



Northern Ireland  
Assembly

## Research and Information Service Research Paper

---

31 January 2013

**Dr Lesley-Ann Black**

# Consultant-led Outpatient Appointments

**NIAR 965-12**

This paper provides Members with data in relation to consultant-led outpatient appointments in Northern Ireland, paying particular attention to appointments that are cancelled by hospital providers.



## Key Points

- Demand for consultant-led outpatient appointments in Northern Ireland is high. At least 475,000 “new” and 1 million “review” outpatient attendances occur each year.
- Data on outpatient appointments is collected by Trusts using their Patient Administration Systems. This data is submitted to the Department (DHSSPS) on a quarterly basis. From 2008/9, the DHSSPS recommended that hospitals also record reasons why appointments are cancelled. However this is not mandatory and large gaps in the data exist.
- In 2011/12, patients did not attend (DNA) or missed a total of 157,781 consultant-led hospital outpatient appointments. DNAs decrease hospital productivity and can incur significant costs. In the same timeframe, 184,718 appointments were cancelled in advance by patients. These do not result in lost productivity because in general, hospitals have time to re-schedule.
- In comparison, hospital providers cancelled 182,813 consultant-led outpatient appointments in 2011/12. Hospital cancellations can indicate a loss to potential productivity within the healthcare system.
- Data illustrates that hospital providers in the Belfast Trust - which sees the most patients, cancelled the greatest number of outpatient appointments. The Southern Trust had the lowest rate of hospital providers cancelling appointments.
- The actual loss of productivity to the healthcare system and the adverse impact cancellations by hospital providers may have on patients cannot be ascertained from the DHSSPS data.
- Nevertheless, the current rate of patient DNAs and outpatient appointments cancelled by hospitals is likely to have an effect on patient waiting times for treatment. Given that over 100,000 people are waiting for a first outpatient appointment, reducing the level of appointments cancelled by hospitals and patient DNAs could considerably lessen the numbers waiting.
- Over 75,000 (41%) appointment cancellations by hospital providers in 2011/12 were related to reasons associated with consultants; under categories “consultant unavailable” (26%) or “consultant cancelled appointment” (15%). As there are no detailed reasons recorded by the data system for “consultant cancelled appointment”, it is not possible to ascertain why these appointments are being cancelled, or if they are largely unavoidable.
- In addition, ¼ of all appointments cancelled by hospitals were recorded without a reason, or the wrong reason. Again, these gaps make it difficult to assess why such cancellations occur.
- Although the HSC Board and the DHSSPS monitor hospital cancellation rates, as well as patient DNA rates, no specific targets have been set to reduce these rates.

## Contents

1. Introduction: Outpatient services .....	5
2. Which hospitals provide consultant-led outpatient services? .....	5
3. NI population data by Trust area .....	6
4. Cancelled consultant-led outpatient appointments: data.....	6
5. What DHSSPS targets measure outpatient appointments? .....	7
6. Total number of 'New' and 'Review' outpatient attendances .....	8
7. Total number of outpatient attendances (2007-2012) .....	9
8. When patients do not attend, or cancel their appointments .....	9
8.1 Patient "Did Not Attend" (DNA) Rate .....	10
8.2 Patient Cancelled Appointment in Advance (Could Not Attend - CNA) Rate.....	11
8.3 Initiatives to reduce patient missed appointments and cancelled appointments.....	11
9. Hospital outpatient appointment cancellation rate.....	12
10. Reasons for hospitals cancelling appointments: Data codes .....	14
10.1 What is being done to improve cancellation rates by hospital providers?.....	15
10.2 Comparison: Patient cancellations, hospital cancellations and DNAs .....	16
11. Costs of cancelled/missed appointments.....	17
12. Cancellations by hospital providers .....	17
13. Conclusion .....	18
Appendix 1: Number of patients waiting for a first consultant-led appointment in Northern Ireland .....	19
Appendix 2: Coded reasons for patient cancellations .....	20
Appendix 3: Trust Protocol for patients who DNA/CNA .....	21
Appendix 4: Coded reasons for hospital cancellations.....	22

## 1. Introduction: Outpatient services

According to the Department of Health, Social Services and Public Safety (DHSSPS), a consultant-led outpatient service is provided by Health and Social Care Trusts “to allow patients to see a consultant, or a member of their team, for assessment in relation to a specific condition. Patients are not admitted into hospital for this assessment”. These services are usually provided during a clinic session and provide an opportunity for consultation, investigation and minor treatment.<sup>1</sup> Patients attending such services may require a single appointment or additional follow-up appointments. Outpatient clinics are held for a wide variety of specialities, for example - paediatrics, endocrinology, gynaecology, and cardiology to name but a few.<sup>2</sup> In certain cases, patients may be required to travel to another Trust area to avail of the appropriate treatment. In 2011/12, the cost of delivering outpatient services in Northern Ireland was £423 million.<sup>3</sup>

Delivering efficient and effective outpatient services is complex. It requires the co-ordination of patients, appropriate medical staff, and a range of other resource inputs. However, outpatient appointments do not always proceed as planned and sometimes need to be cancelled. Nevertheless, there is a widely held perception that this is largely due to patients failing to attend or patients cancelling their appointments. Yet this is not always the case. Hospital providers may also cancel outpatient appointments. As this paper illustrates, this can happen for a variety of reasons.

## 2. Which hospitals provide consultant-led outpatient services?

Table 1 provides an overview of the hospitals which delivered consultant-led outpatient services for (all or part of) the year ending April 2011 - March 2012.<sup>4</sup>

Health and Social Care Trust	Hospital
<b>Belfast Health and Social Care Trust</b>	Beechcroft, Belfast City, Mater Infirmorum, Muckamore Abbey, Musgrave Park, NI Cancer Centre, RBHSC, Royal Jubilee Maternity, Royal Victoria, Windsor House
<b>Northern Health and Social Care Trust</b>	Antrim, Carrickfergus, Causeway, Mid Ulster, Moyle, Waveney, Whiteabbey
<b>South Eastern Health and Social Care Trust</b>	Ards, Bangor, Downe, Lagan Valley, Ulster
<b>Southern Health and Social Care Trust</b>	Armagh Community, Banbridge, Craigavon Area, Bluestone, Daisy Hill, Kilkeel Primary Care Centre, Longstone, Lurgan, Mullinure, South Tyrone, St Luke's
<b>Western Health and Social Care Trust</b>	Altnagelvin Area, Erne, Gransha, Lakeview, Roe Valley Outpatients, Tyrone County

Table 1. Overview of NI hospitals providing consultant-led outpatient services 2011/12

<sup>1</sup> Response from DHSSPS to author – cost of outpatient services 2011/12. Response dated 16.1.13.

<sup>2</sup> This paper reports on Consultant-led outpatient appointments, not those provided by Integrated Clinical Assessment and Treatment Services (ICATS) delivered by for example, allied health professionals.

<sup>3</sup> Response from DHSSPS to author – cost of outpatient services 2011/12. Response dated 16.1.13.

<sup>4</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) p103.

