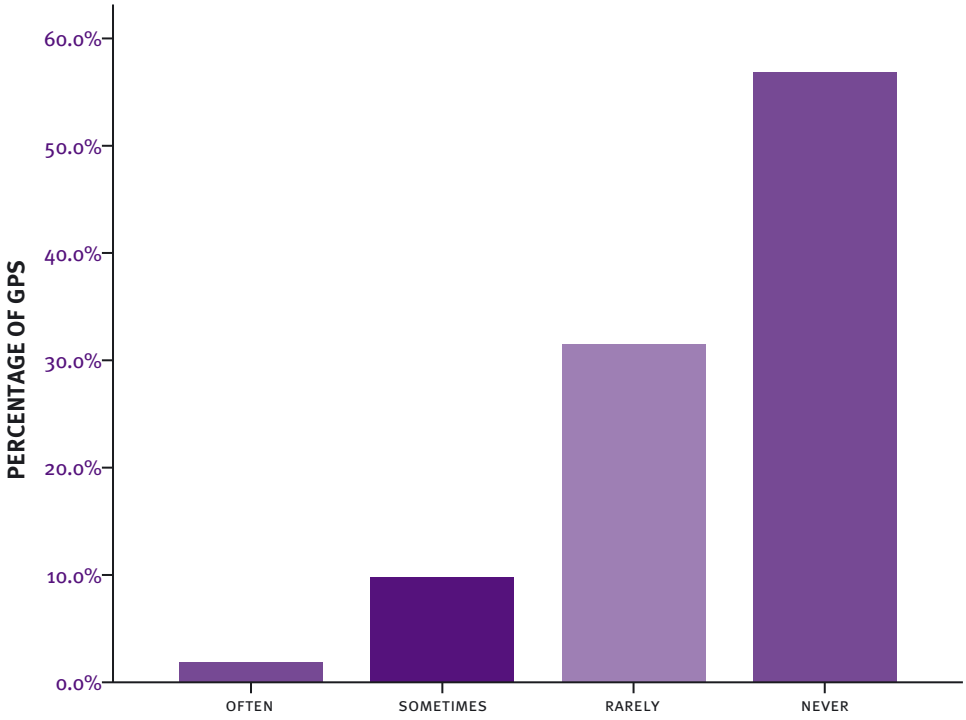
	Yes, used routinely	Yes, used occasionally	No
Ireland (N=380)	**23%**	**2%**	**75%**
Australia (N=1016)	86%	4%	11%
Canada (N=1401)	18%	5%	76%
France (N=502)	40%	10%	49%
Germany (N=715)	62%	3%	34%
Italy (N=844)	91%	1%	8%
Netherlands (N=614)	6%	6%	87%
New Zealand (N=500)	64%	1%	35%
Norway (N=744)	45%	5%	50%
Sweden (N=1450)	81%	2%	16%
UK (N=1062)	35%	5%	60%
US (N=1442)	38%	8%	52%

Use of electronic ordering of laboratory test results is less frequently reported by Irish GPs relative to their international counterparts.

It is evident from data in these tables that Irish GPs utilise electronic record systems to a significant extent, and certainly are comparable with their international colleagues in most areas. It is also evident that there is scope to further improve the extent to which the efficiencies possible using electronic handling of information in the routine care of patients and patient subgroups can be further improved.

How often does your practice communicate with patients by email?

Figure 9: Numbers of practices that communicate with patients by email (N=378)



A total of 378 (99.4%) of respondents answered this question. Missing data = 2 (0.6%)

Seven respondents (2%) indicated that their practices often communicate with patients by email. 37 (10%) indicated that their practices sometimes communicate with patients by email. 119 (31%) indicated that their practices rarely communicate with patients by email. 215 (57%) indicated that their practices never communicate with patients by email. The gender of the GP had no bearing on whether they communicated with patients by email. Younger GPs and GPs who worked in larger practices were more likely to communicate with patients by email than older GPs and GPs who work in single-handed practices.

Table 36: How often does your practice communicate with patients by email for clinical or administrative purposes? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

