NHS England

Developing a Wheelchair Tariff Pilot Programme

July 2016

NHS England INFORMATION READER BOX		
Directorate		
Medical	Operations and Information	Specialised Commissioning
Nursing	Trans. & Corp. Ops.	Commissioning Strategy
Finance		

Publications Gateway Reference:	**05610**
Document Purpose	Report
Document Name	Developing a wheelchair tariff pilot programme
Author	North and East London Commissioning Support Unit, on behalf of NHS England
Publication Date	20 July 2016
Target Audience	CCG Clinical Leaders, CCG Accountable Officers, CSU Managing Directors, Care Trust CEs, Foundation Trust CEs , Medical Directors, NHS Trust Board Chairs, NHS England Regional Directors, NHS England Directors of Commissioning Operations, Directors of Finance, NHS Trust CEs
Additional Circulation List	Directors of PH, Directors of Nursing, Local Authority CEs, Directors of Adult SSs, Allied Health Professionals
Description	The report sets out the findings from work that was undertaken by pilot sites to test a currency model that was developed for wheelchair services by Deloitte. The project was co-ordinated and managed for NHS England by North East London CSU.
Cross Reference	N/A
Superseded Docs (if applicable)	N/A
Action Required	Note the report findings and proposed next steps
Timing / Deadlines (if applicable)	**N/A**
Contact Details for further information	Sue Nowak Pricing Team Skipton House 80 London Road London SE1 6LH england.paymentsystem@nhs.net https:www.england.nhs.uk/resources/pay-syst

Document Status

This is a controlled document. Whilst this document may be printed, the electronic version posted on the intranet is the controlled copy. Any printed copies of this document are not controlled. As a controlled document, this document should not be saved onto local or network drives but should always be accessed from the intranet.

Contents

1. Context

This report sets out the findings from work that was undertaken by pilot sites to test a currency model that was developed for wheelchair services by Deloitte for the Department of Health. The project was co-ordinated and managed for NHS England by North East London CSU. It had been our aspiration to get a minimum of 12 sites to test the currencies. Although there was strong local interest in doing so, a number of practical challenges meant that only 8 sites were actually in a position to share their data with us.

The project team recommended that we should undertake further testing of the currencies. Having reflected on this, and taking into account the costs and time involved in running formal pilots, NHS England has decided to make the currencies available for everyone to use in 2017/18. More detailed guidance on how to do this will be published later in 2016. We will then invite feedback from those areas that decide to use them, which will help us to refine the currency model further. We will also be seeking to improve reference costs for wheelchair services by strengthening the guidance for the 2016/17 cost collection.

During the life of the project, funding for specialised wheelchairs has passed from the direct control of NHS England to CCGs. Although we have collected activity for specialised wheelchairs under some broad headings, work has not been carried out to determine whether we will need to add other currencies to our models which are specific to these very complex chairs. We will invite feedback from the sector on this issue over the coming year.

2. Executive Summary

North East London Commissioning Support Unit was engaged by NHS England to test the validity of a set of proposed currencies which were developed by Deloitte in 2013 (see "Developing a Wheelchair Tariff") for the Department of Health along with some draft tariffs. The report of 2013 asserted the need for a currency model broken down by four bundles of activity; assessment, equipment, review and repair and maintenance.

This report sets out an indicative appraisal on the proposed currencies and draft tariffs following data collections from eight providers who participated in the pilot programme. This report includes comparisons with reference cost data (financial years 2014/15), pilot site submissions, the proposed Deloitte tariffs and makes suggestions for improvements for future iterations to NHS England in taking forward the currency model.

The findings from the project appear encouraging in confirming the currency structure. The report details the analysis and review of the monthly and quarterly data submitted by the pilot sites. The report, however, does suggest some limitations across the tariff structure as it currently stands. The key suggested recommendations arising from the pilot are:

- Extend the pilot programme for a further six months to enable additional data collection.
- Increase the number of providers in the pilot to enable the collection of a more representative and meaningful sample.
- Further refinement to be made to the definitions of the equipment currencies.

NHS England and the project team acknowledges, and is grateful for, the significant contribution of the pilot sites in helping shape a currency and tariff model for wheelchair services

3. Background

3.1. An overview of the Wheelchair Tariff Implementation Pilot

The Department of Health engaged Deloitte in 2013 to develop a currency model and associated tariffs that could be used to commission non-complex wheelchair services. Its primary motivation was to support improved commissioning of these services to increase transparency, improve efficiency and better align resources to user need.

Deloitte concluded the project with a report for the Department of Health in 2013 with a number of findings and recommendations including a wheelchair currency model based on a level of need. The needs based approach covered assessment, equipment, review and repair/maintenance.

In 2012, responsibility for the wheelchair tariff development work moved from the Department of Health to NHS England. At the first national wheelchair summit in 2014, NHS England took responsibility for delivering three specific areas of work: establishing a new dataset; developing a new national tariff; and providing support for commissioners.

The development of a currency and tariff model for wheelchair services is intended to support more advanced commissioning by increasing transparency, improving efficiency and better aligning resources to service user needs. As part of the tariff work NHS England commissioned the North and East London Commissioning Support Unit (NEL CSU) to undertake the second phase of the project; to run a pilot data collection to test the currencies with a view to supporting future implementation of a currency model. The scope of the project covered adults and children wheelchair services. The governance for overseeing the development of this pilot project was the monthly Wheelchair Currencies Development Implementation Group. NHS England's partner, NHS Improvement, were also engaged in the project.The full list of group members is listed in **Appendix One**.

A glossary of the terms used in this report, including the updated definition for each currency is attached as **Appendix Two**. For clarity, the two most frequently used terms in this report are:

- Currency – these are units of wheelchair service activity such as an assessment, a piece of equipment or a review. Currencies are a consistent unit of measurement that may form the basis of payment between commissioners and providers.
- Tariff – the prices for a unit of wheelchair activity as defined by a currency.