### 3. NI population data by Trust area

Northern Ireland has a population of approximately 1.8 million people, and is the fastest growing population in the UK.<sup>5</sup> As Table 2 shows, each Health and Social Care (HSC) Trust population has been growing in population size. In 2010, the Northern Trust had the greatest patient population (458,746) and the Western Trust the least (299,431). This growing population is placing increasing demands on outpatient services.

Trust	2008	2009	2010	% change 2008-2010
Belfast	334,528	335,150	335,774	0.4%
Northern	453,824	457,101	458,746	1.1%
S Eastern	341,085	344,434	346,794	1.7%
Southern	348,657	353,908	358,647	2.9%
Western	296,909	298,303	299,431	0.8%
<b>NI</b>	<b>1,775,003</b>	<b>1,788,896</b>	<b>1,799,392</b>	<b>1.4%</b>

Table 2. Estimated NI population by Trust area (2008-2010)<sup>6</sup>

### 4. Cancelled consultant-led outpatient appointments: data

The importance of recording data on cancelled outpatient appointments was highlighted in a report by the NI Audit Office (2007).<sup>7</sup> At present, outpatient appointment data is collected by individual Trusts using their Patient Administration Systems (PAS). This data is submitted to the DHSSPS Hospital Information Branch via Quarterly Outpatient Activity Returns (QOARs).<sup>8</sup> The DHSSPS collects and publishes data on outpatient appointments in its annual "Outpatient Activity Statistics" publication.<sup>9</sup> The DHSSPS states that collecting statistical information is used to contribute to major exercises – such as reporting the performance of the HSC system, target setting, monitoring and facilitating policy formulation and evaluation.<sup>10</sup>

In 2007 a new method to collect QOAR data was introduced. It counts the number of outpatient appointments attended and cancelled, instead of the number of *clinics* held or cancelled. A separate guidance document was also supplied to Trusts detailing how the information should be collected.<sup>11</sup> In addition, best practice guidance for booking

<sup>5</sup> Transforming Your Care (2011) Available online at: <http://www.dhsspsni.gov.uk/transforming-your-care-review-of-hsc-ni-final-report.pdf> p21.

<sup>6</sup> DHSSPS Contextual information for using hospital Statistics, p3. Available online at: [http://www.dhsspsni.gov.uk/population\\_in\\_northern\\_ireland.pdf](http://www.dhsspsni.gov.uk/population_in_northern_ireland.pdf)

<sup>7</sup> See: Northern Ireland Audit Office Report (2007) Outpatients: Missed Appointments and Cancelled Clinics

<sup>8</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) p8.

<sup>9</sup> Other reports available on DHSSPS website [http://www.dhsspsni.gov.uk/ni\\_hospital\\_statistics\\_-\\_outpatient\\_activity\\_2011\\_12.pdf](http://www.dhsspsni.gov.uk/ni_hospital_statistics_-_outpatient_activity_2011_12.pdf)

<sup>10</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity 2011/12 p3.

<sup>11</sup> DHSSPS (2011) Reporting of Quarterly Outpatient Activity Information: Data Definitions and Guidance Document.

and managing outpatient appointments is contained within the DHSSPS 'Integrated Elective Access Protocol' document.<sup>12</sup>

From 2008/9, the DHSSPS also recommended that a 'Reason for Cancellation' be comprehensively recorded by Trusts.<sup>13</sup> However, the recording (coding) of a 'Reason for Cancellation' by Trusts for outpatient appointments was initially low. The DHSSPS attributed this to "*resource constraints and conflicting priorities within the HSC in relation to coding, where resources are primarily focused on the coding of clinical procedures, [therefore] it has not been possible to make these recommendations mandatory*". Despite improvements, over one quarter of cancelled appointments by hospitals were still not coded with a reason, or were coded incorrectly in 2011/12. Hence, the DHSSPS recommended that "*care should be taken in their use and interpretation*".<sup>14</sup> Such gaps in data collection make it difficult to fully understand why so many appointments are being cancelled.

## 5. What DHSSPS targets measure outpatient appointments?

The Commissioning Plan Direction published each year by the DHSSPS sets out the Ministers priorities and targets. The HSC Board is responsible for the performance management of all Trusts, and the Board is accountable to the Department for that performance. The only targets in the 2012 Commissioning Plan relating to *outpatient care* concern patient waiting times for appointments. These state that "*at least 50% of patients should wait no longer than 9 weeks for a consultant-led first appointment with no-one waiting longer than 21 weeks.*"<sup>15</sup>

When appointments are not attended by patients or cancelled by hospital providers, this can impact on waiting times, especially since many outpatient clinics have high demand for their speciality. Although waiting times are beyond the scope of this paper, in September 2012, all Trusts had met the target that 'at least 50% of patients should wait no longer than 9 weeks for a first appointment'; however no Trust had met the target that 'no patient should wait longer than 21 weeks'.<sup>16</sup> Also in September 2012, there were over 100,000 patients on the waiting list for a first outpatient appointment. Further data on waiting times is available in Appendix 1.

Whilst the DHSSPS has not set any overall targets concerning cancelled outpatient appointments in its Commissioning Plan,<sup>17</sup> it has published an *Indicators of Performance Direction (2012)*.<sup>18</sup> This contains two performance indicators relating to outpatient appointments which include:

<sup>12</sup> DHSSPS (2008) Integrated Elective Access Protocol, obtained from DHSSPS on 24 January 2013.

<sup>13</sup> DHSSPS (2012) [Use of Variable on 'Reason for Cancellation'](#) Quarterly Outpatient Activity Return p1.

<sup>14</sup> DHSSPS (2012) [Use of Variable on 'Reason for Cancellation'](#) Quarterly Outpatient Activity Return p2.

<sup>15</sup> DHSSPS The Health and Social Care Commissioning Plan Direction NI 2012. p4.

<sup>16</sup> Further details on waiting times can be found in RaiSe papers NIAR 820-11 and NIAR 369-12.

<sup>17</sup> Personal correspondence with the author and DHSSPS on 3.1.2013

<sup>18</sup> Health and Social Care (Indicators of Performance) Direction (Northern Ireland) 2012 came into operation on 29 February 2012. Available online at: <http://www.dhsspsni.gov.uk/indicators.pdf> p3

- I. The rate of **review** outpatient appointments where the **patient did not attend (DNA)**.
- II. The rate of **new** outpatient appointments **cancelled by the hospital**.

These are not targets, and interestingly these indicators do not measure the rate of ‘new’ appointments that patients did not attend, or ‘review’ appointments that hospitals cancelled (given that hospitals cancel more ‘review’ appointments). In terms of monitoring performance, it is not clear what an acceptable ‘rate’ would be.

## 6. Total number of ‘New’ and ‘Review’ outpatient attendances

Before examining the level of outpatient appointments cancelled by hospitals, it is perhaps useful to assess the level of patients seen at outpatient appointments in the last 5 years. Two main types of patient attendance are recorded by hospitals including:

- 1) A **new attendance**: this is the first of a series, or a single patient attendance, at an outpatient service with a consultant / representative;
- 2) A **review attendance**: this is essentially all patient appointments that are not a first appointment, in other words, any follow up appointments.<sup>19</sup> A patient may have several follow up appointments, and each one is counted individually.