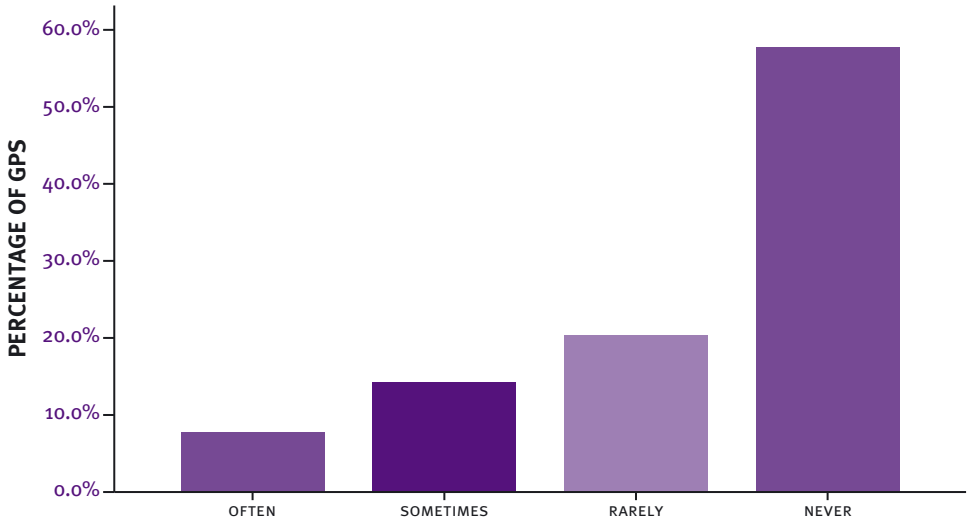
	Often	Sometimes	Rarely	Never
Ireland (N=380)	**2%**	**10%**	**31%**	**57%**
Australia	1%	16%	52%	30%
Canada	1%	5%	17%	75%
France	2%	7%	22%	68%
Germany	2%	12%	28%	57%
Italy	-	-	-	-
Netherlands	7%	24%	40%	29%
New Zealand	1%	16%	63%	20%
Norway	3%	11%	29%	56%
Sweden	9%	26%	41%	24%
UK	6%	13%	33%	48%
US	4%	10%	26%	58%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Use of email for clinical or administrative purposes by Irish GPs is similar to that of their international counterparts.

How often does your practice communicate with patients by SMS Text?

Figure 10: Number of practices that communicate with patients by SMS text (N=378)



Frequency of practice communication with patients by text

A total of 378 (99.4%) respondents answered this question. Missing data = 2 (0.6%)

The majority of GPs responding (78%) indicate that they rarely or never communicate with patients by SMS text.

Twenty-nine (8%) respondents indicated that their practices often communicate with patients by SMS Text. 54 (14%) indicated that their practices sometimes communicate with patients by SMS Text. 77 (20%) indicated that their practices rarely communicate with patients by SMS Text. 218 (58%) indicated that their practices never communicate with patients by SMS Text. Neither the gender nor the age of the GP had any bearing on whether they communicated with patients via text. GPs in larger practices were more likely to communicate with patients via text then GPs working in smaller sized practices.

There is a high level of IT use in Irish general practice that reflects years of investment and training on the parts of the State and GPs themselves. The problem of poor synchronisation with hospitals has improved in the laboratory area but remains poor with other parts of secondary care. The plan for electronic referral letters will be a major improvement if implemented.

With the patient medical records system you currently have, how easy would it be to generate the following information about your patients?

Table 37: The ease with which respondents can generate patient information using their current medical records system.

	Easy	Difficult	Cannot generate	Is this process computerised?
				Yes
List of all individual patients' medications (N=378; 99%)	336 (89%)	22 (6%)	20 (5%)	274 (82%) N=333
Patients due or overdue for a service (e.g. Flu Vaccine) (N=373; 97%)	187 (50%)	131 (35%)	55 (15%)	245 (76%) N=321
List of patients by lab result (e.g. HbA1C) (N=367; 96%)	176 (48%)	129 (35%)	62 (17%)	231 (72%) N=320
List of patients by diagnosis (e.g. HTN) (N=375; 98%)	178 (47%)	152 (41%)	45 (12%)	255 (78%) N=329

The majority of GPs responding report generation of a list of medications for an individual patient to be easy and half of GPs can generate a list of patients who are due or overdue for a vaccination. In each case where the GP indicated that they found each process 'easy' they were more likely to have this process computer generated. The majority of GPs either find it difficult or cannot generate a list of patients by diagnosis or by lab result. The gender of the GP had no bearing on the ease with which they reported being able to generate patient information. Younger GPs and GPs in larger sized practices were more likely than older GPs and GPs working in smaller practices to report being able to generate patient information using their current medical records systems.

Table 38: With the patient records system that you currently have, how easy would it be for you to generate a list of *all medications taken by an individual patient*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Easy	Difficult	Cannot generate	Is this process computerised?
				Yes
Ireland (N=378)	**89%**	**6%**	**5%**	**82%**
Australia	71%	27%	2%	94%
Canada	33%	29%	33%	25%
France	43%	28%	27%	24%
Germany	55%	22%	17%	65%
Italy	53%	37%	9%	78%
Netherlands	70%	23%	7%	61%
New Zealand	57%	41%	2%	96%
Norway	57%	23%	14%	45%
Sweden	43%	20%	33%	49%
UK	89%	7%	2%	86%
US	45%	29%	20%	30%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Irish GPs report generation of medication lists for individual patients to be easy, a similar level to that reported in the UK and higher than that reported by the rest of their international counterparts.

Table 39: With the patient records system that you currently have, how easy would it be for you to generate a list of *patients who are due or overdue for tests or preventive care*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Easy	Difficult	Cannot generate	Is this process computerised?
				Yes
Ireland (N=373)	**50%**	**35%**	**15%**	**76%**
Australia	63%	34%	2%	95%
Canada	18%	33%	43%	22%
France	32%	35%	28%	19%
Germany	37%	38%	20%	65%
Italy	46%	46%	7%	76%
Netherlands	65%	35%	*	69%
New Zealand	57%	41%	2%	96%
Norway	7%	50%	37%	32%
Sweden	21%	31%	42%	41%
UK	90%	9%	1%	89%
US	24%	40%	31%	29%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Irish GPs' ease in generating recalls for tests/preventive care, compares well with GPs reporting in the Commonwealth Fund International Survey of Primary Care Doctors.