Following the identification of the pilot sites, a framework for delivery was agreed at the commencement of the project at the Wheelchair Implementation Steering group meeting. The stages and the tasks involved in this framework is described in section 2.2 and summarised below.

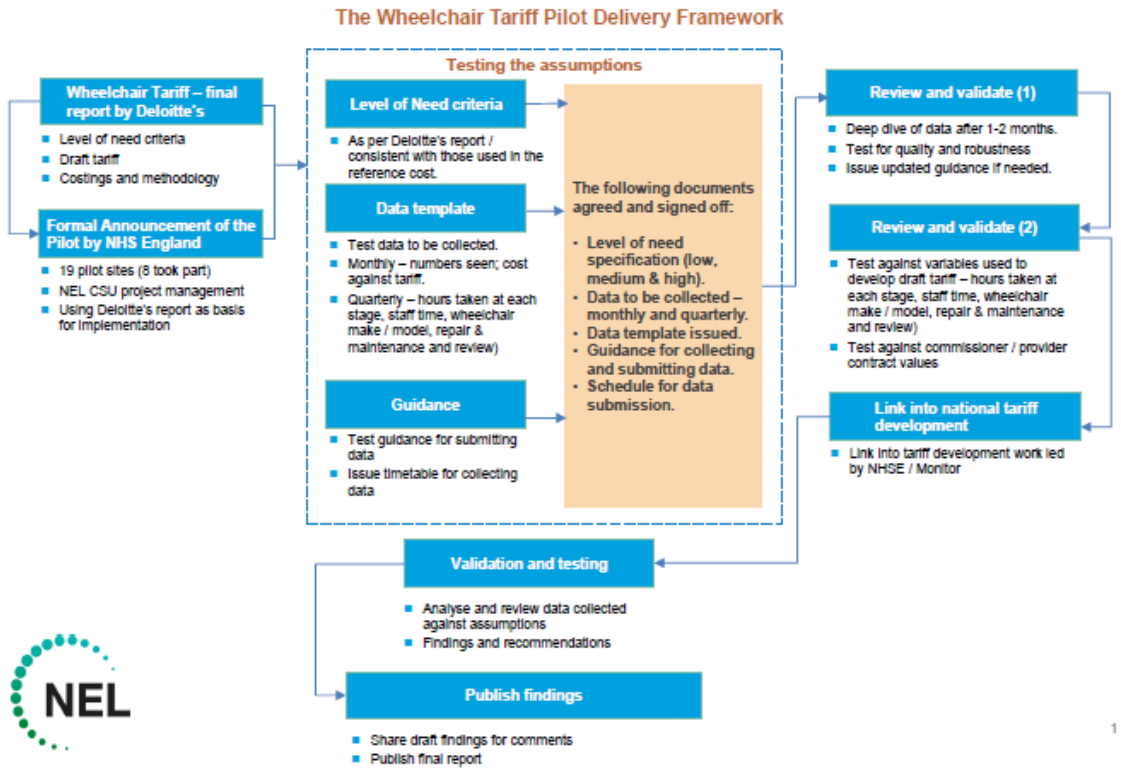

Diagram 1 – A Framework for Wheelchair Tariff Implementation

3.2. Scope of the project

The scope of the pilot programme was:

1. Data definition (currencies) – to build and strengthen the definitions proposed in the Deloitte report.
2. Data collection – to design a data collection tool and liaise with providers from the pilot sites to collect the required data to test the currency and tariff assumptions used in the Deloitte report.
3. Data validation – undertake validation, testing and benchmarking of the data collected against the Deloitte proposed tariffs, reference cost and provider cost data.
4. Recommendations – to conclude with preparation of a final report outlining the key recommendations to support the future implementation of the currency model.

The pilot included wheelchair service for all ages and focused on non-complex activity commissioned by Clinical Commissioning Groups (CCGs). Specialist commissioning activity was deemed to be beyond the scope of this project.

However, in 2015/16, as part of developing a more collaborative approach to the commissioning of specialised services, the commissioning responsibility of specialist wheelchair services was devolved to CCGs. To accommodate this, the project scope was reviewed to collect all activity. However, given that there were no currencies defined for specialist wheelchair activity, the data collection only extended to collecting activity in terms of number of patients seen, rather than benchmarking as per non-specialised activity.

Further details of the project scope are described in sections 3-5 of this report.

3.3. Providers involved in the pilot

At the start of the pilot, there were 19 organisations that had expressed an interest in joining the pilot programme. Of these, a number of organisations were commissioning organisations. In the early phases of the pilot programme, it was agreed that commissioner organisations would need to secure the partnership of their providers in joining the pilot programme – as it was generally agreed that data would be best and most readily collected from the provider as the holder of primary source data. Whilst provider organisations were responsible for the collation of monthly and quarterly data returns, providers were encouraged to share this information with their lead commissioner, or collaborative of CCGs (Clinical Commissioning Group(s)) for oversight and final authorisation.

The full list of organisations that were invited to join the pilot programme was as follows:

1. Sussex Community NHS Trust
2. Blatchford Clinical Services
3. Whizz Kids
4. North East London Foundation Trust
5. East London Foundation Trust
6. Provide Community Interest Company
7. Leeds Wheelchair Service
8. University Hospital South Manchester
9. Guys and St Thomas' NHS Trust
10. Millbrook Healthcare
11. Shropshire Community Health NHS Trust
12. Salford LB
13. North Bristol NHS Trust
14. South CSU (Commissioning Organisation)
15. Westminster CCG
16. Nene CCG
17. Dorset CCG
18. West Kent CCG
19. Hampshire CCG

However, a number of these organisations were not fully able to participate in the pilot programme despite their contribution to the early phases of the project. Reasons for this included:

- Capacity to collect and collate the dataset
- Service delivery model did not allow data to be collected in the required format
- Some organisations that were interested in joining the programme were not providers and could not secure the participation of their provider partners
- Some organisations could not provide data until after the close of the pilot programme

Eight organisations eventually participated in the data collection exercise. NHS England would like to thank all organisations in the pilot for their support and guidance throughout the

life of the pilot project. The CSU project team acknowledges this was a voluntary programme and the additional work undertaken by each pilot site.