Figure 1 below shows the annual number of “new” and “review” consultant-led outpatient attendances between 2007 and 2012.

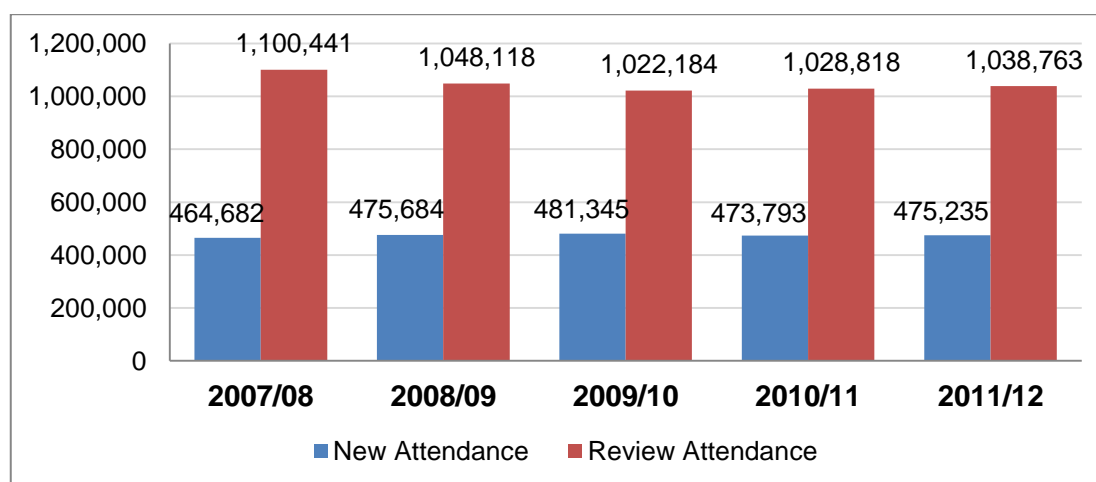


Figure 1. New and review consultant-led outpatient attendances (2007/8 - 2011/12)<sup>20</sup>

Around 475,000 “new” and over 1 million “review” consultant-led outpatient attendances take place across NI each year. The number of “review” attendances is more than double the number of “new” cases.

<sup>19</sup> DHSSPS (2011) Reporting of Quarterly Outpatient Activity Information: Data Definitions & Guidance pp4-5.

<sup>20</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) p36.



## 7. Total number of outpatient attendances (2007-2012)

Figure 2 adds the new and review consultant-led outpatient appointments together to provide the **total number of outpatient attendances** between 2007 and 2012.

Around 1.5 million outpatient attendances have taken place annually since 2007 at consultant-led clinics; a large demand on hospital resources. The majority of attendances in 2011/12 came under the Acute Services (90%)<sup>21</sup> and Maternity and Child Health (6.3%) 'Programmes of Care'. The highest number of patients seen by 'speciality' was for Trauma and Orthopaedic Surgery.<sup>22</sup>

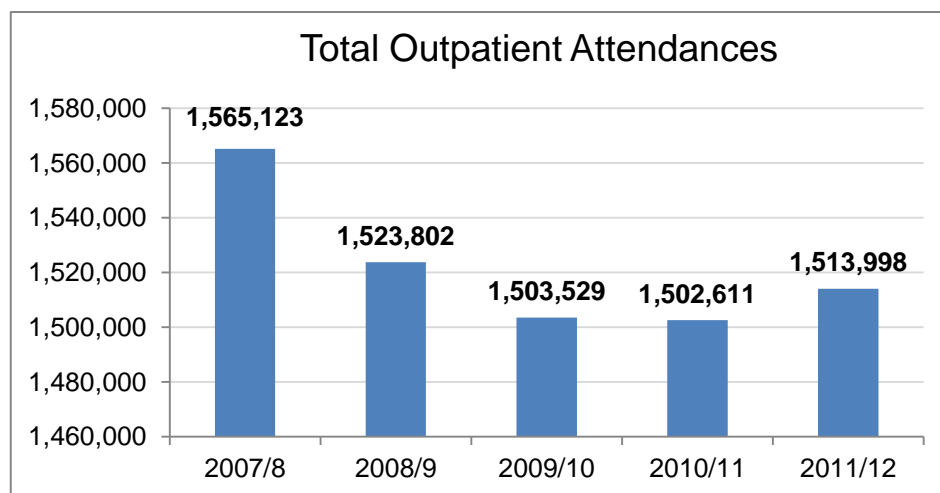


Figure 2. Total outpatient appointment attendances 2007/8 - 2011/12

Between 2007/8 and 2011/12 the number of hospital outpatient attendances has dropped by **3%**. This trend is interesting - given the rising population; the decreasing number of people missing/not attending their appointments; and that less appointments have been cancelled by hospitals since 2007/08. A possible explanation is that there was a drive between 2005-2007 to reduce waiting lists<sup>23</sup> - which may account for more patients being seen in 2007/8 than in subsequent years.

## 8. When patients do not attend, or cancel their appointments

Although this paper is focused on appointments cancelled by hospitals, it is also useful for comparative purposes to highlight the number of consultant-led outpatient appointments that patients cancel or do not attend.<sup>24</sup> The DHSSPS records this in two ways:

<sup>21</sup> The Acute Programme of Care relates to specialties in which patients require medical care for an acquired physical condition.

<sup>22</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) p 11.

<sup>23</sup> More appointments were on offer during 2005-7. Appointments were offered in the evenings and weekends to tackle waiting lists and more funding was also given to the private sector help ease waiting list pressures.

<sup>24</sup> Patients miss appointments for a variety of reasons. According to the HSSPS Minister "61% of people who did not turn up for an appointment had forgotten; 16% felt embarrassed; 13% did not think it was important; 10% tried to cancel by telephone but could not get through."

1) when patients “do not attend” or miss their hospital appointment. This is coded as a “DNA”. A patient who cancels on the day of their appointment is coded as a DNA.

2) when patients cancel their appointments in advance (a least the day before their appointment) because they “could not attend”. This is coded as a “CNA”.

### 8.1 Patient “Did Not Attend” (DNA) Rate

When a patient fails to attend or give advanced notice that they cannot attend, this is recorded as a “did not attend” (DNA) event.<sup>25</sup> The DHSSPS states that DNAs are an indicator of lost productivity within the health service, in that the hospital is resourced at that point in time to assess the patient.<sup>26</sup> DNAs also have an adverse impact on patient waiting time targets. It is likely that the appointment needs to be re-scheduled, and another patient who could use the appointment, has to continue to wait to be seen. The number of appointments that patients missed or did not attend (DNA) between 2008/9 and 2011/12 is shown in Figure 3.

