

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form ([see an example](#)) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Barriers and facilitators to introducing integrated diabetes care in Ireland: a qualitative study of views in general practice.
AUTHORS	Mc Hugh, Sheena; O'Mullane, Monica; Perry, Ivan; Bradley, Colin

VERSION 1 - REVIEW

REVIEWER	<p>Sean Dinneen Senior Lecturer in Medicine, NUI Galway Consultant Endocrinologist, Galway University Hospitals, Galway Ireland</p> <p>Competing interests statement: I was part of a HRB funded project (entitled the National Diabetes Register Project) and worked with several of the authors of this manuscript during the period 2006 to 2009. I led on a survey of hospital provided diabetes care as part of the project. I did not participate in any of the interviews or in the design or analysis of the work presented in this manuscript. I have not worked with any of the UCC group since 2009.</p>
REVIEW RETURNED	28-May-2013

THE STUDY	there are no supplemental documents
REPORTING & ETHICS	I am not aware of a reporting statement for qualitative work
GENERAL COMMENTS	<p>Summary: The authors describe the output from a series of in-depth interviews with GPs and PNs in Ireland during the period 2009 to 2010. The focus of the interviews was to establish attitudes towards the roll out of a National Integrated Diabetes Care model. The participants were identified from an earlier survey of diabetes care provision in general practice and the sample was selected to include as wide an array of practice types as possible. The findings point to a lot of barriers (and a few facilitators) to the delivery of good quality diabetes care in general practice in Ireland. Among the major barriers are a lack of remuneration by the health service for chronic disease management delivered in general practice. Facilitators included a sense of (vocational) duty to deliver diabetes care among some GPs and pockets of good integrated care in some areas of the country.</p> <p>Major comments: The study population consisted of GPs who had opted in during a preceding postal survey on the organisation of diabetes care. What was the response rate to the postal survey and was there potential for bias with those with an interest in diabetes more likely to respond to the survey and also to opt in to taking part in an interview? At the beginning of methods section the authors state that the paper focuses on organisation of diabetes care and barriers and facilitators to optimal management. However, no information is really provided</p>

	<p>on how diabetes care is delivered in participating practices – it would be useful to have a background section to describe the practices that participated in the qualitative study eg whether diabetes care was delivered in a structured way or “opportunisticly”.</p> <p>The concept of "in the meantime" care is not clearly explained and should be clarified. The quote relating to this theme in Box 3 does not help with understanding where the term came from. It may be that a different description of what the authors are trying to get across would be more appropriate.</p> <p>Likewise the term "Lucky" as used to describe a theme coming from the interviews does not feel right. Does this refer to areas of the country where community services are more readily available or does it refer to areas of the country where services between community and hospital are better integrated? This should be clarified and consideration given to a different descriptor for this theme.</p> <p>Also it would be useful to define what is meant by a "vocational incentive".</p> <p>Figure 1 is complex and needs more than just a passing reference to it in the text. At a minimum a standalone figure legend should be included. How was this figure put together? It is not clear how the relationships between the different variables were established.</p> <p>Minor comments: On page 7, line 30 the word "free" should be removed. The second paragraph (beginning on line 19) on page 14 seems out of place and is probably not required.</p>
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REVIEWER	Antje Lindenmeyer Lecturer in Qualitative Methods University of Birmingham UK
REVIEW RETURNED	03-Jun-2013

