

# National Mobile Health Worker Project

*Final Report: Appendix A Phase 1 Analysis*

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## 1. Phase 1 Site Evaluations

Full descriptions of the Phase 1 projects, including Project methodology, implementation, technical details and the numbers involved in the project are available in the National Mobile Health Worker Project Progress Report.

The following sections give the additional metric findings for each site that have been collected and analysed after the Progress Report was published.

(Benefits 3 and 4 data was collected over only 2 weeks compared to the 4 weeks for Baseline, Benefits 1 and 2. This is accounted for in the rebased analysis).

Overall project findings have not been presented in this Final Report, as the analysis performed for the Progress Report highlighted the significant variations that were present across the sites and how the differing approaches affected the outcomes of the project. This, along with the lower returns in the latter parts of the project, means there could not be any meaningful analysis performed from combining the data across the project.

The same applies to looking at data across Services; however some basic raw data is presented for the Services, to highlight the areas that may be more relevant to each service type.

## 2. Services

The table below summarises the services covered at the Phase 1 sites. The highest 3 in each category are shown in **bold**.

Service Type	Number of users	Days of Data returned	Number of Contacts	Number of Journeys	Referrals Made	Admissions made	Number of No Access visits
CASH	1	47	78	110	1	0	7
Childrens & Family Services	<b>62</b>	<b>2377</b>	<b>9657</b>	<b>6705</b>	173	1	<b>530</b>
Community Development Workers	2	89	229	239	19	0	11
Counselling	3	55	179	88	28	0	0
District Nursing	<b>111</b>	<b>4008</b>	<b>30645</b>	<b>32256</b>	<b>2542</b>	<b>112</b>	<b>479</b>
ECG Technician	1	43	48	45	0	0	0
Intermediate Care	12	564	1548	1557	473	8	7
MDT (Multi-disciplinary team)	26	1031	1400	2798	235	<b>14</b>	42
Occupational Therapy	3	20	62	81	0	0	4
Palliative Services	19	776	1412	1828	<b>531</b>	5	17
Physiotherapy	9	229	776	855	472	13	20
Podiatry	12	333	1405	1359	270	0	56
Rapid Response	11	319	747	946	266	2	4
Respiratory Services	28	665	2316	1960	240	7	13
Specialist Nursing	<b>50</b>	<b>2422</b>	<b>9446</b>	<b>8347</b>	<b>2716</b>	<b>142</b>	143
Speech & Language Therapy	40	1582	5114	5229	7	6	<b>147</b>

**Table 1 Basic Data by Service**

### 3. Ashton Leigh and Wigan (Bridgewater Community Healthcare NHS Trust ALW Division)

ALW	
Number of devices	50
Clinical system used	iPM
Pilot go-live date	29th November 2010

**Table 2 ALW At A Glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
Children's & Family Services	9	4	3	3	3	1
Community Development Workers	2	2	1	2	2	1
Counselling	3	2	2	1	3	1
District Nursing	8	5	1	3	3	1
ECG Technician	1	1	-	1	1	-
Intermediate Care	3	1	-	2	-	-
Occupational Therapy	2	1	1	-	1	-
Respiratory Services	7	-	-	3	4	2
Specialist Nursing	13	10	7	6	11	4
Speech & Language Therapy	1	-	1	1	1	-
<b>Total</b>	<b>49</b>	<b>26</b>	<b>16</b>	<b>22</b>	<b>29</b>	<b>10</b>

**Table 3 ALW Overview of Returns used in analysis**

\* One device Issued to Project Lead (Non Clinical Use)

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
Children's & Family Services	32	12	84	25	7	160
Community Development Workers	17	3	56	8	5	89
Counselling	10	5	20	12	8	55
District Nursing	31	5	54	5	3	98
ECG Technician	6	-	28	9	-	43
Intermediate Care	7	-	34	-	-	41
Occupational Therapy	6	4	-	10	-	20
Respiratory Services	-	-	67	25	20	112
Specialist Nursing	47	21	167	61	34	330
Speech & Language Therapy	-	4	28	4	-	36
<b>Total</b>	<b>156</b>	<b>54</b>	<b>538</b>	<b>159</b>	<b>77</b>	<b>984</b>

**Table 4 ALW Overview of Number of Days of data returned**

The numbers of returns dropped from Baseline to Benefit 4, mainly due to difficulties with organisational restructure and redeployment of clinical staff.

## Contacts:

A total of **4221** contacts were recorded in Ashton over the **984** days that data was recorded.

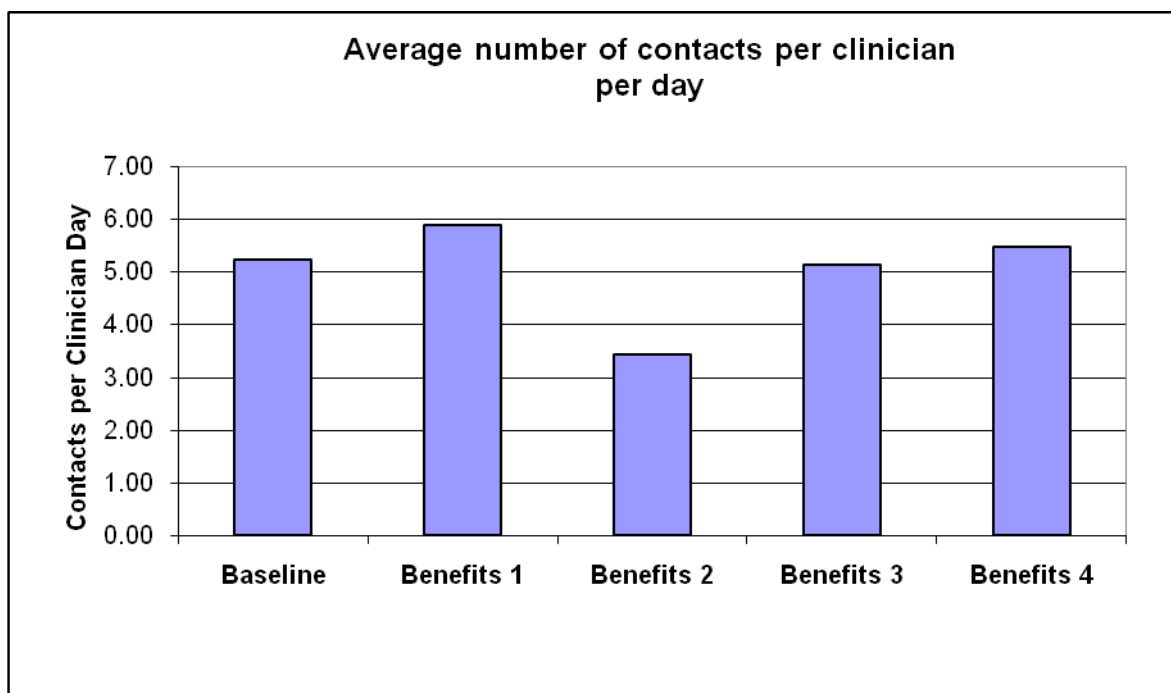


Figure 1 ALW Average contacts per clinician, per day

The average number of contacts from Baseline to Benefits 4 increased by **5%**.

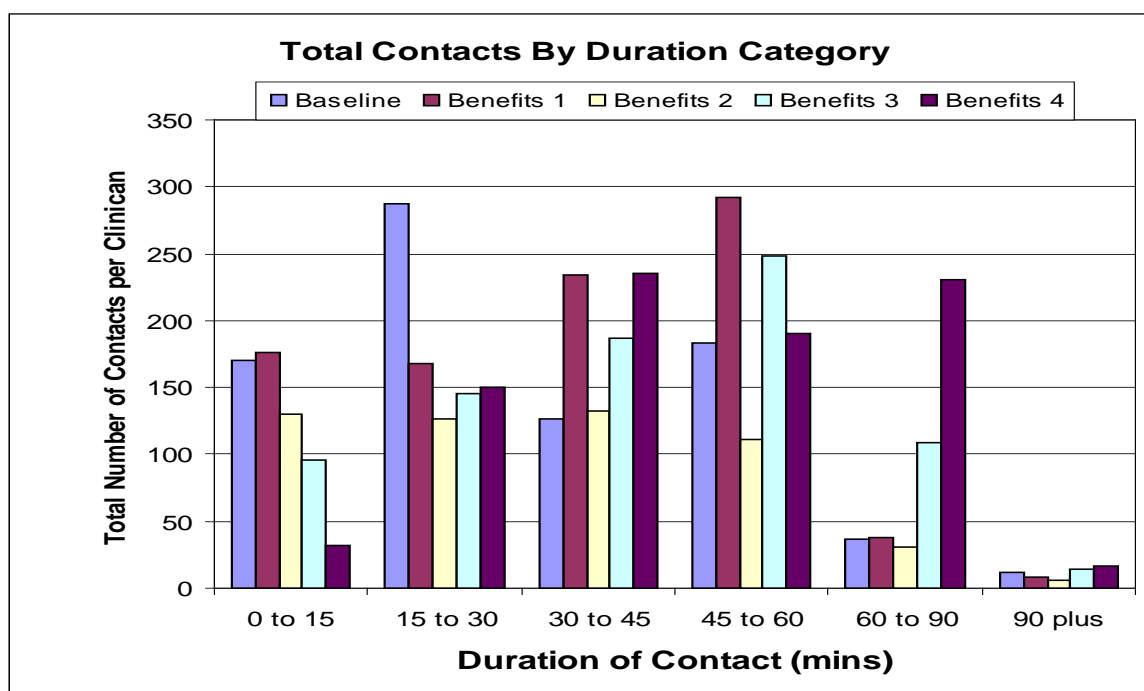


Figure 2 ALW Average number of Journeys by duration category



The data for the number of contacts split by duration shows a decrease in the shortest duration, while there was an **85%** increase in the 30 - 45minute time band and a huge increase in the 60 - 90minute time band, resulting in the total time spent with patients increasing by **58%**.

The data for contacts broken down by Service show variation ranging from an increase of **75%** (Community Development Workers) to a decrease of **37%** (District Nursing).

## Journeys

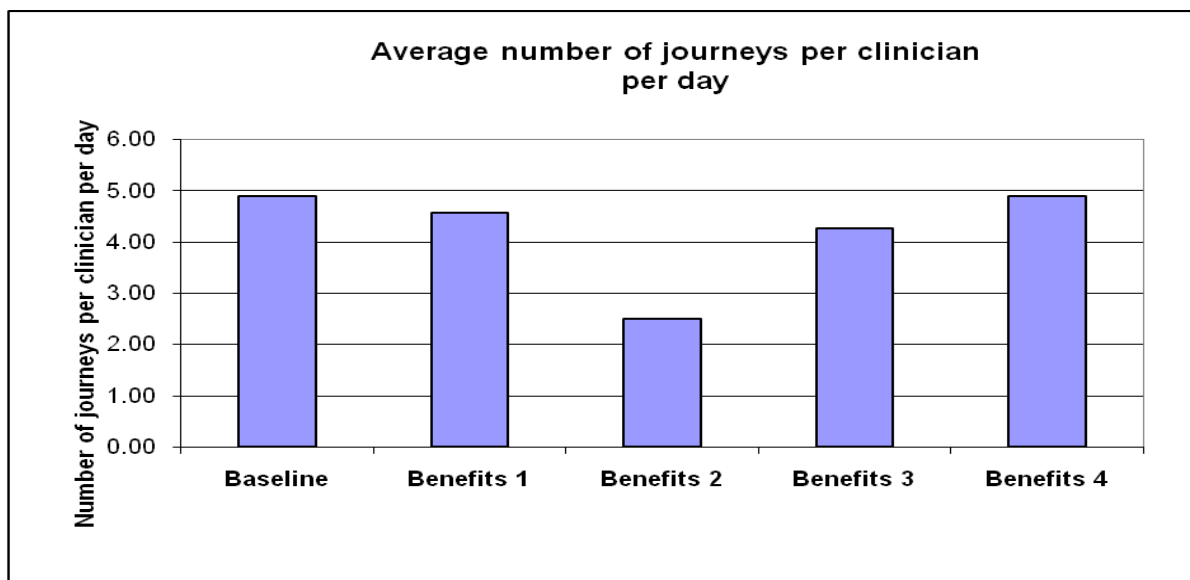


Figure 2 ALW Number of average journeys per clinician, per day

The average number of journeys per day decreased across the first 3 benefits periods, but by Benefit 4 had returned to Baseline levels, resulting in **no change** from Baseline to Benefits 4.

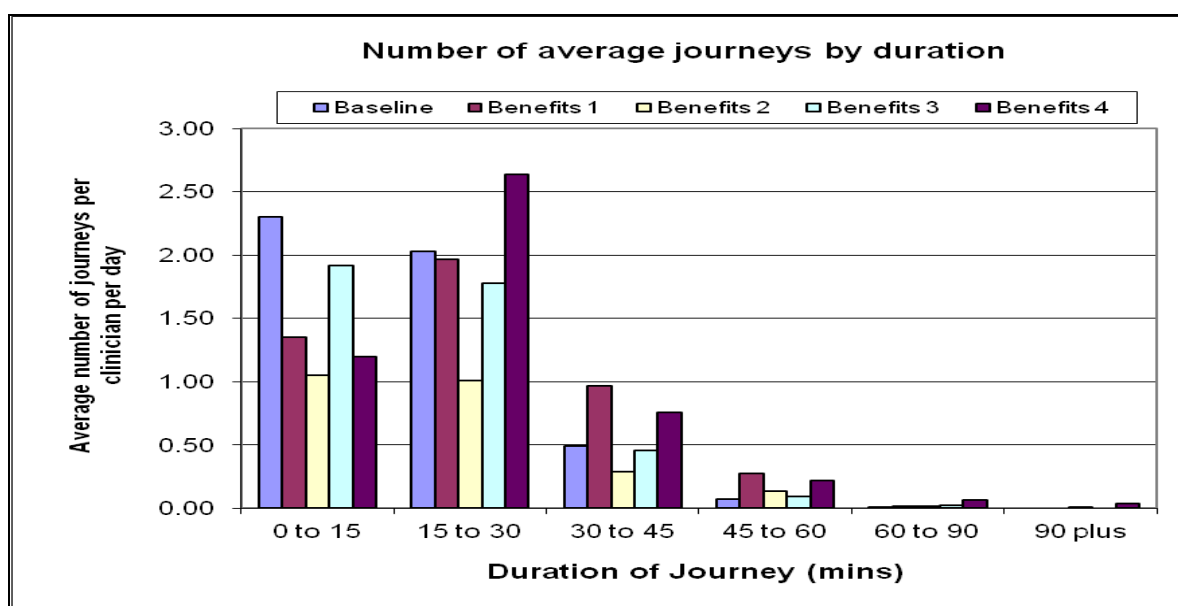


Figure 3 ALW Average number of Journeys by duration category

The data for number of journeys split by duration categories show that all the journeys had increased, with the exception of the 0-15minute time band, which decreased by **48%**. The total time spent travelling overall increased by **35%**

When looking at journeys split across the Services, there is large variation, from a **141%** increase (Community Development Workers) to a **26%** decrease (District Nursing).

### No access visits:

The numbers for no access visits varied widely across the data collection periods, and due to the small numbers involved, the figures are presented as an average across the combined benefits periods.

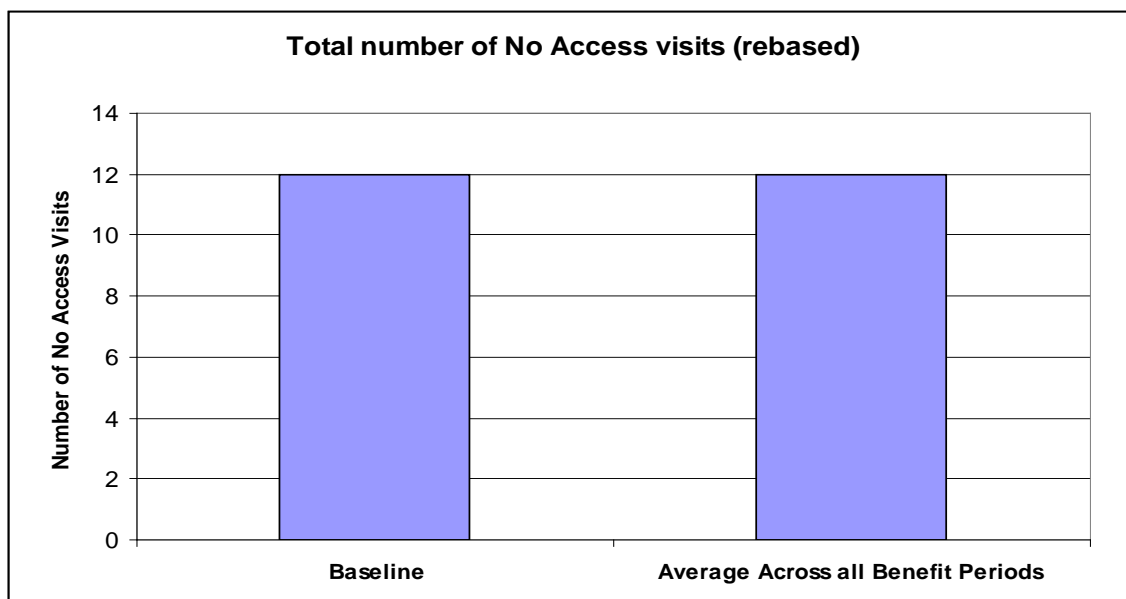


Figure 4 ALW No access visits

The average number across all the benefits periods combined showed **no change** throughout the project.

### Duplication of Data:

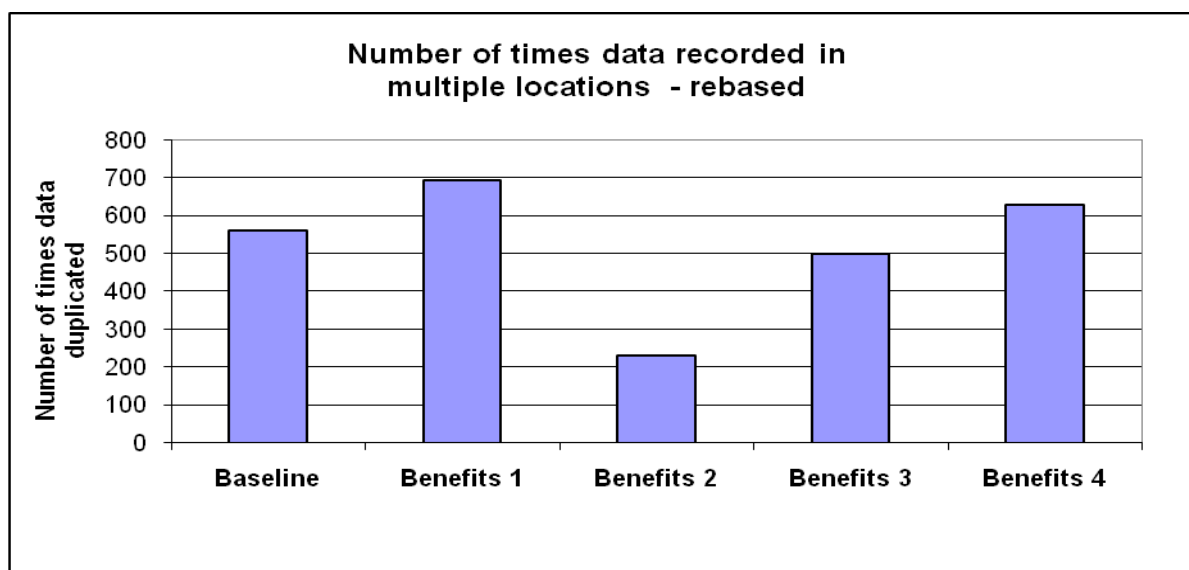


Figure 5 ALW Duplication of data

The data shows an increase of **12%** from Baseline to Benefits 4 for duplication for data. When looking at the breakdown of data duplication across the Services, there is a large variation, from a rise of **171%** (Counselling), to a fall of **39%** (Specialist Nursing).

**Referrals:**

In total, **1004** referrals were made across the benefits periods. Clinicians at ALW estimated that due to having mobile access to systems, they saved **27** potential referrals. This equates to a **3% saving** in referrals

**Admissions:**

In total, **23** admissions were made across the benefits periods, with **10** admissions saved due to having mobile access. This equates to a **30% saving** in admissions.

## 4. Avon IM&T Consortium

Avon	
Number of devices	48
Clinical system used	RiO
Pilot go-live date	14 <sup>th</sup> October 2010

**Table 5 Avon At A Glance**

Clinicians	Number in project	Baseline returns	Benefits 1 returns	Benefits 2 returns	Benefits 3 returns	Benefits 4 returns
Intermediate Care	7	7	5	8	4	4
Disabled Adult Resource Teams	9	7	8	8	7	5
Physiotherapy	9	7	6	8	1	1
Podiatry	12	9	8	12	8	6
Rapid Response	11	6	6	11	6	2
<b>Total</b>	<b>48</b>	<b>36</b>	<b>33</b>	<b>47</b>	<b>26</b>	<b>18</b>

**Table 6 Avon Overview of Returns used in analysis**

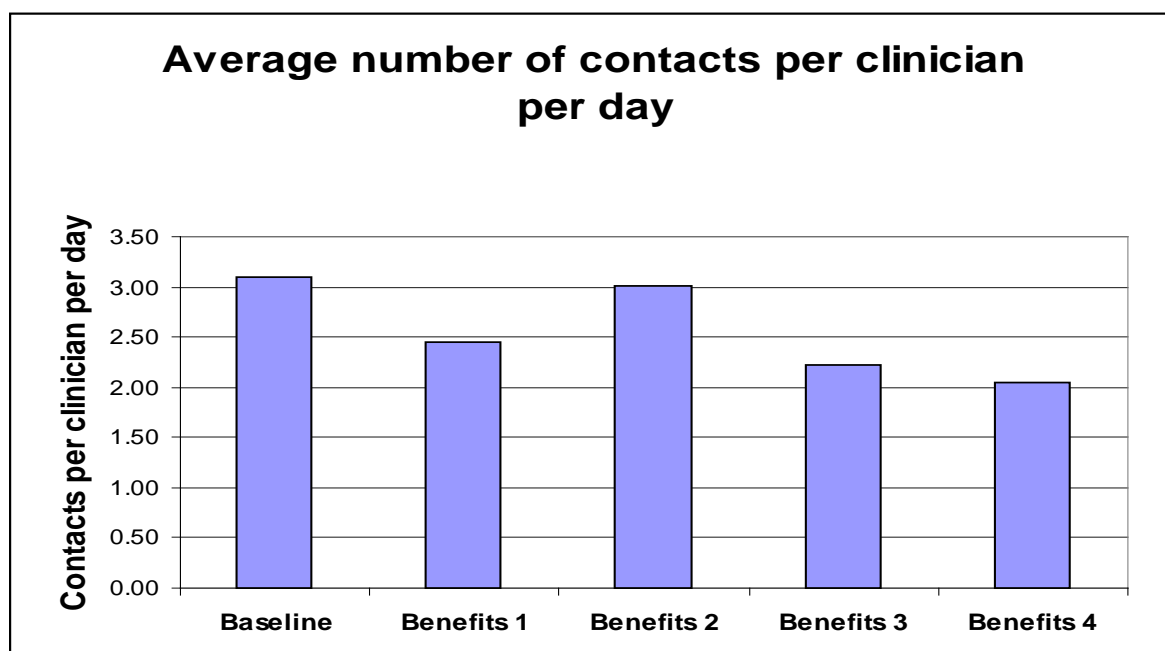
Days data	Baseline	Benefits 1	Benefits 2	Benefits 3	Benefits 4	Totals
Intermediate Care	34	74	93	31	31	<b>263</b>
Disabled Adult Resource Teams	75	66	85	45	30	<b>301</b>
Physiotherapy	22	70	123	5	9	<b>229</b>
Podiatry	59	74	131	41	28	<b>333</b>
Rapid Response	43	67	145	44	20	<b>319</b>
<b>Total</b>	<b>233</b>	<b>351</b>	<b>577</b>	<b>166</b>	<b>118</b>	<b>1445</b>

**Table 7 Avon Overview of Number of Days of data returned**

The numbers of returns dropped as the project progressed, which reflects the difficulty of the local team trying to manage data collection, when the project structure was no longer in place, despite the data collection periods being halved. The drop in returns will have an effect on the reliability and significance of the results.

