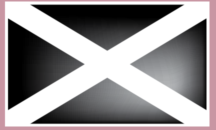

Death Certification Test Site Evaluation

Health and Community Care

social research

DEATH CERTIFICATION TEST SITE EVALUATION
BLAKE STEVENSON'S FINAL REPORT

Glenys Watt, Director
Ian Christie, Consultant

Blake Stevenson Ltd

Scottish Government Social Research
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EXECUTIVE SUMMARY

1. The Certification of Death (Scotland) Act 2011 makes provision for a new process of independent reviews of Medical Certificates of Death (MCCDs) whereby registrars will refer a random sample of deaths (excluding deaths which are referred to the Procurator Fiscal) to the newly created post of Medical Reviewer (MR) who will review the quality and accuracy of the MCCDs. Generally this review will have to be complete before the death can be fully registered.

2. Between May/June 2012 and February 2013 the Scottish Government established two test sites, in Dundee and Dumfries & Galloway, to pilot the new approach. Both areas employed a 0.5 FTE MR and 0.5 FTE Medical Reviewer Assistant (MRA). The MRs were overseen by a Senior Medical Reviewer (SMR) who is a Senior Medical Officer at the Scottish Government.

3. In July 2012 the Scottish Government commissioned Blake Stevenson Ltd to undertake an evaluation of the test site processes and stakeholder experiences with a view to identifying lessons learned and informing national implementation. The evaluation involved interviews with all key stakeholders, analysis of data gathered from the test sites by NHS ISD and 18 short case studies of reviews undertaken to explore any issues arising in more depth.

4. The evaluation had a number of limitations as it did not take place in ‘real time’ and did therefore not affect any funeral taking place so there was no immediate impact on the public. When the process is implemented nationally reviews will need to be completed before funerals can take place and the public will also be charged a fee towards the costs of the review process. As this did not happen in the test site process the views of the public were not included in the evaluation.

5. The majority of MCCDs reviewed were found to be in order. Only 3% were found to be not in order across both level 1 and 2 reviews. Given the scrutiny of the test site process this is a very positive result. The main reasons given for the MCCDs that were considered not in order were as follows (with more than one reason being given in some circumstances):

    - incorrect or incomplete cause of death (88%);
    - information about the certifying doctor omitted (41%);
    - incorrect sequence of cause of death (32%); and
    - inaccurate or missing personal details about the deceased person (27%).

6. The duration of the reviews was generally in line with what had been estimated (30 minutes for level 1s and up to three hours for level 2s) but there were some delays in terms of elapsed time so that some reviews took in excess of seven days. The main reasons for the delays were difficulties in contacting the certifying doctors and in accessing medical records. It is

anticipated that when the process is implemented nationally the delays in contacting doctors will be reduced, as less time will have elapsed between the death and the review so the doctors will not have moved jobs or be on holiday to the same extent as happened in the test sites. There are practical issues relating to accessing medical records that may also reduce the time taken to complete the reviews, in particular if they can be accessed electronically.

7. The evaluation raised some other practical issues that could be addressed: ensuring that registrars can email (and have access to scanners) rather than fax through referrals as problems were found with faxing; the importance of locating the MRs in NHS buildings as this assists with IT communications and internal mail systems; and clarity around completion of the ISD data forms so that there is consistency across areas.

8. The test sites have shown that the new process creates some further work for registrars. This includes time to prepare documents for referral, to communicate with the MR, to file documents away after the review and to send a replacement MCCD (where this occurs) to National Records Scotland and change the cause of death in the register if this is required. (In the national implementation registrars will also require time to communicate with the public about the review process and to gather and administer the fees being charged).

9. The evaluation identifies good communication between the key stakeholders as being critical for the process to work well. For this reason the person specification for the MR/MRAs provided in the evaluation report identifies communication and people skills as essential.

10. The importance of consistency across all areas has been highlighted by some of the differences found between the two test site areas. This links to the need for thorough training of the new MRs and MRAs once they are appointed. The Senior Medical Reviewer will have responsibility for the overall consistency across Scotland.

11. Training and education will also be required for registrars and doctors. There will be a need for general awareness-raising about the new process with the public.

12. Once the national implementation is in place it will be important to undertake regular reviews:

- to check that there is consistency across all areas;
- to check whether there are unnecessary delays happening that could be resolved; and
- to check whether the overall sample size (at this stage it is intended this will be at 25%) is proportionate to the numbers of inaccurate MCCDs being found.

1 BACKGROUND AND CONTEXT

Introduction

1.1 The Scottish Government established two test sites in Dundee and Dumfries & Galloway in May-June 2012 to pilot a new approach to reviewing death certification. Blake Stevenson Ltd was commissioned in July 2012 to evaluate these test sites. The aim of the evaluation was to assess the test site processes and stakeholder experiences with a view to identifying lessons learned and informing national implementation across Scotland. This report presents the findings from the evaluation.

Context

New legislation

1.2 The Certification of Death (Scotland) Act 2011 makes provision for a new process of independent reviews of Medical Certificates of Cause of Death (MCCDs), whereby registrars will refer a random sample of deaths (excluding deaths which are referred to the Procurator Fiscal) to the newly created post of Medical Reviewer (MR) who will review the quality and accuracy of MCCDs[1]. Generally, the review must be complete before the death can be fully registered.

1.3 Medical Reviewers can undertake two types of review:

- a basic level 1 review in which the MR reviews the MCCD and holds a conversation with the doctor who certified the death. Original estimates indicated that the level 1 review is expected to take 30 minutes.

- a comprehensive level 2 review which involves the MR reviewing the MCCD and medical records associated with the patient who has died as well as speaking to the certifying doctor. The MR has the power to view the body if necessary and to speak to other involved parties such as other professionals and the family of the deceased for level 2 reviews, which original estimates indicated are expected to take three hours.

1.4 Medical Reviewers are able to escalate a level 1 review to level 2 if they deem it necessary.

1.5 The new legislation was prompted by the findings of the Burial and Cremation Review Group. This Group was set up in 2005 to review existing legislation related to burial and cremation, much of which was over 100 years old, with the aim of updating it to reflect life in the 21st century. The Review also took into account policy developments in England, particularly the Inquiry into the Harold Shipman case, which highlighted a need to review processes governing death certification.

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[1] Other interested parties including bereaved families will also have the right to request a review.

1.6 The Review recommended that a new system of death certification should be introduced in Scotland. Following consultation on the Review's findings, the Scottish Government developed the new legislation with the aim of:

- introducing a single system of independent, effective scrutiny applicable to deaths that do not require a Procurator Fiscal investigation;
- improving the quality and accuracy of the MCCD form; and
- providing improved public health information and strengthened clinical governance in relation to deaths.

1.7 The Scottish Government recognises that, while the Shipman case was one of the original drivers for reviewing the system of death certification, no death certification system can guarantee that similar cases could not occur. Therefore, the new process in Scotland focuses primarily on the above three aims.

1.8 A new death certification process is also being developed in England and Wales. The Coroners and Justice Act 2009 makes provision for all deaths (that do not require investigation by a Coroner) to be referred to a Medical Examiner for review, before a burial or cremation is authorised. The main aim of this system is to strengthen safeguards for the public, simplify the death certification process and increase the quality of certification and data about causes of death[2].

1.9 The new process planned in England and Wales is similar to the Scottish process but there are some significant differences: in England and Wales, all deaths will be reviewed and the focus on deterring and detecting malpractice is more pronounced than in the Scottish model, where a sample of deaths will be reviewed with the primary aims of improving the quality and accuracy of MCCDs and public health data about causes of death.

The death certification test sites

1.10 The new process has been tested in two test sites: Dumfries & Galloway and Dundee. Both test sites employed a 0.5 FTE Medical Reviewer (MR) and 0.5 FTE Medical Reviewer Assistant (MRA). The MRs were overseen by the Senior Medical Reviewer (SMR), who is a Senior Medical Officer at the Scottish Government.

1.11 In both areas, the MRs reviewed a sample of deaths referred by local registrars using a random sampling process. The test site in Dundee began in May 2012 and in Dumfries & Galloway in June 2012. The final day for referrals in both areas was 14 February 2013.

1.12 The test sites were required to achieve a target number of reviews: 525 level 1 reviews and 70 level 2 reviews in each test site area.