Table 40: With the patient records system that you currently have, how easy would it be for you to generate a list of *patients by lab result*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Easy	Difficult	Cannot generate	Is this process computerised?
				Yes
Ireland (N=367)	**48%**	**35%**	**17%**	**72%**
Australia	52%	39%	8%	88%
Canada	19%	28%	47%	23%
France	19%	34%	37%	15%
Germany	20%	40%	33%	56%
Italy	43%	49%	8%	76%
Netherlands	37%	53%	7%	62%
New Zealand	44%	41%	15%	84%
Norway	30%	46%	16%	49%
Sweden	46%	31%	18%	67%
UK	77%	15%	2%	85%
US	25%	36%	33%	29%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Irish GPs ease in listing patients by lab result is comparable with their international counterparts.

Table 41: With the patient records system that you currently have, how easy would it be for you to generate a list of *patients by diagnosis*? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Easy	Difficult	Cannot generate	Is this process computerised?
				Yes
Ireland (N=375)	**47%**	**41%**	**12%**	**78%**
Australia	61%	36%	3%	93%
Canada	34%	33%	28%	37%
France	30%	34%	27%	20%
Germany	68%	19%	8%	82%
Italy	74%	22%	3%	86%
Netherlands	67%	32%	*	73%
New Zealand	56%	42%	2%	97%
Norway	51%	34%	9%	57%
Sweden	56%	29%	12%	74%
UK	97%	*	*	90%
US	41%	35%	19%	42%

Footnote: Australia (N=1016); Canada (N=1401); France (N=502); Germany (N=715); Italy (N=844); Netherlands (N=614); New Zealand (N=500); Norway (N=744); Sweden N=1450); UK (N=1062); US (N=1442)

Almost half of Irish GPs (47%) reported ease in generating a list of patients by diagnosis. This figure is in the lower third by comparison with international counterparts.

Are the following tasks routinely performed in your office practice?

Table 42: Tasks that are routinely performed within the practice.

	Yes, using a computerised system	Yes, using a manual system	No
All laboratory tests are tracked until results reach clinicians (N=376; 98%)	147 (39%)	94 (25%)	135 (36%)
Patients are sent reminder notices (e.g., flu vaccine or BP check) (N=377; 98%)	92 (24%)	79 (21%)	206 (55%)
You receive an alert or prompt to provide patients with test results (N=375; 97%)	73 (19%)	60 (16%)	242 (65%)
You receive a reminder for guideline-based interventions (N=373; 97%)	22 (6%)	17 (5%)	334 (89%)

In the majority of cases, tasks such as patients being sent a reminder notice, or the GP receiving an alert to provide patients with test results or a reminder to utilise guideline based interventions are not routinely performed in the practices. However, in the majority of cases laboratory tests are tracked until results reach clinicians. Where these tasks are routinely performed it is typically using a computer rather than a manual system.

GPs in larger practices, younger GPs and GPs who had previously reported having electronic patient medical records in their practices were most likely to send their patients reminder notices. GPs in larger practices and who had previously indicated that they use electronic patient medical records were most likely to have laboratory tests tracked until results reach clinicians and were also more likely to receive an alert to provide patients with test results. GPs who had previously indicated that they have electronic patient medical records were more likely to receive a reminder for guideline based interventions. The gender of the GP made no difference to any of the above tasks being performed.

Table 43: All *laboratory tests ordered are tracked until results reach clinicians*. Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, using a computerised system	Yes, using a manual system	No
Ireland (N=376)	**39%**	**25%**	**36%**
Australia (N=1016)	69%	10%	21%
Canada (N=1401)	13%	25%	59%
France (N=502)	25%	37%	36%
Germany (N=715)	40%	33%	23%
Italy (N=844)	59%	8%	33%
Netherlands (N=614)	28%	8%	62%
New Zealand (N=500)	56%	5%	39%
Norway (N=744)	28%	9%	58%
Sweden (N=1450)	50%	7%	38%
UK (N=1062)	60%	10%	27%
US (N=1442)	28%	40%	28%

Irish GPs' use of laboratory test tracking is concordant with that of GPs reported in the Commonwealth Fund survey.

Table 44: Patients are sent *reminder notices* when it is time for regular preventive or follow-up care (e.g. flu vaccine)? Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, using a computerised system	Yes, using a manual system	No
Ireland (N=377)	**24%**	**21%**	**55%**
Australia (N=1016)	82%	7%	11%
Canada (N=1401)	10%	21%	66%
France (N=502)	24%	35%	40%
Germany (N=715)	17%	15%	64%
Italy (N=844)	9%	24%	66%
Netherlands (N=614)	48%	31%	20%
New Zealand (N=500)	92%	4%	3%
Norway (N=744)	3%	12%	84%
Sweden (N=1450)	26%	25%	47%
UK (N=1062)	76%	21%	2%
US (N=1442)	18%	29%	49%

Irish GPs' reported use of reminder notices is comparable with most of their international counterparts.