The eight pilot sites that took part in the data collection exercise were:

1. Sussex Community NHS Trust
2. Blatchford Clinical Services
3. Provide Community Interest Company
4. University Hospital South Manchester
5. East London Foundation Trust
6. Whizz-Kidz
7. North East London Foundation Trust
8. North Bristol NHS Trust

The organisations are were from different parts of the country, and the population and service user demographics of each provider were of varying size. In line with commercial sensitivity and competitive advantage, the data submitted by pilot organisations will remain anonymised. The table below highlights indicative size and scale of organisation operations:

Provider Reference	**Demographic Size**	**Annual Service Users**
Provider A	1,607,000	12,000
Provider B	750,000	10,850
Provider C	500,160	5,885
Provider D	Not provided	Not provided
Provider E	284,000	5,139
Provider F	1,131,400	9,239
Provider G	300,000	3,200
Provider H	262,600	3,067

Table 1 – Demographic size / annual service users by providers

The project team worked closely with the pilot sites to encourage timely data returns and provided support and clarification to assist pilot sites to make data collection and submission streamlined and seamless as possible.

4. Task One – Data definitions (currencies)

The scope of this work stream was to build and strengthen the data definitions proposed in the Deloitte report. The actions to support this work stream included:

1. Review and comment on the definitions and propose changes to facilitate data collection in a meaningful way.
2. Improve and strengthen the definitions having regard to individual service models, whilst maintaining consistency to enable benchmarking across different service providers.
3. Support improved data collection through collective agreement of more robust set of definitions.
4. Feed into the Reference Cost data collection programme by supporting a more consistent approach to the allocation of activity and costs across organisations.

4.1. What we started with

The project team's starting point was to re-view the wheelchair currencies that were proposed within the Deloitte report across the entire care pathway for a wheelchair user. These currencies were based on a number of components categorised by need and wheelchair type within an episode of care. These included assessment, provision of equipment and repair and maintenance. In summary, the breakdown for each currency was as follows:

Assessment currencies:

- Low need – limited need allocation of clinical time. Majority of the activity was expected to fall in this category.
- Medium need – a higher allocation of clinical time including the use of more specialist time.
- High need (manual and powered) – this currency involves a higher allocation of clinical time than the medium currency. This also includes the use of a higher and more specialist skillset of staff.
- Review – this involves the review of a patient. This could be planned or via an emergency route when there is a change to a patients' condition or equipment. A review which results in the patient being provided with additional equipment or modification will incur a separate charge.

Equipment currencies:

- Low need – a basic wheelchair package which includes a standard cushion and one accessory and modification.
- Medium need – a slightly more advanced and configurable chair with a more advanced (pressure relieving cushion) with up to two accessories and modifications.
- High need (manual and powered) – a more complex equipment, including tilt frame chairs, high pressure relieving cushions and multiple accessories.

Repair and Maintenance

- Manual – includes repairs and maintenance to the less complicated wheelchairs and includes parts/labour, delivery/collection, cost associated with scrapping and preventative maintenance.
- Powered – as above but this covers the slightly more complicated powered wheelchairs.

4.2. What we found

The process of working through the data definitions highlighted a number challenges which meant that assumptions proposed in 2013 could not be easily or readily 'lifted and shifted' into the service models in operation within each pilot organisation.

The thematic feedback that the CSU project team received in this phase of the project focussed upon:

- Data definitions - the initial data definitions that were available did not adequately describe each level of need in sufficient details to allow organisations to collect accurate data.
- Service model – individual organisations in the pilot had very different operational service models. This made it challenging for organisations to adapt existing service model / categorisation to fit the data collecting requirements, and contributed to a number of delays in the collection of data. This also contributed to the need for heightened quality assurance and in some cases, retrospective re-running of the data.
- Equipment – there were different approaches to how equipment was purchased: some purchase an all-inclusive package, whilst others purchase a base unit and add modifications / accessories themselves as appropriate.
- Seating – there appeared to be differences in the way seating was used and classified. The project team noted that this was often dictated by the classification that was used within the individual organisation. The specifying of seating requirements for a high powered wheelchair occasionally resulted in specialist seating being used.
- Data submissions – the variability in nationally reported reference costs compared to costs reported by those taking part in the pilot. A number of reasons contribute to this but in many organisations wheelchairs activity is a small percentage of total costs and they may not be signed off by clinical leads for this area.

4.3. What we did

A significant proportion of time was allocated to the data definition phase of the project. All the participating organisations contributed to a facilitated discussion throughout the life of the project to refine the data definitions. The approaches taken to mitigate against some of the issues raised in section 3.2 were:

- Workshop - two workshops were held during December 2014 and January 2015 with providers who were in the pilot to review the data definitions and strengthen them. The project team then received a significant number of subsequent comments from providers which provided more detail to refine the definitions and how to categorise activity in the same manner.
- Review - the review of the data definition was an on-going process throughout the project and proved to be an area where it was challenging to achieve a common ground. Data definition discussions were a common feature of the monthly Wheelchair Implementation Steering Group monthly meetings.

- Validate – we held a number of validation sessions with individual providers to test and compare how the definitions were used within their individual organisation.
- Alignment with other NHS England Wheelchair Services data collections. NHS England are running a separate work stream, '**Establishing a New Dataset**' which focuses on collecting data from commissioners about the wheelchair pathway that can be used for improving outcomes for wheelchair users, as well as for benchmarking and improving commissioning. Further information on this workstream can be found on https://www.england.nhs.uk/ourwork/pe/wheelchair-services/nhse-role. The information collected through this process is listed in **Appendix Three**.

The output of these activities was an updated set of data definitions to support the currencies. These were finalised in July 2015 and shared with all stakeholders in the pilot. This is attached as **Appendix Two**.