1.13 Doctors in both areas completed the existing MCCD form as well as a second revised MCCD form for the purposes of the test site.

[2] http://www.dh.gov.uk/health/category/policy-areas/nhs/resources-for-managers/death_certification/

1.14 MRs in the test sites carried out level 1 and level 2 reviews with the level of each review determined by the random sampling process. MRs could upgrade level 1 reviews to level 2 if they considered it necessary.

1.15 When the MRs finished each review, they completed an MR form and returned it to NHS ISD. NHS ISD then recorded the information on a database with information such as the number of reviews completed, their duration and outcome.

The evaluation

1.16 The aim of the evaluation is to assess the test site processes and stakeholder experiences with a view to identifying lessons learned and informing national implementation across Scotland, which is planned to take place from April 2014. The evaluation focuses on:

- establishing the length of time to complete level 1 and level 2 reviews and reviews upgraded from level 1 to level 2 by the MR;
- the factors that impact on the duration of reviews;
- early identification of any recurring clinical governance and/or training issues;
- stakeholder views on the new system, forms and documentation;
- other issues (rural, urban, faith, stakeholder, MR FTE numbers, public impact and so on) which may arise when implementing the system nationally; and
- implications for national implementation.

Methodology

1.17 Our methodology involved four key elements outlined below:

- interviews with test site stakeholders at the beginning and end of the evaluation;
- interviews with national stakeholders at the end of the evaluation;
- analysis of NHS ISD data; and
- case studies of 18 reviews.

1.18 Each element is described in more detail below.

Interviews with test site stakeholders

1.19 We undertook face-to-face qualitative interviews with all people recruited into statutory roles associated with the test sites at the beginning and end of the evaluation. These stakeholders were:

- the Senior Medical Reviewer;
- the Medical Reviewer (MR) and Medical Reviewer Assistant (MRA) in Dumfries & Galloway; and
- the MR and MRA in Dundee.

1.20 The interviews with these stakeholders at the beginning of the evaluation explored their experience of the test sites so far, their expectations for the test sites and their views of the review process. The interviews at the end of the evaluation explored their experiences and views of the test sites and the review process, how far their expectations had been met and their views of lessons learned through the test sites.

1.21 We also interviewed the Principal Information Analyst with responsibility for the test site data at NHS ISD at the beginning and end of the evaluation to explore data collection and recording issues associated with the test sites.

1.22 A full list of interviewees is in Appendix 1.

Interviews with national stakeholders

1.23 We carried out face-to-face qualitative interviews with eight national stakeholders at the end of the evaluation to discuss their views of the overall impact of the test sites and the implications for national implementation of the test sites and the review process. A list of these stakeholders is in Appendix 1.

Analysis of NHS ISD data

1.24 The Medical Reviewers in both areas sent a form for each review they completed containing information about the review, its duration and outcome. The data from these forms was stored by NHS ISD in a database. NHS ISD sent us monthly updates of data from the database including the number of reviews completed, their duration and their outcome.

Case studies

1.25 We carried out retrospective case studies of 18 reviews (nine in each area) carried out by the MRs. To carry out the case studies, we:

- asked the MRs to select case studies based on the selection criteria in Table 1.1;
- reviewed details of each case as recorded on the reporting form that MRs submitted to NHS ISD;
- gathered details of each case from the MRs; and

- undertook qualitative telephone interviews with the registrars and medical professionals involved in each review[3].

1.26 We undertook the case studies in two waves: six during wave 1 at the start of the evaluation (three in each test site area) and 12 during wave 2 at the end of the evaluation (six in each test site area).

1.27 Table 1.1 summarises the case studies we completed and the case study review participants we interviewed.

Table 1.1: Case studies

Area	Selection criteria	Interviewees
Wave 1		
Dundee	Level 1 review, not in order	MR Registrar Senior member of medical team
Dundee	Level 2 review, not in order	MR Registrar Certifying doctor Senior member of medical team
Dundee	Upgraded review	MR Registrar Certifying doctor Senior member of medical team
Dumfries & Galloway	Level 1 review, not in order	MR Registrar Senior member of medical team
Dumfries & Galloway	Level 2 review, not in order	MR Registrar Certifying doctor Senior member of medical team
Dumfries & Galloway	Upgraded review	MR Registrar Certifying doctor Senior member of medical team
Wave 2		
Dundee	Level 1 review which went well	MR Registrar
Dundee	Level 2 review which went well	MR Registrar
Dundee	Level 2 review which went well	MR Registrar Senior member of medical team
Dundee	Level 1 review which was difficult	MR Registrar Senior member of medical team
Dundee	Level 1 review which was difficult	MR Registrar Certifying doctor
Dundee	Level 2 review which was difficult	MR Registrar Certifying doctor

[3] We interviewed as many people involved in the reviews as possible, unless they had moved on to another post and we could not contact them or if they did not return our calls.

Area	Selection criteria	Interviewees
Dumfries & Galloway	Level 1 review which went well	MR Registrar Certifying doctor
Dumfries & Galloway	Level 2 review which went well	MR Registrar Certifying doctor
Dumfries & Galloway	Upgraded review which went well	MR Registrar Certifying doctor
Dumfries & Galloway	Level 1 review which was difficult	MR Registrar Senior member of medical team
Dumfries & Galloway	Level 2 review which was difficult	MR Registrar Senior member of medical team
Dumfries & Galloway	Upgraded review which was difficult	MR Registrar Certifying doctor

1.28 We asked case study interviewees about their involvement in the case study review as well as their overall views of the new review process and its impact on them, their colleagues and the public.

Limitations of the evaluation

1.29 The evaluation has several limitations as noted below.

- The test sites have not operated in 'real time'. Funerals have taken place regardless of whether or not the review is complete but, when the process is implemented nationally, reviews will need to be completed before funerals can be arranged. This is especially notable where particularly time-sensitive cases are concerned, for example deaths in faith groups where the preference is to hold a funeral within 24 hours of a death, or deaths where international repatriation is required. For this reason the information the evaluation has been able to gather regarding the duration of the reviews is particularly important.

- As the test sites did not operate in 'real time', they did not alter the way in which members of the public register deaths or make funeral arrangements. Therefore, gathering the views of the public about the new arrangements was not part of the scope of this evaluation.

- When the process is implemented nationally, people who register a death will have to pay a fee to the registrar to go towards the costs of the review system, but this fee was not charged during the test sites. This issue was therefore not included within the scope of this evaluation.

- In addition, when the process is implemented nationally, Medical Reviewers will have additional powers which they did not have in the test sites. For example, when the process is implemented nationally, MRs will

have the power to authorise cremation of repatriated deceased and arrange post mortem examinations under certain circumstances.

- Members of the public were not able to request a review in the test site, but they will be able to when the process is implemented nationally.

The report

1.30 The remainder of the report is set out as follows:

- Chapter 2 presents the quantitative and qualitative evidence from the test sites.
- Chapter 3 sets out the findings.
- Chapter 4 provides conclusions and discusses implications for national implementation.

2 QUANTITATIVE AND QUALITATIVE EVIDENCE FROM THE TEST SITES

Introduction

2.1 This chapter provides the quantitative evidence from the test sites under the following headings:

- test site activity, covering information about the numbers of reviews undertaken;
- outcome of reviews; and
- duration of reviews.

2.2 The chapter then provides qualitative findings related to the processes involved within each test site.

Test site activity

The number of reviews completed

2.3 Table 2.1 below sets out statistics regarding the numbers of reviews in both test sites. The source for all statistics shown in this chapter is NHS ISD and the data was extracted from the ISD database on 9 April 2013.

Table 2.1: Number of reviews completed by level and test site

Type of Review	Dumfries & Galloway	Dundee	Total
Level 1 (Basic)	618	505	**1123**
Level 2 (Comprehensive)	100	65	**165**
Upgraded from Level 1 to Level 2	9	4	**13**
Total	**727**	**574**	**1301**

2.4 The total cases reviewed in each area tallies closely with the original estimated targets of 525 level 1s and 70 level 2s and the overall total of 1301 exceeds the original estimate of 1190 reviews.

2.5 Registrars followed a random sampling process to refer a percentage of deaths (excluding Procurator Fiscal referrals) to MRs for review. Registrars were given a list of numbers and instructed to refer any deaths for which the entry number in their register matched or ended in one of those numbers.