## Contacts:

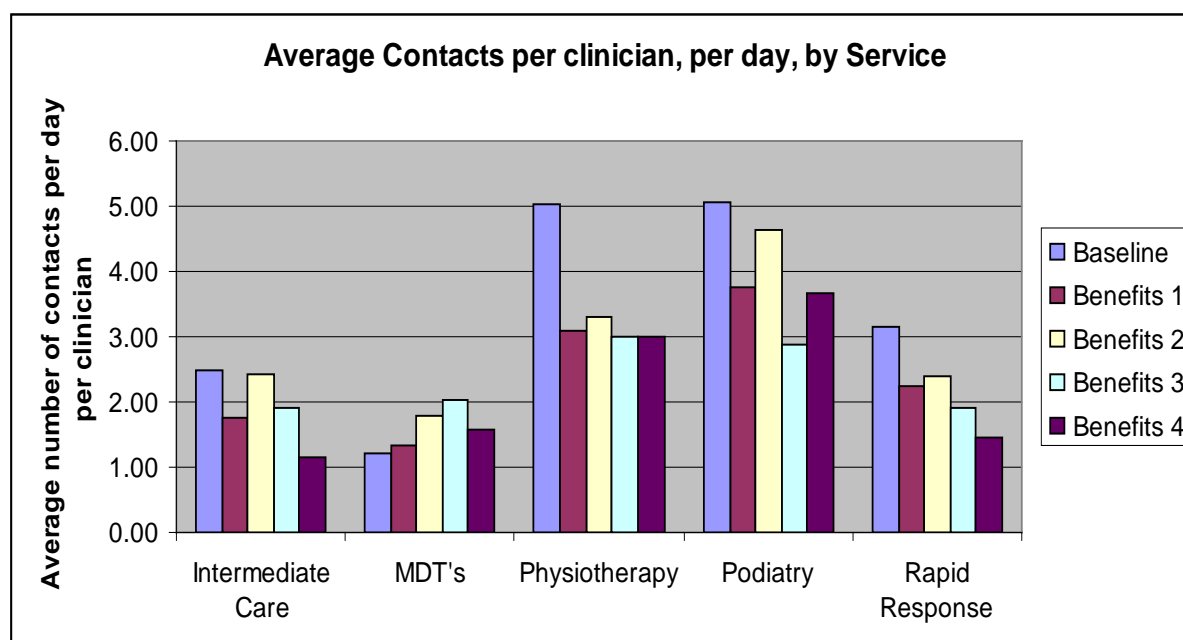
A total of **3933** contacts were recorded in Avon over the **1445** days that data were recorded.



**Figure 6 Avon Average contacts per clinician, per day**

The average number of contacts from Baseline to Benefits 4 fell by **32%**.

The data for the number of contacts split by duration shows a fall across all but 2 time periods – there was a small increase of **3%** in the 30-45 minute category, but a **40%** increase in the 90min plus category. This means the total time spent with patients fell by **24%** overall.



**Figure 7 Avon Average contacts per day per clinician, by Service**

When contacts are broken down across the Services, we see a fall in contacts ranging from **27%** to **54%** across 4 Services, but the Multi Disciplinary Teams showed an increase in contacts of **30%**. The MDT's were reported to have made the most changes to their working processes to maximise the use of the technology and the results would seem to support this.

## Journeys:

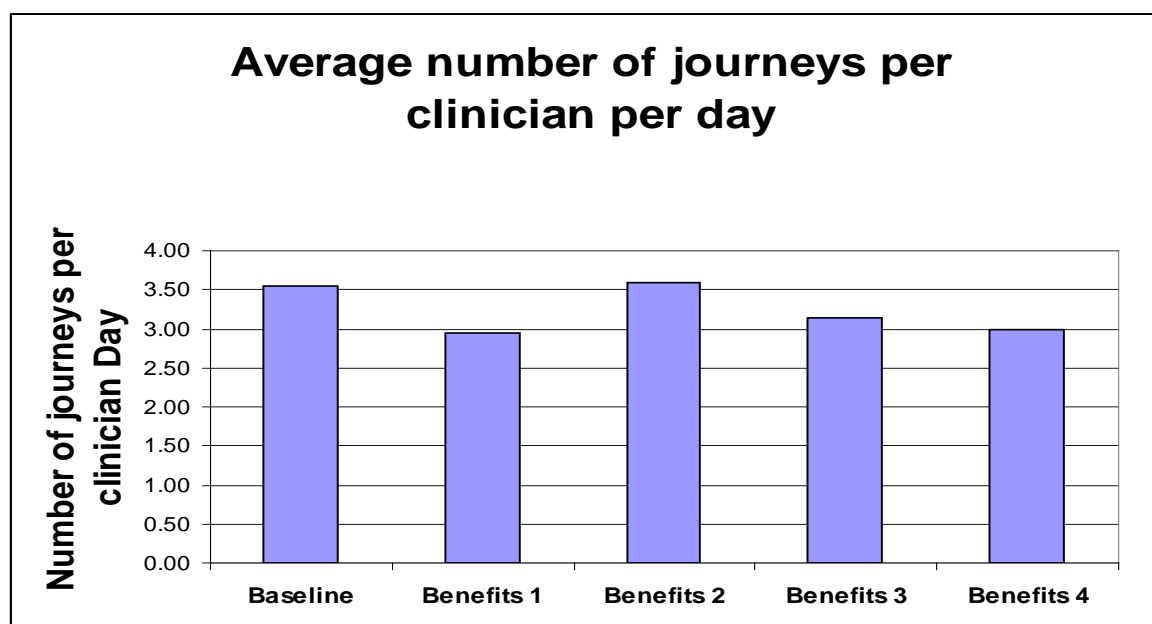


Figure 8 Avon Number of average journeys per clinician, per day

The average number of journeys per day fell by **15%** from Baseline to Benefits 4.

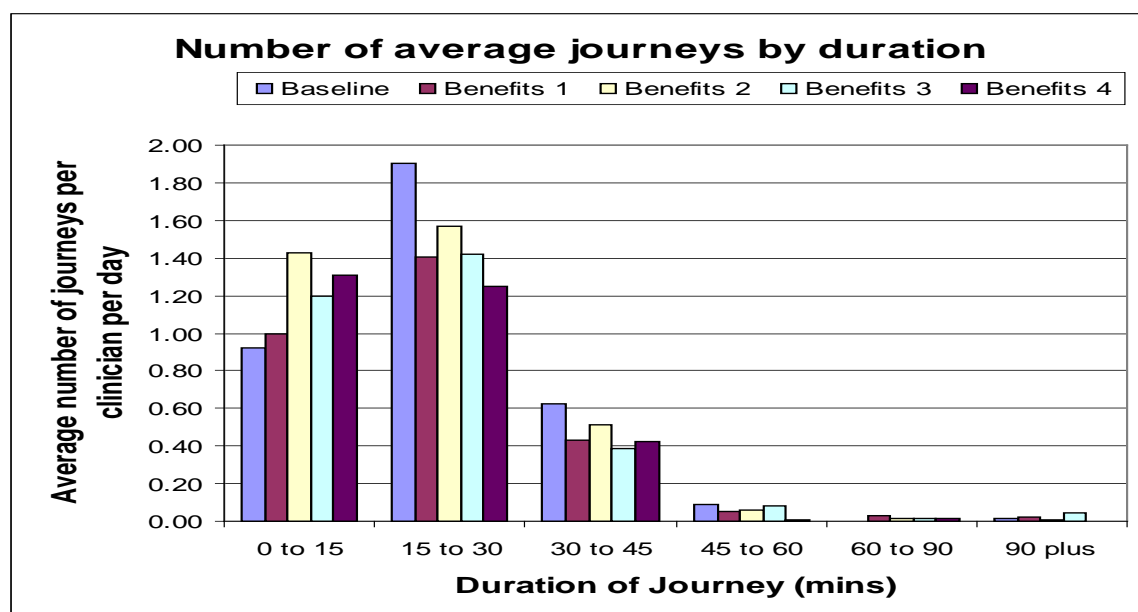


Figure 9 Avon Average number of Journeys by duration category

The data for number of journeys split across the duration categories show that only the number of very short journeys increased (0-15min), with the rest falling, meaning the total time spent travelling decreased by **29%**.

When looking at journeys across the Services, only Podiatry showed an increase in number of journeys (**3%**) – the rest fell from between **4** to **28%**.

**No access visits:**

The numbers for no access visits varied widely across the data collection periods, and due to the small numbers involved, the figures are presented as an average across the combined benefits periods.

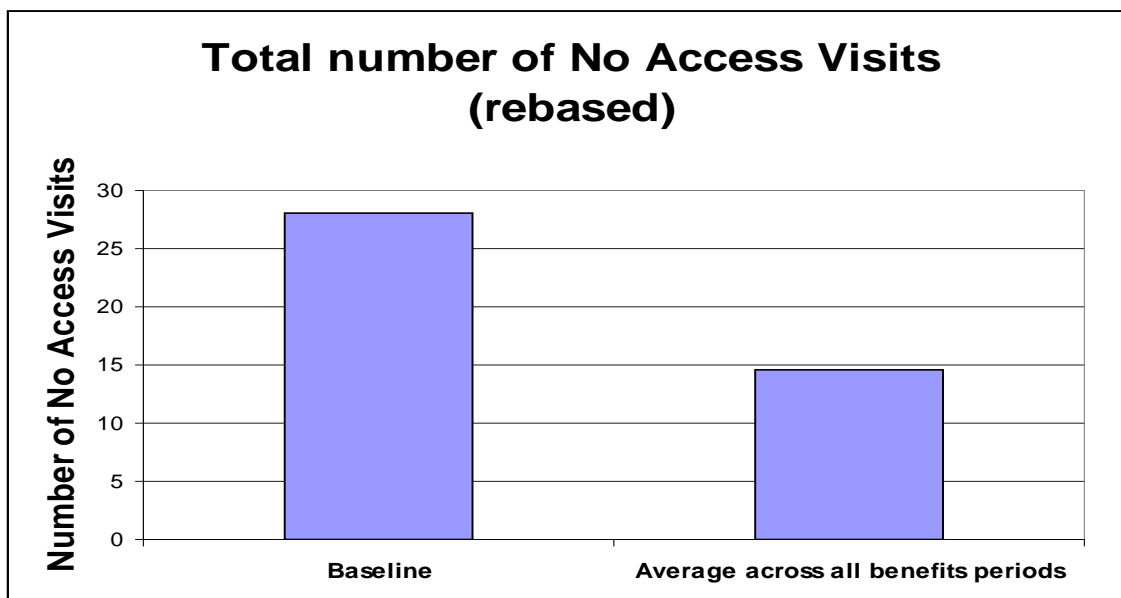


Figure 10 Avon No access visits

The average number across all the benefits periods combined show a fall of **47%** from Baseline.

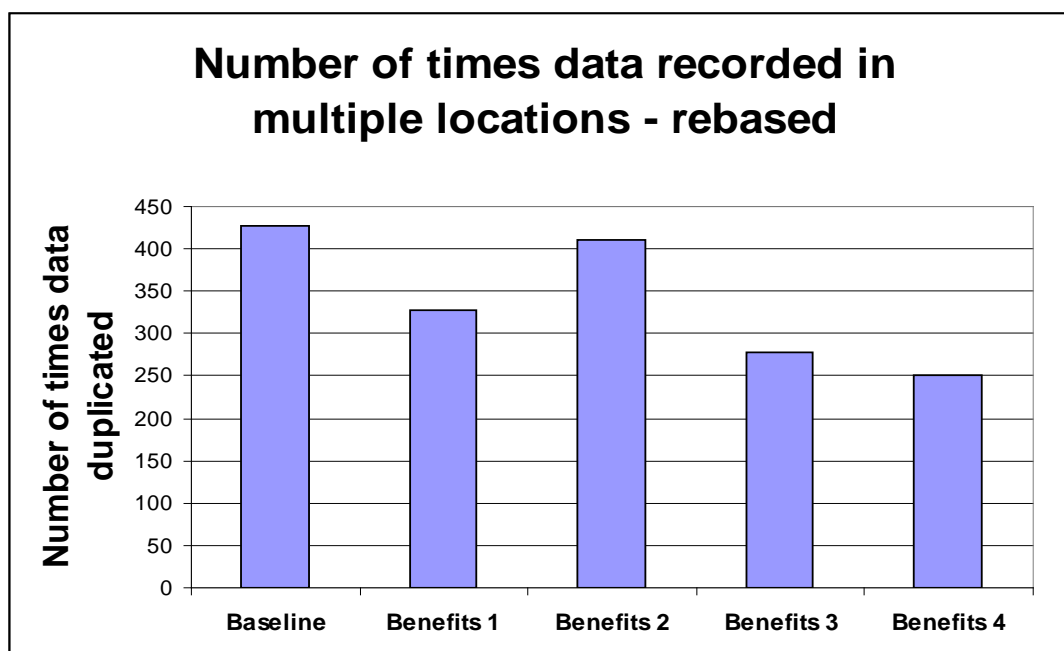
**Duplication of Data:**

Figure 11 Avon Duplication of data

The data shows a fall of **41%** from Baseline to Benefits 4 for duplication for data. This reflects the significant effort being made locally by the Transformation and Optimisation Leads in re-visiting Services using the clinical system RiO to ensure maximum benefit is being derived.

When looking at the breakdown of data duplication across the Services, there is variation, from a rise of **3%** (MDT) through to a fall of **61%** (Rapid Response). This probably represents the changes locally to Services and the progress of the transformation and optimisation project, as it moves across the Services.

#### **Referrals:**

In total, **1093** referrals were made across the benefits periods. Clinicians at Avon estimated that due to having mobile access to systems, they saved **44** potential referrals. This equates to a **4% saving** in referrals.

#### **Admissions:**

Due to the nature of the Services deployed to in Avon, admissions did not reach large numbers. Only **6** admissions were made over the benefits periods, with no admissions saved due to having mobile access.



## 5. John Taylor Hospice CIC (Birmingham East & North – BEN)

BEN	
Number of devices	21
Clinical system used	Systmone Palliative Care
Pilot go-live date	22 <sup>nd</sup> October 2010

Table 8 BEN At a glance

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
MDT's	8	7	7	8	7	6
Specialist Nursing	13	10	10	13	5	7
<b>Total</b>	<b>21</b>	<b>17</b>	<b>17</b>	<b>21</b>	<b>12</b>	<b>13</b>

Table 9 BEN Overview of Returns used in analysis

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
MDT's	140	84	192	50	48	514
Specialist Nursing	202	122	304	30	53	711
<b>Total</b>	<b>342</b>	<b>206</b>	<b>496</b>	<b>80</b>	<b>101</b>	<b>1,225</b>

Table 10 BEN Overview of Number of Days of data returned

### Contacts:

A total of **2550** contacts were recorded in BEN over the **1225 days** that data were recorded.

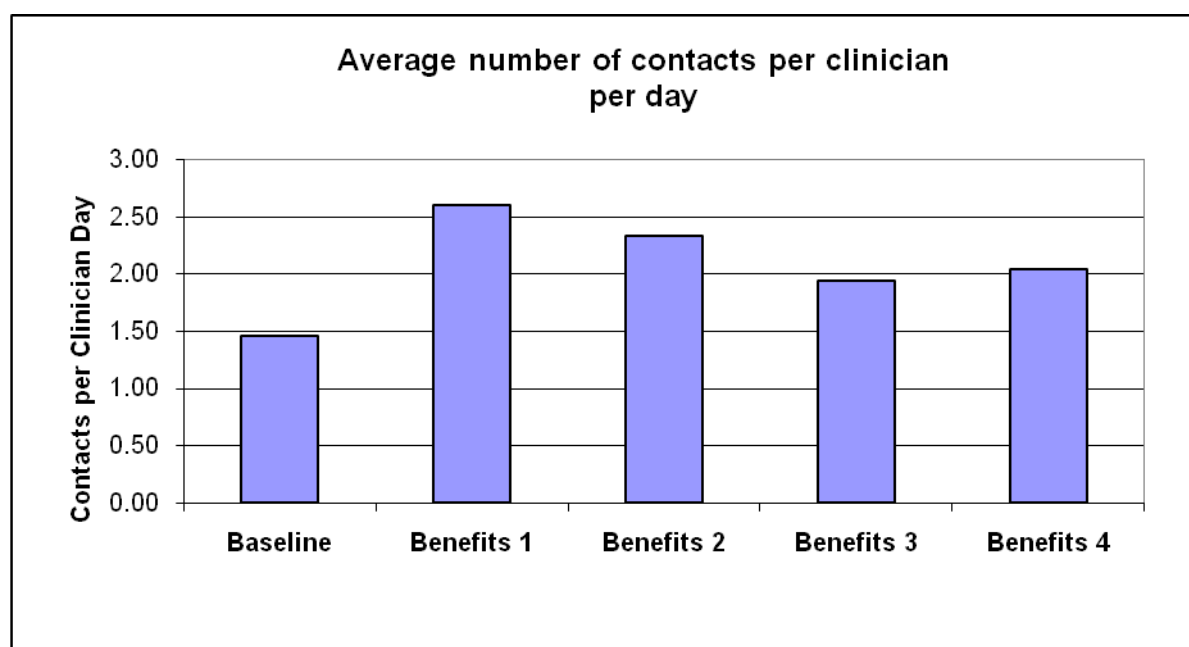


Figure 12 BEN Average contacts per clinician, per day

The average number of contacts from Baseline to Benefits 4 increased by **40%**.

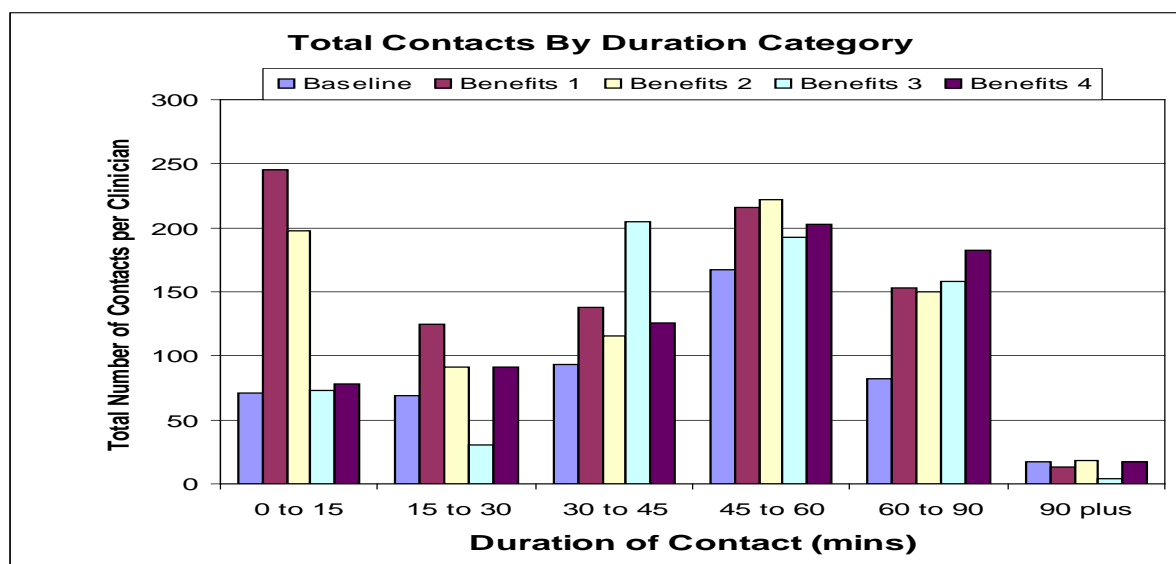


Figure 13 BEN Total number of contacts by duration

The data for the number of contacts split by duration shows an increase over all of the time periods, except the 90 plus minute category, which remained the same. This has resulted in the total time spent with patients increasing by **51%**.

When contacts are broken down across the Services, the largest increase is in the MDT Team with a **93%** increase in contacts from Baseline to Benefits 4, with the specialist nursing team also showing an increase (**40%**).