4.4. What we recommend / next steps

The recommendations from the data definition task are as follows:

4.4.1. Recommendation One – further strengthening the assessment definition

The evidence to support this recommendation is:

A breakdown of patients seen under low / medium and high assessment (Case Mix)

The table below shows the breakdown of the patients seen under low / medium and high assessment category. The table compares the findings of the Deloitte report compared to the providers in the pilot.

Users	Deloitte Report	Pilot Programme
Low Need Assessment	58%	56%
Medium Need Assessment	25%	20%
High Need Assessment	17%	24%

Table 2 – a breakdown of patients seen in low / medium and high assessment category

A comparison of the Deloitte data with providers in the pilot programme appears very similar for the low need assessment categorisation and within 5-7% for the medium and high need assessment currencies. Whilst this is re-assuring, the findings noted that the ratio of patients seen in low / medium and high assessment currencies in the individual organisations varied quite significantly, as illustrated in diagram 2 below.

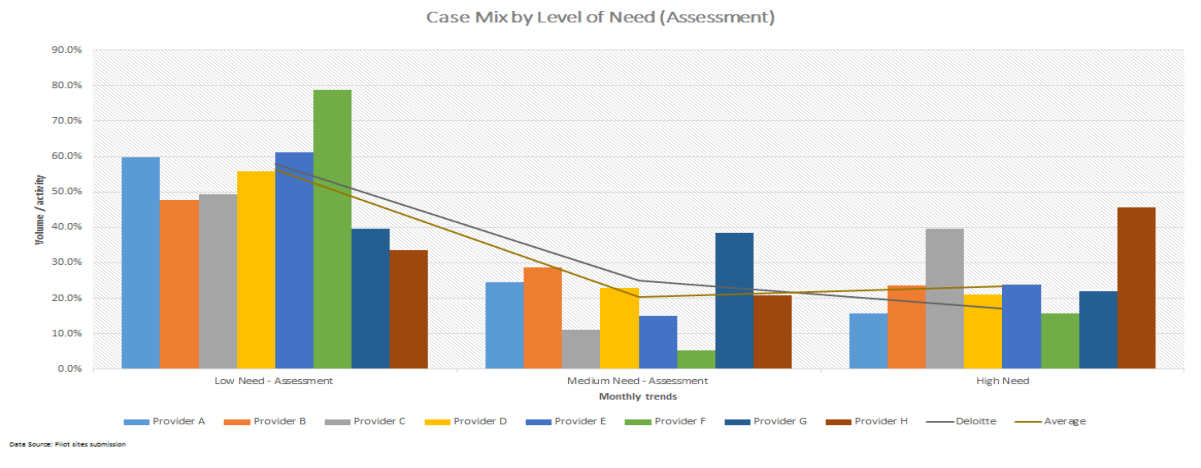

Diagram 2 – Comparison of patients seen in low / medium and high assessment by providers in pilot

The table shows an uneven distribution of service users seen within the three assessment areas in each of the pilot sites. Possible reasons for these could be:

- Differences in the service models of these organisations. The project team noted two specific examples on whether telephone advice was counted in the assessment category as there was no other category for this to be included.
- It is possible that in some cases 'reviews' were being counted as part of the 'assessment' currency, thus inflating overall activity for this area. The project team noted that one provider did not submit any activity for patient review, possibly indicating that this activity is captured elsewhere in other parts of the pathway.

Ratio of assessment to total users

The table below highlights the total numbers of annual users by provider against the number of assessments undertaken during the period of the programme.

Provider	Annual Service Users	Assessment activity	Rate per 1000 (Activity / Users	% Activity / Service Users
Provider A	12,000	5492	457.7	45.8%
Provider B	10,850	3362	309.8	31.0%
Provider C	5,885	3057	519.5	51.9%
Provider E	5,139	180	35.0	3.5%
Provider F	9,239	2761	298.8	29.9%
Provider G	3,200	989	309.0	30.9%
Provider H	3,067	682	222.3	22.2%

Table 3 – Ratio of assessments to service users

The findings appear to show:

- Significant variation in the rate / number of assessments undertaken per 1000 service users.
- Potential differences in service models of organisations. The service pathways in pilot sites ranged from a 'one stop' shop where the user was assessed and issued with a wheelchair on the same day, to multiple visits to a service before a wheelchair was issued.
- The findings appear to show a potential anomaly for provider E. A validation exercise was undertaken to compare the data collected by provider E against another provider showed little differences in the way data was collected by the two organisations. However, compared with other providers the entire pathway from assessment to wheelchair provision is generally completed in a single visit.

A suggestion for the future is to record the number of appointments that service users go through before being provided with a wheelchair. This would be similar to capturing a first out-patient appointment and a number of follow up appointments. The data collected would be useful in understanding the number of appointments that service users have to receive a wheelchair after an initial assessment and for benchmarking to compare the efficiency of service provision.

4.4.2. Recommendation Two – further strengthening the repairs/ maintenance currencies

The evidence to support this recommendation are:

Variations in the service models.

The project team noted differences in the way the repairs and maintenance were carried out by individual organisations. There were also complexities in terms of variation within the service delivery models that makes this element more complex for data collection for example whether this includes emergency repairs (in the community), fleet costs, storage and variations / combinations of home and on site collections of chairs.

The analysis of the cost data submitted showed:

Currencies	Deloitte	Provider cost	Reference cost
All Needs - Manual - Repair and Maintenance	£22	£37	£68
All Needs - Powered - Repair and Maintenance	£197	£122	£164

Table 4 – differences in the repair and maintenance tariff

The findings appear to show a significantly lower cost to the provider compared with that of the reference costs collated in 2014/15.

The need to further review the definitions for the repairs and maintenance currency was further highlighted by what appears to be a disproportionate ratio of equipment issued against repairs.