2.6 Table 2.1 shows that the MRs in the two test site areas completed 1301 reviews in total, comprising 1123 Level 1 reviews (86% of all reviews), 165 Level 2 reviews (13%) and an additional 13 reviews upgraded from Level 1 to Level 2 (1%).

2.7 There have been more reviews in Dumfries & Galloway than Dundee. The ISD database recorded that the MR in Dumfries & Galloway completed 727 reviews[4] (618 level 1, 100 level 2 and nine upgraded). In Dundee, the MR completed 574 reviews (505 level 1, 65 level 2 and four upgraded). This shows that the number of cases reviewed in Dundee (574) was a little short of the target for the test site (595).

2.8 Despite the discrepancy between the two test sites in terms of the volume of completed reviews, we should note that the number of reviews that MRs completed was dictated by the number of cases that registrars referred to them. This was in turn dictated by a random sampling method which prompted registrars to refer a percentage of deaths for review. The fact that the MR in Dumfries & Galloway completed more reviews than in Dundee could potentially be due to a range of reasons including differences in the ways the referral processes worked in practice in the two areas or differences in the overall death rate in the two areas.

Table 2.2: Number of reviews completed per month by level and test site

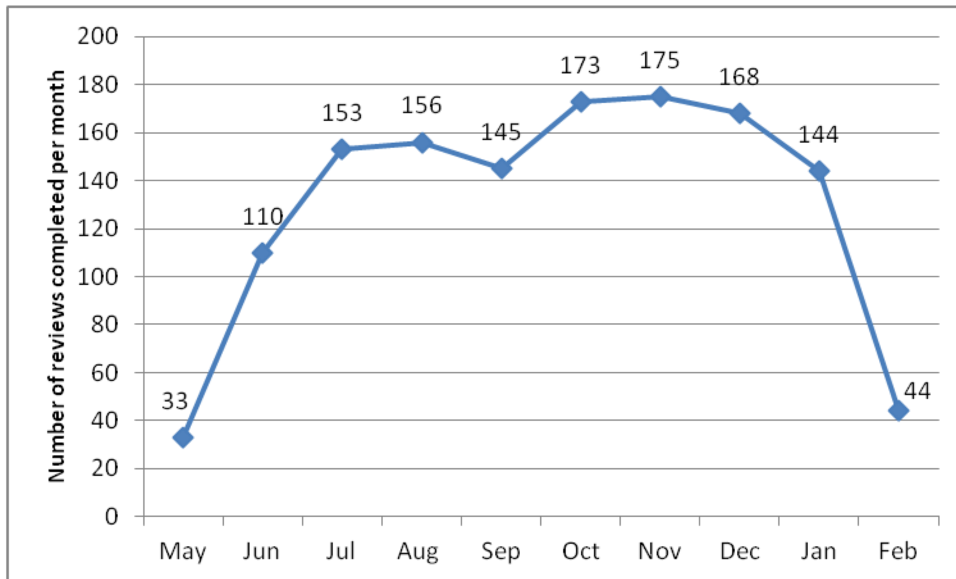
	Dumfries & Galloway			Dundee			
Month of Referral	**Level 1**	**Level 2**	**Upgraded from Level 1 to Level 2**	**Level 1**	**Level 2**	**Upgraded from Level 1 to Level 2**	**Total**
May 2012*	-	-	-	30	3	-	**33**
June 2012	48	6	-	52	4	-	**110**
July 2012	97	15	2	34	4	1	**153**
August 2012	84	9	-	58	5	-	**156**
September 2012	73	12	2	49	8	1	**145**
October 2012	106	11	2	44	10	-	**173**
November 2012	95	7	-	69	4	-	**175**
December 2012	86	12	-	59	11	-	**168**
January 2013	29	22	2	76	13	2	**144**
February 2013	-	6	1	34	3	-	**44**
Total	**618**	**100**	**9**	**505**	**65**	**4**	**1301**

*Note: The Dumfries & Galloway test site began in June.

[4] This includes 21 reviews from Dundee that the Dumfries & Galloway MR completed. Nineteen of these were referred while the Dundee MR was on leave and two involved the Dundee MR's husband (who is a GP), so the Dumfries & Galloway MR undertook these to avoid any potential conflict of interest.

This also includes six cases which were referred to the MR but had previously been referred to the Procurator Fiscal.

Figure 2.1: Number of reviews completed per month

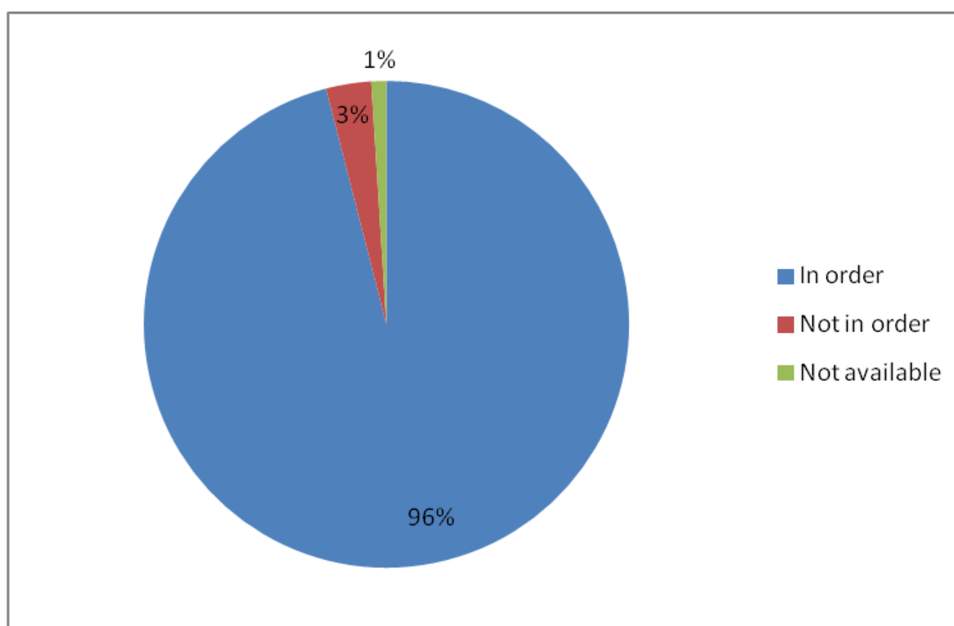


2.9 Table 2.2 and Figure 2.1 show that there were some fluctuations in the number of reviews completed per month. The median number of reviews completed per month is 149 but the number of reviews completed per month increased as the test sites became more established. In June, the first month when both test sites were operational, 110 reviews were completed but this increased to 153 in July and continued to increase, with the exception of a slight decrease in September, to 173 in October, a peak of 175 in November, and 168 in December. It is likely that the number of reviews peaked in winter months because the death rate is higher at that time of year, and hence the MRs received more referrals in these months. The number of reviews completed per month began to decrease again towards the end of the test sites: in January, 144 reviews were completed[5] and 44 were completed in February before the end of the test sites on the 14th of that month.

[5] By this time Dumfries & Galloway had exceeded its target for level 1 reviews and had stopped receiving referrals for these.

Outcome of reviews

Figure 2.2: Outcome of reviews



Note: Not available refers to six cases in Dumfries & Galloway which had been referred to the Procurator Fiscal before referral to the MR.

2.10 Figure 2.2 and Table 2.3 show that the majority of MCCDs reviewed (1254 or 96%) were found to be 'in order'. Only 41 MCCDs (3% of all reviews) were found to be not in order. This indicates that within the high level scrutiny of test site conditions the majority of MCCDs had been completed accurately by doctors and is a very positive result.

2.11 We discuss in more detail below the reasons why an MCCD was rated as not in order.

Table 2.3: Outcome of reviews by area

Outcome of Review	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
MCCD is 'In Order'	609	98	9	473	63	2	**1254**
MCCD is 'Not In Order' and Certifying Doctor issued replacement MCCD	3	2	-	32	2	2	**41**
Not available*	6	-	-	-	-	-	**6**
Total	**618**	**100**	**9**	**505**	**65**	**4**	**1301**

*Note: The six Dumfries & Galloway cases which are not available had previously been referred to the Procurator Fiscal before referral to the MR.