### Journeys:

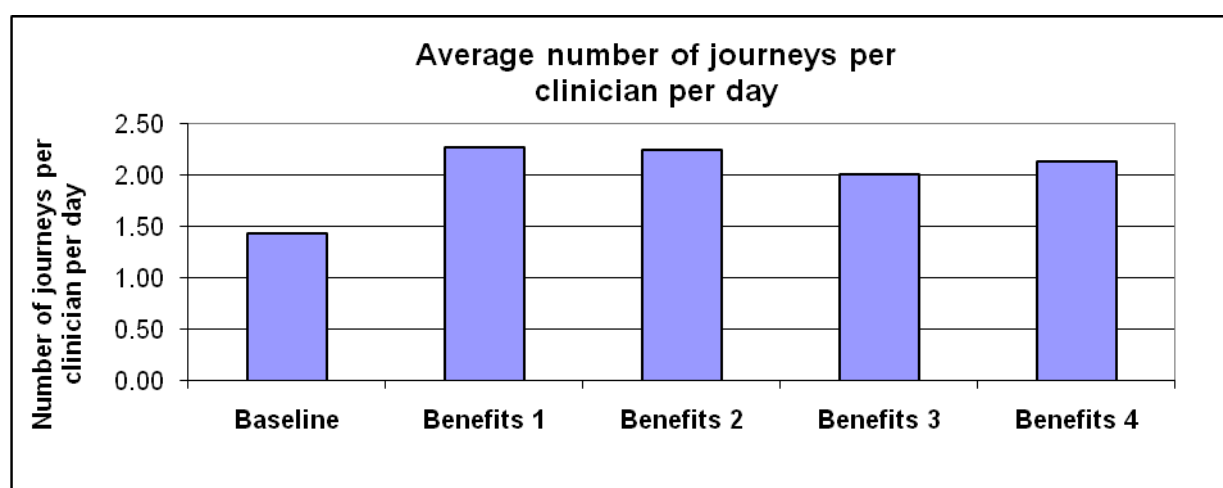
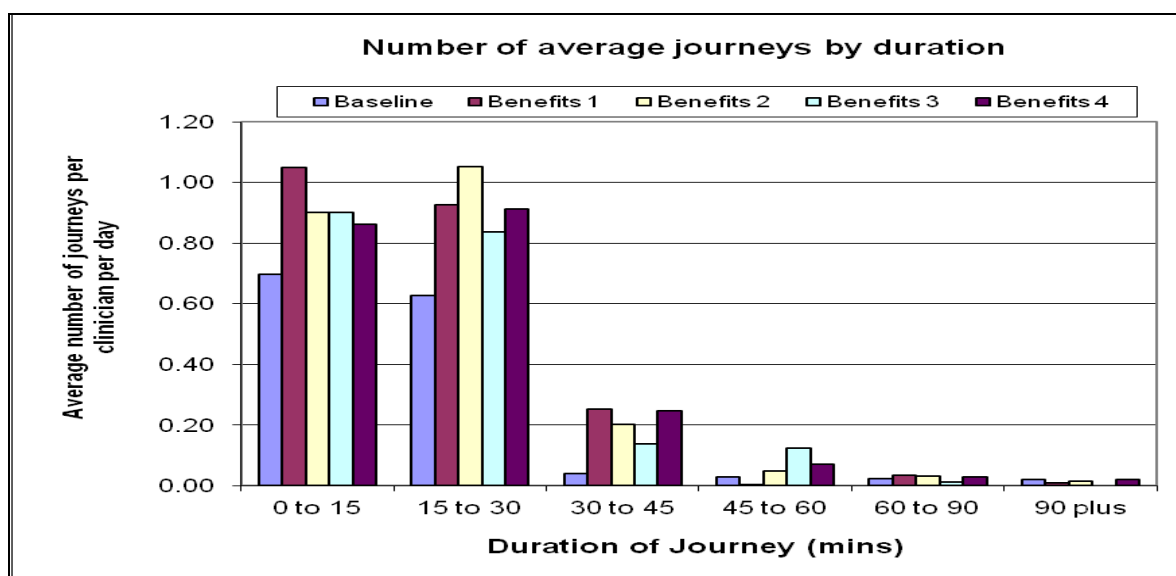


Figure 14 BEN Number of average journeys per clinician, per day

The average number of journeys per day increased across all periods with an overall increase of **49%** from Baseline to Benefits 4.



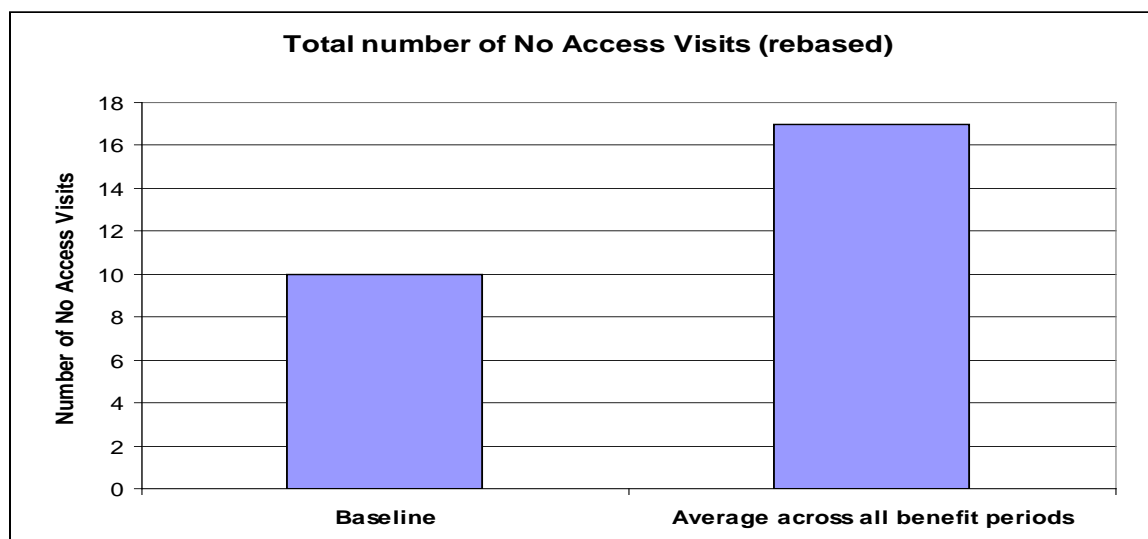
**Figure 15 BEN Average number of Journeys by duration category**

The data for number of journeys split across the duration categories show that all the journeys have increased with the exception of the 90 plus minute time band, which remained constant. This has resulted in an increase in total time spent travelling of **58%** from Baseline to Benefits 4.

When looking at journeys across the Services, both services saw an increase with the increase in journeys for the MDT Team at **80%**, this pattern could be expected in Palliative services due to the wide geographical visiting that can be required

#### **No access visits:**

Due to the small numbers involved, the figures are presented as an average across the combined benefits periods.



**Figure 16 BEN No access visits**

The average number of no access visits across all the benefits periods combined show an increase of **70%** from Baseline.

### Duplication of Data:

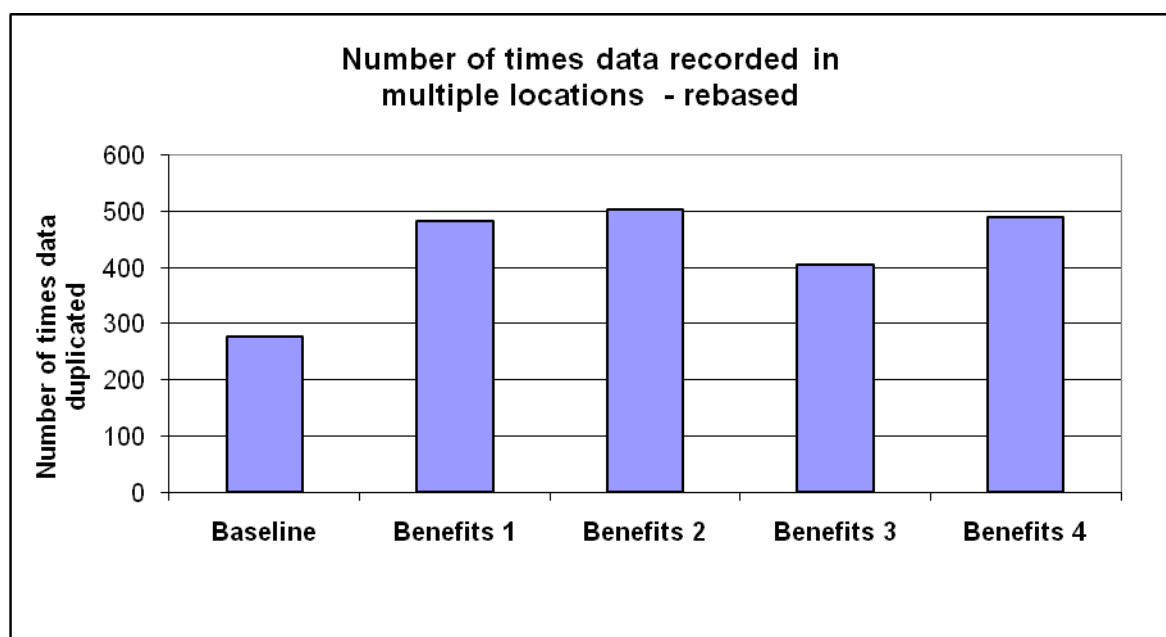


Figure 17 BEN Duplication of data

The data shows an increase of **77%** from Baseline to Benefits 4 for duplication for data. This may reflect the recent introduction of an electronic care record and the new data recording processes not being fully established.

When looking at the breakdown of data duplication across the Services, there is an increase in duplication in both services.

### Referrals:

In total, **569** referrals were made across the benefits periods. Clinicians at BEN estimated that due to having mobile access to systems, they saved **21** potential referrals. This equates to a **4% saving** in referrals.

### Admissions:

Due to the nature of the Services deployed to at BEN there were no savings in admissions. **51** admissions were made across the benefits periods, with only **no** admissions recorded as being saved due to having mobile access.

## 6. NHS Calderdale

Calderdale	
Number of devices	25
Clinical system used	Systmone Community
Pilot go-live date	18th October 2010

**Table 11 Calderdale At a glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
District Nursing	10	10	9	10	12	11
Specialist Nursing	15	14	10	12	8	11
<b>Total</b>	<b>25</b>	<b>24</b>	<b>19</b>	<b>22</b>	<b>20</b>	<b>22</b>

**Table 12 Calderdale Overview of Returns used in analysis**

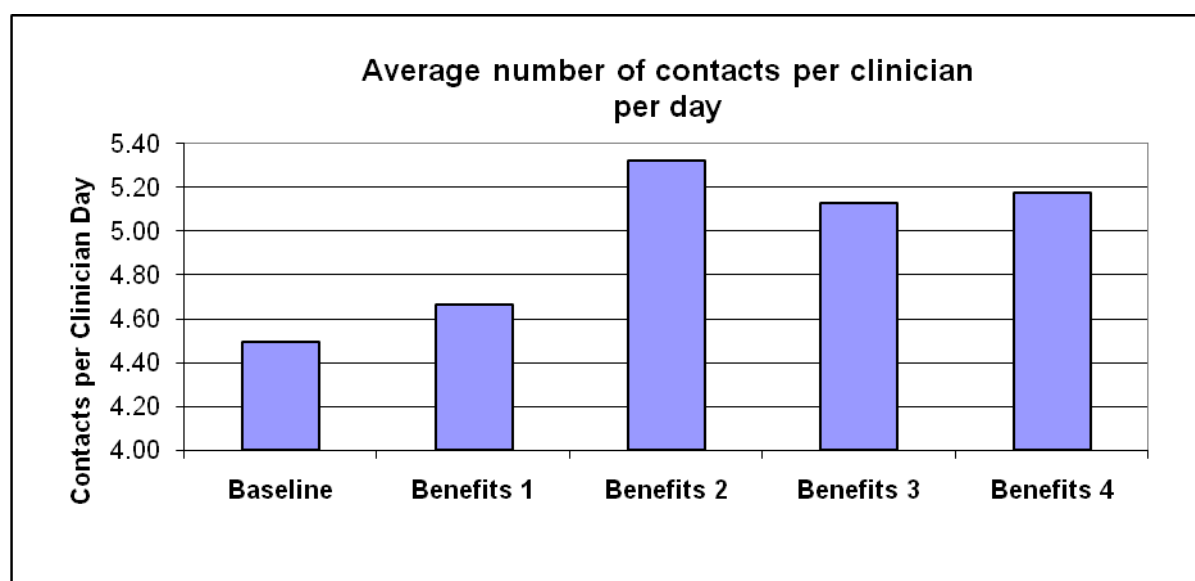
Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
District Nursing	83	82	149	93	72	<b>479</b>
Specialist Nursing	112	136	208	81	88	<b>625</b>
<b>Total</b>	<b>195</b>	<b>218</b>	<b>357</b>	<b>174</b>	<b>160</b>	<b>1,104</b>

**Table 13 Calderdale Overview of Number of Days of data returned**

The numbers of returns were maintained as the project progressed, with the lowest level of returns being 76% of total users.

### Contacts:

A total of **5515** contacts were recorded in Calderdale over the **1104** days that data was recorded.



**Figure 18 Calderdale Average contacts per clinician, per day**

The average number of contacts from Baseline to Benefits 4 increased by **15%**.

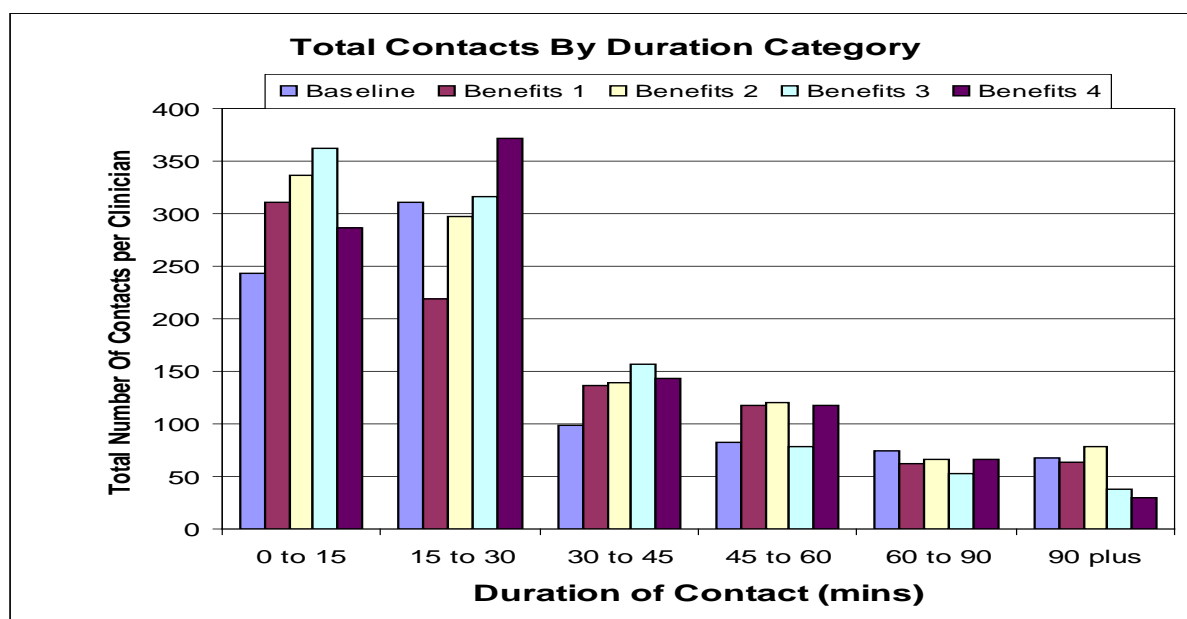


Figure 19 Calderdale Total Contacts by Duration

The data for the number of contacts split by duration shows an increase all contacts up to 60 minutes, with a decrease in number of contacts over 60 minutes.

This has resulted in the total time spent with patients increasing by **4%**.

When contacts are split across the Services, there is variation, from an increase of **25%** (District Nursing) to a decrease **4%** (Specialist nursing).

### Journeys:

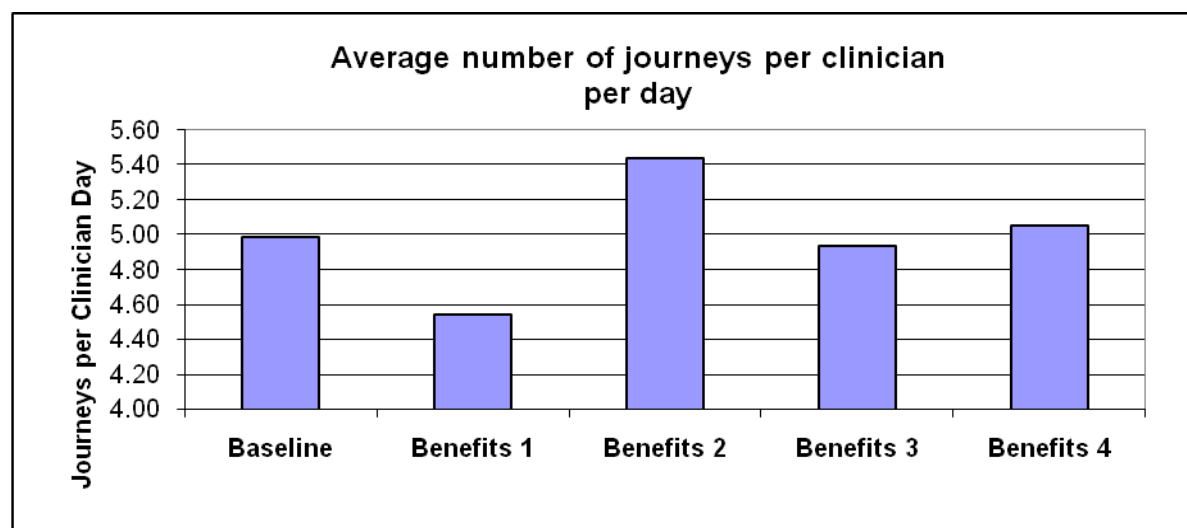
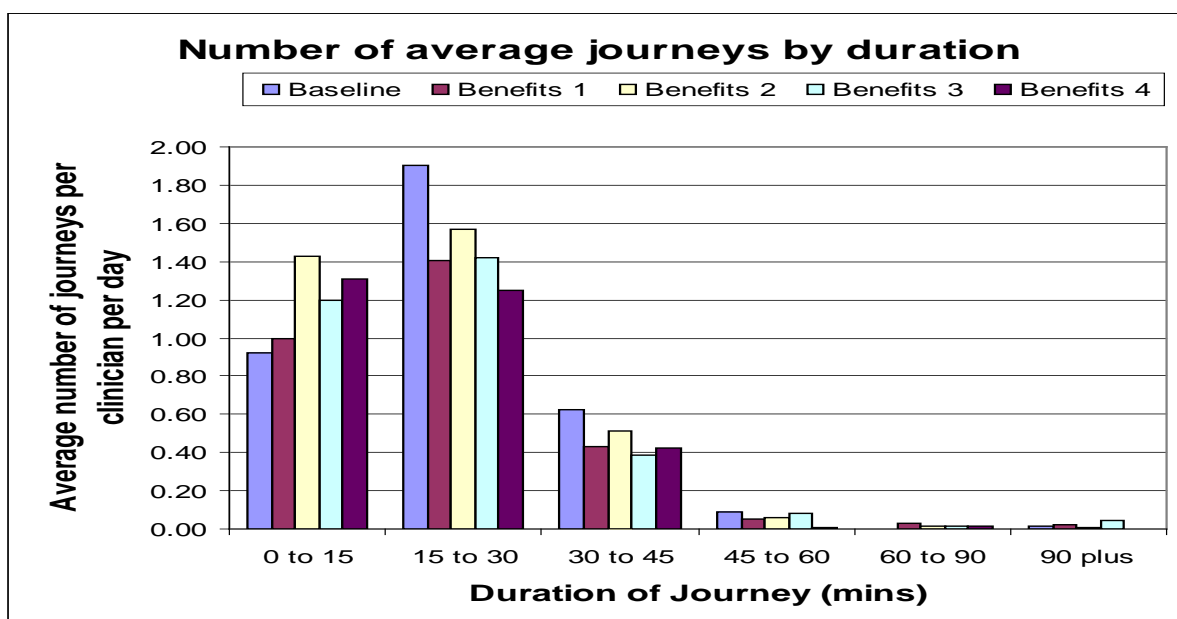


Figure 20 Calderdale Number of average journeys per clinician, per day

The average number of journeys per day increased by **1%** from Baseline to Benefits 4.



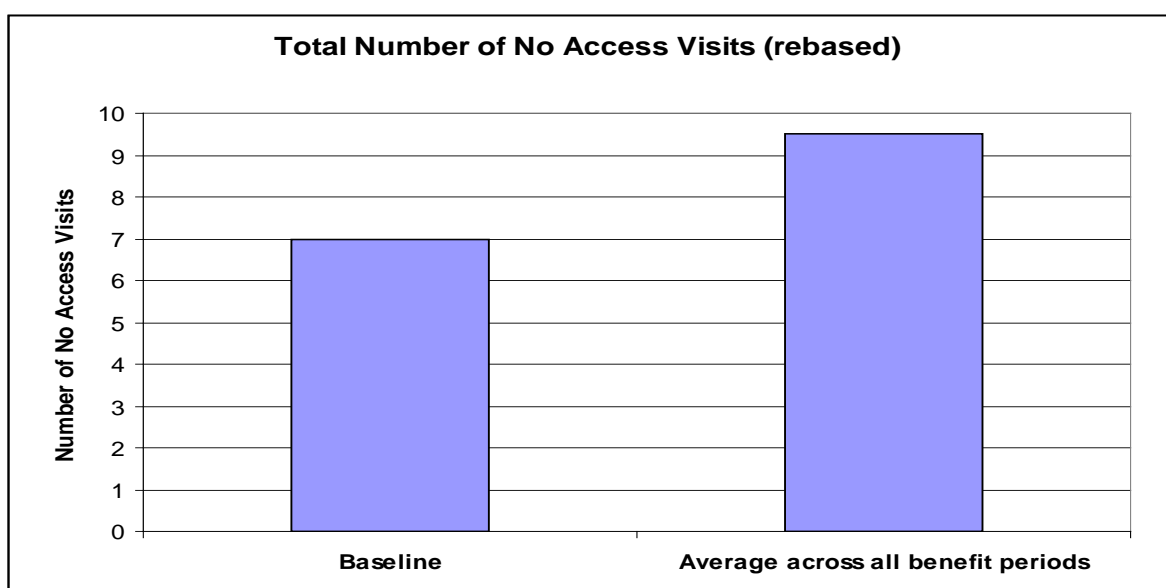
**Figure 21 Calderdale Average number of Journeys by duration category**

The data for number of journeys split across the duration categories show that only the journeys in the 15 - 30 and 30-45 minute categories increased, with the rest falling, resulting in the total time spent travelling increasing by **10%**.

When looking at journeys split by Service, there was an increase of **19%** (District Nursing) and a decrease of **26%** (Specialist nursing).

#### **No access visits:**

Due to the small numbers involved, the figures are presented as an average across the combined benefits periods.



**Figure 22 Calderdale No access visits**

The average number of no access visits across all the benefits periods combined show an increase of **36 %** from Baseline.