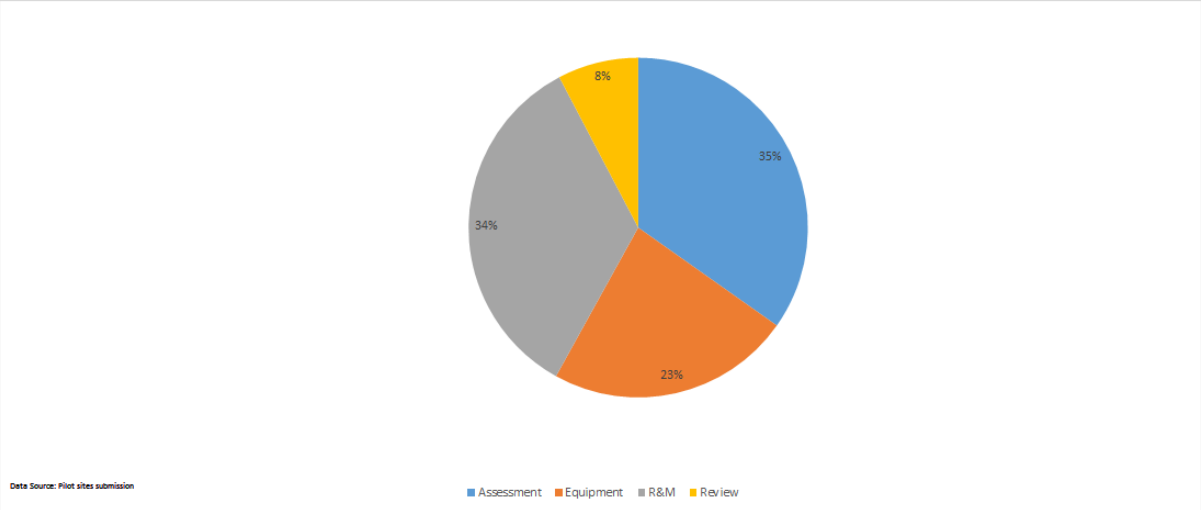

Diagram 3 – Breakdown of all activity by currency

The graph above shows that 34% of all wheelchair activity was related to repairs and maintenance, compared to 23% for equipment issued.

5. Task Two – Data collection

The scope of this task was to design a data collection tool and work with providers from the pilot sites to collect the required data to test the currency and tariff assumptions used in the Deloitte report.

5.1. What we started with

The starting point for data collection was the existing annual 2014/15 reference cost data collection exercise. All of the NHS organisations within the pilot submit data to the reference cost collection.

It should be noted that the reference cost template was changed in 2013/14 to reflect the Deloitte draft currencies. However, most organisations providing a wheelchair service operate on a fixed block contract with locally negotiated annual increases. Therefore, the data submitted for the reference cost collection may not align with the way the providers reported activity back to the commissioners.

Alongside the tariff development project, NHS England was also working on a separate work stream focusing on 'Establishing a New Dataset' to gather and disseminate commissioning data across the wheelchair pathway.

5.2. What we found

In designing a template to collect activity and costing data, the project team found a number of challenges and questions that needed resolving. These were:

- Differing service models – the project found that there was no common service model that existed amongst the pilot organisations for delivering wheelchair services. This meant that organisations either had to re-design their data collection process or put in place new systems to collect the data.
- Data collection systems – whilst a number of organisations had electronic systems in place to collect data, others had manual systems. The project team found that a number of systems used to record data had reporting functionality, but this was not aligned to currency level activity required for the pilot .
- Time commitment – the project depended on the goodwill of the pilot organisations, recognising the significant time commitment required to collect data in the required format.
- Minimum sample required – although the pilot started with 19 organisations expressing an interest, only eight eventually provided data. The reasons for the poor uptake are outlined in section 2.3 of this report. Data from just eight providers was deemed to be below the recommended sample size.

Part of the data collection process was to share best practice amongst the pilot providers. This was especially important in collecting data which providers found challenging. To support providers, a data collection process step by step guide which was developed by Whizz-Kids. It was discussed by the project group, and subsequently shared with all members on the group. The step by step guide to data collection can be found at **Appendix Four**.

5.3. What we did

Following the definition phase of the project we designed an Excel based data collection tool. The tool incorporated two types of return:

- Monthly collection – a template to collect activity and costing data for non-complex wheelchair activity. The objective of this collection was to test the data from our pilot

sites against the findings from the Deloitte report and against reference cost data from 2014/15.

- Quarterly collection – a template designed to collect activity such as banding of staff, time taken to complete a task, whether the activity was carried out at a wheelchair services centre or via a mobile service. Following the request of provider organisations, a single sided data collection sheet was designed which could be clipped on to the patient notes to help staff record data. To minimise the burden on each organisation, it was agreed by the Wheelchair Implementation Group that the sample size for each currency in the quarterly collection would be the first 10 patients seen within that currency group. The purpose of the quarterly data was to test the top down methodology used by Deloitte in designing the currency model.
- Pen portraits – to understand the background of the pilot site providing the data, organisations were asked to provide information on their population their services covered, number of annual service users, and assessment activity undertaken. This allowed the comparison of data to be undertaken more meaningfully.

The project team set out a collection timetable, provided guidance, and undertook regular phone call 'surgeries' to support provider organisations in completing the monthly data returns by the agreed timeframes

In addition, the project team provided regular feedback and updates to the monthly meetings of the Wheelchair Implementation Steering Group.

The template used to collect data from the pilot sites is attached as **Appendix Five**.

5.3.1. Specialised commissioning activity

As outlined in section 2.1 of this report, complex wheelchair activity (specialised services) was not part of the original project scope. However, in 2015/16, as part of developing a more collaborative approach to the commissioning of specialised services, the commissioning responsibility for specialist wheelchair services was devolved back to CCGs.