GENERAL COMMENTS	<p>This is a well described and designed qualitative study in a very important area of primary care. I have a few comments and suggestions for clarification:</p> <p>The issue of computerisation is mentioned in the sampling strategy and never really picked up. Very few practices did not use computerised records, mostly single handed practices: were their experiences very different from the others? Do we know whether this is roughly representative of GPs in Ireland as a whole? Would computerisation be needed to achieve the desirable connections between primary and secondary care?</p> <p>I would also recommend to unpick the issues behind being GPs describing themselves as 'lucky' as they had good access to services, or a dedicated member of staff. Would this link to the patchy 'postcode lottery' nature of the services, or a recognition that individual dedication of members of staff is very important but can't be guaranteed? When this theme is discussed on p 14, the part played by luck etc. is rooted in the context of the Irish health system, but it is not clear how. I would also guess that it is a culturally appropriate form of discussing scarcity of resources?</p> <p>Risk of saturation: this is slightly confusing as saturation is an important term in qualitative research and has a different meaning</p>
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	<p>there. I would clarify this in the title eg. risk of general practices becoming 'saturated' , and also expand a bit more on the participants' experiences: which other services are moved into the community, and how was this received?</p> <p>The 'limitations' paragraph on p 14 discusses using more than one interviewer and coder and makes a good case for doing this. I would however formally label this section as 'limitations' and briefly discuss other possible limitations: it does not include a patient voice (and is there research on the patient experience of diabetes care in Ireland?), and the data you get may be influenced by the characteristics of GPs volunteering to be interviewed. This is normal in qualitative studies but I would look at the demographics of GPs that agreed/ did not agree to be interviewed.</p> <p>I have found the following errors/ typos and include them here FYI: Page 4, para 3: the introduction OF integrated diabetes care Page 4, para 4: health systems such as the England and Denmark: do you mean such as in the UK, or England and Wales? Page 5, para 1: barriers and facilitator to optimal management and attitudes TO quality improvement Page 7, para 3: divided opinions about the most APPROPRIATE form of remuneration Page 14, para 3: highlighted in 1982 [this needs a reference]</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1

- The study population consisted of GPs who had opted in during a preceding postal survey on the organisation of diabetes care. What was the response rate to the postal survey and was there potential for bias with those with an interest in diabetes more likely to respond to the survey and also to opt in to taking part in an interview?

o The following sentence has been added to the methods section to provide more detail on the population from which interview participants were recruited:

‘There was a 44% response rate to the initial survey (n=262) and the majority of participants indicated willingness to be contacted for a follow-up interview (n=213, 81% of survey respondents).¹⁰ In total, 25 out of 26 counties in the Republic of Ireland were represented in the study population and the profile of the survey respondents was broadly comparable with the national GP profile in terms of urban/rural breakdown and proportion of single-handed/group practices ¹⁵. Approximately half of the original survey respondents self-reported a special interest in diabetes and most practices had a computer system (93%).’

The comment regarding potential for bias is addressed in the discussion section under limitations. Participation in this study was based on an ‘opt in’ procedure during a preceding survey of GPs in Ireland.¹⁰ This could influence the profile of those who volunteered to be interviewed however this is a consideration for all qualitative studies. Due to the anonymous nature of the survey it was not possible to link practice and professional demographics to those who agreed/did not agree to be interviewed. The survey sample was in line with the national profile of general practice in Ireland in terms of practice size, location and level of computerisation.¹⁵ Participants’ experiences typified the diversity of care arrangements in the Irish health system and the organisation of diabetes care in practice ranged from ad-hoc to structured management. While practice characteristics guided the sampling strategy, perceptions of the main barriers were largely consistent across the sub-groups and attitudes were shaped to a greater extent by the context of care in terms of access to various supports and services.

- At the beginning of methods section the authors state that the paper focuses on organisation of diabetes care and barriers and facilitators to optimal management. However, no information is really

provided on how diabetes care is delivered in participating practices – it would be useful to have a background section to describe the practices that participated in the qualitative study eg whether diabetes care was delivered in a structured way or “opportunistically”.

o Thank you for this instructive feedback, providing this context will enhance the interpretation of the results. The following paragraph has been added to the start of the results section to provide more context:

Participants’ in this study represented the diversity of diabetes care arrangements in Ireland. There was variation in the level of organisation around diabetes care within practices from ‘ad-hoc’ opportunistic management to structured diabetes care characterised by regular recall and review, patient registration and nurse coordination. Although most participants were from computerised practices, the extent to which they utilised electronic records varied. There were also different experiences of sharing care with hospital specialists. Hence, barriers and facilitators were rooted in the context of care delivery; a particular support or resource could be a barrier or facilitator depending on its presence or absence in a participant’s practice.