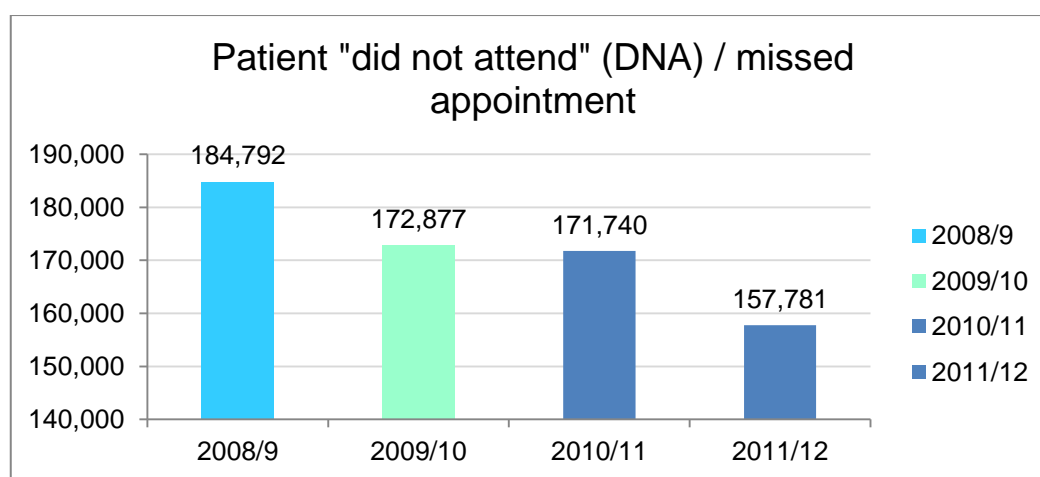


Figure 3. Patient did not attend / missed appointment rate 2007-2012

The DNA rate has decreased by almost 15% since 2008/9. The exact reason for this is not clear, but may be attributed to mechanisms to incentivise/remind patients to keep their appointments.<sup>27</sup> In 2011/12, patients in Northern Ireland did not attend or missed a total of 157,781 outpatient hospital appointments.<sup>28</sup> This equates to a DNA rate of 9.4%.<sup>29</sup> In other words, almost one in ten appointments was not attended. DNA rates were higher for “review” appointments than for “new” appointments.<sup>30</sup>

<sup>25</sup> DHSSPS (2011) Reporting of Quarterly Outpatient Activity Information Data Definitions and Guidance Document p5.

<sup>26</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) publication available online at: [http://www.dhsspsni.gov.uk/ni\\_hospital\\_statistics\\_-\\_outpatient\\_activity\\_2011\\_12.pdf](http://www.dhsspsni.gov.uk/ni_hospital_statistics_-_outpatient_activity_2011_12.pdf) p12.

<sup>27</sup> For example patients are given a choice of dates and times of clinics so they can select an appointment. All Trusts plan to introduce a text/phone system reminding patients to attend hospital appointments - in 2013/14.

<sup>28</sup> Northern Ireland Hospital Statistics: Outpatient Activity Statistics 2011/12 p12.

<sup>29</sup> Rate calculated: ((Number of DNAs) / (Number of attendances + Number of DNAs)) x100

<sup>30</sup> Northern Ireland Hospital Statistics: Outpatient Activity Statistics 2011/12 p12.

The South Eastern Trust had the highest DNA rate in 2011/12 (10.2%) whereas the Southern Trust had the lowest DNA rate (7.9%).

## 8.2 Patient Cancelled Appointment in Advance (Could Not Attend - CNA) Rate

Patients who cancel their appointment in advance are coded as a “could not attend” (CNA) event. A list of reasons that hospitals use to code CNAs is provided in Appendix 2. The DHSSPS states that this does not result in a loss of productivity in the hospital - because it allows them sufficient time to utilise the appointment slot for another patient.<sup>31</sup> However, if a patient cancels it can also mean that they wait longer for another appointment;<sup>32</sup> this may delay diagnosis/treatment, and prolong ill health. Figure 4 shows the number of outpatient appointments patients cancelled in advance between 2008 and 2012.

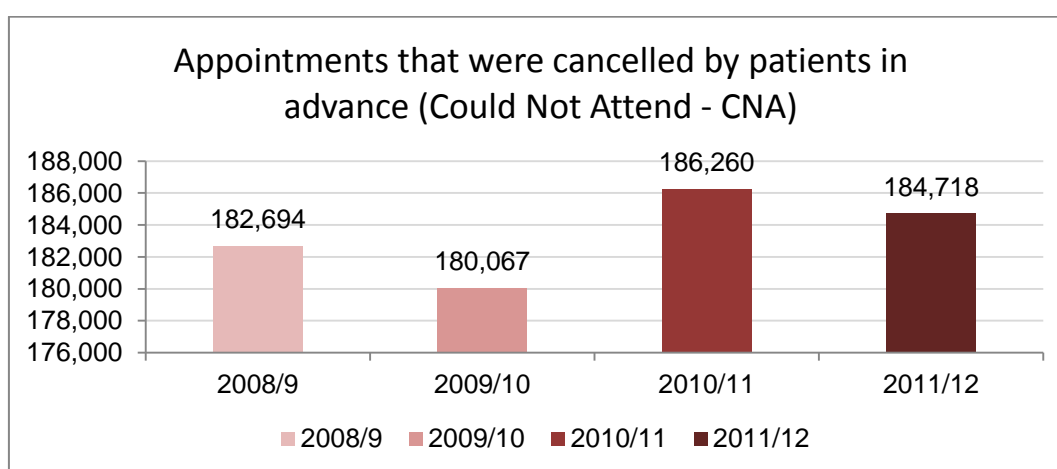


Figure 4. Appointments cancelled by patients in advance (2008-12)

The ‘Could Not Attend’ (CNA) rate has remained fairly constant - ranging between 180,000-186,000 cancellations. In 2011/12, 184,718 appointments were cancelled in advance by patients. This equates to a CNA rate of 10.9%.<sup>33</sup> The Northern Trust had the highest CNA rate (13.5%), and the Southern Trust the lowest (9%).

## 8.3 Initiatives to reduce patient missed appointments and cancelled appointments

In September 2011, the HSSPS Minister stated that Trusts had implemented initiatives to reduce the unsatisfactory number of missed/cancelled appointments by patients. Measures included setting local “did not attend” targets for locations and specialities with high non-attendance rates; introducing partial booking across all outpatient specialities; developing pathways to reduce unnecessary follow-up appointments; and requiring Trusts to publish annual reports on non-attendance / DNA targets which

<sup>31</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity Statistics 2011/12 p13.

<sup>32</sup> Estimated to be around a 6 week wait.

<sup>33</sup> Rate calculated by ((Number of CNAs) / (Number of attendances + Number of CNAs)) x100

would be reviewed by the DHSSPS and the HSC Board.<sup>34</sup> Appendix 3 provides further information on the protocol trusts use to handle cases where patients DNA/CNA.

## 9. Hospital outpatient appointment cancellation rate

This section of the paper focuses on outpatient appointments cancelled by hospital providers. According to the DHSSPS, “*hospital cancellations are also an indication of a loss to potential productivity within the Health and Social Care system, as in most cases the patient still requires assessment and will have to be booked into another appointment.*”<sup>35</sup> Such cancellations can inconvenience the patient, adding further stress to them in terms of delaying treatment or diagnosis, and of course, exacerbate patient waiting times.