To accommodate this, and at the request from the pilot site providers and NHS England, the project scope was reviewed to collect all activity. As no specific currencies have been developed for specialised services, the data collection only extended to collecting activity in terms of the patients seen using the same categories as those used in the non-complex wheelchair service. These were:

- Assessment
- Equipment allocation
- Repair and maintenance
- Review
- Exceptional equipment costs that exceed equipment tariffs

Out of the eight providers that participated in the pilot, only three were able to provide data for specialised services.

5.4. What we recommend / next steps

The recommendations from the data collection task are as follows:

5.4.1. Recommendation One – provide support with data collection tools / systems

The evidence to support this recommendation includes:

Difficulty in collecting the data

During the data collection process, it was noted that a number of organisations had manual data collection systems in place. This is turn, increased the burden of time spent collecting the data. It also meant any corrections to the data submitted needed to be done manually.

Although some of the organisations did have automated electronic reporting systems, these were not consistent with the currencies, resulting in differing abilities to provide data.

5.4.2. Recommendation Two – integrated data collection processes

The evidence to support this recommendation is:

Communications needed to clarify between the 'Establishing a New Dataset' and the 'Developing a New National Tariff' workstreams

NHS England is currently supporting CCGs to improve the commissioning of wheelchair services through a number of specific pieces of work. The report briefly outlined the 'Establishing a New Dataset' commissioner data collection process in section 3.3.

NHS England ensured that the messaging and the communications for the two pieces of work were aligned but inevitably, there was an element of confusion amongst providers and commissioners in terms of the scope of each project.

Aligning future data collections for wheelchair services into a single data collection process would help simplify the communications.

5.4.3. Recommendation Three – clear governance / escalation processes

The evidence to support this recommendation are:

Timeliness of data submission

The project team acknowledges that this was a pilot programme and that participation was voluntary. However, there needs to be recognition from organisations that in signing up to the pilot, there is a commitment to provide data that will support the development of national currencies.

Whilst the majority of the data submissions were received in a timely manner, for any further piloting a defined governance framework with a clear escalation process would further support timely submission.

5.4.4. Recommendation Four – develop currencies for specialised wheelchair services

The evidence to support this recommendation are:

Change in national policy

The devolvement of specialised wheelchair services back to CCGs will require better data collection and monitoring of activity to understand the costs of commissioning these services.

The draft specialised wheelchair currencies used in the project have been generated by those organisations that attended the wheelchair implementation steering group. They have not been tested or circulated wider.

Going forward, it is suggested that a process is developed, to confirm and test currencies for complex wheelchair services.

6. Task Three – Data validation

The scope of this work stream was to validate, test and benchmark the data collected from the pilot sites.

6.1. What we started with

The starting point for the data validation stage was to review and analyse the:

- Monthly activity/cost data collected from the pilots against the proposed tariffs in the Deloitte report and the 2014/15 reference cost submissions.
- Quarterly activity / data collected to test against the currency costing methodology and assumptions used in the Deloitte report.

It was assumed that each data source had limitations and therefore greater validation or quality assurance was needed to be undertaken, including those with providers. The data sets used in this task were:

- Pilot organisation monthly data (activity and cost) – February to October 2015.
- Pilot organisations quarterly data (staff time, banding, equipment cost, number of modifications / accessories, new / re-cycle chair and whether service provided in-house or outsourced) – May, August, November 2015.
- Deloitte report data.
- Reference costs 2014/15.

6.2. What we found

The data validation process had a number of limitations that were noted. These were:

- Sample size – as outlined in section 2.3, the sample size of the data submitted was small. Eight providers submitted monthly data whilst of these, only four submitted quarterly returns.
- Gaps in submission – a small number of providers were unable to submit monthly data consistently.
- Provider costing data – four of the pilot providers were able to cost the activity submitted. The pilot provider costing information was then compared against the reference cost and Deloitte's tariff.

6.3. What we did

As part of the data collection exercises, the project team requested that each pilot site complete a monthly return which focused on activity and costings. A copy of the template is appended at the end of this report for information. Each provider site was requested to provide data across each element of the pathway from Assessment to Review as well as costings if available. Within the template, pilot sites were also requested to submit activity for specialised services.

At regular intervals, the CSU project team undertook deep data dives to ensure data consistency and to ensure that providers were returning information in a timely and consistent manner. This process evolved throughout the life of the project, depending on the requirements of pilot sites and the project team's intelligence. Comparison and benchmarking exercises were undertaken between the provider sites to determine, at an early stage, the range, depth and consistency of data being returned to the team. There

were a number of occasions where data submitted to the project team were revised following review workshops and discussion between the project team and other providers.

Monthly Data Collection - Findings

The monthly data collection required organisations to submit the activity taking place each month against each of the currencies. Where available, organisations were also asked to provide costing data.

The project team also received specialised wheelchair activity data, using the broad currency headings used for non-complex services.

All eight organisations submitted monthly data. In total, there were nine months (February to October) of data from each pilot site for the monthly collection.

Total cost of providing the service

The Deloitte project undertook a number of tests to understand how the proposed tariff compared to the current national wheelchair budget. It used a number of assumptions to calculate the total commissioner spend for wheelchair service.

To test total spend against the national wheelchair budget, the project team undertook the following costing exercise. The steps involved were:

1. Identifying the total amount of activity (excluding specialised complex wheelchair) submitted to the 2014-15 reference cost collection. This was 636,680.
2. This activity was then multiplied against:
    - ✓ The costing information submitted by pilot providers.
    - ✓ The proposed tariff in the Deloitte report.
    - ✓ Reference cost 2014/15 for the currencies
3. The total cost generated under action 2 above was then compared to the following wheelchair spend assumptions used in the Deloitte report. These were:
    - ✓ DH estimated cost – this is an estimate figure based on a commissioning budget of £125m (source DH, 2010) and grossed up (assume 2% annual inflation) to £141m in 2014.
    - ✓ Commissioner envelope – this is an estimated commissioner envelope of £183m cited in the Deloitte Report.
4. The total cost for the five areas of spend is compared below.