• The concept of “in the meantime” care is not clearly explained and should be clarified. The quote relating to this theme in Box 3 does not help with understanding where the term came from. It may be that a different description of what the authors are trying to get across would be more appropriate.

o The paragraph outlining the theme ‘in the meantime’ care has been rewritten to provide a more in-depth explanation of the concept and the concept has also been clarified in the abstract:

Results section:

In addition, the lack of coordination and integrated management led to a sense of ambiguity around the patients’ care pathway. A number of participants referred to an ‘in the meantime’ period; this referred to uncertainty about when patients would be called or recalled by specialist services. For example, one participant from an urban single-handed computerised practice ‘supposed’ ‘that we’re to pick them [patients] up in the meantime’, that is between hospital reviews, but ‘there’s been no communication, there’s been no meetings, there’s been no working group... it’s just sort of left like that’. Another participant from an urban group practice described how patients with diabetes were recalled ‘by the system...as the hospital deems appropriate’ with problems referred to the hospital in the meantime, ‘that’s as much of a protocol as there is’. This sense of uncertainty around the care pathway also emerged in relation to accessing support services (illustrated by the quote in Box 3) and was seen as particularly difficult for patients who were newly diagnosed with diabetes. Furthermore, there was concern that some patients are ‘falling through the net’ and not attending either service.

Abstract:

The lack of coordination at the primary-secondary interface resulted in avoidable duplication and an ‘in the meantime’ period of uncertainty around when patients would be called or recalled by specialist services.

We feel the quote in Box 3 captures the sense of uncertainty for patients and providers about what will happen next however, based on the reviewer’s comments we have elucidated the concept in greater detail in the paragraph above and clarified the phrasing in Box 3.

• Likewise the term “Lucky” as used to describe a theme coming from the interviews does not feel right. Does this refer to areas of the country where community services are more readily available or does it refer to areas of the country where services between community and hospital are better integrated? This should be clarified and consideration given to a different descriptor for this theme.

o We have tried to provide a fuller explanation of the theme ‘luck’ in the text of the results section and in references to this theme in the abstract and discussion. The theme referred to both instances identified by the reviewer and this has been clarified in the text:

Results section:

Several participants referred to themselves and their patients as ‘lucky’ to have access to services such as dieticians and podiatrists, suggesting that these services evolved by chance rather than systematic service planning within the health system. Participants acknowledged the unique position they were in given the aforementioned ‘patchy’ access to services. Access in some cases resulted

from the resourcefulness of health care professionals in establishing partnerships or optimising opportunities.

'We're very lucky here, in that we've had a very good access to a dietician for the last few years now. It was just something they tried themselves. They were based in the city, and they decided to put some outreach clinics out in the county, and they picked this town for one of their centres.'

Participants also referred to luck in relation to the availability of a dedicate nurse within the practice or access to a diabetes nurse specialist.

Discussion section:

Some of the themes identified, such as the part played by local circumstances and 'luck' in securing access to community services, are rooted in the context of the Irish health system and the history of underinvestment in primary care in Ireland.

Abstract:

Facilitators included the availability of nursing support and serendipitous access to services.

We have tried as far as possible to preserve the words and phrases used by participants during the interviews to keep the analysis grounded in the original data, hence the use of the word 'luck' in the descriptor for this theme.

- Also it would be useful to define what is meant by a "vocational incentive".

- o We have simplified the language in our explanation of vocational incentives and the following sentence has been added to the text in the results section to define 'vocational' incentives for trying to improve care:

Participants made the distinction between the financial and 'vocational' incentives for providing regular structured diabetes care. 'Vocational' incentives related to a sense of personal or professional obligation to improve care delivery, which acted as internal motivation for some participants (Box 2).

Those who referred to vocational incentives as a source of motivation had established a systematic structured approach to diabetes management, either as part of a local primary care initiative or independently within their own practice.

- Figure 1 is complex and needs more than just a passing reference to it in the text. At a minimum a standalone figure legend should be included. How was this figure put together? It is not clear how the relationships between the different variables were established.

- o The development of Figure 1 is now outlined within the text and hopefully clarifies the origins and relationships illustrated within it. The following text has been added to explain the depiction:

Figure 1 illustrates these barriers and facilitators and where they occur within the health system. The figure was developed based on analysis of the transcripts. The connections identified within the diagram are based on the ramification of various barriers as identified by participants themselves during the interview process.