## Duplication of Data:

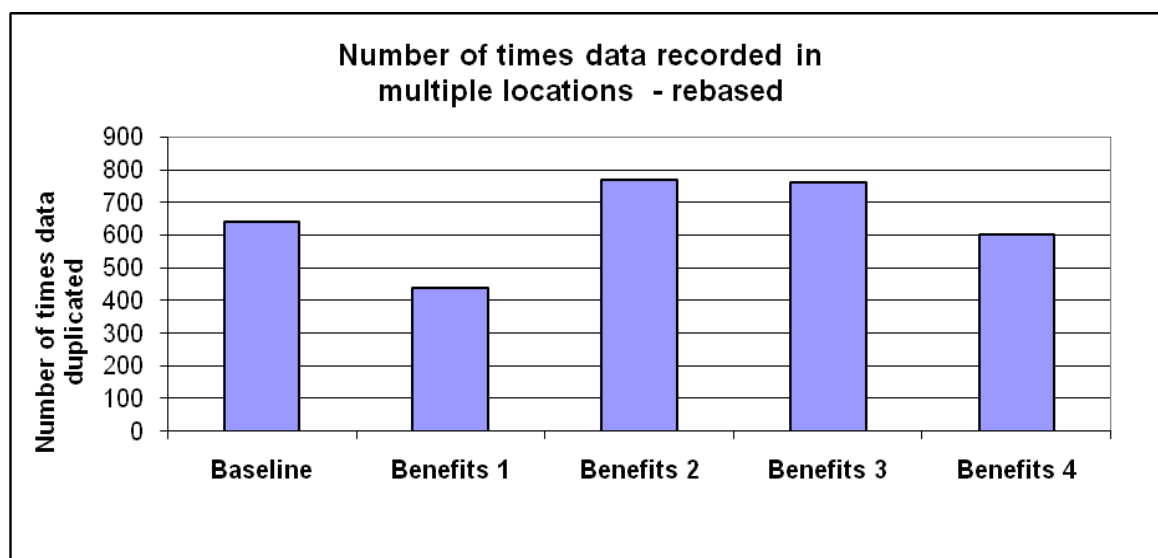


Figure 23 Calderdale Duplication of data

The data shows a fall of **6%** from Baseline to Benefits 4 for duplication for data.

When looking at the split in data duplication across the Services, there is a large variation, from a decrease of **88%** (Specialist Nursing) to an increase of **25%** (District Nursing). This is probably due to difficulties embedding process change in a large service, when only a small proportion of the clinical services have mobile access.

## Referrals:

In total, **496** referrals were made across the benefits periods. Clinicians at Calderdale estimated that due to having mobile access to systems, they saved **32** potential referrals. This equates to a **6% saving** in referrals.

## Admissions:

In total, **54** admissions were made over the benefits periods, with **8** admissions saved due to having mobile access. This equates to a **13% saving** in admissions



## 7. City and Hackney Teaching Primary Care Trust

City and Hackney	
Number of devices	25
Clinical system used	Rio
Pilot go-live date	13th December 2010

**Table 14 City and Hackney At a glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
Children's & Family Services	9	1	-	6	-	-
Specialist Nursing	8	5	3	6	-	-
Speech & Language Therapy	8	8	3	5	-	-
<b>Total</b>	<b>25</b>	<b>14</b>	<b>6</b>	<b>17</b>	<b>-</b>	<b>-</b>

**Table 15 City and Hackney Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
Children's & Family Services	15	-	89	-	-	<b>104</b>
Specialist Nursing	49	28	62	-	-	<b>139</b>
Speech & Language Therapy	226	16	64	-	-	<b>306</b>
<b>Total</b>	<b>290</b>	<b>44</b>	<b>215</b>	<b>-</b>	<b>-</b>	<b>549</b>

**Table 16 City and Hackney Overview of Number of Days of data returned**

City and Hackney were unable to produce any additional data returns other than those published in the National Mobile Health Worker Progress Report in August 2011 therefore there is no additional analysis to present.

## 8. Doncaster Community Healthcare (NHS Doncaster)

Doncaster managed to maintain a good level of returns throughout the collection periods, with the lowest level of returns a very high 72%.

Doncaster	
Number of devices	25
Clinical systems used	SystmOne Community
Pilot go-live date	22nd October, 2010

**Table 17 Doncaster At a Glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
Children's & Family Services	25	25	22	23	24	18

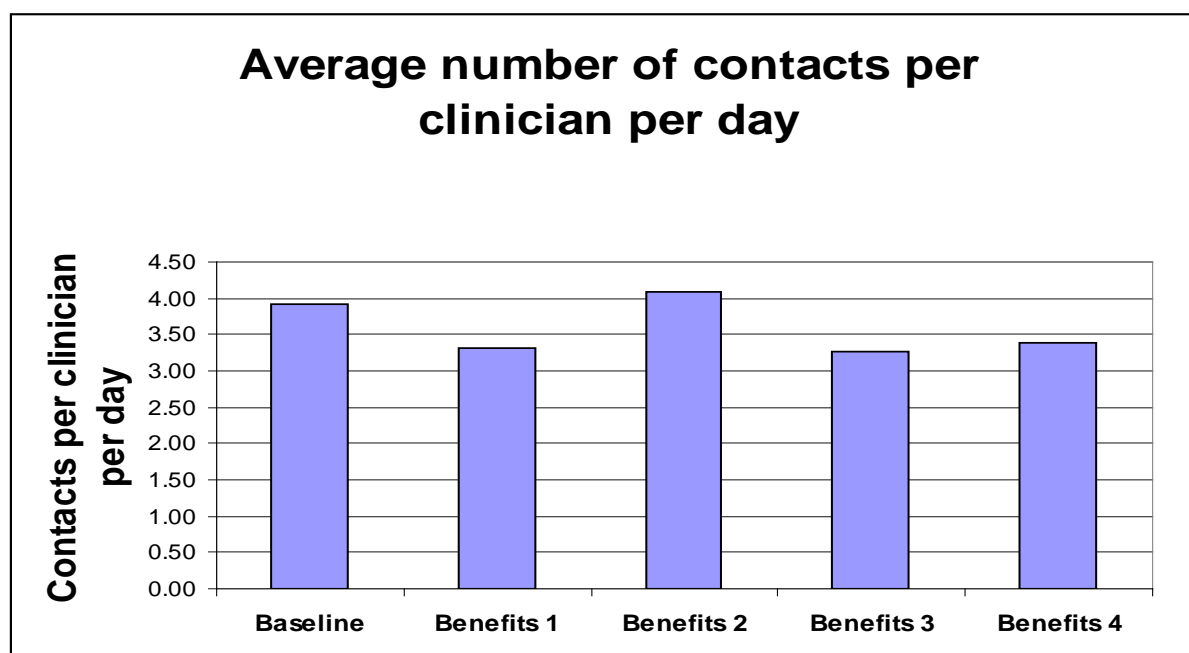
**Table 18 Doncaster Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
Children's & Family Services	322	401	428	240	203	1,594

**Table 19 Doncaster Overview of Number of Days of data returned**

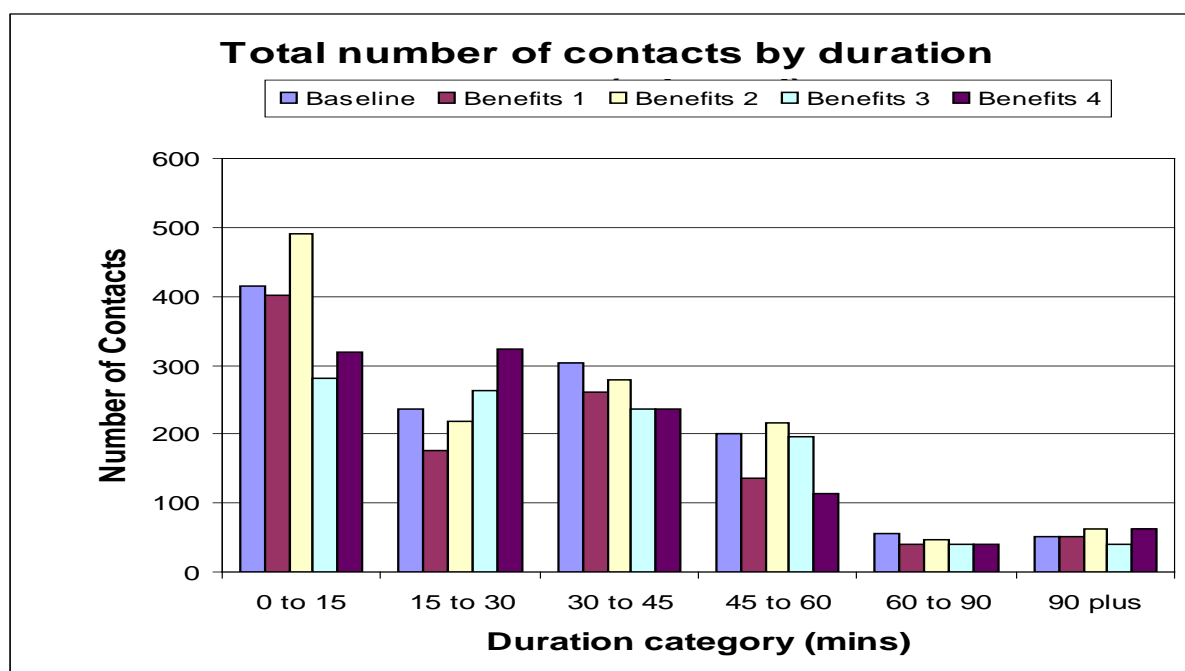
### Contacts:

A total of **5816** contacts were recorded in Doncaster over the **1594** days that data was recorded.



**Figure 24 Doncaster Average contacts per clinician, per day**

Contacts fell by **14%** from Baseline to Benefits 4, despite showing a peak at Benefits 2, where they had increased by **5%**.

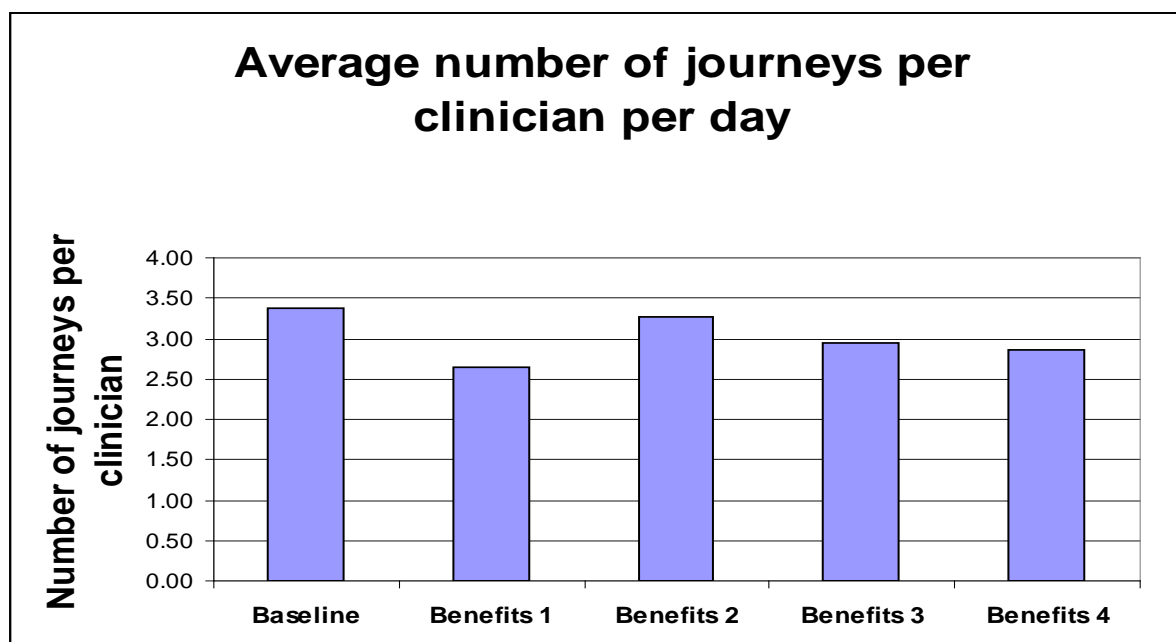


**Figure 25 Doncaster Total contacts by duration**

There was a fall across the duration categories, except the 15-30min time band, which increased by **36%**, and the 90 plus min time band, which increased **19%**.

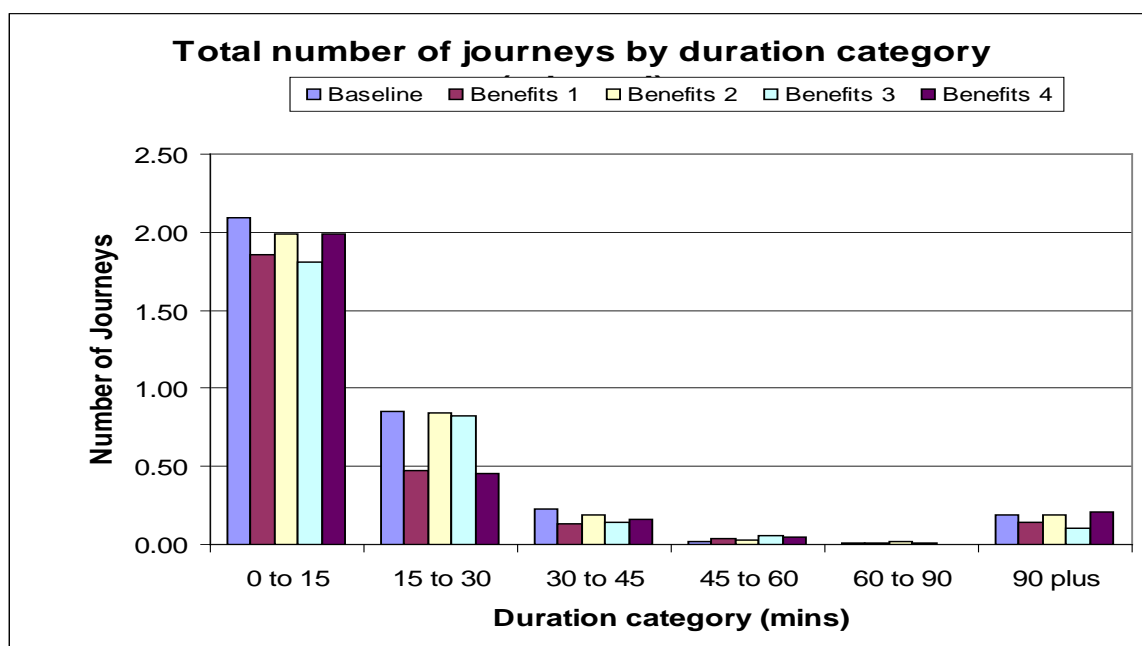
The effect on total time spent with patients was that it dropped by **16%** from Baseline to Benefits 4.

#### Journeys:



**Figure 26 Doncaster Average journeys per clinician, per day**

The total number of journeys from Baseline to Benefits 4 fell by **16%**, which is greater than the fall in contacts, indicating a degree of increased efficiency around travel.

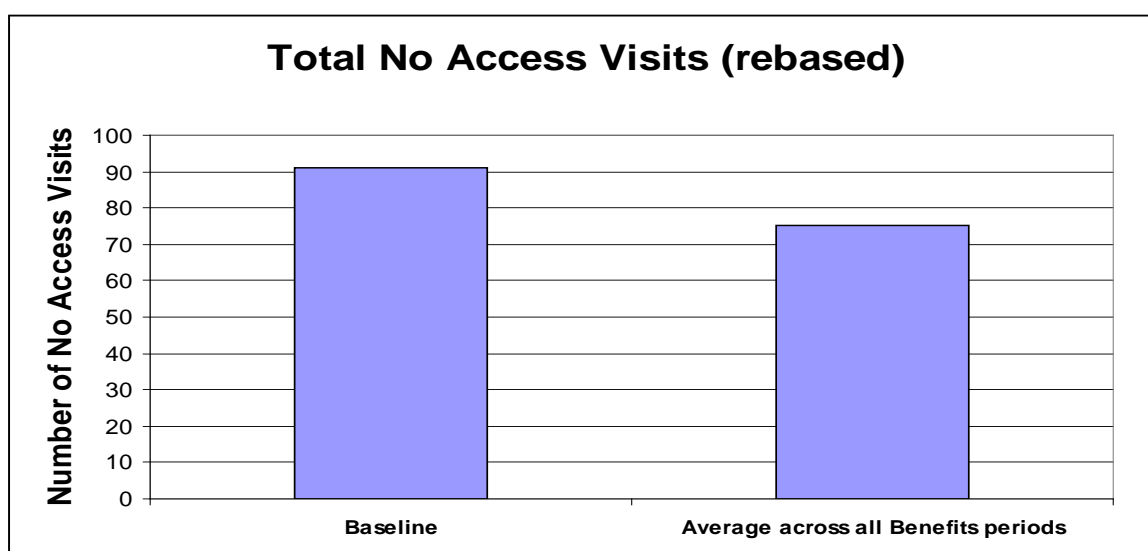


**Figure 27 Doncaster Total Number of Journeys by Duration**

Although the profiles of the journeys changed across the benefits periods, the total time spent on journeys remained **15%** lower at Benefits 4 than at Baseline.

#### **No Access Visits:**

Due to the relatively small numbers involved, the figures are presented as an average across the combined benefits periods.



**Figure 28 Doncaster No Access Visits**

The average number across all the benefits periods combined show a fall of **17%** from Baseline.

## Duplication of Data:

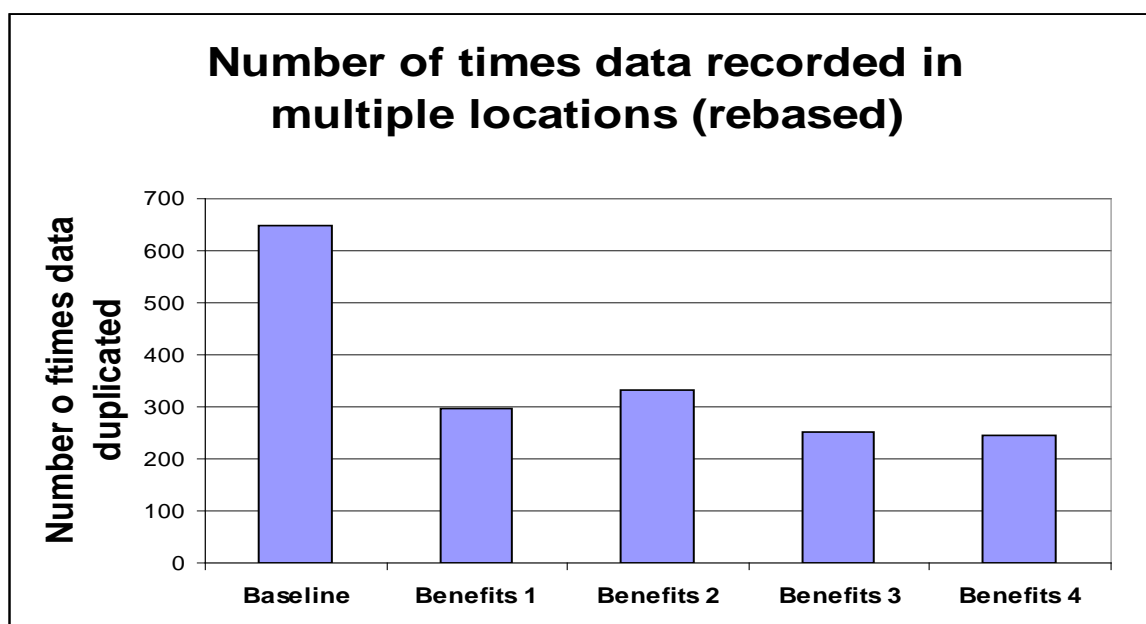


Figure 29 Doncaster Duplication of data

The data shows a fall of **62%** from Baseline to Benefits 4 for duplication for data. This reflects the local drive to rationalise the documentation in use to ensure maximum benefit is being derived from using a shared care electronic system.

## Referrals:

In total, **121** referrals were made across the benefits periods. Clinicians at Doncaster estimated that due to having mobile access to systems, they saved **15** potential referrals. This equates to an **11% saving** in referrals.

## Admissions:

Due to the nature of the Service deployed to in Doncaster, admissions were not expected, as they are rarely made from this Service.

No admissions were made over the benefits periods, with **2 admissions saved** due to having mobile access.

## 9. North Tees & Hartlepool NHS Foundation Trust

Hartlepool managed to maintain a good level of returns throughout the collection periods, with the lowest level of returns a very high 72%.