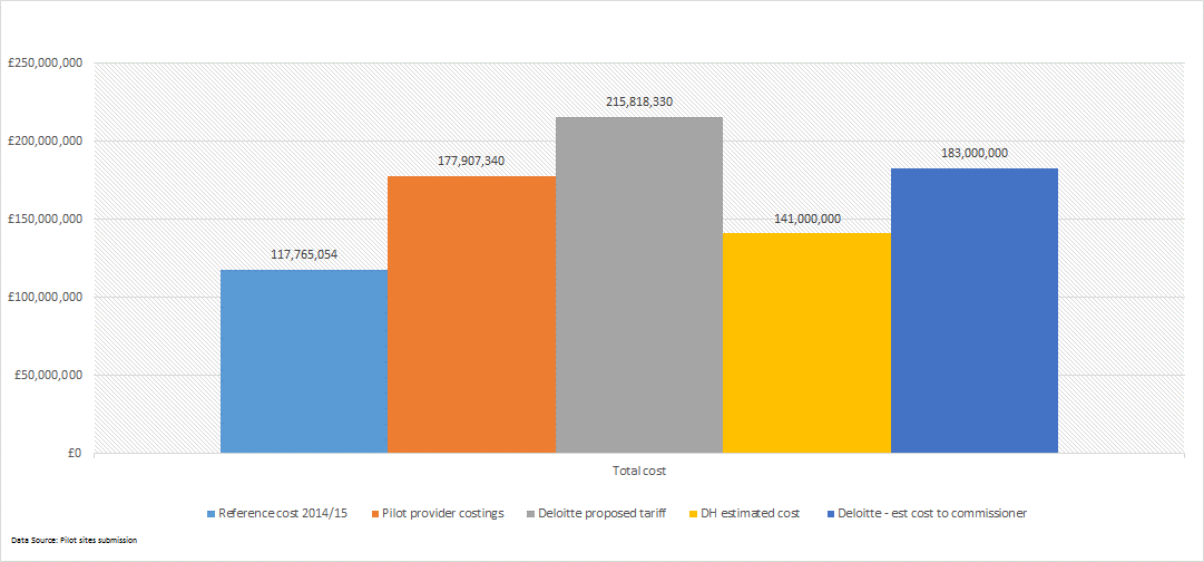

Diagram 4 – Total cost for providing the wheelchair services

The findings from diagram 4 appear to show:

- The total reported cost of providing wheelchair services using the 2014/15 reference cost is lower than would be assumed from using Deloitte's proposed tariffs and pilot site's own costing information.
- The differences in Deloitte's estimated cost to commissioner (dark blue bar) and the costing submitted by the pilot site is approximately 3%.

However, there are a number of potential reasons and caveats. These include:

- Reference cost reported activity does not reflect the totality of the wheelchair activity. The report noted in section 4.2 that organisations were still finding it challenging to record wheelchair services activity, and to engage with those in their organisations tasked with working on reference costs
- There were a number of organisations operating on a fix sum contract (block basis) who may find it challenging to report detailed activity or unit costs for the currencies.
- There was a possibility that any unmet needs for wheelchair services was not picked up in the total activity reported. In a recent report[1], commissioning organisations were encouraged to accurately identify the level of service provision required in their area including determining the level of unmet need.
- The total cost of providing the service cannot take into account the efficiency of different organisations that provide wheelchair services. As noted in section 3.4.1, there is a possibility that some organisations report lower levels of activity due to the lean nature of the service, where an entire pathway from assessment to wheelchairs being provided was covered in a single visit.
- The challenge of collecting and coding data according to the reference cost data definitions which are relatively new (introduced in 2013)

[1] The Healthcare Standards for NHS-Commissioned Wheelchair Services (29th April 2015)

The differences in cost between the currencies

Having looked at the total cost of delivering wheelchair services based on the proposed Deloitte tariffs, pilot site costings and the reference cost, the next exercise was to look at the cost of the individual currencies from pilot sites and how these compared with the Deloitte's proposed tariff, pilot site organisations and reference cost data. The chart below highlights the differences.

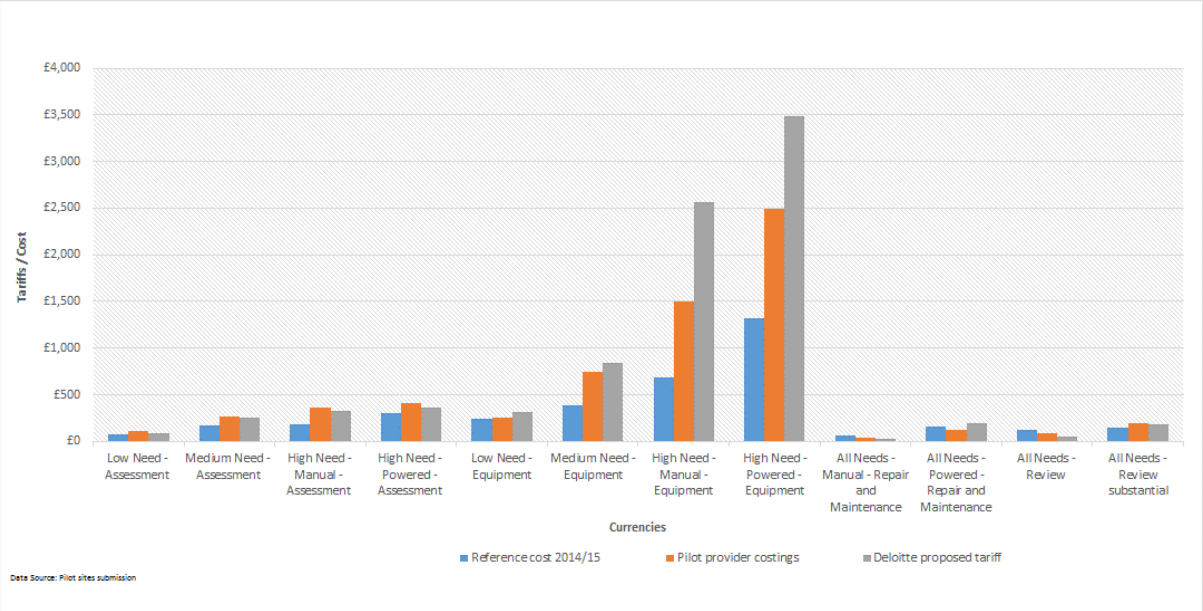

Diagram 5 - Comparison of cost - Reference cost / Providers / Deloitte

Diagram 5 appears to show:

- The biggest differences between the three reported costs (Reference Cost, pilot site costings and the proposed Deloitte tariff) are the high need equipment tariff.
- Across all other currencies, the pilot site costings and the Deloitte tariff appears broadly comparable.