2.12 Table 2.3 indicates that more MCCDs were not in order and required a replacement MCCD in Dundee than Dumfries & Galloway. Thirty-six MCCDs in Dundee (6% of all reviews in that area) were found to be not in order

compared with five in Dumfries & Galloway (less than 1% of reviews in that area). There could be a number of reasons for this including different approaches by certifying doctors in each area or a different approach being taken between the MRs in the two areas and we discuss this issue further in Chapter 3 as it highlights the need to ensure consistency among MRs when the process is implemented nationally.

2.13 Looking at all level 1 and level 2 reviews across both areas, we found that 3% of level 1 reviews and 3% of level 2 reviews were found to be not in order. This suggests that the consistency in the level of inaccuracy in this test site situation remains the same whether it is at level 1 or 2.

Reasons why MCCDs were rated as 'not in order'

2.14 Based on analysis[6] of the 41 reviews where the MCCD was not in order and a replacement was requested, concern about the cause of death information was the most common reason for requesting a replacement MCCD. The MR identified an incorrect or incomplete cause of death in 36 (or 88%) of the 41 cases and an incorrect sequence of cause of death in 13 cases (32%). Other reasons include missing information about the certifying doctor (identified in 17 or 41% of the cases) and inaccurate or missing personal details about the deceased (identified in 11 or 27% of the cases). Further information about the concerns about these MCCDs is listed below.

- Incorrect or incomplete cause of death (36 cases)
  - Cause of death being wrong or too vague
  - Abbreviations being used for cause of death
  - Conditions being omitted from the MCCD or being recorded when they should not be.

- Information about the certifying doctor being omitted (17 cases)
  - Official address of certifying doctor missing
  - Certifying doctor details omitted (e.g. name)
  - Medical qualifications missing.

- Incorrect sequence of cause of death (13 cases)
  - Sequence of cause of death being incorrect or illogical.

- Inaccurate or missing personal details about the deceased person (11 cases)
  - Place of death missing
  - Time/date of death missing or incorrect
  - Deceased's personal details (e.g. name) wrong or omitted.

[6] Carried out by NHS ISD.

Quality scorecard ratings

2.15 MRs rated each MCCD they reviewed on a quality scorecard. Initially, MRs rated each MCCD on a scale of one to five on three elements: cause of death, referral to Procurator Fiscal and other information.

2.16 The results of this scoring show that there were few concerns about the accuracy or the quality of MCCDs reviewed. For example, MRs rated the vast majority of MCCDs (407, or 85% of all MCCDs scored in this way) as ‘five’ for cause of death, ie there were no concerns about the accuracy of the cause(s) of death listed on the MCCD.

2.17 Part way through the test sites, the quality scorecard system was changed. MRs were asked to rate the quality of seven aspects of each MCCD:

- the personal data on the deceased (on a scale of incorrect/missing, trivial error or correct);
- diseases or conditions relating directly to death (incorrect, questionable/imprecise or correct);
- other significant conditions contributing to death (incorrect, questionable/illogical, correct);
- tick boxes on MCCD (not used, incomplete, complete);
- Procurator Fiscal referral (not used, incomplete, complete);
- certifying doctor or responsible consultant information (incorrect/missing, trivial error, complete/complete); and
- overall legibility (very difficult to read, some difficulty to read, easy to read).

2.18 Similarly, these ratings showed that the majority of MCCDs had been completed accurately and fully. For example, 705 or 86% of the 822 MCCDs rated in this way were rated as ‘correct’ for diseases or conditions relating directly to death and 761 or 93% were rated as ‘easy to read’ in terms of overall legibility.

2.19 As noted above, the most common reason for rating an MCCD as not in order was a concern about the quality or accuracy of the information given about the cause of death. Concern about an incorrect or incomplete cause of death was noted in 36 of the 41 cases and an incorrect sequence of cause of death was identified in 13 cases.

2.20 Taking into account all MCCDs reviewed, including those rated ‘in order’ and ‘not in order’, the areas of most concern arising from the quality scorecard ratings relate to:

- the provision of information about the certifying doctor and responsible consultant - this information was 'incorrect/missing' on 104 or 13% of the MCCDs reviewed using the new style scorecard and included a 'trivial error' in 50 cases (6%);

- information about causes of death - 20 cases (2%) were incorrect in terms of diseases or conditions relating directly to death and 97 (12%) were rated as questionable/imprecise. Similarly, 14 cases (2%) were rated as incorrect in terms of other significant conditions contributing to death and 62 (8%) were rated as questionable/illogical; and

- information about the deceased person – 53 cases (6%) were rated as incorrect/missing and 43 cases (5%) were rated as including a 'trivial error'.

2.21 This analysis again shows that the majority of MCCDs are completed fully and accurately but some doctors might benefit from some education and training related to completing MCCDs, particularly in terms of information about causes of death and details about the certifying doctor and the deceased person.

2.22 We provide full details of the quality scorecard ratings in Appendix 2.

Referrals to Procurator Fiscal

2.23 In the vast majority of reviews, MRs were satisfied that the case did not require referral to the Procurator Fiscal (PF). Combining the results of the new and old quality scorecards shows that MRs were fully satisfied that the case did not warrant a referral to the PF in 98% of reviews[7]. In the 2% of cases where MRs considered a referral to the PF might be necessary, this was often done informally and there appears to have been no increased burden for the PF service.

Duration of reviews

2.24 Gathering accurate and complete data about the duration of reviews is an important element of this test site and evaluation as this will be a critical aspect of the process when it is implemented nationally. Initially, MRs provided very little data about the duration of reviews because they were uncertain about how to record this information. Consequently, NHS ISD discussed this issue with the test sites and provided further guidance on how to record duration.

2.25 Tables 2.4 and 2.5 display the data provided by test sites after NHS ISD had clarified how to record the duration of reviews. These tables show how many hours the MRs spent working on each review and how many days (including weekend and bank holidays) elapsed in total between receiving the referral and completing the review.

[7] That is, where MCCDs were given the highest possible rating ('five' in the old quality scorecard or 'non-referral appropriate' in the new scorecard).

Table 2.4: Duration of reviews from referral to signing off of MCCD in Dundee

	Level 1 (Basic) Hours working on MCCD form from referral to sign-off				Level 2 (Comprehensive) Hours working on MCCD form from referral to sign-off				Upgraded from Level 1 to Level2 Hours working on MCCD form from referral to sign-off				Total
Total number of days from referral to sign-off	**Blank**	**Less than 1 hour**	**1 hour or more, but less than 3**	**3 or more hours**	**Blank**	**Less than 1 hour**	**1 hour or more, but less than 3**	**3 or more hours**	**Blank**	**Less than 1 hour**	**1 hour or more, but less than 3**	**3 or more hours**	
Blank	-	1	-	-	-	-	-	-	-	-	-	-	**1**
Less than 1 day	1	212	9	1	-	-	23	6	-	-	-	-	**252**
1 day or more, but less than 3	-	12	-	1	-	-	-	1	-	1	1	-	**16**
3 days or more, but less than 7	-	29	4	1	-	1	1	4	-	-	-	-	**40**
7 or more days	1	10	6	6	-	-	3	5	-	-	-	1	**32**
Total	**2**	**264**	**19**	**9**	**0**	**1**	**27**	**16**	**-**	**1**	**1**	**1**	**341**

2.26 Table 2.4 shows that NHS ISD received data about the duration of 341 reviews in Dundee.

- The majority (72%) of level 1 reviews were completed with less than one hour's work within 24 hours of the referral being made.
- Eight per cent of level 1 reviews took seven or more days to complete.
- Nearly half (49%) of level 2 reviews (including upgraded reviews) were completed with between one and three hours' work within 24 hours of the referral being made, but 13% took between three and seven days to complete and 19% took more than seven days to complete.

2.27 Thirty-two reviews in Dundee took longer than seven days to complete. NHS ISD provided further analysis of the circumstances surrounding these reviews. This analysis found that half (16 of the 32) were recorded as being concluded within seven or eight days. However, there were also four instances where the total time taken to complete the review was four weeks or more, with one case taking 130 days to sign off following its referral due to difficulties in contacting the certifying doctor, who had moved on to another placement, difficulties in accessing the medical records, which had been sent to a local authority storage site, and difficulties in contacting the responsible consultant.

2.28 This evidence shows that the MR in Dundee completed most referrals within the intended timescales for reviews, although there were some significant delays due mainly to obstacles related to contacting doctors and accessing medical records.