Text has also been added to Figure 1 to clarify some of the factors illustrated and a legend has been added to the figure (see end of manuscript as per journal guidelines).

- On page 7, line 30 the word "free" should be removed.

- o The word 'free' has been removed and the word 'acute' has been added to more accurately reflect the current contract for GPs.

- The second paragraph (beginning on line 19) on page 14 seems out of place and is probably not required.

- o Thank you for the suggestion. Reviewer 2 felt a good case had been made for using more than one interviewer in this paragraph and as a result we have labelled the paragraph as a limitations section and refer to the potential for bias among respondents mentioned by Reviewer 1 in a previous comment.

Reviewer 2

- The issue of computerisation is mentioned in the sampling strategy and never really picked up. Very few practices did not use computerised records, mostly single handed practices: were their experiences very different from the others? Do we know whether this is roughly representative of GPs in Ireland as a whole? Would computerisation be needed to achieve the desirable connections

between primary and secondary care?

o The preceding survey of diabetes care in general practice found that over 90% of GP practices were computerised. However, what the qualitative follow-up study identified was the variation in the extent to which computers were utilised. This information has been added to the methods section and the opening paragraph of the results section.

Methods section:

Approximately half of the original survey respondents self-reported a special interest in diabetes, and most practices had a computer system (93%) in line with the national profile of general practice. 15

Results section:

Although most participants were from computerised practices, the extent to which they utilised electronic records varied. There were also different experiences of sharing care with hospital specialists. Hence, barriers and facilitators were rooted in the context of care delivery; the absence of a particular support or resource could be a barrier or facilitator depending on its presence or absence in a participant's practice.

o The experience of non-computerised GPs was not notably different to the other participants in terms of the barriers to integrated management. While these participants managed or organised care differently, their opinions on the main barriers and facilitators were consistent with the overall group (remuneration, coordination etc). Non-computerisation was not seen as a barrier to optimal management by these participants, this finding has been added to the results section. In relation to facilitators, the suggestion of shared information systems was emphasised by participants from computerised practices and was not raised by those from non-computerised practices. This detail has been added to the text:

Participants called for the development of a shared protocol to reduce avoidable duplication and clarify the roles and responsibilities within each setting. Those from computerised practices emphasised the need for shared information systems to minimize duplication and overcome the current 'palaver' surrounding processes of care, such as routine blood tests, in the system. Participants from non-computerised practices did not view non-computerisation as a barrier to integrated care or optimal diabetes management.

'It's what works for me. I'm updated in terms of training and meetings and all that kind of thing...But I would like to see us having a place in anything that would develop [in terms of the implementation of integrated diabetes care]' (GP115, rural single-handed non-computerised).

The following text has also been added to the limitations section in the Discussion:

While practice characteristics guided the sampling strategy, perceptions of the main barriers were largely consistent across the sub-groups and attitudes were shaped to a greater extent by the context of care in terms of access to various supports and services.

- I would also recommend to unpick the issues behind being GPs describing themselves as 'lucky' as they had good access to services, or a dedicated member of staff. Would this link to the patchy 'postcode lottery' nature of the services, or a recognition that individual dedication of members of staff is very important but can't be guaranteed? When this theme is discussed on p 14, the part played by luck etc. is rooted in the context of the Irish health system, but it is not clear how. I would also guess that it is a culturally appropriate form of discussing scarcity of resources?

o This theme 'luck' has been clarified in response to comments from both reviewers. It is related to the patchy 'postcode lottery' nature of services in the context of a primary care system which has never been adequately or evenly resourced in Ireland. The explanation provided in the results section has been expanded and the reference in the discussion has been clarified:

Results

Several participants referred to themselves and their patients as 'lucky' to have access to services such as dieticians and podiatrists, suggesting that these services evolved by chance rather than systematic service planning within the health system. Participants acknowledged the unique position they were in given the aforementioned 'patchy' access to services. Access in some cases resulted from the resourcefulness of health care professionals in establishing partnerships or optimising opportunities.