Hartlepool	
Number of devices	50
Clinical systems used	SystemOne Community
Pilot go-live date	27th September – 1 <sup>st</sup> October, 2010

**Table 20 Hartlepool At a Glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
District Nursing	18	15	15	18	17	15
MDT's	9	9	7	8	6	7
Specialist Nursing	3	2	1	1	3	2
Speech & Language Therapy	20	20	20	19	16	12
<b>Total</b>	<b>50</b>	<b>46</b>	<b>43</b>	<b>46</b>	<b>42</b>	<b>36</b>

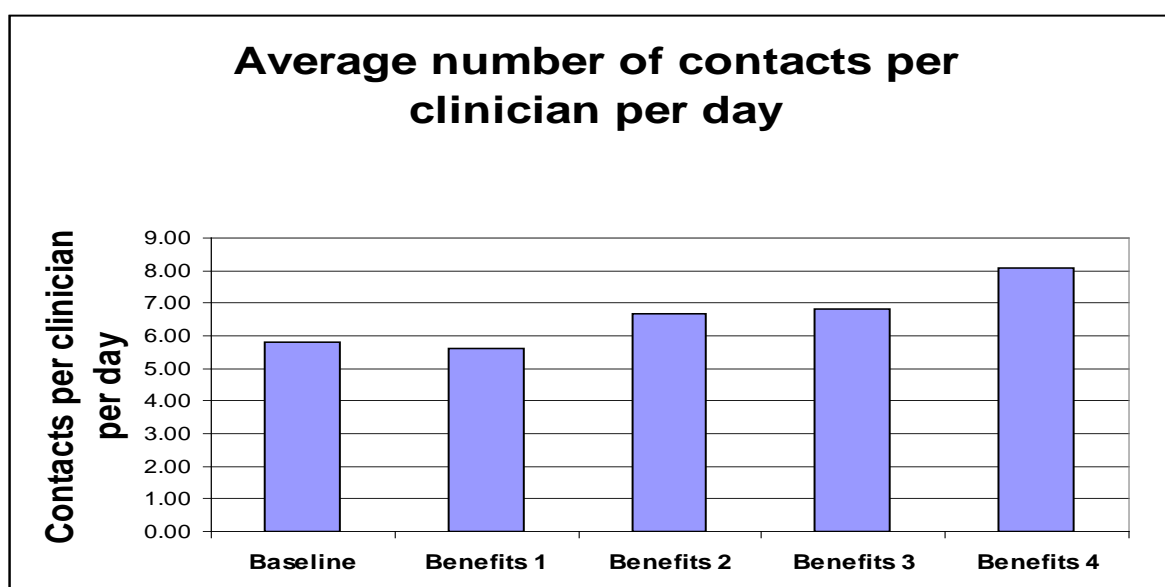
**Table 21 Hartlepool Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
District Nursing	160	158	359	115	113	<b>905</b>
MDT's	78	74	83	40	39	<b>314</b>
Specialist Nursing	33	15	34	27	14	<b>123</b>
Speech & Language Therapy	283	283	356	137	107	<b>1,166</b>
<b>Total</b>	<b>554</b>	<b>530</b>	<b>832</b>	<b>319</b>	<b>273</b>	<b>2,508</b>

**Table 22 Hartlepool Overview of Number of Days of data returned**

### Contacts:

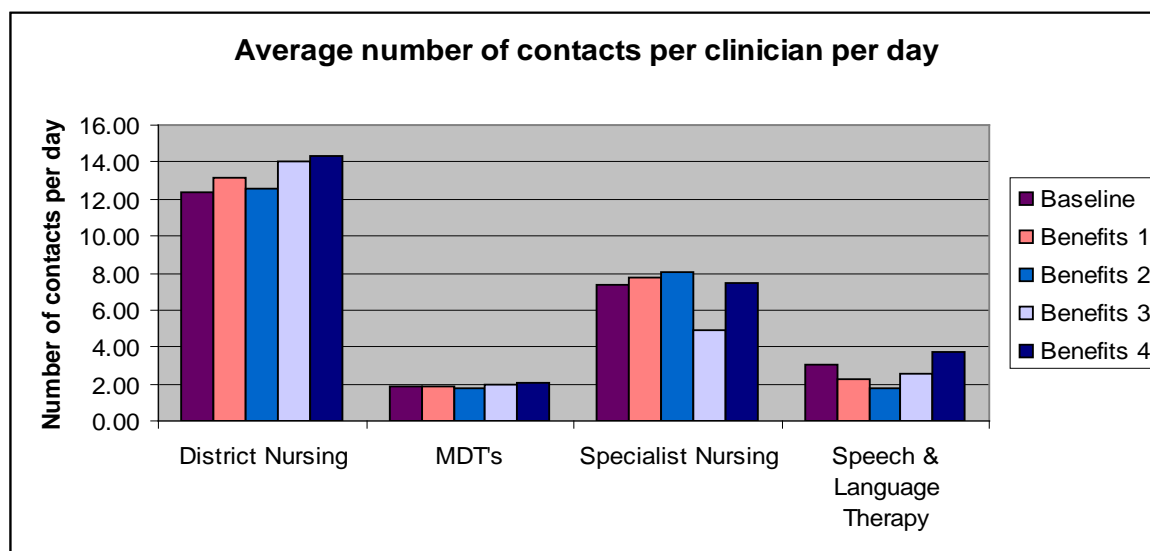
A total of **16141** contacts were recorded in Hartlepool over the **2508** days that data was recorded.



**Figure 30 Hartlepool Average contacts per clinician, per day**

Contacts increased by **39%** from Baseline to Benefits 4, and showed a consistent increase throughout the life of the project.

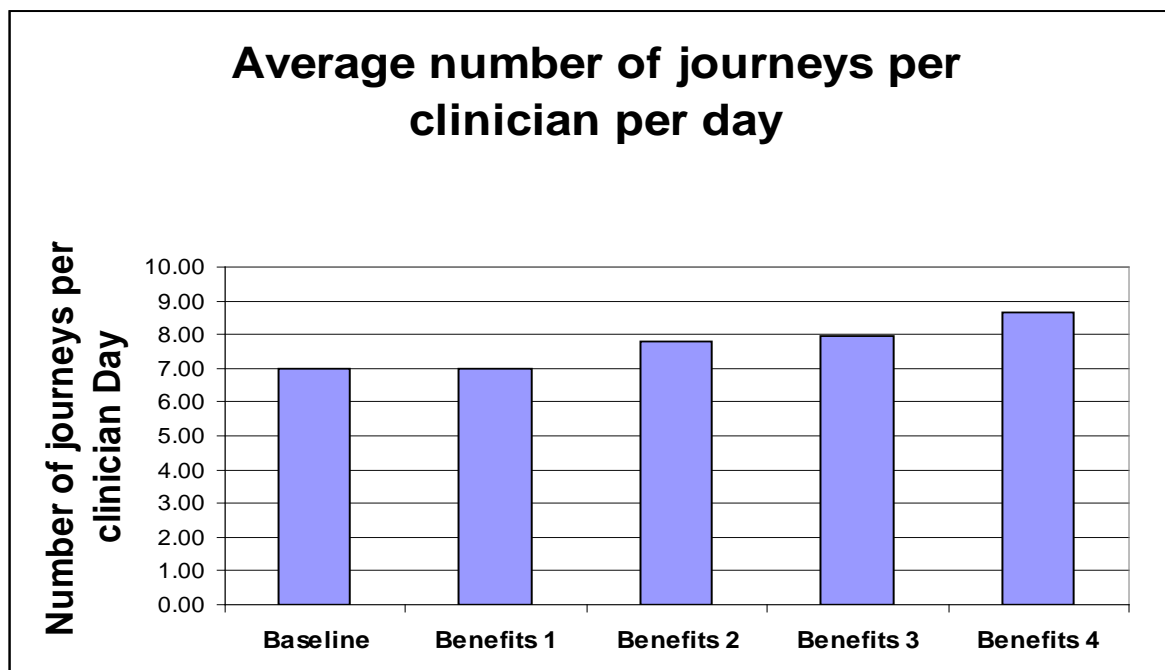
There was an increase across all duration categories, and the effect on total time spent with patients was that it increased by **45%** from Baseline to Benefits 4.



**Figure 31 Hartlepool Average contacts per clinician per day across Services**

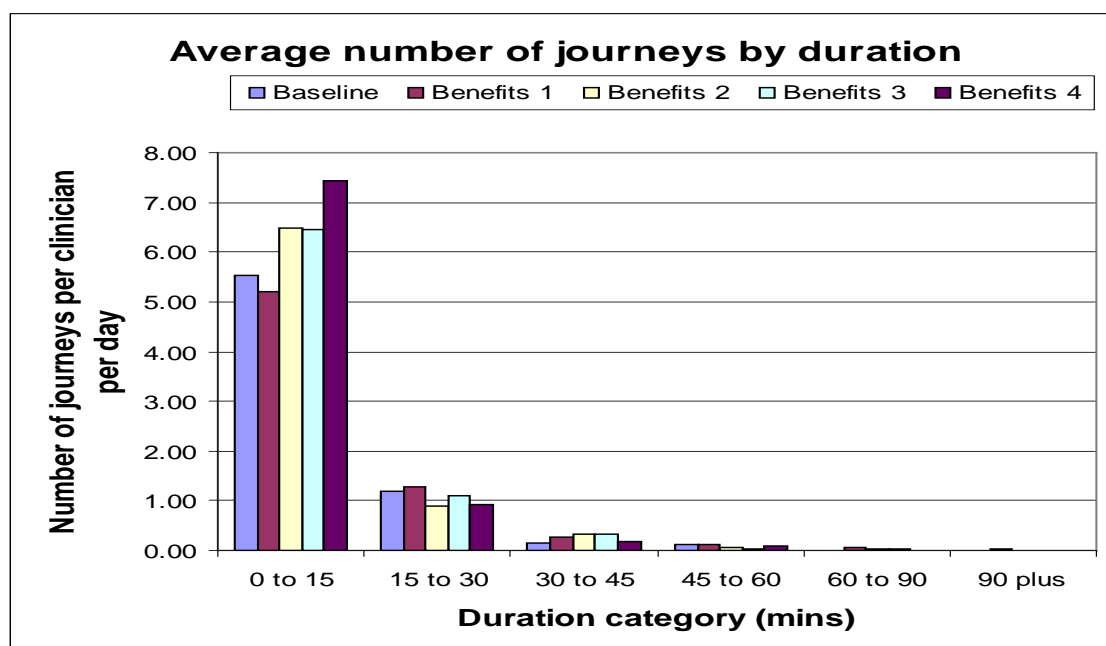
Activity increased across all Services.

**Journeys:**



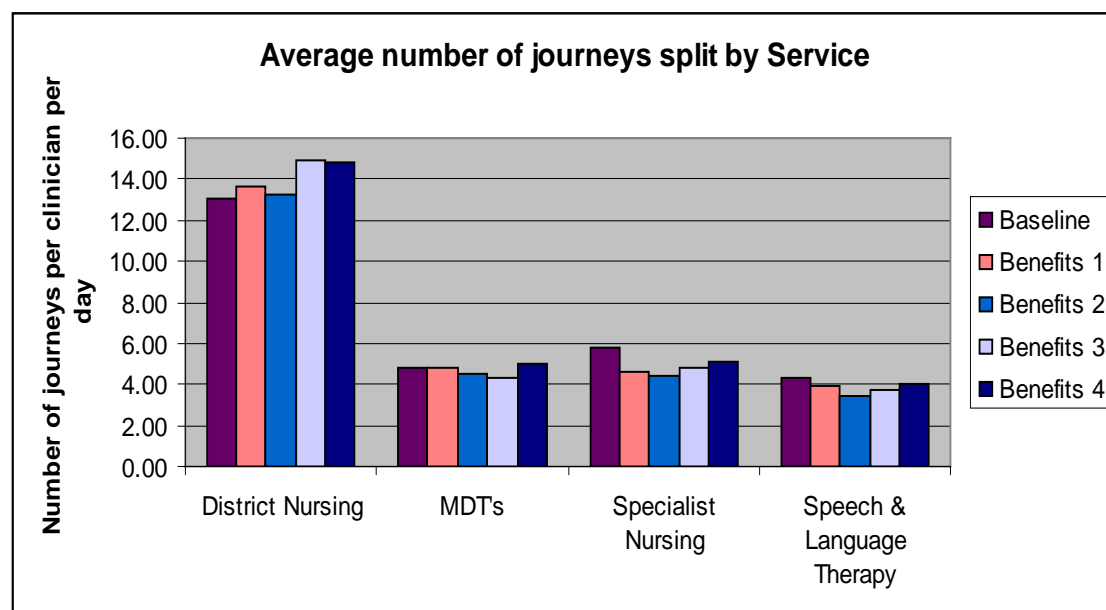
**Figure 32 Hartlepool Average journeys per clinician, per day**

The total number of journeys from Baseline to Benefits 4 increased by **24%**, which is less than the increase in contacts, indicating a degree of increased efficiency around travel.



**Figure 33 Hartlepool Average Number of Journeys by duration**

The number of short journeys (0-15mins) increased, however the longer journeys were lower, resulting in the total time spent on journeys being only **11%** higher at Benefits 4 than at Baseline.



**Figure 34 Hartlepool Average number of Journeys per clinician per day, by Service**

When looking at the number of journeys undertaken, split by Service, there is variation, from an **11%** reduction (Specialist Nursing) to a **13%** increase (District Nursing).

### No Access Visits:

Due to the relatively small numbers involved, the figures are presented as an average across the combined benefits periods.



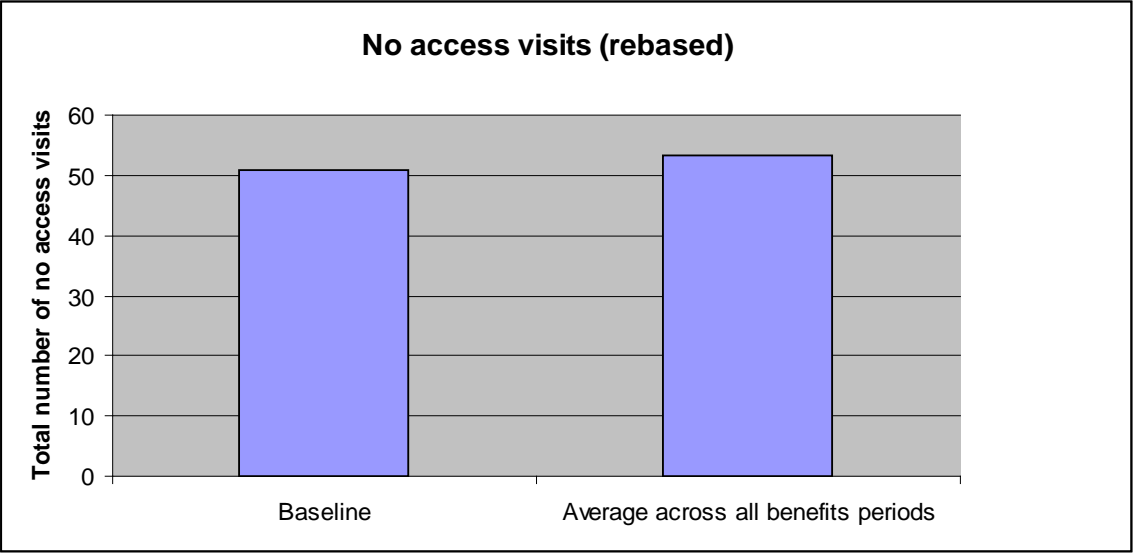


Figure 35 Hartlepool No Access Visits

The average number across all the benefits periods combined show an increase of **4%** from Baseline.

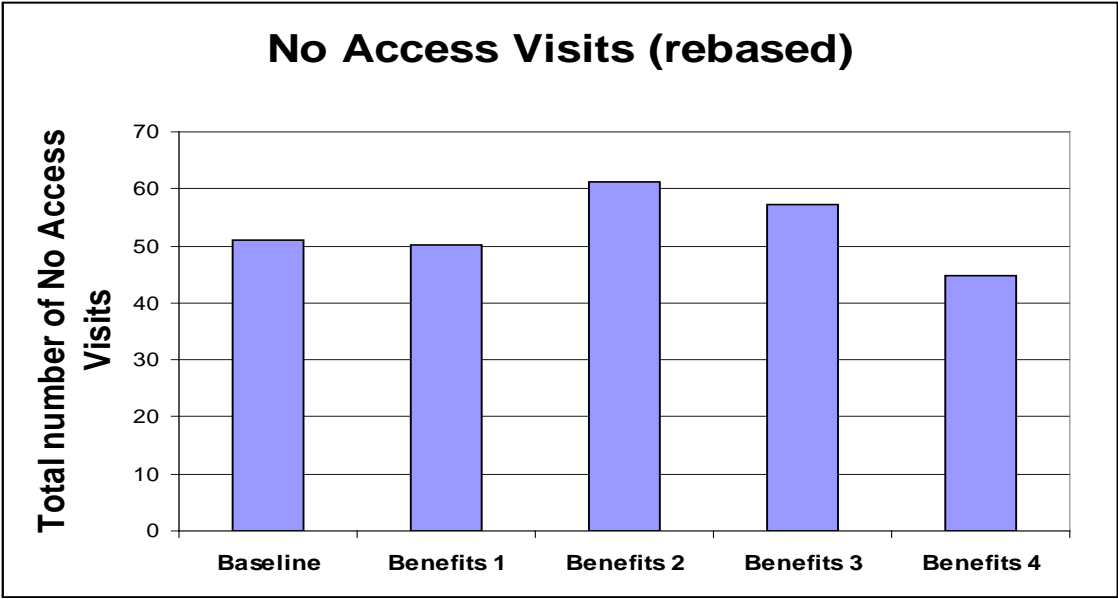


Figure 36 Hartlepool No Access visits across all data periods

However looking at the split across the benefits periods, it can be seen that following the peak at Benefits 2, the numbers are dropping as the project progresses, and the figures at Benefits 4 show a drop of 12% from Baseline.

## Duplication of Data:

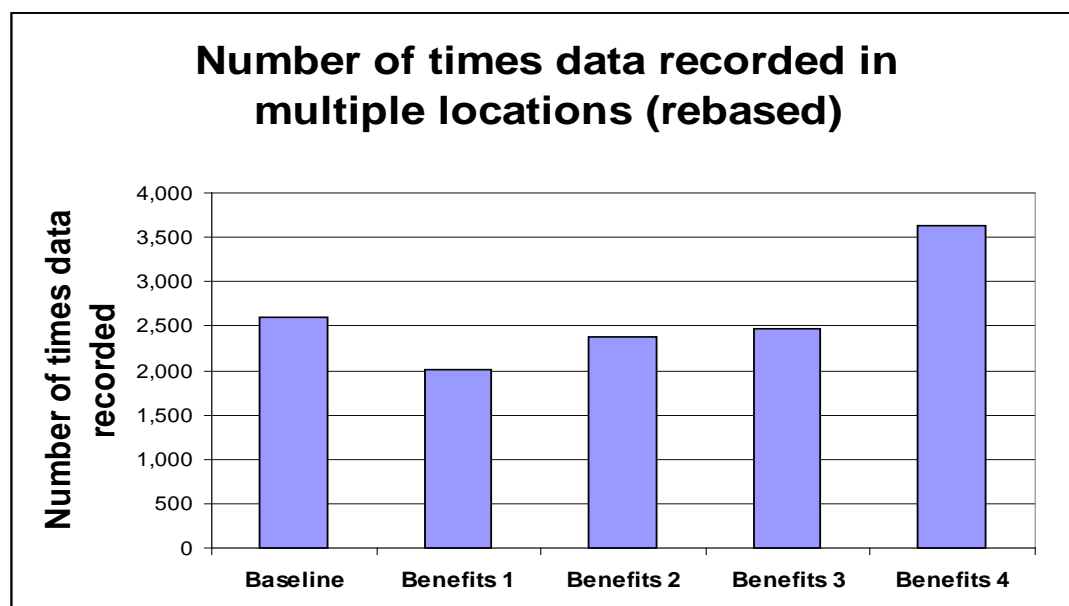


Figure 37 Hartlepool Duplication of data

The data shows an increase of **39%** from Baseline to Benefits 4 for duplication for data. The figures show a consistent increase as the project has progressed, indicating that rationalisation of data recording is not being embedded in clinical practice, and the initial practices are not being continued, but relaxing over time to return to existing practice.

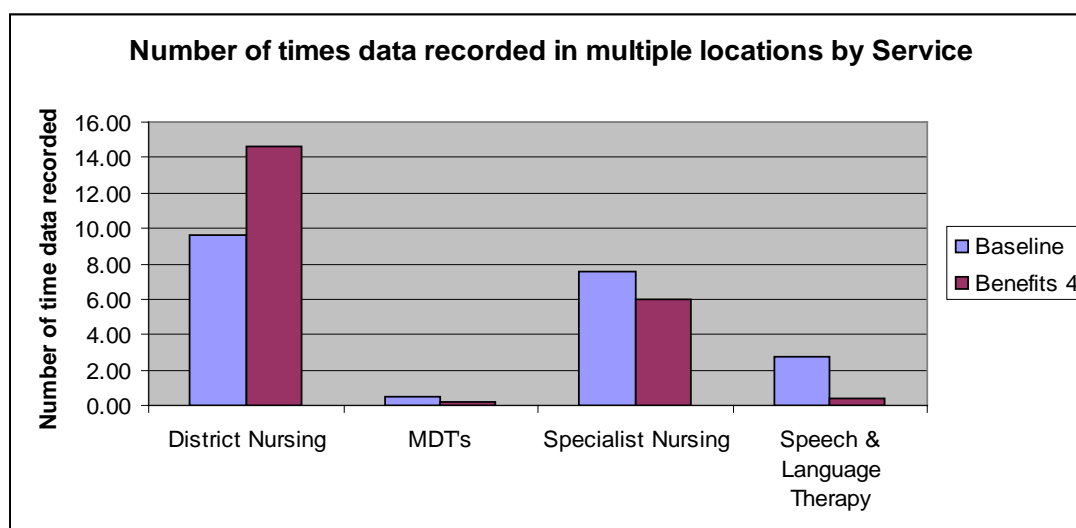


Figure 38 Hartlepool Data duplication by Service

When the data is split by Service, we can see there is a huge variation, with a single Service being responsible for the overall increase. This indicates the smaller Services have embedded change into clinical practice however the larger Service, where the proportion of staff with a mobile device is lower, are unable to embed this change.

**Referrals:**

In total, **753** referrals were made across the benefits periods. Clinicians at Hartlepool estimated that due to having mobile access to systems, they saved **33** potential referrals. This equates to a **4% saving** in referrals.

**Admissions:**

In total, **19** admissions were made over the benefits periods, with **10 admissions saved** due to having mobile access. This equates to a **34% saving** in admissions.

## 10. NHS Northamptonshire Provider Services

Northampton struggled to maintain returns throughout the ongoing collection periods, with returns of just 8% at Benefits 3 and 14% at Benefits 4. This will obviously affect the significance of the figures greatly, therefore although the figures are presented below, it is not clear if they can reliably tell us anything on a practical level.