Table 45: You receive *an alert or prompt to provide patients with test results*. Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, using a computerised system	Yes, using a manual system	No
Ireland (N=380)	**19%**	**16%**	**65%**
Australia (N=1016)	68%	7%	24%
Canada (N=1401)	12%	27%	59%
France (N=502)	11%	26%	63%
Germany (N=715)	11%	21%	66%
Italy (N=844)	19%	14%	67%
Netherlands (N=614)	8%	9%	83%
New Zealand (N=500)	41%	5%	54%
Norway (N=744)	26%	12%	62%
Sweden (N=1450)	15%	11%	72%
UK (N=1062)	49%	11%	39%
US (N=1442)	22%	28%	47%

Irish GPs receive alerts/prompts to provide patients with test results to a similar extent to their international counterparts.

Table 46: You receive a *reminder for guideline-based intervention* and/or screening results. Comparison between Ireland and data collected by Commonwealth Fund (2009) International Survey of Primary Care Doctors (1)

	Yes, using a computerised system	Yes, using a manual system	No
Ireland (N=380)	**6%**	**5%**	**89%**
Australia (N=1016)	67%	6%	27%
Canada (N=1401)	9%	17%	71%
France (N=502)	27%	27%	45%
Germany (N=715)	12%	10%	77%
Italy (N=844)	31%	16%	52%
Netherlands (N=614)	9%	7%	83%
New Zealand (N=500)	45%	4%	51%
Norway (N=744)	7%	9%	83%
Sweden (N=1450)	4%	6%	88%
UK (N=1062)	62%	10%	26%
US (N=1442)	20%	19%	58%

Availability of reminders for guideline-based intervention is relatively low compared to the majority of the other countries in the Commonwealth Fund survey.

Data from these tables indicate substantial use of information technology in the execution of tasks regarded as integral to good chronic disease management throughout the countries studied, and with activities in Irish practice broadly comparable. More particularly, Irish practice appears to compare favourably in the area of prescribing, average in the area of triggering preventive actions and management of laboratory data, and less good in the use of IT systems to provide guideline based prompts and reminders.

These data will be relevant for the ongoing process of professionally led standard setting in the area of determining specifications for clinical record system software development in the future.

Barriers to effective chronic disease management

This section outlines the importance of perceived barriers to the effective delivery of chronic disease management in the community.

Please rate the following in terms of your perceived importance as being barriers to the effective management of chronic diseases in your practice:

Table 47: Perceived importance of barriers to effective management of chronic diseases within the practice.

	Extremely important	Not important	Important
Increased workload/lack of time (N=379; 99%)	310 (82%)	18 (5%)	51 (13%)
Lack of appropriate funding (N=378; 98%)	286 (76%)	33 (9%)	59 (15%)
Poor communication between hospital teams and general practitioners (N=379; 99%)	206 (55%)	66 (17%)	107 (28%)
Lack of ongoing access to specialists for advice (N=379; 99%)	217 (37%)	55 (15%)	107 (28%)
Lack of skills and education/knowledge gaps (N=377; 97%)	91 (24%)	154 (41%)	132 (35%)

The respondents report increased workload/lack of time as being extremely important more frequently than any other perceived difficulty in effective chronic disease management.

The majority of GPs considered the lack of appropriate funding, poor communication between hospital teams and GPs, an increase in workload and a lack of ongoing access to specialists for advice as extremely important barriers to the effective management of chronic diseases. The majority considered a lack of skills and education was an important barrier. Neither the age nor gender of the responding GP had any influence on the perception of barriers to CDM. However GPs working in larger practices with three or more doctors were more likely to perceive a lack of appropriate funding, poor communication between hospital teams and GPs and an increase in work load as an important barrier to effective CDM.

Future development of chronic disease management

This section examines GPs' perceptions of the importance of resources for the development of CDM and their opinion on shared care initiatives between GPs and hospitals.

Please rate the following resources in terms of importance that would allow you to further develop CDM in your practice

Table 48: Rating of resources in terms of importance in the development of chronic disease management within the practice.

	Extremely important	Not important	Important
Specific payments for patients with a major chronic disease (N=374; 95%)	292 (78%)	33 (9%)	49 (13%)
Targeted funding as in the NHS model (N=365; 96%)	244 (68%)	46 (12%)	75 (20%)
Increased practice nurse time for clinics (N=372; 96%)	232 (62%)	38 (10%)	102 (28%)
GP led CDM clinics (N=370; 96%)	199 (54%)	61 (16%)	110 (30%)
Specialist nurse led clinics (N=374; 97%)	184 (49%)	82 (21%)	108 (30%)

Respondents identify specific payments for patients with a major chronic disease as being extremely important.

The majority of GPs believe that GP led CDM clinics, increases in practice nurse time for clinics, targeted funding as in the NHS model, specialist nurse led clinics and specific payments for patients with a major chronic disease are extremely important resources to develop CDM.

Younger GPs were more inclined to believe that increased practice nurse time, targeted funding and specific payments were important compared to older GPs. GPs working in larger practices were more likely to perceive targeted funding and specific payments for patients with a major chronic disease as important. The gender of the GP had no bearing on ratings in terms of development of CDM.

Based on these responses, GPs would be positively disposed to addressing the issues of time pressure and poor communications with secondary care, together with targeted payments similar to the Quality Outcomes Framework in the NHS, based on individual patient diagnoses.