Table 2.5: Duration of reviews from referral to signing off of MCCD in Dumfries & Galloway

	Level 1 (Short)				Level 2 (Comprehensive)				Upgraded from Level 1 to Level2				Total
	Hours working on MCCD form from referral to sign-off				Hours working on MCCD form from referral to sign-off				Hours working on MCCD form from referral to sign-off				
Total number of days from referral to sign-off	**Blank**	**Less than 1 hour**	**1 hour or more, but less than 3**	**3 or more hours**	**Blank**	**Less than 1 hour**	**1 hour or more, but less than 3**	**3 or more hours**	**Blank**	**Less than 1 hour**	**1 hour or more, but less than 3**	**3 or more hours**	
Blank	-	114	88	102	-	8	12	22	-	-	-	2	**348**
Less than 1 day	3	1	-	1	-	-	-	-	1	-	-	-	**6**
1 day or more, but less than 3	2	1	-	-	1	-	-	-	-	-	-	-	**4**
3 days or more, but less than 7	22	-	-	1	14	-	-	1	3	-	-	-	**41**
7 or more days	2	-	-	2	4	-	-	-	1	-	-	-	**9**
Total	**29**	**116**	**88**	**106**	**19**	**8**	**12**	**23**	**5**	**0**	**0**	**2**	**408**

*Note: In 348 cases, the MR reported data related to the number of hours spent working on the review, but not related to the number of days that elapsed from referral to sign off.

2.29 Table 2.5 shows that NHS ISD received data about the duration of 408 reviews in Dumfries & Galloway. Just over a third (34%) of level 1 reviews were completed with less than one hour's work, 26% involved one to three hours' work and 31% involved more than three hours.

2.30 While this gives an indication of how much time the MR spent working on each review, it is not clear how many days passed between receiving the referral and completing the review because of a lack of clarity around the data recorded on the ISD reporting form.

2.31 However, the MR in Dumfries & Galloway carried out additional analysis of the duration of her reviews. Table 2.6 outlines the findings of this analysis. Please note that we have calculated the figures below using the median rather than mean average because there are a few cases where reviews took radically longer, and these outliers would artificially inflate the mean average. For example, one case took 624 hours (26 days) from referral to sign off.

Table 2.6: Duration of reviews in Dumfries & Galloway (hours)

Measure	Level 1 Reviews	Level 2 Reviews (including upgraded reviews)	All Reviews
Elapsed time from picking up referral to signing the MCCD off (median hours)	1.55	23.45	1.95
Hours working on MCCD from referral to sign off (median hours)[8]	0.50	1.43	0.50
Time spent reviewing medical records (median hours)	Not applicable	0.75	Not applicable
Time spent trying to contact doctors (median hours)	0.05	0.10	0.05
Time spent discussing cases with doctors (median hours)	0.05	0.10	0.05

2.32 This shows that in most cases, reviews are completed within the expected timescale but the duration of a review can be affected drastically by factors such as delays in contacting doctors or accessing medical records. One per cent of level 1 reviews in Dumfries & Galloway took seven days or longer to complete.

2.33 We discuss the factors that affect the duration of reviews more fully later in this chapter.

[8] This includes time spent organising access to the medical records (for level 2 reviews), reviewing the records (for level 2 reviews), trying to contact doctors, talking to doctors, and completing the MR form for ISD at the end of the review.

Summary of case study evidence

2.34 We analysed the process and outcome of 18 case study reviews. We asked the MRs to select case study reviews based on the criteria in Table 2.7.

Table 2.7: Case study criteria[9]

Criteria	Target number	Number achieved – Dundee	Number achieved – Dumfries & Galloway	Number achieved – total
Level 1 reviews where the MCCD was not in order	2 (one in each area)	1	1	2
Level 2 reviews where the MCCD was not in order	2 (one in each area)	1	1	2
Upgraded reviews	2 (one in each area)	1	1	2
Level 1 reviews which went well	2 (one in each area)	1	1	2
Level 2 reviews which went well	2 (one in each area)	2	1	3
Upgraded reviews which went well	2 (one in each area)	0*	1	1
Level 1 reviews which were difficult	2 (one in each area)	2	1	3
Level 2 reviews which were difficult	2 (one in each area)	1	1	2
Upgraded reviews which were difficult	2 (one in each area)	0	1	1

Note: only one review had been upgraded in Dundee when the MR selected the case studies so she selected one additional level 1 and one level 2 review instead.

2.35 The summary below gives some insight into the findings of our case study analysis.

- Reviews seemed to get more efficient as the test sites progressed – MRs reported being able to complete reviews more quickly as they became more used to the process, although delays in accessing doctors and medical records continued to lengthen the duration of some reviews.

- In three cases we analysed, MRs were not able to speak to the certifying doctor due to him/her being on leave or having moved out of the area.

- The activities associated with a review take a short time to complete but delays in contacting certifying doctors and/or medical records can increase the duration of a review significantly. In all case studies, the MRs' conversation with the certifying doctor (or another medical professional if the certifying doctor was not available) took only a short time, ranging mostly from three to 15 minutes with one example of a longer discussion of 37 minutes. For example, one level 1 case study review took 91 days

from referral to sign off because the MR could not contact the certifying doctor and had difficulty in identifying another member of the medical team who could discuss the case. Eventually she spoke to a senior consultant and completed the review with a 15 minute conversation. In another case, the MR tried to track down medical records that had gone missing. The delay caused by this meant the review took 23 days to complete.

- We reviewed six cases where a replacement MCCD was issued, mostly because of inaccuracies around the causes of death. In addition to these cases, the MRs raised concern about the following aspects of the MCCD:
    - legibility (two cases);
    - missing information about the certifying doctor (two);
    - diseases and conditions directly leading to death (two);
    - other significant conditions contributing to death (one);
    - incorrect or missing information about the deceased (one); and
    - debatable Procurator Fiscal referral (one).

The processes within the test sites

2.36 Below we present qualitative findings relating to the process within the test sites, organised under the following headings:

- receiving referrals
- upgrading reviews
- factors that affect the duration of reviews
- faxing referrals back
- Medical Reviewers' workload
- outcome of reviews
- reporting to ISD
- location of Medical Reviewers
- professional background of Medical Reviewers
- liaising with doctors
- registrars
- bereavement support officers.

Receiving referrals

2.37 In the test sites, all referrals were sent to the MRs by local registrars using a random sampling method.

2.38 Most registrars faxed referral documents to the MR. This created problems including:

- missing information – in some instances, the fax cut off parts of the documents;
- legibility - the quality of the fax transmission can affect the legibility of the documents; and
- confirming receipt – there is no confirmation that a fax has been received by the intended recipient so in Dundee registrars emailed the MRA to let her know when a fax had been sent, and the MRA replied to confirm receipt. This provided extra work for both parties.

2.39 MRs and MRAs in both areas agreed it would be easier if documents could be emailed to MRs. Two registrar offices in Dumfries & Galloway took this approach and this seemed to work well. However, some registrar offices may not have access to the equipment required to scan and email documents.

2.40 MRs and MRAs commented that there were often daily fluctuations in the number of referrals received which could lead to backlogs. MRs commented that they would be more able to avoid backlogs and complete reviews quickly if they received a steady flow of referrals from registrars.

2.41 When the process is implemented nationally, MRs will receive referrals from registrars using a random sampling method, but members of the public and other interested parties will also be able to request reviews from the MR. This element of the process has not been tested by these test sites.

Upgrading reviews

2.42 MRs had the ability to take cases referred to them as level 1 reviews and upgrade them to level 2 reviews. This did not happen very often – only 1% of cases were upgraded. Where cases were upgraded, MRs did so because they required access to the deceased person's medical records. The main reason for this was where the MR wanted to clarify details or potential inaccuracies on the MCCD but was unable to because the certifying doctor was unavailable and no other member of the medical team was able or available to answer the MR's queries. In some other instances, cases were upgraded when the MR's review of the MCCD and/or discussion with the doctor led her to conclude that the case might require discussion with the Procurator Fiscal (PF), and she required access to medical records to inform her decision about contacting the PF and to inform any discussions with the PF.

Factors that affect the duration of reviews

2.43 MRs commented that reviews can normally be completed within the intended time frame but the experience of these test sites shows that there are various factors which can hinder this and lengthen the duration of a review.