Northampton	
Number of devices	50
Clinical systems used	SystmOne Community
Pilot go-live date	18th October 2010

**Table 23 Northampton At a Glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
District Nursing	50	27	27	26	4	7

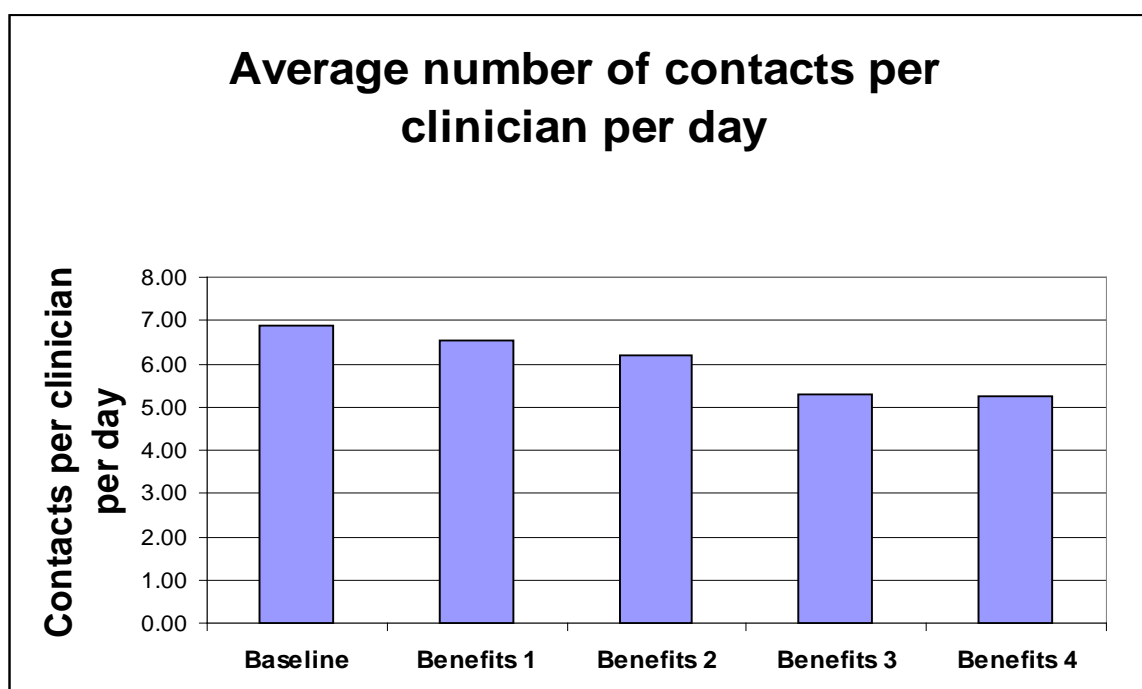
**Table 24 Northampton Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
District Nursing	414	274	437	18	33	1176

**Table 25 Northampton Overview of Number of Days of data returned**

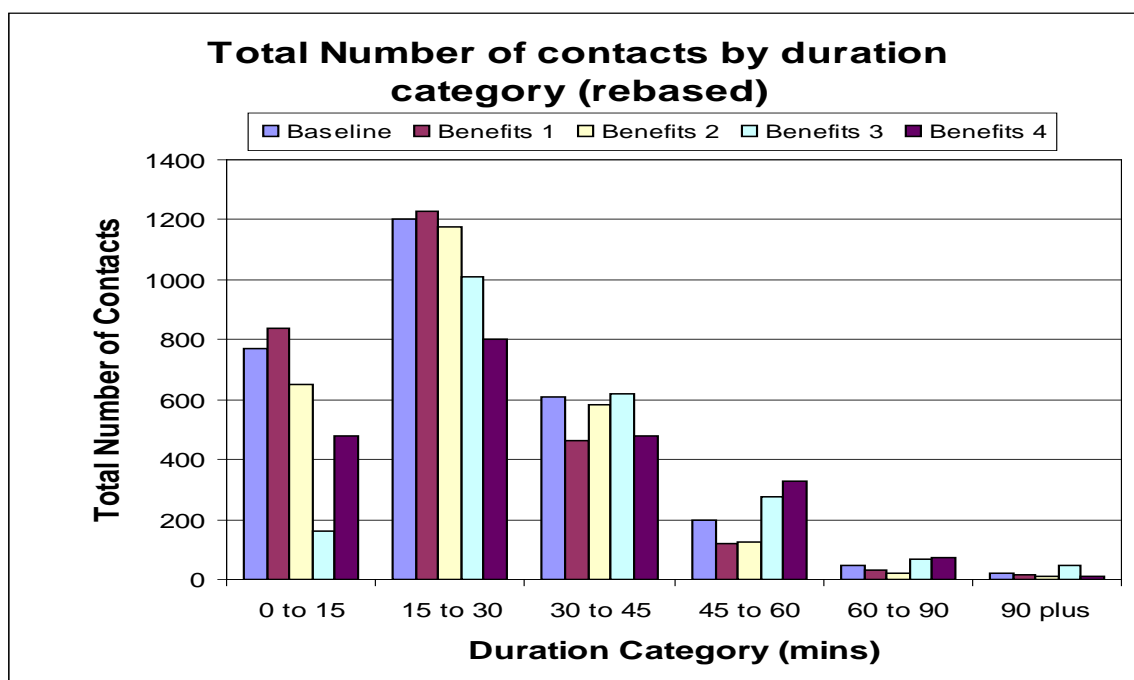
### Contacts:

A total of **7608** contacts were recorded in Northampton over the **1176** days that data was recorded.



**Figure 39 Northampton Average contacts per clinician, per day**

Contacts fell by **24%** from Baseline to Benefits 4, having consistently fallen from Benefits 1 and continued to fall throughout the duration of the project. This reflects both the ongoing problems with connectivity that were not addressed by the local project and the lack of business change activities in advance of deploying the devices.

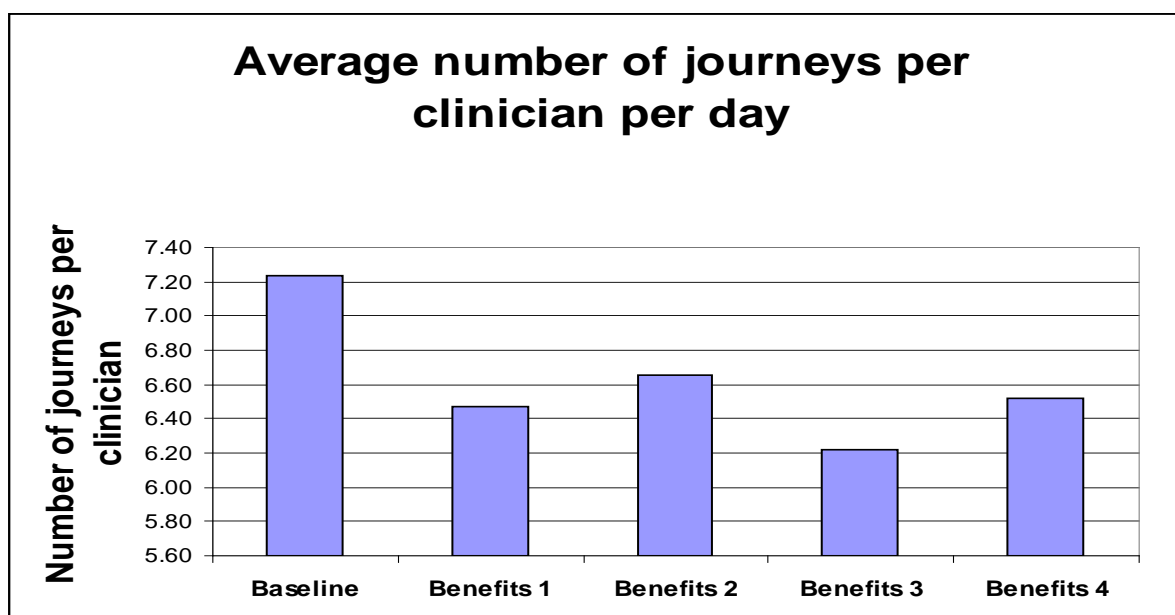


**Figure 40 Northampton Total contacts by duration**

There was a fall across the duration categories up to 45mins, but an increase in activity in time bands 45-60 and 60-90 minutes, of 63% and 67% respectively. This reflects the common theme that the deployment of devices is more effective in longer, more complex contacts.

The effect on total time spent with patients was that it dropped only **11%** from Baseline to Benefits 4.

#### Journeys:



**Figure 41 Northampton Average journeys per clinician, per day**

The total number of journeys from Baseline to Benefits 4 fell by **10%**, with a fall across all duration categories, although there was a greater fall in the longer duration journeys.

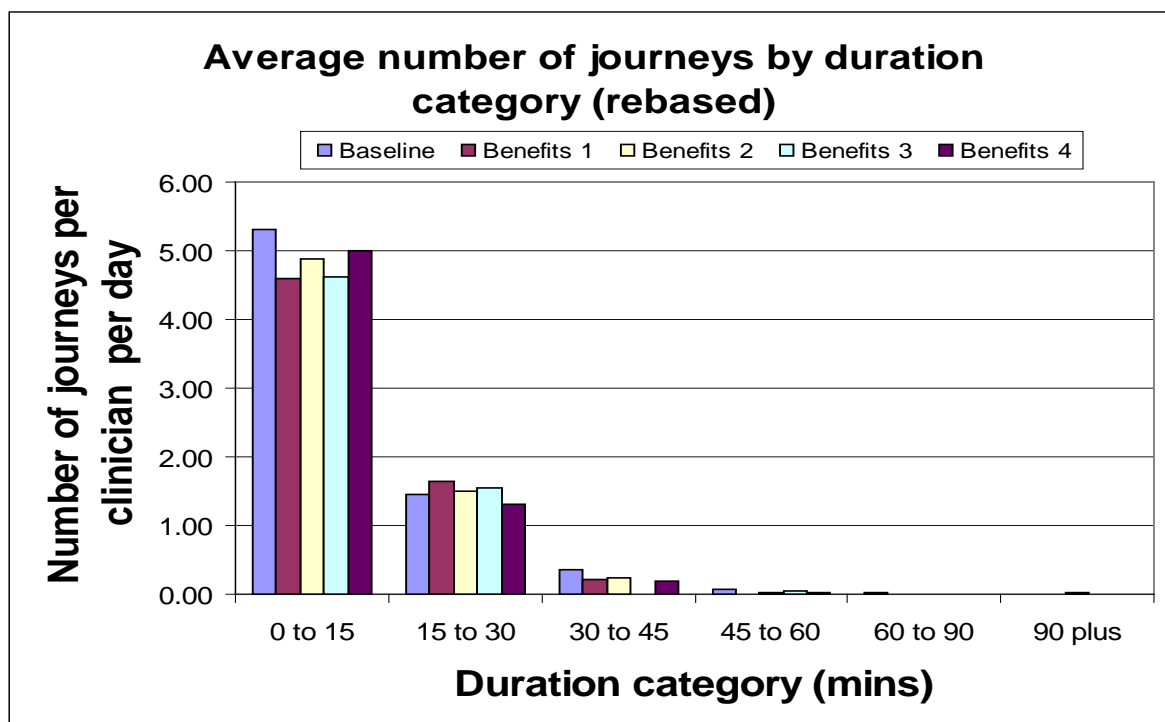


Figure 42 Northampton Average Journeys by duration

This resulted in the total time spent on journeys being **19%** lower at Benefits 4 than at Baseline.

#### No Access Visits:

Due to the relatively small numbers involved, the figures are presented as an average across the combined benefits periods.

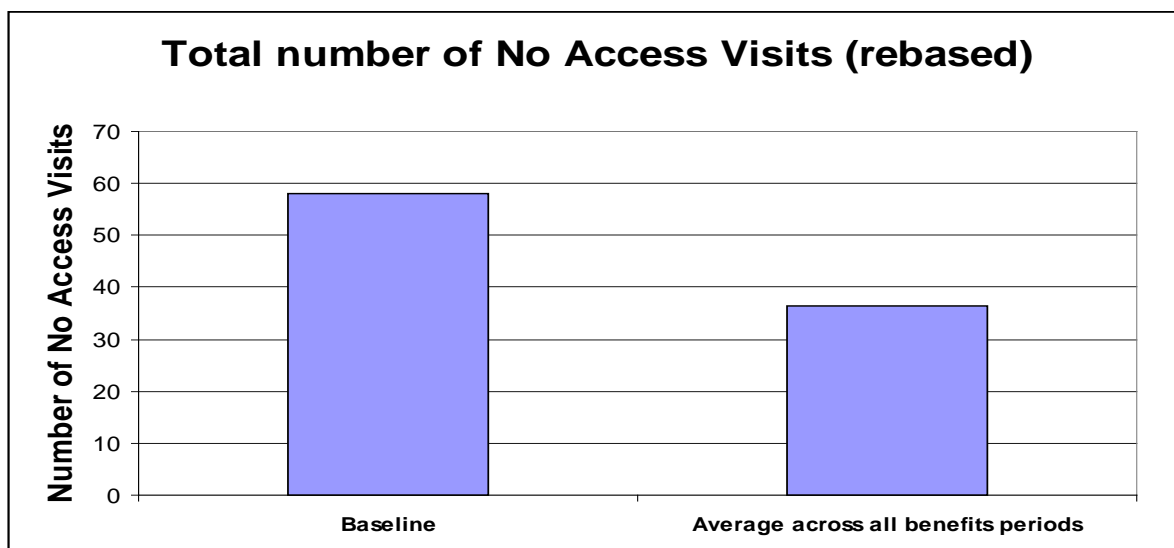
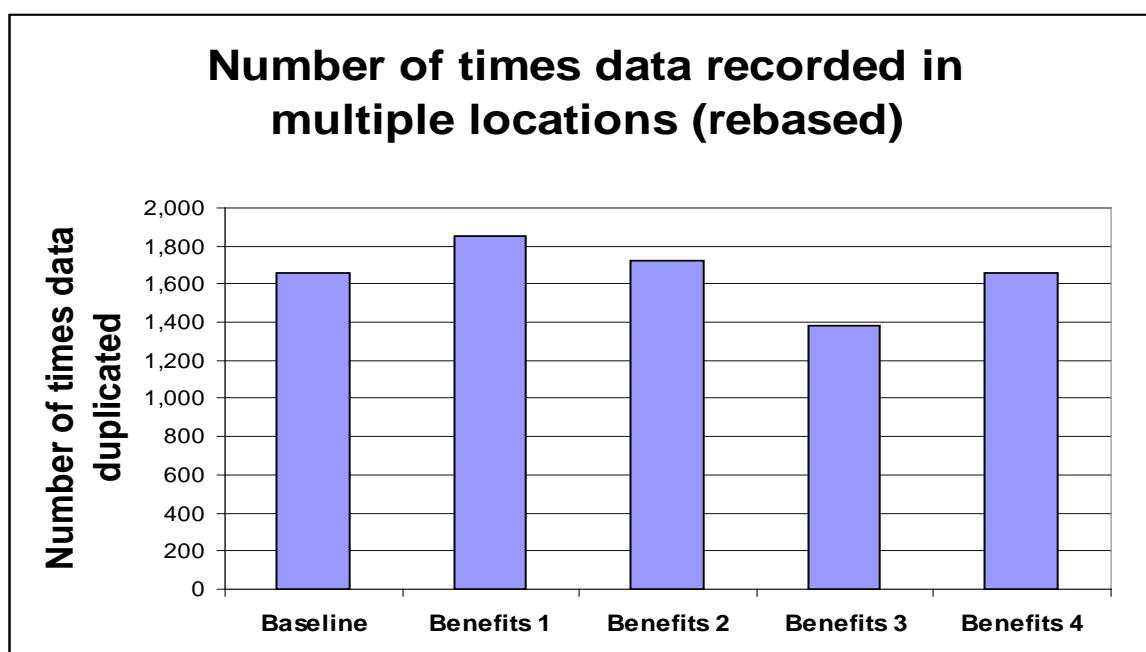


Figure 43 Northampton No Access Visits

The average number across all the benefits periods combined show a fall of **37%** from Baseline.

**Duplication of Data:****Figure 44 Northampton Duplication of data**

The data shows that there was **no change** seen Benefits 4 compared to Baseline. The graph shows that after an initial increase, the duplication had started to fall, however by Benefits 4 had risen again. This reflects the lack of being able to embed change into clinical practice due to the difficulties encountered in the local project.

**Referrals:**

In total, **569** referrals were made across the benefits periods. Clinicians at Northampton estimated that due to having mobile access to systems, they saved **79** potential referrals. This equates to a **12% saving** in referrals.

**Admissions:**

In total, **35** admissions were made over the benefits periods, with **10** admissions saved due to having mobile access. This equates to a **22% saving** in admissions.

## 11. South West Essex Primary Care Trust (part of North East London Foundation Trust)

South West Essex	
Number of devices	50
Clinical system used	Systmone Community
Pilot go-live date	17th November 2010

**Table 26 South West Essex At a glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
Children's & Family Services	15	9	3	2	3	-
District Nursing	14	11	6	13	10	-
Palliative Services	2	2	2	1	2	-
Respiratory Services	5	3	-	5	1	-
Specialist Nursing	3	3	-	-	3	-
Speech & Language Therapy	11	5	-	-	4	-
<b>Total</b>	<b>50</b>	<b>33</b>	<b>11</b>	<b>21</b>	<b>23</b>	<b>-</b>

**Table 27 South West Essex Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
Children's & Family Services	50	31	28	25	-	<b>134</b>
District Nursing	78	47	224	68	-	<b>417</b>
Palliative Services	29	27	30	19	-	<b>105</b>
Respiratory Services	24	-	23	3	-	<b>50</b>
Specialist Nursing	17	-	-	24	-	<b>41</b>
Speech & Language Therapy	39	-	-	35	-	<b>74</b>
<b>Total</b>	<b>237</b>	<b>105</b>	<b>305</b>	<b>174</b>	<b>-</b>	<b>821</b>

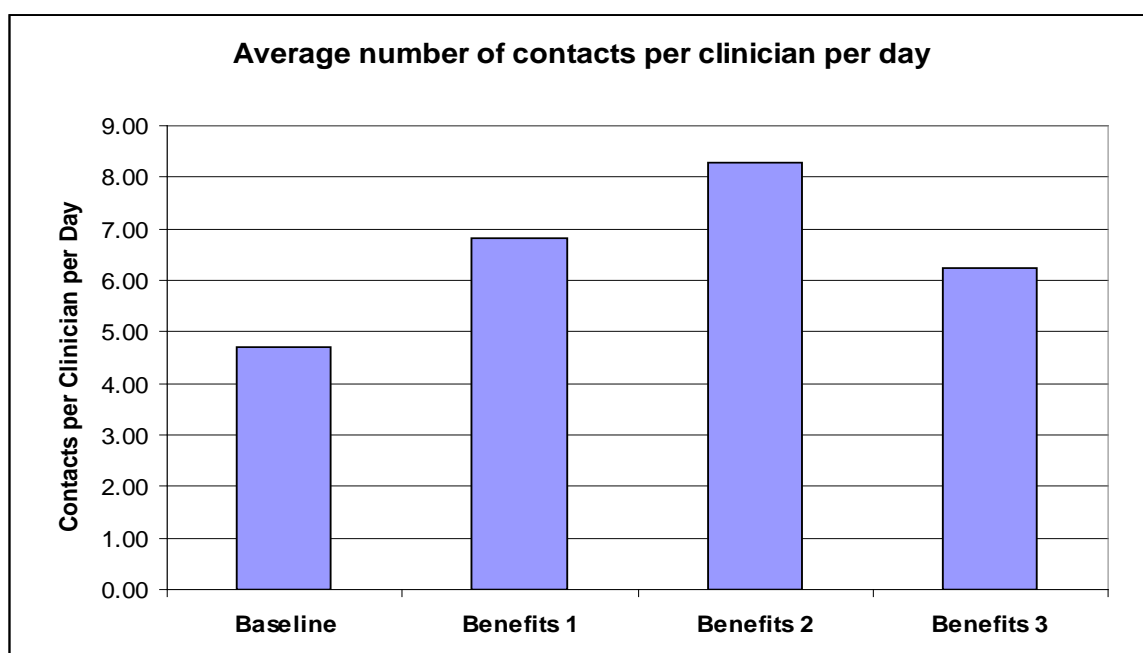
**Table 28 South West Essex Overview of Number of Days of data returned**

It was not possible to include data that was returned for Benefits 4, due to format changes, therefore all comparisons are made between Baseline and Benefits 3

### Contacts:

A total of **5444** contacts were recorded in South West Essex over the **821** days that data were recorded.

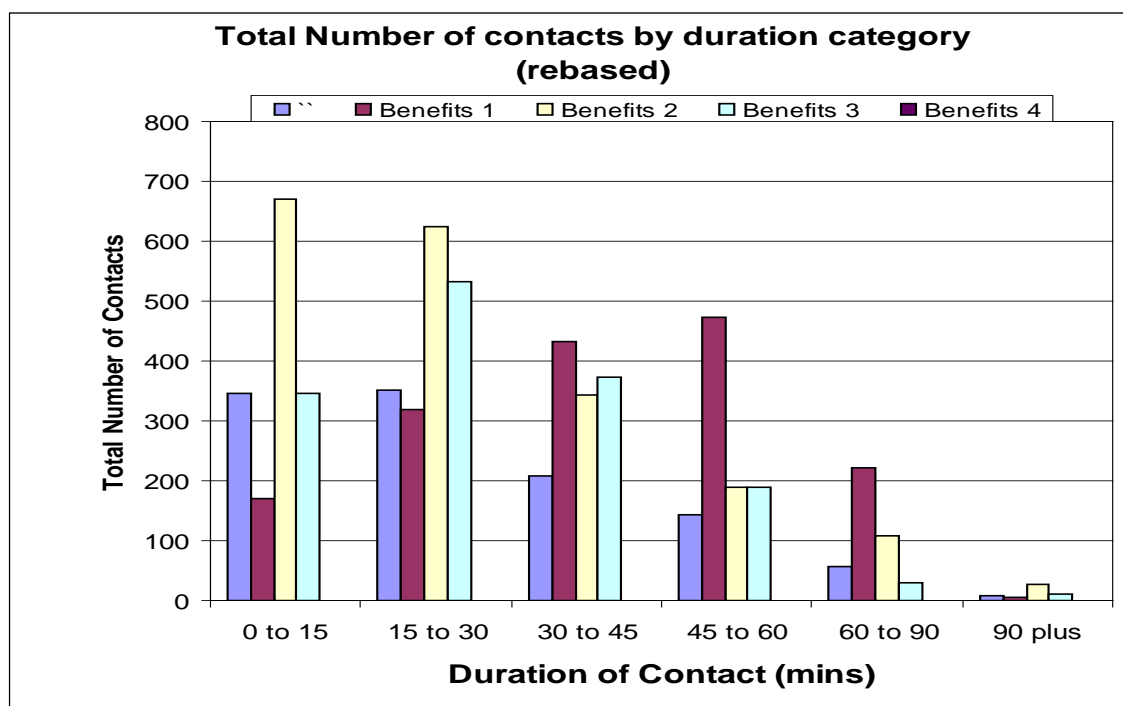




**Figure 45 South West Essex Average contacts per clinician, per day**

The average number of contacts from Baseline to Benefits 3 increased by **33%**.