With regard to shared care of chronic disease between general practice and the hospital:

Table 49: GPs' opinion of shared care between general practice and hospitals.

	Yes
Do you think there is a place for shared care in CDM between General Practice and the hospital? (N=378; 98%)	373 (99%)
Would you support a shared care initiative in CDM between your practice and your local hospital? (N=376; 97%)	367 (98%)
Do you think a shared care initiative between GP and hospital, could be run by nurses? (N=372; 96%)	258 (69%)
Are you currently involved in any shared care of a chronic disease? (N=376; 97%)	168 (45%)

GPs responded positively on the prospective use of shared care in CDM between general practice and hospital.

The majority of GPs welcomed the concept of shared care in CDM between GP and hospitals. Over two thirds of GPs welcomed a shared care initiative between themselves and a hospital that could be run by a nurse. Nearly half of the GPs indicated that they are currently involved in shared care of a chronic disease. Being currently involved in shared care did not influence GPs' perceptions on shared care compared with GPs who are not involved in shared care. Of those 168 GPs who indicated that they are involved in shared care, a total of 125 (74%) respondents said the shared care that they are involved in is working. Neither the age nor gender of the GP, nor the size of the practice in which they worked had any bearing on the opinion of shared care initiatives between general practice and hospitals.

Section Four: Discussion

This is the first national survey of chronic disease management in Irish General Practice, which can be used as a baseline to measure future change. It is a 'stock taking' exercise to ascertain the current practice and level of interest there is amongst GP Colleagues to manage chronic disease in their practice communities. The questions were drawn from the "eleven countries Commonwealth study" (1) with added local questions. This allows us to make international comparisons of our results with other healthcare systems. The response rate of 72% achieved in the study shows that GPs are interested in the concept of chronic disease management within their practice population.

The majority think that that there are some good things in the Irish healthcare system but significant changes are needed to make CDM work better. In comparison to the 11 country data, Irish GPs are least likely to rate the healthcare system as working well. This is not surprising as primary care has been led to the top of the hill with the primary care strategy and has had to find its own way after that. Changes proposed by our new Government will hopefully provide policy direction that is badly needed for primary care.

Substantial differences remain in access between fee paying patients and GMS eligible patients in terms of access to diagnostics and also to associated disciplines. International comparisons indicate the degree of such access for Irish private patients is comparable internationally; access for GMS patients as an important subgroup is significantly less good. The fact that patients with CDM are more likely to be over represented in the GMS subgroup and have poorer access to diagnostics and specialist care is a cause for particular concern.

GPs reported widespread use of IT and electronic patient medical records. When compared with the 11 country study Ireland has the same rate of use of IT systems within the practices. Thus there is significant infrastructure in place for the task of providing accountable high quality care for chronic disease in Irish general practice, and data from this study provides direction in terms of which aspects of IT application and development should be preferentially augmented and singled out for further development. Integrated guideline based prompts and automated reminders need particular attention.

Inequality appears to be ingrained in Irish general practice, with GPs believing that their GMS entitled patients often have greater difficultly than the fee-paying patients getting specialised diagnostic tests; often experience longer waiting times to see a hospital based specialist, and often experience longer waiting times to receive treatment after diagnosis. On the other hand, fee-paying patients sometimes have more difficulty than GMS entitled patients paying for medications or other out-of-pocket costs. It is surprising that similar inequalities operate in other better-funded and better-organised systems than ours. It is the scale of inequality that is different in Ireland, which is a poor reflection of our past decade of unprecedented wealth.

A total of 375 (99%) respondents indicated that they have an out-of-hours service for their patients with the majority working within a Co-Op system. This rates better than the 11 Countries

systems. In fact when Ireland is compared against the 11 study data we offer the best coverage of out-of-hours within the group.

There is a small amount of clinical audit being routinely performed on any chronic diseases. This may change as a result of the Medical Council's requirements for GPs to conduct audits within their practice as part of competence assurance. It is a capacity issue and GPs will need considerable support if we are to provide accountable, good quality care in chronic disease management.

Compared to 11 country data Irish GPs are using evidence-based guidelines with the same frequency as their international counterparts for diabetes, asthma or COPD and hypertension. There is less use of guidelines for depression and ADHD when compared internationally, that may be a reaction to the low level of trusted guidance being provided. There is an undue emphasis on pharmaceutical guidance in these areas which GPs may not trust and we recommend more dialogue between psychiatrists, including child psychiatrists, and GPs in this area.

Irish GPs consider a shortage of other GPs practicing in their areas as a minor problem, but are more likely to consider time spent on administration as a major problem compared to their international counterparts; and are also more likely to consider time spent co-ordinating care for patients as a major problem compared to their international counterparts. Irish general practice has to accommodate both private and public systems at both primary and secondary care levels, which adds complexity and challenges and an increased administration workload. Irish GPs are also interested in targeted payments for the management of chronic disease, which is a way forward for the profession and the Government.