When a hospital initiates a cancellation, the patient waiting time for a **first** appointment is not “re-set”, so there is an incentive on hospitals to minimise the number of cancellations they cause; and to reschedule appointments quickly. Figure 5 shows the number of patient appointments that were cancelled by hospitals between 2008 and 2012. The rate of cancellations has decreased by almost 16% in that timeframe. Despite the downward trend, hospitals cancelled 182,813 consultant-led outpatient appointments in 2011/12. This equates to an appointment cancellation rate of 10.8%; more than one in ten appointments are cancelled by hospitals. Hospital providers also cancelled more “review” appointments (12.7%) than first / new appointments (6.1%).<sup>36</sup>

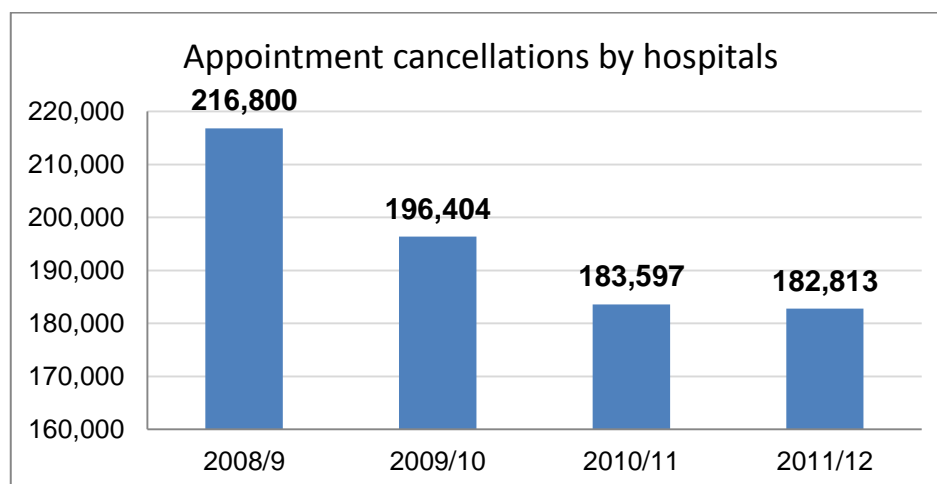


Figure 5. Consultant-led outpatient appointment cancellations by hospitals 2008-12.

Table 3 provides a breakdown of the total number of outpatient appointment attendances and the number / rate of appointments cancelled by hospitals in each Trust in 2011/12.

<sup>34</sup> NI Assembly Hansard (AQO 326/11-15) Mr M. Nesbitt asked the HSSPS Minister what measures he intends to introduce to reduce the level of missed hospital appointments.

<sup>35</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) p13.

<sup>36</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity Statistics 2011/12 p13.

2011/12	Belfast Trust	Northern Trust	South E. Trust	Southern Trust	Western Trust	NI Total
Outpatient appointment attendances	651,971 (43%)	182,291 (12%)	209,868 (14%)	225,210 (15%)	244,658 (16%)	1,513,998
Appointments cancelled by hospital	81,611	28,351	29,901	14,384	28,566	182,813
Hospital cancellation rate	11.1%	13.5%	12.5%	6%	10.5%	10.8%

Table 3. Number of patient attendances and cancellations by hospitals in each Trust<sup>37</sup>

Table 3 shows that:

- Whilst the Belfast Trust had the highest number of outpatient attendances (651,971), this Trust cancelled the most outpatient appointments (81,611).<sup>38</sup>
- Interestingly the Northern Trust reported the least number of hospital appointment attendances (182,291), yet it had the highest rate of appointments cancelled by its hospital providers (13.5%).
- The Southern Trust had the lowest number of outpatient appointments cancelled by its hospitals and the lowest cancellation rate.

In terms of Programmes of Care, hospitals cancelled more appointments in the fields of 'mental health' (21%) and 'elderly care' (18%) in 2011/12 as is shown in Figure 6.<sup>39</sup>

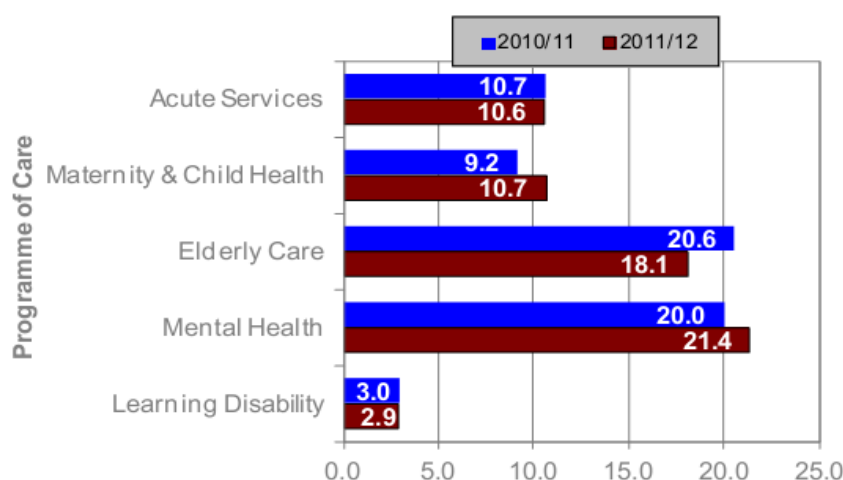


Figure 6. Rate of hospital cancellation by Programme of Care 2010/11-2011/12

<sup>37</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) pp24-25.

<sup>38</sup> Belfast has the highest population density in Northern Ireland and also more specialist services. Not all outpatient services are provided in each Trust area and patients may have to travel to other Trusts for treatment. For example, cardiac surgery is only provided in the Belfast Trust therefore all patients across NI will attend the Belfast Trust, regardless of where they live.

<sup>39</sup> DHSSPS (2012) Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) publication available online at: [http://www.dhsspsni.gov.uk/ni\\_hospital\\_statistics\\_-\\_outpatient\\_activity\\_2011\\_12.pdf](http://www.dhsspsni.gov.uk/ni_hospital_statistics_-_outpatient_activity_2011_12.pdf) p14.

## 10. Reasons for hospitals cancelling appointments: Data codes

As mentioned in Section 4 of this paper, the DHSSPS has developed a system to code and record the reasons why hospitals may need to cancel appointments.<sup>40</sup> Figures for cancellations by hospital providers for 2011/12 were obtained from the DHSSPS and are summarised in Table 4. Readers should also refer to Appendix 4 for a further breakdown of reasons associated with these categories. However, a constraint of the data system is that not every eventuality can be coded as a reason, which therefore limits how far this data can be interpreted.