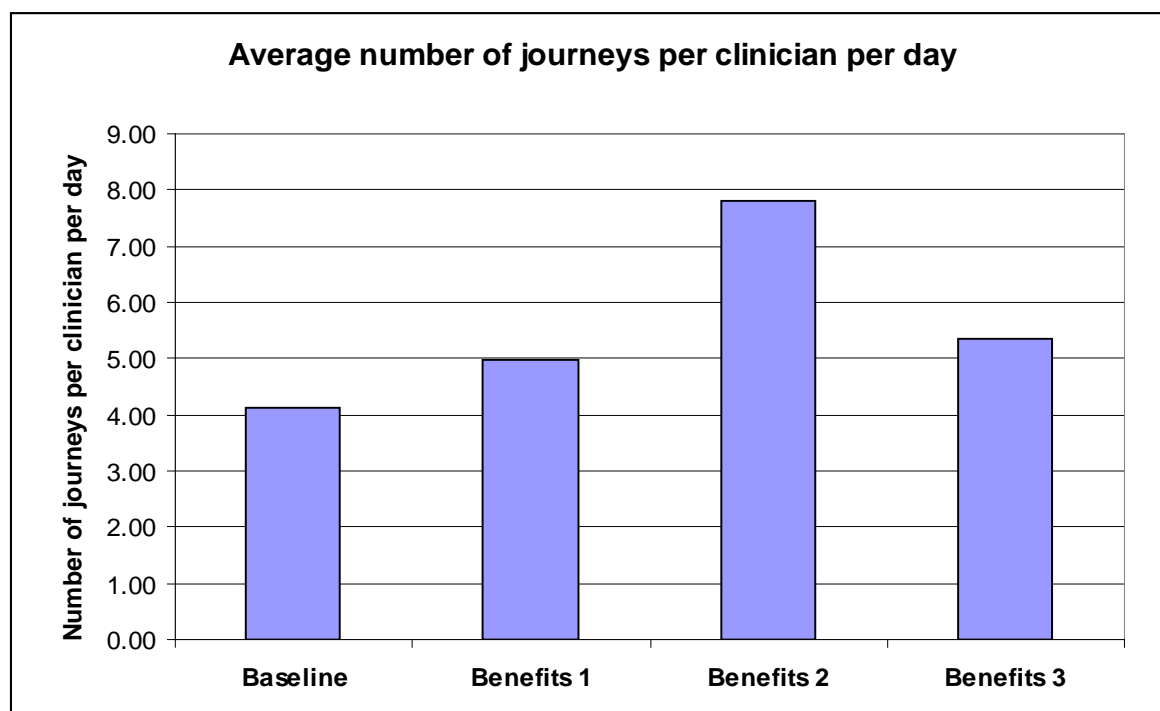
The data for the number of contacts split by duration shows an increase across all the time periods with the exception of 60 - 90 minutes, resulting in the total time spent with patients increasing by **35%**



**Figure 46 South West Essex Total contacts by duration**

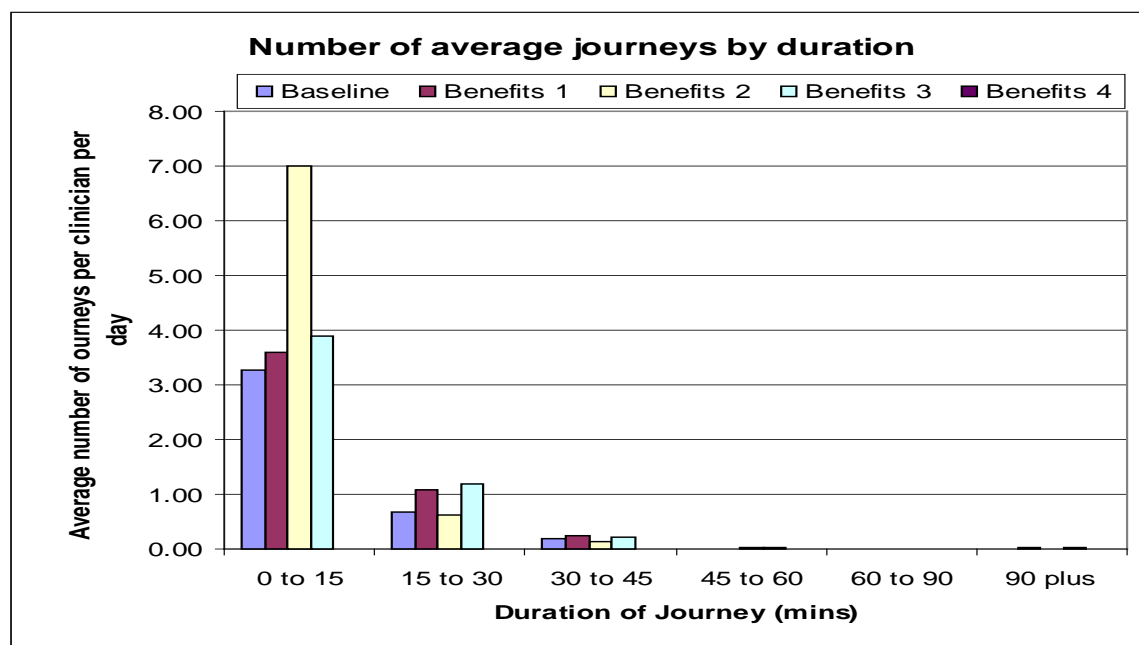
When contacts are broken down across the Services, we see varied results, from an increase of **72%** (Respiratory Services) to a decrease of **22%** (Children's and Family Services)

## Journeys:



**Figure 47 South West Essex Number of average journeys per clinician, per day**

The average number of journeys per day increased by **30%** from Baseline to Benefits 3.



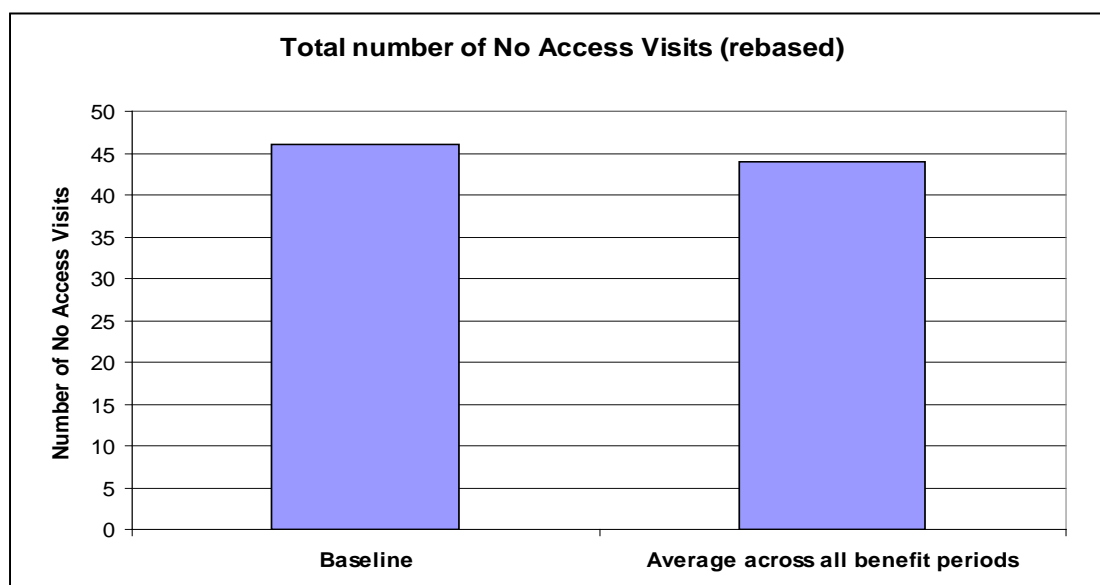
**Figure 48 South West Essex Average number of Journeys by duration category**

The data for number of journeys split across the duration categories show increases across all duration categories, resulting in total time spent travelling increasing by **46%** from Baseline to Benefits 3.

When looking at journeys across the Services, there was a large variation, from a decrease of **20%** (Speech and Language Therapy), to an increase of **57%** (Palliative Services).

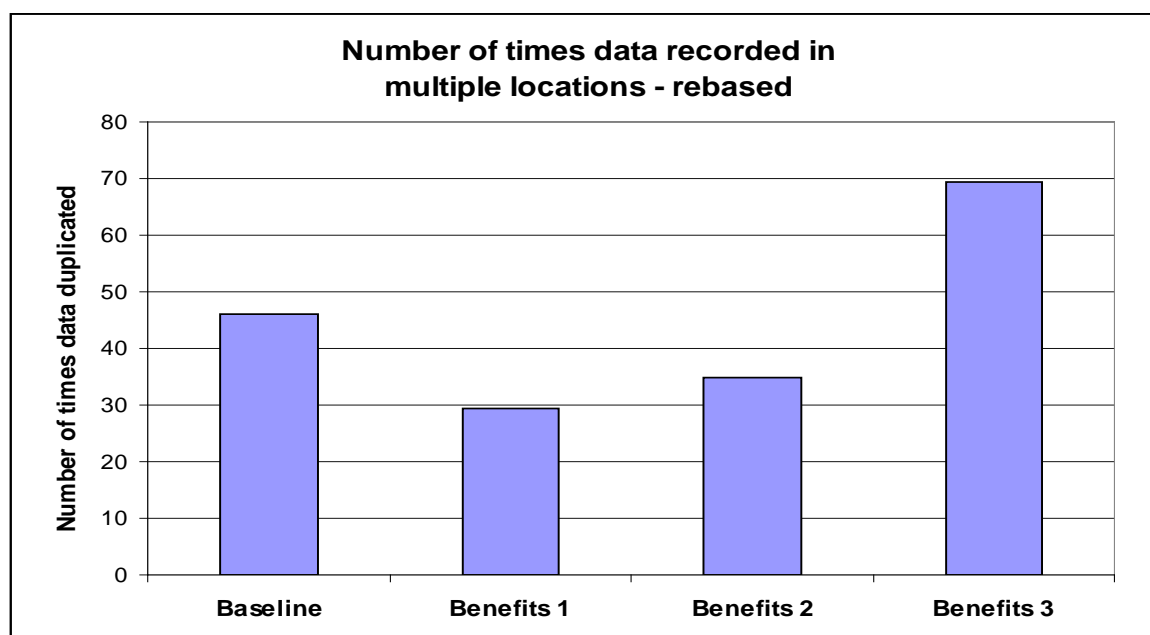
**No access visits:**

Due to the relatively small numbers involved, the figures are presented as an average across the combined benefits periods.



**Figure 49 South West Essex No access visits**

The number of no access visits fell in the early stage of the project, but increased as the project progressed. The average number of no access visits across the combined benefits periods showed an overall decrease of **4%** from Baseline.

**Duplication of Data:**

**Figure 50 South West Essex Duplication of data**

The data shows an increase of **18%** from Baseline to Benefits 3 for duplication for data.

When looking at the breakdown of data duplication across the Services, there is variation, from a reduction of **92%** (Speech and Language Therapy) to an increase of **86%** (Children's and Family Service).

**Referrals:**

In total, **515** referrals were made across the benefits periods. Clinicians at South West Essex estimated that due to having mobile access to systems, they saved **14** potential referrals. This equates to a **3% saving** in referrals.

**Admissions:**

In total, **15** admissions were made over the benefits periods, with only **1** admission saved due to having mobile access. This equates to a **6%** saving in admissions.

## 12. NHS Stoke on Trent

Stoke on Trent managed to maintain a good level of returns throughout the collection periods, with the lowest level of returns 64%.

Stoke on Trent	
Number of devices	25
Clinical systems used	iPM and CHIPS
Pilot go-live date	16th November 2010

**Table 29 Stoke on Trent At a Glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
Children's & Family Services	4	4	3	3	4	3
District Nursing	8	9	9	9	6	6
Intermediate Care	3	3	3	2	1	-
Palliative Services	4	5	5	4	3	3
Specialist Nursing	6	4	4	4	4	4
<b>Total</b>	<b>25</b>	<b>25</b>	<b>24</b>	<b>22</b>	<b>18</b>	<b>16</b>

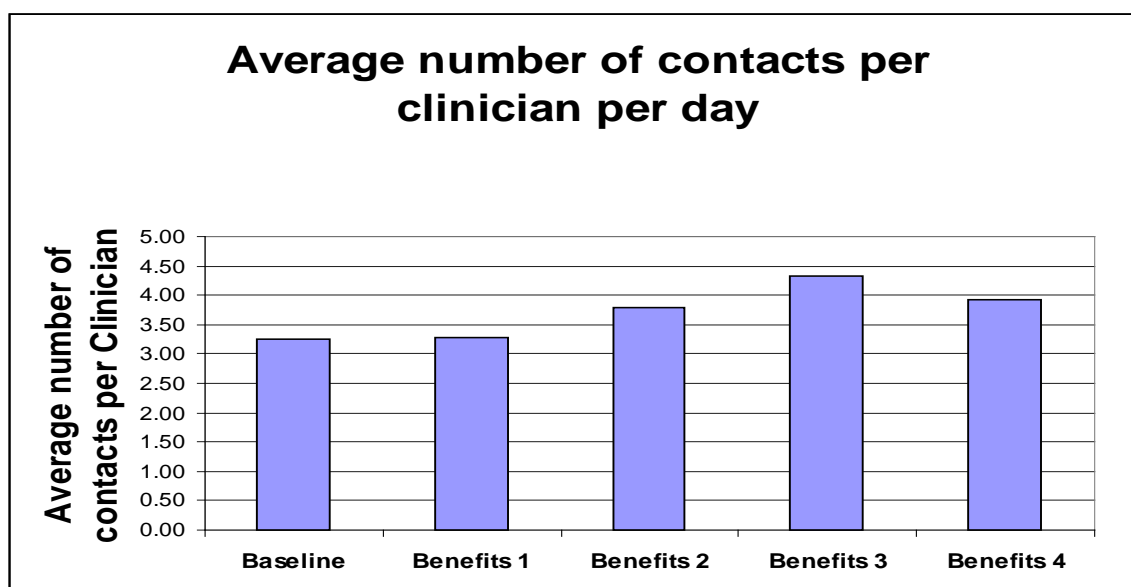
**Table 30 Stoke Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
Children's & Family Services	140	83	78	48	36	<b>385</b>
District Nursing	314	242	234	72	72	<b>934</b>
Intermediate Care	114	82	52	12	-	<b>260</b>
Palliative Services	175	141	104	34	36	<b>490</b>
Specialist Nursing	140	106	109	48	47	<b>450</b>
<b>Total</b>	<b>883</b>	<b>654</b>	<b>577</b>	<b>214</b>	<b>191</b>	<b>2,519</b>

**Table 31 Stoke Overview of Number of Days of data returned**

### Contacts:

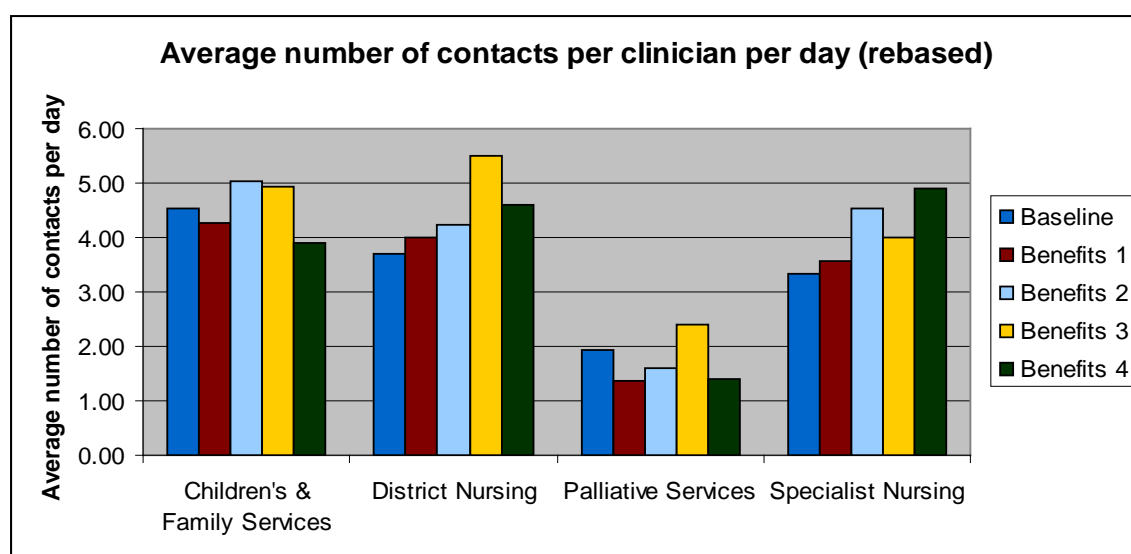
A total of **8898** contacts were recorded in Stoke over the **2519** days that data was recorded.



**Figure 51 Stoke Average contacts per clinician, per day**

Contacts increased by **21%** from Baseline to Benefits 4, and showed a consistent increase throughout the life of the project, with the greatest increase being seen at Benefits 3 (**33%** increase from Baseline).

There was an increase across all duration categories, and the effect on total time spent with patients was that it increased by **17%** from Baseline to Benefits 4.



**Figure 52 Stoke Average contacts per clinician per day across Services**

Activity varied across Services, from a fall of **28%** (Palliative Services) to an increase of **46%** (Specialist Nursing). Intermediate Care did not complete all benefits collection periods, therefore have been removed from the graph.

## Journeys:

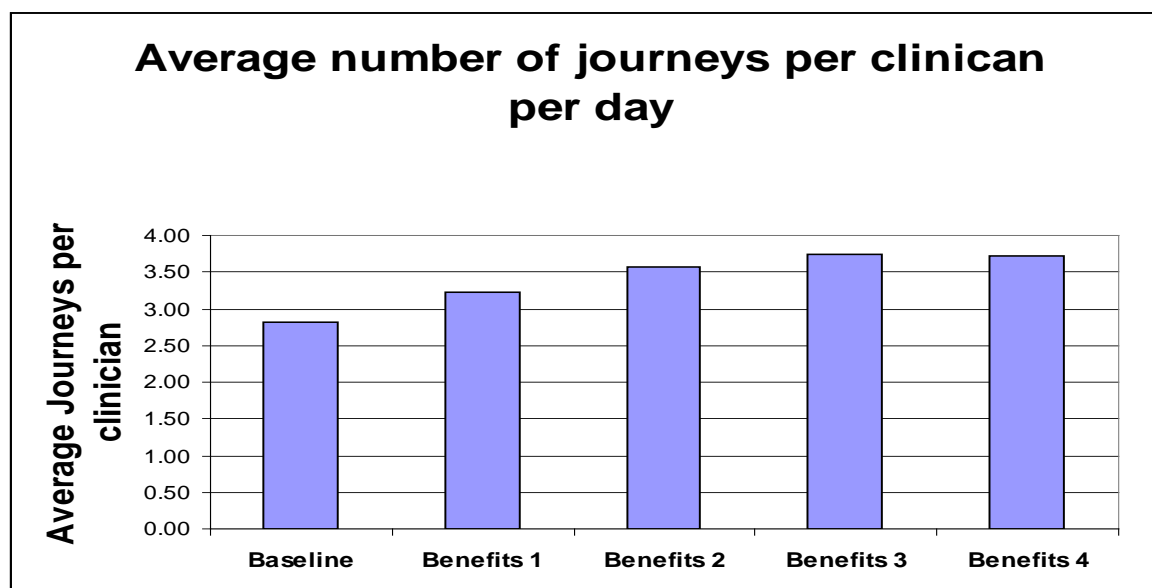


Figure 53 - Stoke Average journeys per clinician, per day

The total number of journeys from Baseline to Benefits 4 increased by **32%**, with the largest increase being seen in the shortest journeys (0-15mins), resulting in the total time spent on journeys increasing by just **14%**.

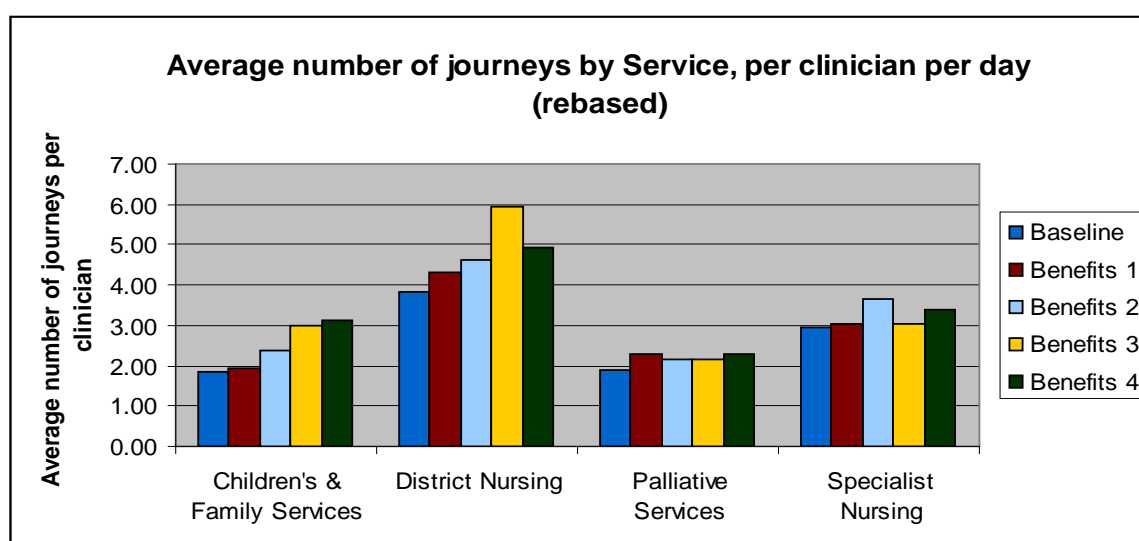


Figure 54 Stoke Average number of Journeys per clinician per day, by Service

When looking at the number of journeys undertaken, split by Service, there is variation, from a **14%** increase (Specialist Nursing) to a **71%** increase (Children's and Family Services). Intermediate care did not complete all benefits collection periods, therefore have been removed from the graph.

## No Access Visits:

Due to the relatively small numbers involved, the figures are presented as an average across the combined benefits periods.

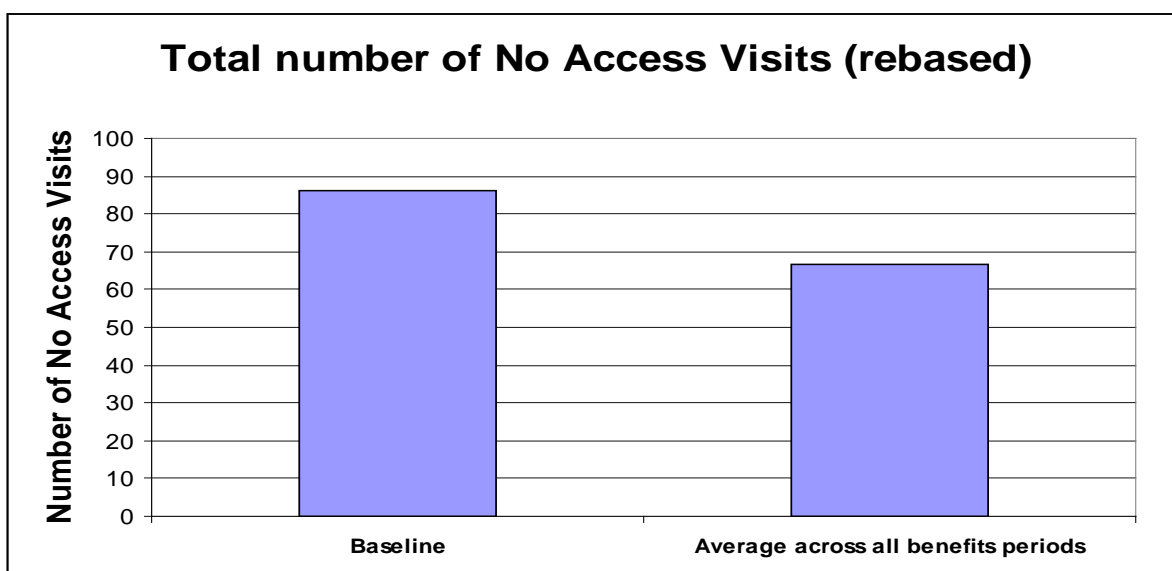


Figure 55 Stoke No Access Visits

The average number across all the benefits periods combined show a decrease of **23%** from Baseline.