Approximately one third of respondents indicated that they believe they are part of a functioning primary care team. Ten years on from the Government's Primary Care Strategy document (2) it would appear that advances could still be made to roll out fully functioning primary care teams within Irish communities. Irish GPs believe that there is good support for shared care initiatives between themselves and local hospitals. The evidence for shared care is weak and much effort can be expended in this area because it seems like a good idea. We think the effort is better placed within practices, by placing emphasis on clinical organisation, assuring quality of care and up-skilling all members of the practice.

Care integration is most sensibly located where the whole person is cared for – in general practice. Arguably, general practice's role has been, and should be, further strengthened, as the medical hub for chronic disease management with spokes of speciality care feeding in. Much greater availability and integration with PCTs would strengthen chronic care in the Irish community. The IT infrastructure which is reported to be further developed than countries such as the US and Canada, is a good base from which to improve the provision of formal disease registers, reminder systems, and potential medication problem alerts and to support better communications within the practice teams and the wider care systems.

The Chronic Care Model provides a very useful framework for a baseline snapshot of GP perceptions of chronic care in Ireland. The snapshot, and comparisons with international colleagues indicate that Irish chronic disease management has considerable strengths, but room for improvements. Eliciting patients' perspectives on chronic disease management is an important next step. Over time repeating this snapshot and including patient perceptions will provide an evaluation of progress towards improving chronic care in Ireland.

References

1. Commonwealth Fund. 2009 International survey of primary care doctors. [Internet]. 2009; Available from: http://www.commonwealthfund.org/Content/Publications/In-the-Literature/2009/Nov/A-Survey-of-Primary-Care-Physicians.aspx

2. Department of Health & Children. Primary Care. A New Direction. 2001;

3. Wagner EH, Austin BT, Von Korff M. Improving outcomes in chronic illness. Manag Care Q. 1996;4(2):12-25.

4. WHO. Innovative Care for Chronic Conditions: Building Blocks for Action. 2002;

5. Martin CM, Peterson C, Robinson R, Sturmberg JP. Care for chronic illness in Australian general practice - focus groups of chronic disease self-help groups over 10 years: implications for chronic care systems reforms. Asia Pac Fam Med. 2009;8(1):1.

6. Hroscikoski MC, Solberg LI, Sperl-Hillen JM, Harper PG, McGrail MP, Crabtree BF. Challenges of change: a qualitative study of chronic care model implementation. Ann Fam Med. 2006 Aug;4(4):317-326.

7. Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness: the chronic care model, Part 2. JAMA. 2002 Oct 16;288(15):1909-1914.

8. Crabtree BF, Nutting PA, Miller WL, McDaniel RR, Stange KC, Roberto Jaén C, et al. Primary Care Practice Transformation Is Hard Work: Insights From a 15-Year Developmental Program of Research. Med Care [Internet]. 2010 Sep 17 [cited 2011 Apr 20];Available from: http://www.ncbi.nlm.nih.gov/pubmed/20856145

9. Dennis SM, Zwar N, Griffiths R, Roland M, Hasan I, Davies GP, et al. Chronic disease management in primary care: from evidence to policy. Medical Journal of Australia. 2008;188(8):53.

10. Britt H, Harrison C, Miller G, Knox S. Prevalence and patterns of multimorbidity in Australia. Medical Journal of Australia. 2008;189(2):72-9.

11. Martin CM. Chronic disease and illness care: adding principles of family medicine to address ongoing health system redesign. Can Fam Physician. 2007 Dec;53(12):2086-2091.

12. Solberg LI, Crain AL, Sperl-Hillen JM, Hroscikoski MC, Engebretson KI, O'Connor PJ. Care quality and implementation of the chronic care model: a quantitative study. Ann Fam Med. 2006 Aug;4(4):310-316.

13. Culler SD, Parchman ML, Przybylski M. Factors related to potentially preventable hospitalizations among the elderly. Med Care. 1998 Jun;36(6):804-817.

14. Holbrook A, Thabane L, Keshavjee K, Dolovich L, Bernstein B, Chan D, et al. Individualized electronic decision support and reminders to improve diabetes care in the community: COMPETE II randomized trial. CMAJ. 2009 Jul 7;181(1-2):37-44.

15. Freeman G. Up close and personal? Continuing pressure on the doctorpatient relationship in the QOF era. British Journal of General Practice. 2006 Jul;56:483-484.

16. Department of Health & Children. Quality and Fairness: A health system for you [Internet]. 2001;Available from: http://www.dohc.ie/publications/quality_and_fairness.html

17. Bennett K, Jennings S, Collins C, Boland M, Leahy J, Bedford D, et al. Heartwatch: a secondary prevention programme in primary care in Ireland. European Journal of Cardiovascular Prevention & Rehabilitation. 2008 Dec 1;15(6):651 -656.

18. Smith S, Bury G, O'Leary M, Shannon W, Tynan A, Staines A, et al. The North Dublin randomized controlled trial of structured diabetes shared care. Fam Pract. 2004 Feb;21(1):39-45.

19. National Cancer Screening Service. First Cervical Check Programme Report [Internet]. 2010;Available from: http://www.cervicalcheck.ie/publications/publications.524.html

20. Starfield B. William Pickles Lecture. Primary and specialty care interfaces: the imperative of disease continuity. Br J Gen Pract. 2003 Sep;53(494):723-729.