Reason for cancellation	Belfast Trust	Northern Trust	South Eastern HSCT	Southern Trust	Western Trust	NI total	NI (%)
Consultant unavailable	17,686	5,976	10,179	4,834	9,258	47,933	26.2
Medical staff / nurse not available	1,040	0	1,551	366	1,249	4,206	2.3
Patient treated elsewhere	537	917	2,086	840	537	4,917	2.7
Consultant cancelled appointment	1,575	17,113	522	461	8,333	28,004	15.3
Appointment brought forward	1,618	0	2,718	2,151	1,744	8,231	4.5
Appointment put back	15,188	1,424	5,812	3,188	3,087	28,699	15.7
Cancelled following validation / audit	444	31	122	5	4	606	0.3
Administrative error by hospital / GP	572	1,799	2,606	1,291	2,240	8,508	4.7
Hospital transport not available	81	30	169	19	27	326	0.2
Cancelled by hospital - to rebook as alternative booking method	4,153	0	3,427	0	111	7,691	4.2
No reason or incorrect reason recorded	38,717	1,061	709	1,229	1,976	43,692	23.9
<b>Total</b>	<b>81,611</b>	<b>28,351</b>	<b>29,901</b>	<b>14,384</b>	<b>28,566</b>	<b>182,813</b>	<b>100%</b>

Table 4. Number and reason for consultant-led outpatient cancellations by Trust area 2011/12

Key points from Table 4 show that:

- Over 75,000 (41%) outpatient cancellations by the hospital were associated with consultants - either the “consultant unavailable” (26%) or the “consultant cancelled the appointment” (15%).

<sup>40</sup> The list of reasons is supplied by the DHSSPS; (2011) Reporting of Quarterly Outpatient Activity Information: Data Definitions and Guidance Document, p16 &17 [http://www.dhsspsni.gov.uk/qoar\\_guidance\\_aug\\_11.pdf](http://www.dhsspsni.gov.uk/qoar_guidance_aug_11.pdf).

- A list of detailed reasons why a consultant may be unavailable is provided in Appendix 4 (e.g. due to illness, bereavement, in a lecture etc.). A further breakdown of these figures was requested by the researcher from the DHSSPS,<sup>41</sup> however this data has not yet been provided at the time of writing. Therefore, whether the reasons are largely unavoidable remains to be seen.
- The top three clinical specialities that were cancelled due to “consultant unavailable” were Paediatrics (5,417), General Surgery (4,514) and Ophthalmology (4,333).<sup>42</sup>
- Although a list of explanations for the “consultant unavailable” category is provided in Appendix 4, no list of explanations is provided for the “consultant cancelled appointment” category in Appendix 4. In addition, there was much greater usage of the “consultant cancelled appointment” variable in the Northern Trust (17,000) than other Trust areas. The Northern Trust may be using this variable more frequently than the “consultant unavailable” variable which enables a specific reason to be recorded.
- Over 43,000 appointments (around ¼ of all appointments) were cancelled by hospitals without a reason or with the reason being recorded incorrectly. The Belfast Trust had the highest number of cases (over 38,000) where the reason was not recorded or was recorded incorrectly. The Belfast Trust has confirmed this number is high “*because cancellations are recorded under an ‘Other’ code which does not show the reason for the cancellation*”, and have advised that “*this will be removed in January 2013 to ensure more accurate coding*”.
- Cancelled appointments by hospital providers may not always result in lost productivity and this is very much situation specific. For example, 4.5% appointments cancelled by hospitals are due to appointments being brought forward; 4% of appointments were cancelled so that the appointment could be rebooked, and 2.7% of patients were treated elsewhere. Whilst reported as cancellations, these instances may not necessarily negatively impact on the patient.

### 10.1 What is being done to improve cancellation rates by hospital providers?

Given the high number of cancellations initiated by hospitals which do not have a reason or a correctly coded reason for the cancellation, it is difficult to get a true picture about why cancellations are happening, and indeed if there is any sort of adverse impact on patients. In turn, the DHSSPS was asked to ascertain what sort of action was being undertaken to improve on reported data and to reduce the rate of appointment cancellations by hospitals.

---

<sup>41</sup> Personal correspondence with the author and DHSSPS on 16.1.2013.

<sup>42</sup> DHSSPS: Northern Ireland Hospital Statistics: Outpatient Activity (2011/12) publication available online at: [http://www.dhsspsni.gov.uk/ni\\_hospital\\_statistics\\_-\\_outpatient\\_activity\\_2011\\_12.pdf](http://www.dhsspsni.gov.uk/ni_hospital_statistics_-_outpatient_activity_2011_12.pdf)

Is there any work underway to reduce the high usage of the “no reason or an incorrect reason recorded” category or to make the reason for a cancelled appointment by the hospital mandatory?

The DHSSPS stated that *“currently there are no plans to improve the “no reason or an incorrect reason recorded” category due to resource constraints.”* In addition, the DHSSPS confirmed that *“at this stage, no decision has been taken to make the ‘cancelled by hospital’ reasons mandatory”* in the system coding. The DHSSPS has also proposed an “Improvement Plan” to increase the accuracy of coding this data, but it is understood that the Plan has not come to fruition.<sup>43</sup>

The DHSSPS was also asked what specific actions are being made by the Board / Trusts to reduce cancellations by the hospital?”

*“As part of the more effective and responsive booking processes outlined in the Integrated Elective Access Protocol, clinicians are required to give 6 weeks’ notice of annual or study leave. This helps ensure a reduction in the likelihood of hospital cancellations as the Trust can be confident that clinics will be held. The Health and Social Care Board routinely monitors both patient DNA rates and hospital cancellations as part of its performance management of HSC Trusts”.*

When asked “what, if any sanctions, would be placed on Trusts if cancellation rates continue to remain high?” The Department responded:

*“As a result of the moderate data quality assessment, it would be inappropriate at this stage to implement sanctions based on cancellation rates. However once the data is considered as robust and accurate, it may be necessary to consider possible measures to reduce cancellation rates.”*

The DHSSPS was also asked “why consultant cancelled appointment levels are so high in the Northern Trust, and if any action is being undertaken to improve them? The DHSSPS response is as follows:

*“The Northern Trust has confirmed that the ‘consultant cancelled appointment’ is often used by the booking staff inappropriately when the consultant is not available for the clinic as a ‘catchall’ for other reasons. The Trust is re-issuing guidance and providing new training to staff this month to address this problem.”<sup>44</sup>*

## 10.2 Comparison: Patient cancellations, hospital cancellations and DNAs

In terms of comparing rates where there is *an indication of a loss to potential productivity* due to patient DNAs or cancellations by hospital providers, over 340,000 appointments did not occur as originally planned in 2011/12. This data suggests that more could be done to encourage patients to attend their appointments, and to reduce situations where

<sup>43</sup> DHSSPS (2012) [Use of Variable on 'Reason for Cancellation'](#) Quarterly Outpatient Activity Return p2, and correspondence with Hospital Information Branch, 15 January 2013.

<sup>44</sup> Personal correspondence with the author and the DHSSPS on 3.1.2013; 16.1.2013 and 24.1.2013



hospitals may need to cancel appointments which have a direct impact on productivity, resources and patients.