#### Duplication of Data:

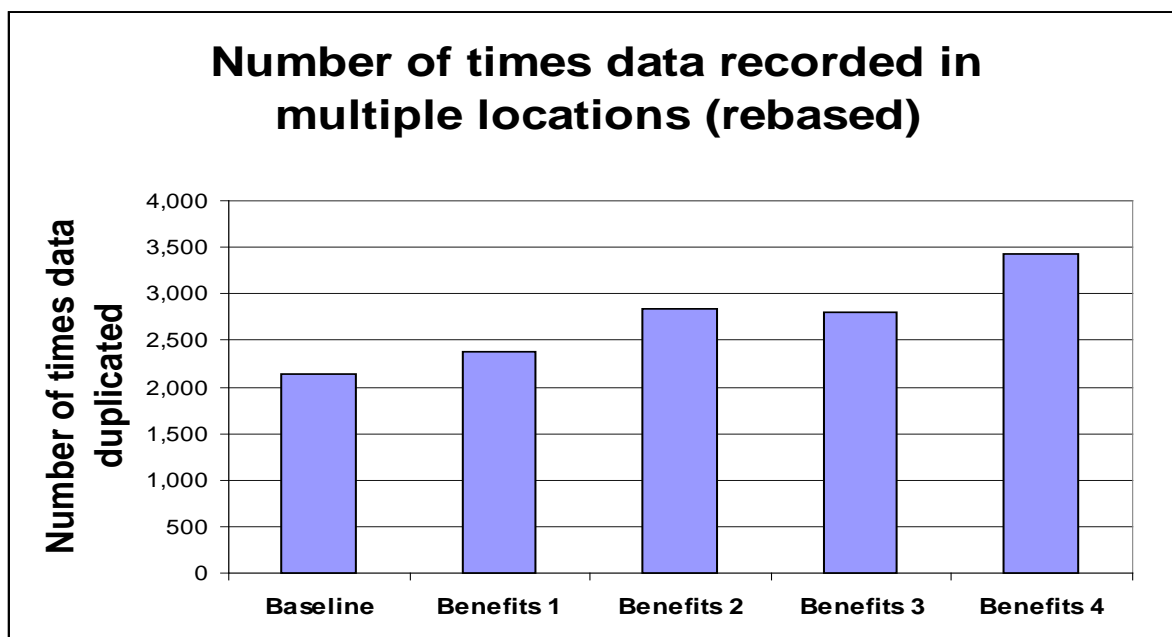
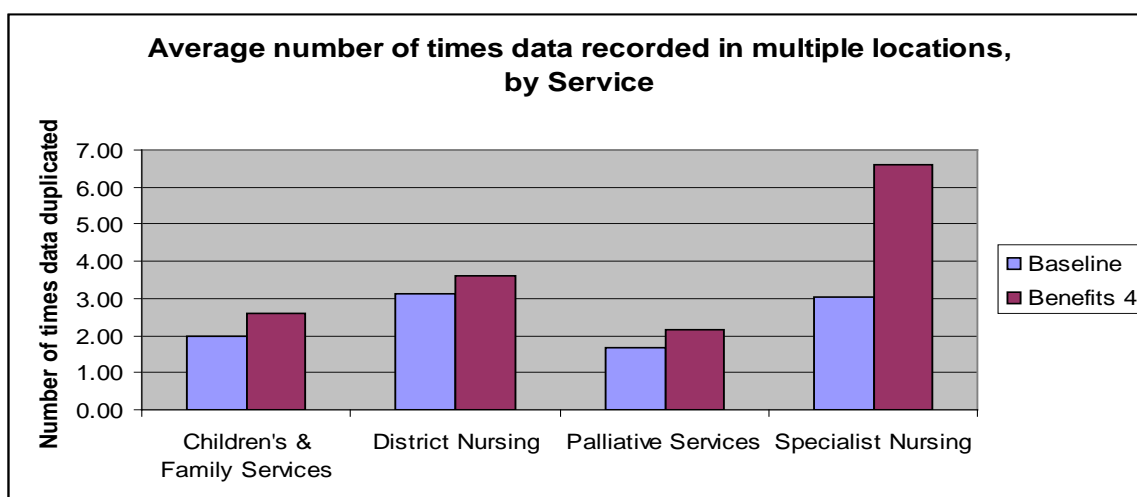


Figure 56 Stoke Duplication of data

The data shows an increase of **60%** from Baseline to Benefits 4 for duplication for data. The figures show a consistent increase as the project has progressed, however this should be taken in context, as Stoke do not use a shared care electronic clinical record, and with only 25 users in the project, it would be difficult to embed any changes in clinical practice.





**Figure 57 Stoke Data duplication by Service**

When the data is split by Service, we can see all Services recorded an increase in duplication, ranging from **15%** to **117%** increase.

### Referrals:

In total, **2118** referrals were made across the benefits periods. Clinicians at Stoke estimated that due to having mobile access to systems, they saved **243** potential referrals. This equates to a **10% saving** in referrals.

### Admissions:

In total, **19** admissions were made over the benefits periods, with **26 admissions saved** due to having mobile access. This equates to a **58% saving** in admissions.

### 13. NHS Tower Hamlets

Tower Hamlets	
Number of devices	20
Clinical system used	Emis Web
Pilot go-live date	22nd October 2010

**Table 32 Tower Hamlets At a glance**

Clinicians	Number in project	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns
CASH	1	1	1	-	-	-
Respiratory Services	15	11	10	1	14	9
Paediatric OT	1	0	0	0	0	0
Specialist Nursing	3	2	2	-	-	-
<b>Total</b>	<b>20</b>	<b>14</b>	<b>13</b>	<b>1</b>	<b>14</b>	<b>9</b>

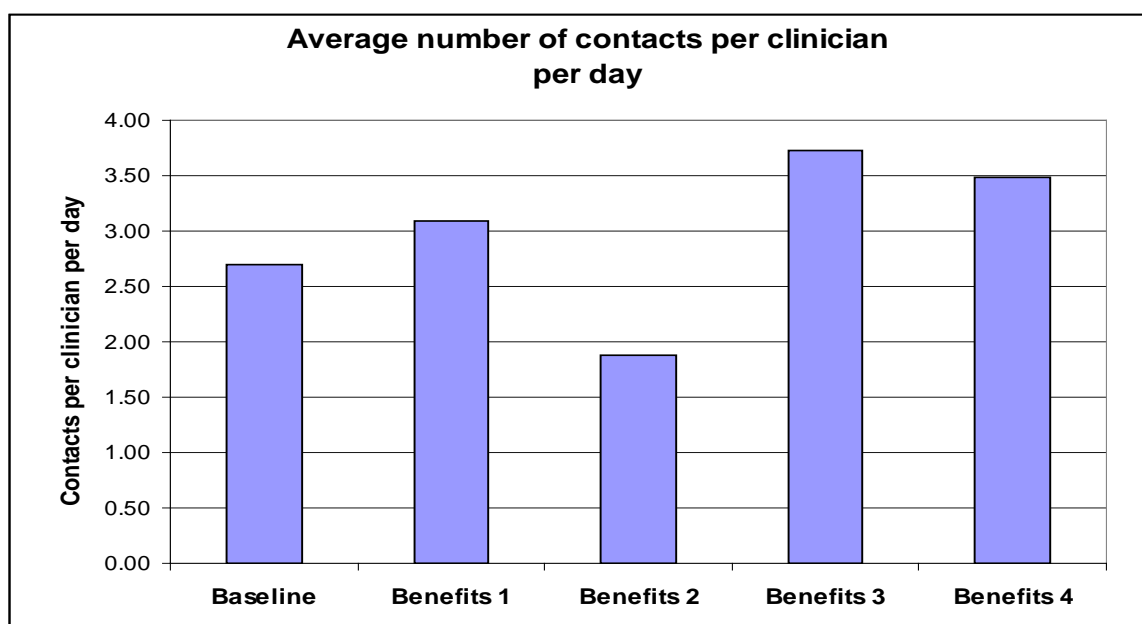
**Table 33 Tower Hamlets Overview of Returns used in analysis**

Days data	Baseline returns	Benefit 1 returns	Benefit 2 returns	Benefit 3 returns	Benefit 4 returns	Total
CASH	15	32	-	-	-	<b>47</b>
Respiratory Services	150	123	8	126	96	<b>503</b>
Specialist Nursing	41	44	-	-	-	<b>89</b>
<b>Total</b>	<b>206</b>	<b>199</b>	<b>8</b>	<b>126</b>	<b>96</b>	<b>635</b>

**Table 34 Tower Hamlets Overview of Number of Days of data returned**

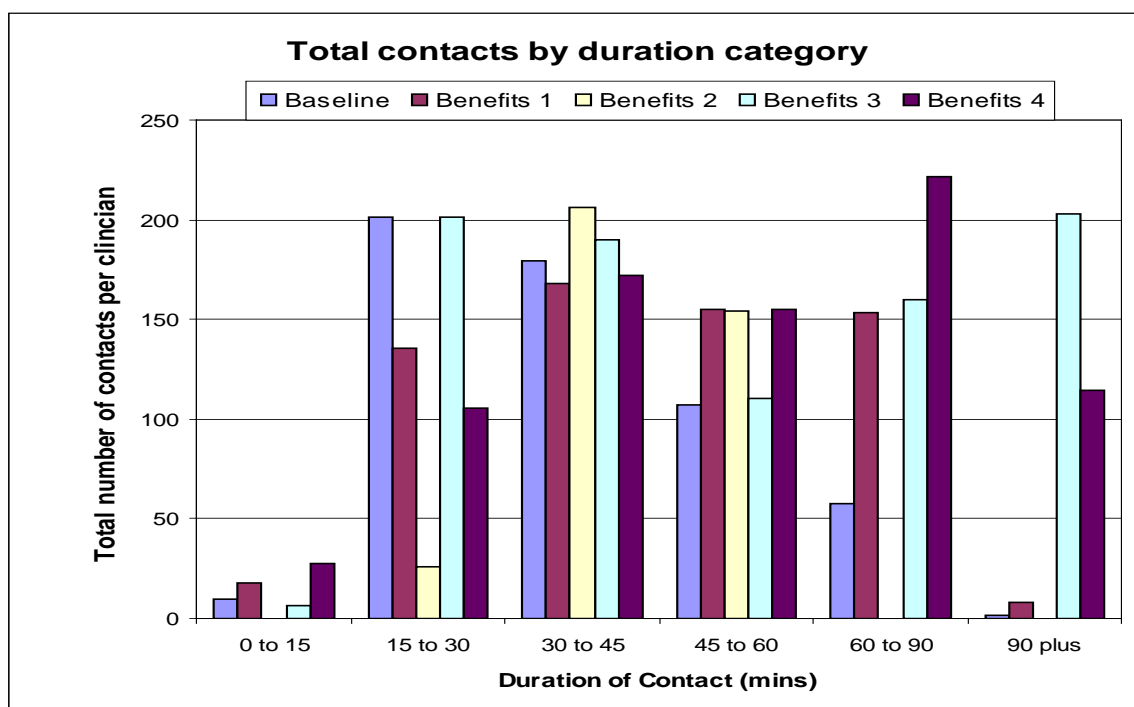
#### Contacts:

A total of **2086** contacts were recorded in Tower Hamlets over the **635** days that data was recorded.



**Figure 58 Tower Hamlets Average contacts per clinician, per day**

The average number of contacts from Baseline to Benefits 4 increased by **29%**.

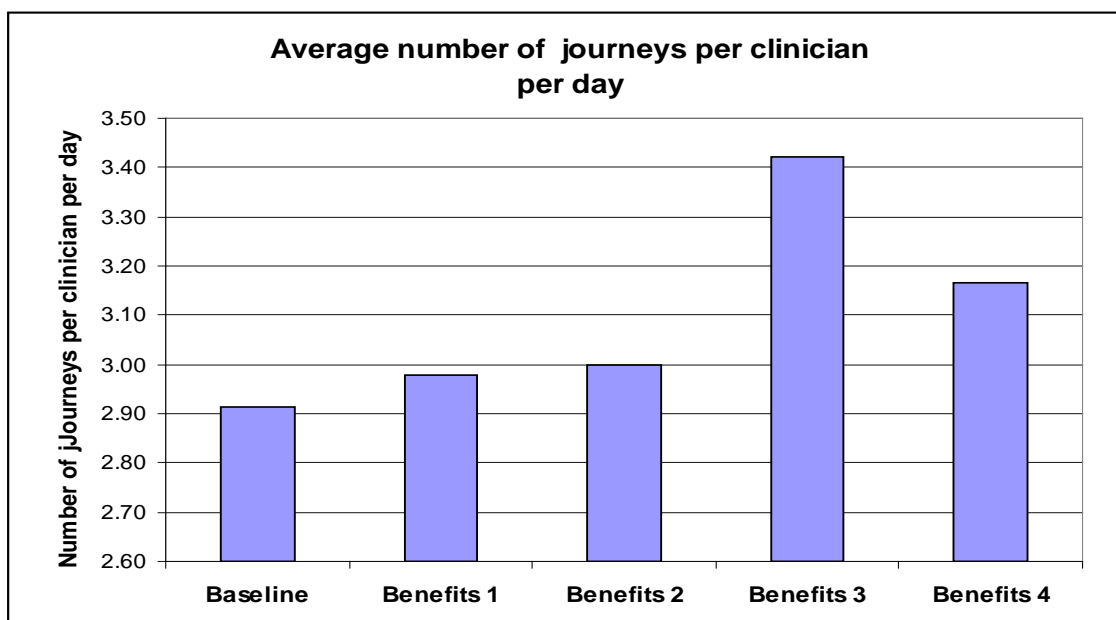


**Figure 59 Tower Hamlets Total contacts by duration**

The data for the number of contacts split by duration shows a large variation, with the longer contacts increasing very significantly, resulting in the total time spent with patients increasing by **104%**.

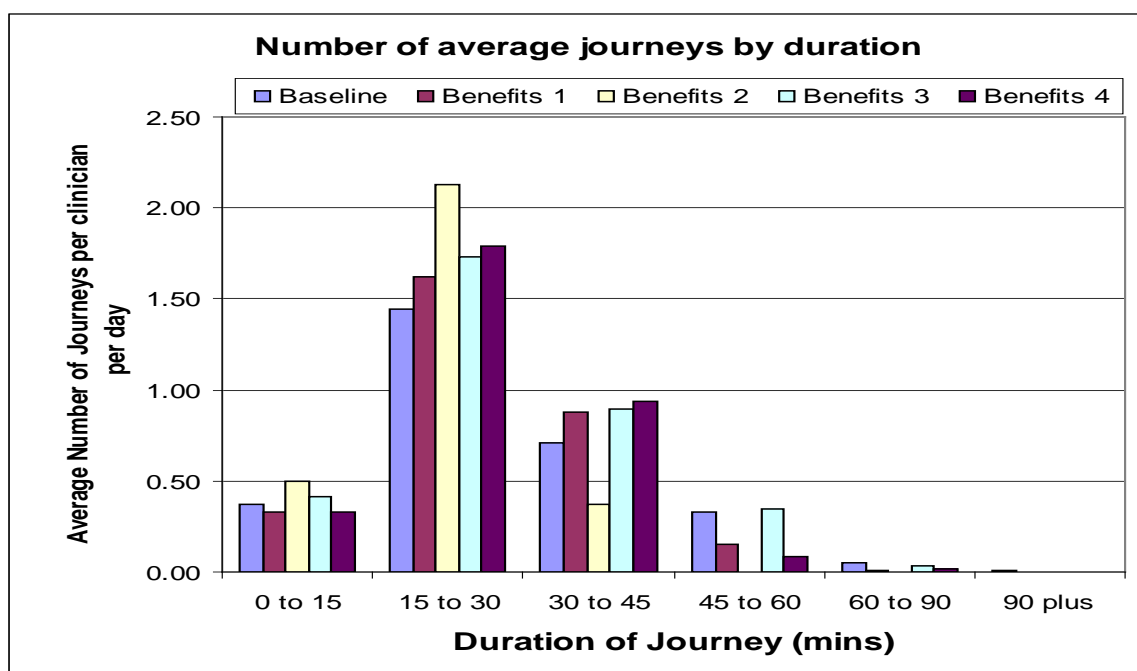
When contacts are broken down across the Services, only Respiratory Services returned complete data, and showed an increase in contacts of **31%** from Baseline to Benefits 4.

#### Journeys:



**Figure 60 Tower Hamlets Number of average journeys per clinician, per day**

The average number of journeys per day increased by **9%** from Baseline to Benefits 4.



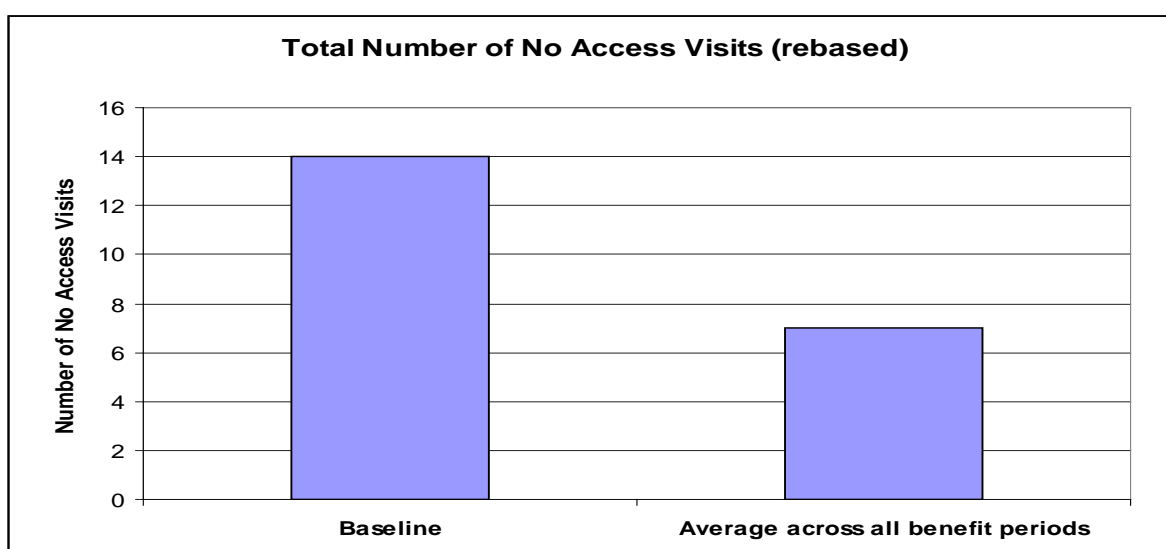
**Figure 61 Tower Hamlets Average number of Journeys by duration category**

The data for number of journeys split across the duration categories show an increase in shorter journeys (15 - 45mins) with reductions in all journeys over 45mins. This has resulted in the total time spent travelling increasing by only **1%**, indicating that staff are becoming more efficient at planning journeys.

When looking at journeys across the Services only the Respiratory services provided complete data and showed an increase in journeys of **17%** from Baseline to Benefits 4.

#### **No access visits:**

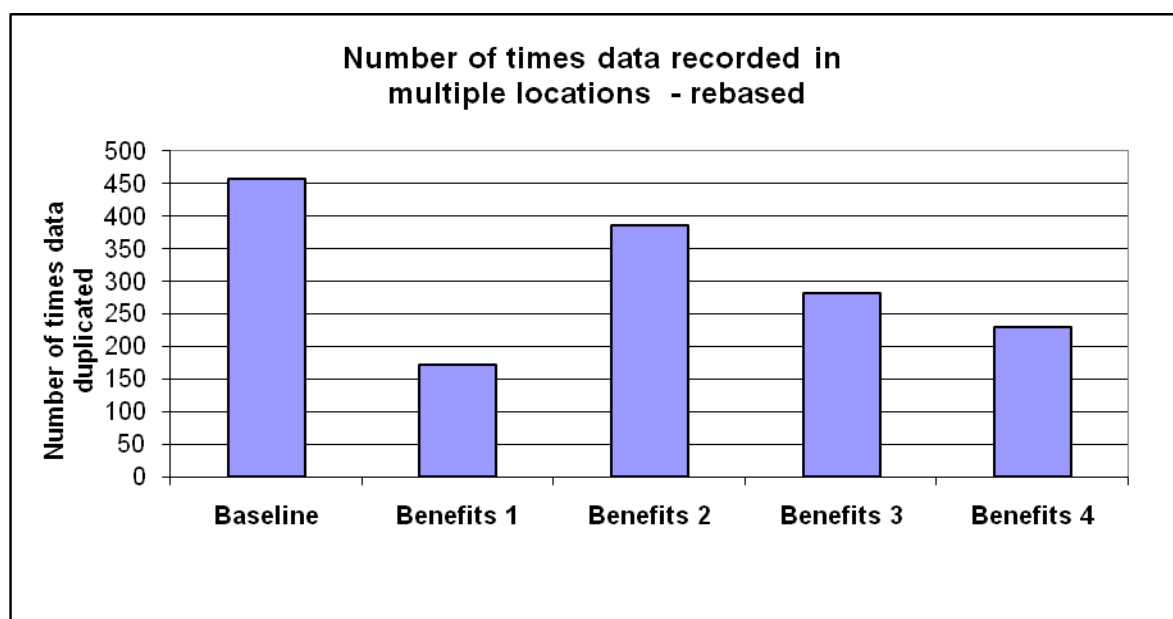
Due to the relatively small numbers involved, the figures are presented as an average across the combined benefits periods.



**Figure 62 Tower Hamlets No access visits**

The average number of no access visits across all benefits periods fell by **50%** from Baseline to Benefits 4.

## Duplication of Data



**Figure 63 Tower Hamlets Duplication of data**

The data shows a fall of **50%** from Baseline to Benefits 4 for duplication for data. When looking at the breakdown of data duplication across the Services, only Respiratory Nursing returned complete data and showed a reduction in duplication of data with of **43%** from Baseline to Benefits 4. This reflects that process changes can be made in smaller services such as the Respiratory Service.

### Referrals:

In total, **99** referrals were made across the benefits periods. Clinicians at Tower Hamlets estimated that due to having mobile access to systems, they saved **51** potential referrals. This equates to a **34% saving** in referrals.

### Admissions:

In total, **2** admissions were made, with **20** admissions being saved due to having mobile access. This equates to a **91% saving** in admissions.