21. O'Dowd T, O'Kelly M, O'Kelly F. Structure of General Practice in Ireland 1982-2005. 2006;

Appendix: Survey Instrument

Department of Public Health & Primary Care, Trinity College Dublin

National Survey of Chronic Disease Management in General Practice

1. Which of the following statements come closest to expressing your overall view of chronic disease management (CDM) in our health care system?

☐ On the whole, the health care system works pretty well, and only minor changes are necessary to make CDM work better.

☐ There are some good things in our health system, but significant changes are needed to make CDM work better.

☐ Our health care system has so much wrong with it that we need to completely rebuild it for CDM.

2a. How often do your fee paying patients experience the following?

	Often	Sometimes	Rarely	Never
a. Have difficulty paying for medications or other out-of-pocket costs	☐	☐	☐	☐
b. Have difficulty getting specialised diagnostic tests (e.g., CT imaging)	☐	☐	☐	☐
c. Experience long waiting times to see a hospital based specialist	☐	☐	☐	☐
d. Experience long waiting times to receive treatment after diagnosis	☐	☐	☐	☐

2b. How often do your GMS entitled patients experience the following?

	Often	Sometimes	Rarely	Never
a. Have difficulty paying for medications or other out-of-pocket costs	☐	☐	☐	☐
b. Have difficulty getting specialised diagnostic tests (e.g., CT imaging)	☐	☐	☐	☐
c. Experience long waiting times to see a hospital based specialist	☐	☐	☐	☐
d. Experience long waiting times to receive treatment after diagnosis	☐	☐	☐	☐

3. What out of hours service does your practice utilise (tick all that apply) ?

Local rota ☐ Co-op ☐ Deputising service ☐ No Service (Excluding A&E) ☐

4. Does your practice routinely use written evidence-based treatment guidelines to treat the following conditions?

(e.g., ICGP, NICE, or SIGN Guidelines)

	Yes, Routinely use Guidelines	No, Do Not Routinely Use Guidelines	No Guidelines Available
a. Diabetes	☐	☐	☐
b. Depression	☐	☐	☐
c. Asthma or COPD	☐	☐	☐
d. Hypertension	☐	☐	☐
e. ADHD	☐	☐	☐

5. Do you provide patients, who take multiple medications (e.g. 5 or more) with a written list of their medications ?

☐ Yes, routinely ☐ Yes, occasionally ☐ No

6. Do you give your patients with chronic diseases written instructions about how to manage their own care at home?

☐ Yes, routinely ☐ Yes, occasionally ☐ No

7. Have you completed a full Audit Cycle within the last 5 yrs on 1 or more chronic diseases?

☐ Yes ☐ No

8. In your own practice, other than doctors, does your practice include any other health care providers?

Practice nurse	☐	Psychologist	☐	Practice Manager	☐
Receptionist	☐	Dietitian	☐	Counsellor	☐
Administrator	☐	Chiropodist	☐	Other	☐

9. Please rate the strength of your agreement with the following statements:

1= Strongly disagree 2 =Disagree 3=Neither agree/disagree 4=Agree 5=Strongly agree

I am happy with CDM as it is	1	2	3	4	5
I want to put more time and energy into CDM here in the practice	1	2	3	4	5
Primary care teams will enhance the way chronic disease is managed in my practice	1	2	3	4	5
My local hospital should put more time and energy into CDM	1	2	3	4	5
I am willing to share the CDM workload with my local hospital	1	2	3	4	5
CDM should take place largely at a practice level and delivered largely by GPs	1	2	3	4	5
CDM should take place largely at a practice level by nurses, under GP supervision	1	2	3	4	5
CDM should take place largely at a practice level by nurses working independently of GPs	1	2	3	4	5

10. Is your practice functioning as part of a primary care team?

☐ Yes ☐ No

11. Outside of your practice, do your patients have effective local access to the following?

	Private patients	GMS patients
Physiotherapist	☐	☐
Occupational therapist	☐	☐
Speech and language therapist	☐	☐
Chiropodist	☐	☐
Psychologist	☐	☐
Dietician	☐	☐
Social worker	☐	☐

12a. When your patients have been seen by a hospital specialist, privately, how often do the following occur?

	Always	Often	Sometimes	Rarely	Never
You receive a report from the specialist with all relevant information	☐	☐	☐	☐	☐
The information you receive is timely; that is available when needed	☐	☐	☐	☐	☐

12b. When your patients have been seen by a hospital specialist, publicly, how often do the following occur?

	Always	Often	Sometimes	Rarely	Never
You receive a report from the specialist with all relevant information	☐	☐	☐	☐	☐
The information you receive is timely; that is available when needed	☐	☐	☐	☐	☐

13a. Do you use electronic patient medical records in your practice?

☐ Yes ☐ No

13b. If yes, which system?