2011/12	Number of appointments	Cancellation rate 2011/12	Impact: Indication of loss of potential productivity to healthcare system?
<b>Patient</b> did not attend (DNA) appointment	<b>157,781</b>	9.4% <sup>45</sup>	Yes
<b>Patient</b> could not attend (CAN) and cancelled in advance	<b>184,718</b>	10.9% <sup>46</sup>	No
Appointments cancelled by <b>hospital</b>	<b>182,813</b>	10.8%	Yes

Table 5. Summary of all missed or cancelled appointments in 2011/12<sup>47</sup>

## 11. Costs of cancelled/missed appointments

There is no question that missed and cancelled appointments can generate additional costs, however it is difficult to calculate this accurately and the HSC Board was unable provide such data. In addition, the DHSSPS stated:

*“Depending on the circumstances of each case in which a hospital appointment is missed, it may be possible to re-deploy some or all of the staff and other resources on other productive health and social care activity. There may also be some administrative costs associated with managing the consequences of missed appointments. However such costs cannot be quantified with any degree of certainty as any incremental administrative costs arising from arranging excess appointments could not be disentangled from the normal running costs”.*

As an indication, data from the 2007 NI Audit Report on Outpatients stated that *“patients who fail to turn up for [outpatient] appointments represent an annual opportunity cost to the health service of £11.6million”*.<sup>48</sup> However, this figure does not take account of the cost for cancelled appointments by hospital providers - which was not reported, either financially or in terms of lost productivity. As mentioned, there are also potential human costs to patients regarding delay in diagnosis and possible prolonged or worsening ill health.

## 12. Cancellations by hospital providers

The final section of this research paper indicates the level of hospital cancellations in NI compared with the rest of the UK.<sup>49</sup> Data was not available in the requested format for Scotland. The Republic of Ireland (RoI) also collects its data in a different format.<sup>50</sup>

<sup>45</sup> Rate calculated by ((Number of DNAs) / (Number of attendances + Number of DNAs)) x100

<sup>46</sup> Rate calculated by ((Number of CNAs) / (Number of attendances + Number of CNAs)) x100

<sup>47</sup> There were a total of 1,513,998 appointments attended in 2011/12. A further 525,312 appointments were cancelled (either by patient or hospital) or missed by the patient.

<sup>48</sup> Northern Ireland Audit Office Report (2007) Outpatients: Missed Appointments and Cancelled Clinics p8.

<sup>49</sup> Please note, data may be collected in slightly different formats.

<sup>50</sup> Data is only available for cancelled *clinics* rather than cancelled appointments by hospital providers as per correspondence between author and Health Service Executive, Ireland on 28.1.13. Not all Health Authorities in Scotland collect this data, as per correspondence with NHS Scotland on 22.1.13.

2011/12	Total number of outpatient hospital attendances	Total number of appointments cancelled by hospital providers	Hospital cancellation rate <sup>51</sup>
England <sup>52</sup>	<b>72,620,492</b>	<b>5,756,878</b>	<b>6.3%</b>
Wales <sup>53</sup>	<b>4,144,914</b>	<b>336,231</b>	<b>7.5%</b>
Scotland <sup>54</sup>	<b>4,699,868</b>	Data not available	N/A
Northern Ireland <sup>55</sup>	<b>1,513,998</b>	<b>182,813</b>	<b>10.8%</b>

Table 6. Total number of hospital attendances and appointments that were cancelled by hospitals in the UK (2011/12)

As can be seen in Table 5, Northern Ireland had a greater rate of hospital providers cancelling outpatient appointments on patients than either England or Wales in 2011/12.

### 13. Conclusion

When outpatient appointments are cancelled or missed, and patients are not seen as a result, clinics do not operate at their most effective levels. In turn, waiting times can be exacerbated. In 2011/12 there were 157,781 appointments missed/not attended by patients, and 182,813 appointments cancelled by hospital providers in Northern Ireland. Whilst there are genuine reasons for both patients and professionals not attending or cancelling appointments, these figures suggest that more could be done to improve current levels. In addition, it is difficult to draw meaningful conclusions concerning outpatient cancellations by hospital providers in Northern Ireland because the data is incomplete and reporting a reason for these cancellations is not a mandatory requirement.

<sup>51</sup>  $((\text{Number of hospital cancellations}) / (\text{Number of attendances} + \text{Number of hospital cancellations})) * 100$

<sup>52</sup> NHS Information Centre data available online at: <http://www.ic.nhs.uk/article/2021/Website-Search?productid=10254&q=outpatient+&sort=Relevance&size=10&page=1&area=both#top>

<sup>53</sup> Data obtained as per correspondence with the author and NHS Wales. Response dated 28.1.13

<sup>54</sup> ISD Scotland. This provisional data available online at: <http://www.isdscotland.org/Health-Topics/Hospital-Care/Outpatient-Activity/> other data specifically for 2011/12 is not available.

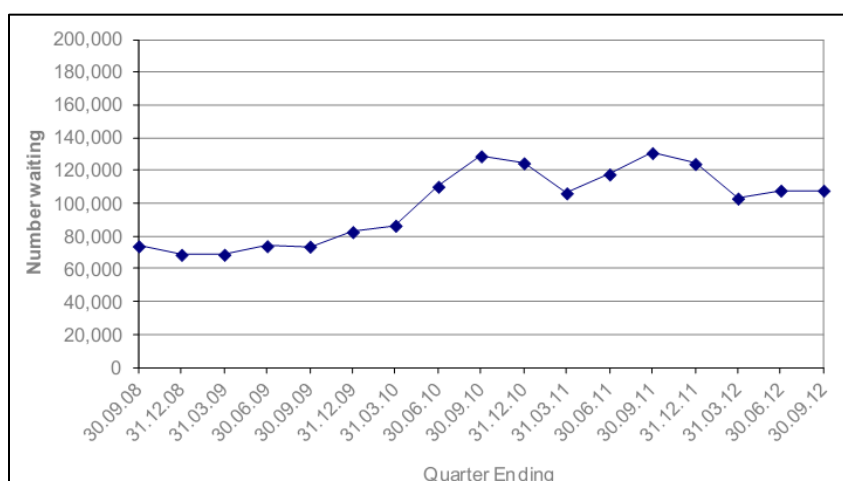
<sup>55</sup> DHSSPS: Northern Ireland Hospital Statistics: Outpatient Activity 2011/12