2.44 Firstly, the length of time it takes to contact and hold a conversation with the certifying doctor and/or the responsible consultant affects the duration of a review. A review can be completed promptly if a doctor is available quickly but this is not always the case because doctors: frequently work unusual shift patterns; may be too busy to be interrupted; or, especially in the case of junior doctors, may have moved on to work elsewhere, perhaps in a different health board area.

2.45 MRs in both areas noted the importance of being flexible in the times of day during which they contact doctors. Our case studies provide examples of the various times of day that MRs contacted doctors, and the MRs gave further anecdotes of speaking to certifying doctors outside of office hours in order to fit in with the doctor's shift patterns. Both MRs also commented on the importance of having access to doctors' rotas so they can identify times that the doctor is likely to be available.

2.46 MRs also commented on the importance of being flexible in the way in which they approached doctors. In some cases, it was easier to go to see doctors face-to-face, particularly if it was proving difficult to contact him/her by phone.

2.47 Secondly, the length of time it takes to access medical records affects the duration of a review. This can be problematic for a number of reasons:

- the records may be held at a hospital or surgery that is far away from the MR's base, meaning they may have to travel to see them or wait for a delivery from the NHS internal mail service;
- a person's records may be spread across more than one location, and this can add to the above difficulty;
- GP practices' medical records are held electronically but cannot be sent electronically outside the practice; and
- MRs and MRAs in the test sites have found that Topas, the database which records where records are stored, is sometimes inaccurate.

2.48 This issue affected both test sites but was particularly prominent in the early stages of the test site in Dumfries & Galloway as a result of the rural nature of the area. Initially, the MR went to look at medical records in person and, given the size of Dumfries & Galloway, there were instances when the MR spent significant time driving long distances to review records held at GP practices or hospitals outwith Dumfries. This also involved a preparatory telephone call to the practice or hospital to arrange a suitable time for the MR to visit. The MR overcame this by asking GPs to fax a four page summary (known as the intermediate/emergency care summary) of the records to her and by making

use of the NHS internal mail system to access records from community hospitals[10].

2.49 To facilitate the prompt completion of reviews, MRs and MRAs commented that it would be helpful if they could access medical records electronically from their base.

Faxing referrals back

2.50 The MR in Dumfries & Galloway noted that there is sometimes a delay between signing the MCCD off and faxing the documents back to the registrar. The median figure for this delay is only three minutes, but 11% of reviews involved a more significant delay of 3.5 hours or longer. This is due to several reasons including instances where the MR completed the review at home but had to wait to get to the office to fax it back, or instances where the MR completed the review while the MRA was not in the office, and waited until the MRA returned to fax it back. The MR commented that it helps if the MR and MRA are located in the same office – initially the MR was based two floors away from the MRA but soon moved to the MRA's base where the fax machine was situated.

Medical Reviewers' workload

2.51 Medical Reviewers and Medical Reviewer Assistants in both areas commented on the heavy workload involved in the test sites. Both MRs reported working beyond their contracted 0.5 FTE hours to complete the required volume of reviews.

2.52 The workload of MRs and MRAs will be an important consideration when the process is implemented nationally. However, we should note that MRs in the test sites were asked to complete reviews at a faster rate than will be expected of MRs when the process is implemented nationally. The target of 1190 reviews for the test sites was set to ensure the MRs carry out a robust sample of reviews to allow lessons to be learned and conclusions to be drawn before national implementation. This means that MRs in the test sites were expected to complete around 15 to 16 level 1 and one to two level 2 reviews per week; but when the system is implemented nationally, MRs will be expected to complete ten level 1 and one level 2 reviews per week.

Outcome of reviews

2.53 The vast majority of reviews found MCCDs to be in order but there are some examples where reviews highlighted areas that doctors may require some guidance on. For example, where MCCDs were found to be not in order, this was most commonly due to concerns about information given about the cause

[10] The NHS internal mail service played an important part in the Dumfries & Galloway test site in delivering medical records to the MR, but currently the internal mail service in Dumfries & Galloway does not cross health board boundaries. This could be an issue if MRs are expected to cover more than one health board area when the process is implemented nationally.

of death. Considering all MCCDs, including those rated as 'in order' and 'not in order', where reviews found any concerns about the MCCD's quality or accuracy, these concerns related mostly to issues such as cause of death information, legibility and doctors failing to include required information such as the place of death or their GMC number.

2.54 There appears to have been slight differences in approach between the MRs in Dundee and Dumfries & Galloway. The MR in Dundee asked for more replacement MCCDs than in Dumfries & Galloway. This illustrates the imoprtance of consistency and will be commented on further in the final chapter.

2.55 Both areas introduced a system whereby, if the MR had minor concerns about an MCCD but did not want to issue a replacement MCCD, she would type a letter outlining the changes, ask the certifying doctor to sign it and then ask the registrar to append the letter to the existing MCCD.

Reporting to ISD

2.56 When MRs completed a review, they completed a form with details of the review which they then submitted to NHS ISD. This provided information about the process and outcome of each review.

2.57 The form received various revisions over the course of the test site to ensure it was easy to complete and captured the necessary information. For example, the quality scorecard was revised with the benefit of providing an indication of which element(s), if any, of the MCCD were of concern.

2.58 In both test sites, the MR completed the MR form by hand and the MRA typed it up. This seems a labour intensive process and could be simplified.

2.59 There was some uncertainty among MRs and MRAs about the information they were expected to include on the form. For example, there was some uncertainty about how to record the duration of review. Initially, MRs were unsure whether to record the total time that elapsed from referral to completion of review, or just the time spent working on the review. NHS ISD discussed this issue with the MRs and provided advice on the required information. This illustrates the importance of providing clear guidance to MRs and MRAs about the information they are expected to provide on the reporting form.

Location of Medical Reviewers

2.60 The MR in Dumfries & Galloway benefitted from being based at the Dumfries & Galloway Royal Infirmary: this meant she could easily access stored medical records as well as doctors based at the hospital, and receive deliveries of medical records from community hospitals via the NHS internal mail service. On the other hand, the MR in Dundee was based at Dundee University. This caused complications in terms of:

- setting up IT systems – there was a delay at the beginning of the test site while arrangements were made for the MR to access NHS IT systems from her base;

- accessing medical records, most notably because the NHS internal mail system in Dundee would not deliver medical records to non-NHS sites so the MR had to go in person to view records; and

- contacting doctors – if the MR wanted to speak to a doctor face-to-face, she had to drive to the doctor's place of work to do so.

2.61 The issue of the MRs' location and the ease with which they can access NHS IT systems, medical staff and records will be an important consideration when the process is implemented nationally.

Professional background of Medical Reviewers

2.62 The professional background of MRs is another important consideration. Both MRs in the test sites benefitted from being medical professionals who have worked in their area and who are well-known among doctors in the area. This helped them to liaise with doctors because they have credibility and, in some cases, established relationships with doctors in the area. This helped to make doctors more receptive to taking part in the review process.

2.63 In addition, MRs found their knowledge of local personnel helpful. For example, the MR in Dumfries & Galloway commented that knowing the name of a senior doctor's secretary can make it easier to arrange an appointment with the doctor.

Liaising with doctors

2.64 MRs reported that, in general, doctors were happy to take part in the review process. Moreover, the doctors who we spoke to as part of case studies were generally happy to take part in the evaluation and junior doctors commented on the learning opportunity that discussing the MCCD with the MR provided.

2.65 The test sites found that it was easier for the MRs, rather than MRAs, to make initial contact with doctors. The MRs were more likely to receive a positive response from doctors given the credibility they had as a result of their professional background. This approach also reduced the burden on doctors: rather than being disturbed twice (firstly with a call to arrange the appointment and then a phone call or meeting to talk to the MR), their involvement in the review could be finalised within one phone call.

Registrars

2.66 The new process creates a small amount of extra work for registrars to prepare documents for referral and to file away the documents after completion of the review. In addition, where a replacement MCCD is issued, the registrar must send this to National Records Scotland and change the cause of death listed in the register.

2.67 Another issue related to the involvement of registrars in the process is their responsibility to tell bereaved people about the new process and that it has the potential to delay funerals. Registrars reported little reaction from bereaved people during the test sites when they told them about the review process, but registrars speculated that this could change when the process is live and has the potential to delay funerals.