_____

14. Do you use any of the following technologies in your practice?

	Yes, used routinely	Yes, used occasionally	No
a. Electronic ordering of laboratory tests	☐	☐	☐
b. Electronic access to your patients' laboratory test results	☐	☐	☐
c. Electronic alerts or prompts about ADRs or drug interaction	☐	☐	☐
d. Electronic entry of clinical notes, including medical history and follow-up	☐	☐	☐
e. Electronic prescribing of medication	☐	☐	☐

15. How often does your practice communicate with patients by email?

☐ Often ☐ Sometimes ☐ Rarely ☐ Never

16. How often does your practice communicate with patients by SMS Text ?

☐ Often ☐ Sometimes ☐ Rarely ☐ Never

17. With the patient medical records system you currently have, how easy would it be to generate the following information about your patients?

	Ease/Difficulty				Is Process Computerised?	
	Easy	*Somewhat Difficult*	*Difficult*	*Cannot Generate*	*Yes*	*No*
a. List of patients by diagnosis (e.g. HTN)	☐	☐	☐	☐	☐	☐
b. List of patients by lab result (e.g., HbA1C)	☐	☐	☐	☐	☐	☐
c. Patients due or overdue for (e.g. Flu Vaccine)	☐	☐	☐	☐	☐	☐
d. List of all medications of a patient	☐	☐	☐	☐	☐	☐

18. Are the following tasks routinely performed in your office practice?

	Yes, using a computerised System	Yes, using a manual System	No
a. Patients are sent reminder notices (e.g., flu vaccine or BP)	☐	☐	☐
b. All laboratory tests ordered are tracked until results reach clinicians	☐	☐	☐
c. You receive an alert or prompt to provide patients with test results	☐	☐	☐
d. You receive a reminder for guideline-based interventions	☐	☐	☐

19. How much of a problem, if any, are the following?

	Major Problem	Minor Problem	Not a Problem	Not Applicable
a. Shortage of GPs where you practice	☐	☐	☐	☐
b. Amount of time you or your staff spends on administration	☐	☐	☐	☐
c. Amount of time you spend coordinating care for your patients	☐	☐	☐	☐

20. How often do you currently use the following approaches to improving care for patients with diabetes?

1=Never, 2=Rarely, 3=Occasionally, 4=Usually, 5=Always

Use a register to identify and/or track care of your patients	1	2	3	4	5
Use a tracking system to remind patients about needed visits	1	2	3	4	5
Follow up patients between visits by telephone (you or staff)	1	2	3	4	5
Use published practice guidelines as the basis for your management	1	2	3	4	5
Involve office staff in reminding patients in need of follow-up or other services	1	2	3	4	5
Assist patients in setting and attaining self-management goals	1	2	3	4	5
Refer patients to someone within your practice for education about their diabetes	1	2	3	4	5
Refer patients to someone outside your practice for education about their diabetes	1	2	3	4	5
Use flow sheets to track critical elements of care	1	2	3	4	5

21. Please rate the following in terms of your perceived importance as being barriers to the effective management of chronic diseases in your practice:

1=Not important, 2=A little important, 3=Important, 4=Very important, 5=Extremely important

a. Lack of appropriate funding	1	2	3	4	5
b. Lack of skills and education / knowledge gaps	1	2	3	4	5
c. Poor communication between hospital teams and general practitioners	1	2	3	4	5
d. Increased workload / lack of time	1	2	3	4	5
e. Lack of ongoing access to specialists for advice	1	2	3	4	5

22. Please rate the following resources in terms of importance that would allow you to further develop CDM in your practice?

1=Not important, 2=A little important, 3=Important, 4=Very important, 5=Extremely important

a. GP led CDM clinics	1	2	3	4	5
b. Specialist nurse led clinics	1	2	3	4	5
c. Increased practice nurse time for clinics	1	2	3	4	5
d. Targeted funding as in the NHS model	1	2	3	4	5
e. Specific payments for patients with a major chronic disease	1	2	3	4	5

(E.g. COPD, CVD, Diabetes)

23. With regard to Shared Care of chronic disease between general practice and the hospital:

a. Do you think there is a place for shared care in CDM between General Practice and the hospital? ☐ Yes ☐ No

b. Would you support a shared care initiative in CDM between your practice & your local hospital? ☐ Yes ☐ No

c. Do you think a shared care initiative between GP & hospital could be run by nurses? ☐ Yes ☐ No

d. Are you currently involved in any shared care of a chronic disease? ☐ Yes ☐ No

24. If you are currently involved in shared care, is it working?

☐ Yes ☐ No ☐ Not applicable

PRACTICE PROFILE & DEMOGRAPHIC DATA

25. Where is your practice located?

☐ City ☐ Suburban ☐ Small town ☐ Rural

26. Your Age Category:

☐ Under 35 ☐ 35-49 ☐ 50-64 ☐ 65 or older

27. Your Sex:

☐ Male ☐ Female

28. Which of the following describes you practice?

☐ A single handed practice ☐ A two doctor practice ☐ A three or more doctor practice

29. Is your practice part of an integrated provider system (e.g. Centric, Touchstone etc.)? ☐

☐ Yes ☐ No

30. About what percentage of your patients are in each of the following categories?

Total can add to more than 100%.

_____% Full Medical Card _____% Doctor Only card

_____% Private fee paying _____% Other (please specify)

31. Is your practice involved in Training?

☐ Yes ☐ No

If yes, are you involved in ☐ Undergraduate ☐ Post-graduate

THANK YOU FOR YOUR TIME & CO-OPERATION


AVIVA