## Appendix 1: Number of patients waiting for a first consultant-led appointment in Northern Ireland <sup>56</sup>

Specialty	Patients Waiting for an Appointment by Weeks Waiting							Total Number of Patients Waiting
	0-6	>6-9	>9-13	>13-18	>18-21	>21-26	>26	
ENT	5,941	2,112	1,693	1,026	407	663	507	12,349
T & O Surgery	5,656	2,062	1,994	1,621	253	243	218	12,047
General Surgery	7,884	2,165	889	371	52	38	10	11,409
Ophthalmology	4,344	1,603	1,478	1,405	561	334	71	9,796
Gynaecology	5,379	1,808	1,070	710	223	36	0	9,226
Dermatology	4,475	1,392	1,006	923	240	42	9	8,087
General Medicine	2,552	819	607	435	183	112	194	4,902
Other: -	20,161	6,486	4,664	3,944	1,670	1,573	1,560	40,058
Paediatrics	2,293	754	525	647	298	238	139	4,894
Cardiology	2,512	684	469	300	108	66	282	4,421
Urology	1,937	602	357	302	178	235	242	3,853
Neurology	1,633	656	561	427	161	142	198	3,778
Oral Surgery	1,412	519	489	469	212	179	234	3,514
Rheumatology	1,632	658	521	268	52	21	32	3,184
Gastroenterology	1,550	498	440	238	51	101	40	2,918
Plastic Surgery	681	250	266	313	180	268	354	2,312
Restorative Dentistry	651	266	289	418	249	257	0	2,130
Thoracic Medicine	1,012	346	213	103	16	15	20	1,725
Pain Management	851	341	111	80	12	1	0	1,396
Geriatric Medicine	721	158	121	80	42	11	0	1,133
Endocrinology	417	123	87	57	12	2	0	698
Other	2,859	631	215	242	99	37	19	4,102
<b>All Specialties</b>	<b>56,392</b>	<b>18,447</b>	<b>13,401</b>	<b>10,435</b>	<b>3,589</b>	<b>3,041</b>	<b>2,569</b>	<b>107,874</b>

Source: Departmental Return CH3

Number of patients waiting for a 1<sup>st</sup> outpatient appointment by specialty (September 2012)



Total number of patients waiting September 2008-September 2012

<sup>56</sup> Data obtained from DHSSPS (2012) NI Waiting Time Statistics: Outpatient Waiting Times

## Appendix 2: Coded reasons for patient cancellations

### **PATIENT CANCELLED APPOINTMENT AS IT IS NO LONGER REQUIRED**

Changed To Private Patient  
Complaint Cleared  
Patient Did Not Attend  
Patient DNA'd Previous Appointments  
Patient Miscarried  
Patient Moved Away  
Patient No Longer Pregnant  
Patient's Request No Furth Apt  
Problem Gone  
Discharged To GP

### **PATIENT CANCELLED BUT THE APPOINTMENT IS STILL REQUIRED**

Bereavement  
Carer Commitments  
Date Unsuitable  
Does Not Suit Patient  
Outpatient Too Ill To Attend  
Patient Is Student Doing Exams  
Patient Had Holiday Booked  
Patient Pregnant  
Patient Refused Appointment  
Patient Unavailable  
Personal Bereavement  
Time Unsuitable For Patient  
Appointment Cancelled Due To Weather Conditions  
Insufficient Notice Of Appoint (At least 3 weeks notice given)

## Appendix 3: Trust Protocol for patients who DNA/CNA

When a patient is referred for a first outpatient appointment and either cancels (CNA) or Does Not Attend (DNA) an outpatient appointment, their waiting time clock is reset to the date of the cancellation or DNA date. For patients falling into this category the average waiting time during the 2011/12 year for acute first outpatient appointments was approximately 9 weeks. For those patients classified as an urgent appointment, the wait was approximately 4.7 weeks and routine appointments were approximately 11 weeks.

The Department's 2008 'Integrated Elective Access Protocol' (**IEAP**) provides details of the steps to be taken by HSC Trusts if patients fail to attend for outpatient appointments. These are:

1. All consultant led outpatient appointments should be booked, involving a dialogue with the patients, with no patient booked more than 6 weeks into the future.
2. Patients who have the opportunity to book their appointment and who subsequently Do Not Attend (DNA) are to be referred back to the referring clinician. Where a fixed appointment was issued, patients would have two opportunities to attend before being referred back to the referring clinician.
3. If a patient cancels their appointment (Could not attend - CNA) they are given a second opportunity to attend within 6 weeks, however they are not normally offered a further appointment if they are unable to attend this appointment and are referred back to their GP.
4. Patients should be offered 'reasonable' appointments, i.e. at least 3 weeks notice, however this does not prevent patients agreeing a mutually acceptable appointment of less than 3 weeks.

## Appendix 4: Coded reasons for hospital cancellations

(Source DHSSPS)

<p><b>CONSULTANT UNAVAILABLE</b>            Consultant At Court – Med/Legal            Consultant At Meeting / Conference            Consultant At Other Hospital Today            Consultant Holding Lecture            Consultant In Theatre/Other Hospital            Consultant Absent – Other (Specify)            Consultant Absent Annual Leave            Consultant Absent – Audit            Consultant Absent – Study Leave            Consultant Has Retired            Consultant Ill            Consultant In Theatre            Consultant Unavailable            Physician Of The Week            Wards On Take            Post Take Ward Round            Consultant On Leave</p> <p><b>MEDICAL STAFF / NURSE UNAVAILABLE</b>            Medical Staff Exams            Medical Staff Ill            Medical Staff On Annual Leave            Medical Staff Study Leave            No Nurse Available            Nurse On Annual Leave            Staff Shortages            Senior House Officer On Call            Senior Reg / Senior House Officer On Leave</p> <p><b>PATIENT TREATED ELSEWHERE</b>            Added To Inpatient W/List            Added Outpatient W/List            Consultant's Ward Take In            Emergency Adm – Same Complaint            Has Seen Another Consultant            Patient Treated In Ward            Planned Adm – Same Complaint            Referred To Another Consultant            Referred To Day Hospital            Patient Treated Elsewhere            Currently An Inpatient</p> <p><b>CONSULTANT CANCELLED APPOINTMENT</b>            At Consultant Request</p>	<p><b>APPOINTMENT RESCHEDULED – BROUGHT FORWARD</b>            Change In Clinic Code Forward            Change In Consultant Forward            Change Of Clinic Arrangements Forward            Earlier Appointment At Consultants Request            Earlier Appointment At GP Request            Timeslot Removed Per Consultant Request Forward</p> <p><b>APPOINTMENT RESCHEDULED – PUT BACK</b>            Change In Clinic Code Put Back            Change In Consultant Put Back            Change Of Clinic Arrangements Put Back            Later Appointment At Consultants Request            Appointment Cancelled Awaiting Tests            Appointment Cancelled Due To Equipment Failure            Timeslot Removed Per Consultants Request Put Back            Default Field: Timeslot Deleted</p> <p><b>CANCELLED FOLLOWING VALIDATION / AUDIT</b>            Cancelled After Validation            Medical Audit            Rolling Audit Date</p> <p><b>ADMINISTRATIVE ERROR BY HOSPITAL / GP</b>            Ambulance Not Booked            Appointment Made In Error            Clinic Overbooked            Incorrect Address – No Appointment Recorded            Insufficient Notice Of Appointment (Less Than 3 Weeks Notice Given)            Patient Not Notified By Other Hospital            Christmas Holiday Period            Easter Holiday Period            New Year Holiday Period            Public / Bank Holiday Period</p> <p><b>HOSPITAL TRANSPORT NOT AVAILABLE</b>            Ambulance Unavailable</p> <p><b>CANCELLED BY HOSPITAL IN ORDER TO REBOOK AS ALTERNATIVE BOOKING METHOD</b>            Rebooked To New Booking Method</p>
--	--