Bereavement Support Officers

2.68 Bereavement Support Officers at Ninewells Hospital played an important role in the Dundee test site, particularly in following up cases where doctors had failed to complete the revised MCCD form required for the test site and in ensuring that hospital wards had a sufficient stock of the forms. This will not be an issue when the process is implemented nationally because there will only be one MCCD form to complete, but it is possible that Bereavement Support Officers and other similar staff could play a role in supporting the review process.

2.69 The next chapter of the report explores the findings from the evidence and stakeholder interviews around a number of themes.

3 FINDINGS

Introduction

3.1 This chapter sets out the findings of the evaluation under the following headings:

- benefits and drawbacks of the test site process
- communication
- duration
- person specification for Medical Reviewers and Medical Reviewer Assistants
- consistency
- training and education
- data/IT issues
- rural/urban issues
- sustainability/proportion
- faith issues.

Benefits and drawbacks of the process

3.2 The benefits identified through the test site process are that it provides a good opportunity to support and educate doctors about the importance of completing death certificates accurately. In the case studies some of the doctors themselves identified that this had been useful.

3.3 The other benefit identified is the obvious opportunity to improve the accuracy and quality of data held about the causes of death that the new process provides.

3.4 In terms of drawbacks stakeholders identified that when the process is implemented nationally in ‘real time’ there will be some pressure on registrars, medical reviewers and doctors to ensure the reviews are completed in a timely fashion as there is otherwise the danger that funerals may be delayed potentially causing upset to families already bereaved.

Communication

3.5 The importance of good communication has been evident during the test site process. This includes the communication between the registrars and MRs, between the MRs and doctors and between MRs and NHS ISD. Aspects of

the communication require good negotiation skills e.g. working with a doctor to re-do the MCCD.

3.6 Another aspect of communication that has been highlighted as being important is for doctors and funeral directors to communicate with the relatives of the deceased person when handing over the MCCD so that they understand that a review might take place. This has not always happened during the test site but will be important in the national implementation.

3.7 Some national stakeholders have emphasised how essential the communication about the new process will be in terms of raising public awareness and ensuring that the right messages are conveyed: in particular the issue about payment to registrars (which has not been part of the test site process) has been raised in this respect.

Duration

3.8 The evidence contained in the previous chapter has shown that most reviews have been completed within the intended time but that there are some factors that can cause delays, most notably access to medical records and to the certifying doctors. It is to be hoped that these may be less of an issue when the process is being done in 'real time' as the reviewing of certificates will be more immediate than it has been in the test sites and so it is likely that doctors will not have moved jobs, be away or on holiday. However there will still be potential times when this is more problematic for example over holiday periods such as the Christmas season when it may be more difficult to get in contact with the certifying doctor.

Person specification for Medical Reviewers and Medical Reviewer Assistants

3.9 Several interviewees commented on the attributes that they think will be important for the posts of Medical Reviewer and Medical Reviewer Assistant. These include the following:

- ability to communicate well and to have good 'people skills' so that they can establish good relationships quickly and maintain them;
- for the MRs, at least five years' experience in a variety of areas and with a specialism in one area;
- ability to negotiate and compromise;
- willingness to be flexible: for example about when they speak to doctors due to doctors' shift patterns (during the test site process the MRs related that they have often had to undertake out-of-hours work in order to speak to doctors);
- ability to act decisively when required;

- ability to take on an educative role with doctors to help them complete MCCDs more accurately.

3.10 In terms of the Senior Medical Reviewer (SMR) post interviewees highlighted the importance of that person being able to ensure consistency across the work of the MRs.

Consistency

3.11 The last paragraph highlighted the importance of consistency for the SMR role. This is an issue that has been raised by a number of interviewees. There is a concern that without a reasonable degree of consistency in the way the reviews are handled across Scotland that it may damage the perception of the whole process in the eyes of the public.

3.12 One of the areas linked to consistency where interviewees expressed fears was around the potential for delays to funerals and the impact of this on bereaved families. There was discussion about the planned expedited process where a funeral is required quickly e.g. on religious grounds, with one interviewee pointing out that this process should be accessible wherever necessary.

Training and education

3.13 The paragraphs above highlight the clear need there will be for careful training with the MRs and MRAs so that they have clear guidance as to how to undertake the process and when there can be exceptions to the rule. The test site has shown that different people will approach the process in different ways and it will be important to be clear with the appointed MRs about what is acceptable and unacceptable in terms of the MCCDs and when to rule an MCCD as out of order.

3.14 It is also clear that training and education about the new process and how it is to work will be required for registrars. Included in this will be the handling of the £30 fee which they will be responsible for collecting.

3.15 There will also be a need to raise awareness and provide training and education for doctors about the new system and the levels of quality and accuracy in the MCCDs that the MRs will be looking for. Some interviewees expressed the wish that this new process will help doctors see the whole issue differently and support them to be more empathic in their communication with bereaved families. The importance of including education about the death certification process and support for the bereaved at undergraduate level was raised by some interviewees.

Data/IT issues

3.16 There have been a number of access issues relating to IT during the test site process including the access to NHS systems from a non-NHS site in Dundee and generally accessing medical records in both areas. One of the MRs

commented that it would be very helpful if it was possible for MRs to have access to GP records electronically.

3.17 There were some problems in completing the data form for ISD and ISD intend to revise the form before the national implementation. It is likely the revised form will need to be trialled before use and the MRs and MRAs will require careful training in its completion to avoid any inconsistencies.

Rural/urban issues

3.18 The rurality of Dumfries & Galloway had an impact on the travel time involved when the MR had to view records held outwith Dumfries in person. The geographic size of Dumfries & Galloway meant that the MR had to drive long distances on occasion, although she overcame this barrier on many occasions by asking GPs to fax a four page summary of the records and by using the NHS internal mail system to receive deliveries of records from hospitals outwith Dumfries.

3.19 The MR in Dundee also had to leave her base to view medical records but, given the geographic size of Dundee, this did not entail such a burden on her time.

Sustainability and proportion

3.20 The level of MCCDs not in order in the test site at 3% is low. It is likely that with further education and awareness of the importance of completing the MCCD accurately that this figure might drop further in the first few years of national implementation. At present it is intended to check 25% of the MCCDs but there is scope within the legislation to review this level of checking if it is considered appropriate to do so. Some of those we interviewed thought that in a few years' time it might be possible to reduce the level of checking.

3.21 The MRs in the test site have had to work more hours at times than the allocated 0.5 FTE and have also had to be willing to be flexible in terms of when they contacted doctors to fit in with when they could get hold of the certifying doctor.

Faith issues

3.22 While it was recognised by several stakeholders that issues relating to faith and practices after death could potentially arise in the new system, in fact during the test sites this did not arise as a specific issue.

4 CONCLUSIONS AND IMPLICATIONS FOR NATIONAL IMPLEMENTATION

Conclusions from the test site evaluation

4.1 The two test sites have been useful in highlighting areas where there are differences of approach and where the process has faced challenges or worked well.

4.2 The evidence from the test sites has shown that the great majority of MCCDs are completed accurately under test site conditions. Only 3% of the MCCDs have been declared as not in order. Where the MCCDs were not in order the main reasons for this were to do with inaccurate information about the causes of death.

4.3 In addition to this there are clearly other minor inaccuracies, not sufficient to warrant asking for the MCCD to be re-done, but where there is room for improvement. The educative role of the MRs, going back to doctors to point out these smaller inaccuracies/quality issues, is seen as an important part of what they do. In time this educative role should mean that the overall quality and accuracy of MCCDs improves even further.

4.4 The difference in location for the MRs in the two areas, with one in a hospital and one in a non-NHS building has highlighted how much easier communication is within and between NHS settings and would suggest that future MRs should all be based within NHS settings.

4.5 The importance of the MRs being able to develop good relationships with registrars and doctors has been demonstrated: without good relationships between these key stakeholders the process may work less well.

4.6 The amount of time taken to complete reviews is critical when it is implemented nationally as there is concern that there will be delays to funerals. The evidence has shown that around three-quarters of level 1 reviews across both areas took under three hours to complete. In Dundee, 8% of the Level 1 reviews took seven or more days to complete (the equivalent data for this was not supplied from Dumfries & Galloway through the ISD reporting form but analysis of data provided by the MR indicates that 1% of level 1 reviews took seven or more days). This amount of time appears to be caused mainly by the difficulty of accessing the certifying doctors and we anticipate that this may be reduced when the process is being undertaken in ‘real time’ as it will be more immediate and doctors will be less likely to have moved on.