'We're very lucky here, in that we've had a very good access to a dietician for the last few years now. It was just something they tried themselves. They were based in the city, and they decided to put some outreach clinics out in the county, and they picked this town for one of their centres.'

Discussion section:

Some of the themes identified, such as the part played by local circumstances and 'luck' in securing access to community services, are rooted in the context of the Irish health system and the history of underinvestment in primary care in Ireland.

Abstract

Facilitators included the availability of nursing support and serendipitous access to services.

- Risk of saturation: this is slightly confusing as saturation is an important term in qualitative research and has a different meaning there. I would clarify this in the title eg. risk of general practices becoming 'saturated', and also expand a bit more on the participants' experiences: which other services are moved into the community, and how was this received?

- o This feedback is very constructive and I have changed the phrasing to avoid any confusion between the terms. The paragraph outlining this theme has been revised in the results section to provide examples and a quote from one participant has been added to enhance the explanation:

Participants warned about the risk of general practice becoming saturated as more services are moved to the community including other chronic physical and mental illnesses and the "huge amount of bloods being done" in primary care. The health system 'needs to back up their policy of shifting [management] from secondary care to primary care' by providing adequate resources.

"We always have been willing to take on more and more stuff that is primary care-based [and] bring it out of secondary care but we're saturated now" (GP110, rural group computerised)

- The 'limitations' paragraph on p 14 discusses using more than one interviewer and coder and makes a good case for doing this. I would however formally label this section as 'limitations' and briefly discuss other possible limitations: it does not include a patient voice (and is there research on the patient experience of diabetes care in Ireland?), and the data you get may be influenced by the characteristics of GPs volunteering to be interviewed. This is normal in qualitative studies but I would look at the demographics of GPs that agreed/ did not agree to be interviewed.

- o This section has been expanded to address some of the other limitations and points for consideration within the study. Given the anonymous nature of the preceding survey which provided the population for the qualitative study, it was not possible to look at the demographics of those who decided not to participate beyond their location, practice size and level of computerisation. However the survey sample was in line with the national profile of GPs in Ireland. Furthermore only 50% of GPs in the survey expressed a special interest in diabetes and there were a number of participants who had focused interests in other chronic conditions. Participants also represented different care arrangements and different levels of organisation within the practice.

Limitations (Discussion)

Participation in this study was based on an 'opt in' procedure during a preceding survey of GPs in Ireland 10. This could influence the profile of those who volunteered to be interviewed however this is a consideration for all qualitative studies. Due to the anonymous nature of the survey it was not possible to link practice and professional demographics to those who agreed/did not agree to be interviewed. The profile of the survey sample was in line with the national profile of general practice in Ireland in terms of practice size, location and level of computerisation 15. Participants' experiences typified the diversity of care arrangements in the Irish health system and the organisation of care in practice ranged from ad-hoc to structured management. While practice characteristics guided the sampling strategy, perceptions of the main barriers were largely consistent across the sub-groups and attitudes were shaped to a greater extent by the context of care in terms of access to various supports and services.

This study presents the barriers and facilitators to optimal diabetes management from the general practice perspective. The other health care professionals involved in the delivery of diabetes care may face unique challenges within their setting or profession. Furthermore, while participants highlighted barriers within the system for patients such as the out-of-pocket costs associated GP care in Ireland,

further research with patients is warranted to garner their views on the introduction of integrated diabetes care in Ireland. A similar qualitative study has been conducted on patients' attitudes to shared care arrangements in Ireland. 37

• I have found the following errors/ typos and include them here FYI:

Page 4, para 3: the introduction OF integrated diabetes care

Page 4, para 4: health systems such as the England and Denmark: do you mean such as in the UK, or England and Wales?

Page 5, para 1: barriers and facilitator to optimal management and attitudes TO quality improvement

Page 7, para 3: divided opinions about the most APPROPRIATE form of remuneration

Page 14, para 3: highlighted in 1982 [this needs a reference]

o Typos have been corrected

Thank you both again for taking the consider this paper in such detail.

VERSION 2 – REVIEW

REVIEWER	Sean Dinneen Senior Lecturer in Medicine NUI Galway
REVIEW RETURNED	29-Jun-2013

- The reviewer completed the checklist but made no further comments.