4.7 The test sites have highlighted a number of practical communication and information exchange issues that it will be useful to address before the national implementation takes place. These include:

- how referrals from registrars are transferred to the MRs. Faxes have been shown to have drawbacks in this test site process but not all registrars have scanners in their offices to enable them to use email communication;

- accessing an individual's medical records: there are several issues here (see paragraph 2.47) that will need to be addressed;

- faxing information back to registrars has the same drawbacks as in the initial referral and may also cause delay as the MR has to be in the office where the fax is situated to be able to fax it. Emailing information would make this part of the process simpler; and

- the sending of data/information to ISD has had to be reviewed during the course of the test site process. Based on the learning from this process, ISD will collaborate with HIS in order to agree the data requirements, then revise and improve the data collection process before national implementation.

4.8 The issue of consistency has been raised through the evaluation of the test sites and the differences identified have been useful in highlighting where inconsistencies might arise. One of the learning points from this is how important intensive and careful training with the MRs will be plus the need to keep checking/reviewing for consistency once the national implementation takes place.

Implications for National Implementation

4.9 The national implementation is planned to take place from April 2014 onwards. The main implications for the national implementation that this test site evaluation has highlighted are as follows:

- the location for where the MRs are situated is important: an NHS site (in particular a hospital as 60% of people die in hospital) facilitates the transfer of information and also allows easier access to medical staff at that establishment;

- the referral from registrars clearly has to be streamlined so that there is no delay in the administrative aspects of the process. Ideally this would be done by email but this may entail ensuring that all registrars have scanners;

- the evaluation has demonstrated that the communication and 'people skills' of the MRs and MRAs are essential elements of the person specification for these two jobs; other key elements include flexibility and willingness to negotiate;

- training and clear guidance (for MRs/MRAs/registrars/doctors) will be crucial to help the new process bed in and also to support a high level of consistency which is seen to be important for public confidence in the new system;

- there are IT and data issues that need to be resolved including:
    - access to medical records which might be simplified if GPs can fax/email a summary of the medical records (as happened in Dumfries & Galloway);
    - returning completed reviews to registrars (similar to the earlier point about referral); emailing will greatly help this process; and
    - the need for a revised data collection form for ISD (in hand).

4.10 When the process is implemented nationally it will clearly be important to check a number of things on a regular basis:

- the consistency across all MR areas in terms of outcomes for the reviews;
- the length of elapsed time that the reviews are taking so that any delays can be addressed where possible; and
- reviewing that the number of MCCDs declared not in order as at some point it may be considered more proportionate to reduce the overall level of checking.

4.11 The test site evaluation has provided some useful learning for the national implementation and should help to ensure that the full process is as smooth as possible when it starts in April 2014.

APPENDIX 1: LIST OF STAKEHOLDER INTERVIEWEES

We interviewed the MR and MRA in both test sites along with the SMR and a representative of NHS ISD at the beginning and end of the evaluation. The interviewees are listed in Table A1.1.

Table A1.1: Interviews with SMR, MRs, MRAs and NHS ISD

Name of Interviewee	Position
Dr Mini Mishra	Senior Medical Reviewer, Scottish Government
Dr Stephanie Norris	Medical Reviewer, Dumfries & Galloway
Isobel Wells	Medical Reviewer Assistant, Dumfries & Galloway
Dr Mary O'Brien	Medical Reviewer, Dundee
Clair Bell	Medical Reviewer Assistant, Dundee
Matthew Armstrong	Principal Information Analyst, NHS ISD

We also interviewed eight national stakeholders at the end of the evaluation. The interviewees are listed in Table A1.2.

Table A1.2: Interviews with national stakeholders

Name of Interviewee	Position
Rod Burns	Deputy Registrar General, National Records of Scotland and on National Advisory Group
Graeme Brown	National Association of Funeral Directors and on National Advisory Group
Alison Kerr	Scottish Government – Policy Manager, Death Certification Implementation Team
Gareth Brown	Scottish Government - Head of Blood, Organ Donation and Sexual Health Team
Mark Evans	NHS Fife Bereavement Services Coordinator and on National Advisory Group
Jan Warner, Steven Wilson and Elizabeth Ireland	NHS Health Improvement Scotland

APPENDIX 2: QUALITY SCORECARD RATINGS

The tables below contain data related to the old style of quality scorecard ratings and the new style. The source for all data is the NHS ISD Death Certification Test Site Database

Old Style Quality Scorecard Ratings

Table A2.1: Quality scorecard (old style): cause of death

Score	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
1 = significant quality issues	1	1	-	4	1	1	**8**
2	-	-	-	7	-	-	**7**
3	3	-	-	9	-	-	**12**
4	15	1	-	23	3	-	**42**
5 = no issues	225	29	1	138	14	-	**407**
Not available*	3	-	-	-	-	-	**3**
Total	**247**	**31**	**1**	**181**	**18**	**1**	**479**

* Note: There were three cases where the Scorecard was not completed. All of these cases had been referred to and taken up by the Procurator Fiscal.

Table A2.2: Quality scorecard (old style): referrals to Procurator Fiscal

Score	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
1 = significant quality issues	2	-	-	-	-	-	**2**
2	-	-	-	-	-	**-**	**0**
3	-	-	-	1	-	**-**	**1**
4	2	1	-	1	-	-	**4**
5 = no issues	241	30	1	179	18	1	**470**
Not available*	2	-	-	-	-	**-**	**2**
Total	**247**	**31**	**1**	**181**	**18**	**1**	**479**

* There were two cases where the Scorecard was not completed. Both of these cases had been referred to and taken up by the Procurator Fiscal.

Table A2.3: Quality scorecard (old style): other information

Score	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
1 = significant quality issues	1	1	-	1	-	-	**3**
2	2	-	-	2	-	-	**4**
3	4	-	-	12	-	-	**16**
4	39	7	-	24	1	-	**71**
5 = no issues	198	23	1	142	17	1	**382**
Not available*	3	-	-	-	-	-	**3**
Total	**247**	**31**	**1**	**181**	**18**	**1**	**479**

* Note: There were three cases where the Scorecard was not completed. All of these cases had been referred to and taken up by the Procurator Fiscal.

New Style Quality Scorecard Ratings

Table A2.4: Quality scorecard ratings (new style): personal data on deceased

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Incorrect/missing	26	2	-	20	5	-	**53**
Trivial error	9	4	1	27	-	2	**43**
Correct	336	63	7	277	42	1	**726**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

Table A2.5: Quality scorecard ratings (new style): diseases or conditions relating directly to death

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Incorrect	6	-	-	13	-	1	**20**
Questionable/imprecise	31	7	3	47	9	-	**97**
Correct	334	62	5	264	38	2	**705**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

Table A2.6: Quality scorecard ratings (new style): other significant conditions contributing to death

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Incorrect	3	1	-	9	1	-	**14**
Questionable/illogical	10	3	-	42	6	1	**62**
Correct	358	65	8	273	40	2	**746**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

Table A2.7: Quality scorecard ratings (new style): tick boxes on MCCD

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Not used	-	-	-	-	-	-	**-**
Incomplete	1	-	-	-	-	1	**2**
Complete	370	69	8	324	47	2	**820**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

Table A2.8: Quality scorecard ratings (new style): Procurator Fiscal referral

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Missed referral	-	1	1	9	-	1	**12**
Debatable	8	-	-	1	1	-	**10**
Non-referral appropriate	363	68	7	314	46	2	**800**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

Table A2.9: Quality scorecard ratings (new style): certifying doctor or consultant responsible information

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Incorrect/missing	35	9	1	53	4	2	**104**
Trivial error	19	4	-	26	1	-	**50**
Correct/complete	317	56	7	245	42	1	**668**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

Table A2.10: Quality scorecard ratings (new style): overall legibility

Category	Dumfries & Galloway			Dundee			Total
	Level 1	Level 2	Upgraded from Level 1 to Level 2	Level 1	Level 2	Upgraded from Level 1 to Level 2	
Very difficult to read	1	-	-	2	-	-	**3**
Some difficulty to read	16	3	-	36	3	-	**58**
Easy to read	354	66	8	286	44	3	**761**
Total	**371**	**69**	**8**	**324**	**47**	**3**	**822**

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