The table below shows the breakdown at a more granular level:

Currency	Activity	Weighted Ref Cost	Pilot providers	Variance Cost £	Variance Cost %
Assessment, Low Need	86,228	£80	£117	£36	45%
Assessment, Medium Need	70,766	£165	£272	£107	65%
Assessment, High Need, Manual	32,082	£181	£364	£183	102%
Assessment, High Need, Powered	14,261	£303	£409	£106	35%
Equipment, Low Need	46,241	£241	£256	£15	6%
Equipment, Medium Need	39,965	£381	£746	£365	96%
Equipment, High Need, Manual	23,240	£687	£1,496	£809	118%
Equipment, High Need, Powered	13,927	£1,320	£2,488	£1,168	88%
Repair And Maintenance, All Needs, Manual	216,970	£68	£37	-£30	-45%
Repair And Maintenance, All Needs, Powered	36,158	£164	£122	-£42	-26%
Review, All Needs	31,148	£127	£84	-£43	-34%
Review Substantial Accessory, All Needs	25,694	£145	£191	£46	32%

Table 5 - Reference Cost 2014 v Pilot Provider Costing information

The differences in the reported costs (table 5) of the pilot sites appears to be double the 2014/15 reference cost in some currencies.

Currency	Activity	Weighted Ref Cost	Proposed Deloitte tariff	Variance Cost £	Variance Cost %
Assessment, Low Need	86,228	£80	£92	£12	15%
Assessment, Medium Need	70,766	£165	£253	£88	53%
Assessment, High Need, Manual	32,082	£181	£324	£143	79%
Assessment, High Need, Powered	14,261	£303	£364	£61	20%
Equipment, Low Need	46,241	£241	£318	£77	32%
Equipment, Medium Need	39,965	£381	£839	£458	120%
Equipment, High Need, Manual	23,240	£687	£2,564	£1,877	273%
Equipment, High Need, Powered	13,927	£1,320	£3,491	£2,171	164%
Repair And Maintenance, All Needs, Manual	216,970	£68	£22	-£46	-68%
Repair And Maintenance, All Needs, Powered	36,158	£164	£197	£33	20%
Review, All Needs	31,148	£127	£46	-£81	-64%
Review Substantial Accessory, All Needs	25,694	£145	£180	£35	24%

Table 6 – Comparison of 2014/15 reference cost against Deloitte tariff

A similar trend was observed when comparing the 2014/15 Reference Cost against the proposed Deloitte tariffs. Table 6 shows that the biggest differences appear to centre on the high need equipment.

A potential reason contributing to the significant variance was:

- The Deloitte report assumed that all wheelchair equipment issued was new to promote a modern and new fleet, given the economic reasons for refurbishment was unclear (source Deloitte Report)

To test and understand the impact of the equipment cost on the total cost, the project team removed the equipment currencies from the table below. The results and the impact on the total cost is illustrated in the table below.

	Reference Costs 2014 /15			Deloitte's proposed tariff			Pilot site costings		
Currency Description	Activity	Unit Cost	Total	Activity	Proposed Tariff	Total	Activity	Provider costings	Total
Assessment, Low Need	86,228	£80	£6,928,119	86,228	£92	£7,932,976	86,228	£117	£10,045,682
Assessment, Medium Need	70,766	£165	£11,671,129	70,766	£253	£17,903,798	70,766	£272	£19,230,618
Assessment, High Need, Manual	32,082	£181	£5,795,264	32,082	£324	£10,394,568	32,082	£364	£11,679,024
Assessment, High Need, Powered	14,261	£303	£4,323,156	14,261	£364	£5,191,004	14,261	£409	£5,829,235
Repair And Maintenance, All Needs, Manual	216,970	£68	£14,690,502	216,970	£22	£4,773,340	216,970	£37	£8,113,894
Repair And Maintenance, All Needs, Powered	36,158	£164	£5,926,803	36,158	£197	£7,123,126	36,158	£122	£4,402,859
Review, All Needs	31,148	£127	£3,962,783	31,148	£46	£1,432,808	31,148	£84	£2,624,184
Review Substantial Accessory, All Needs	25,694	£145	£3,737,935	25,694	£180	£4,624,920	25,694	£191	£4,919,245
	513,307		**£57,035,691**	**513,307**		**59,376,540**	**513,307**		**66,844,742**

Table 7 – Comparison of 2014/15 reference cost / pilot site tariff / Deloitte without equipment cost

The findings of table 7 show the total spend across all other currencies without the equipment currencies. The table also appears to show that the total spend implied by the 2014/15 Reference Costs and the Deloitte proposed tariff is very close.

The key message from this section was that there are significant variances in the tariff/cost of the equipment, especially around high need. Taking out of the equipment currencies,

appears to result in a more stable comparison across the three costing model/collection exercises.

Specialised commissioning

As outlined in section 4.3.1, complex wheelchair activity (specialised services) was not part of the original project scope. As no specific currencies had been developed for specialist services, the data collection only extended to collecting purely activity of patients seen using the same categories as those used in the non-complex wheelchair service.

Using the data collected, the diagram below shows a breakdown of specialised service activity:

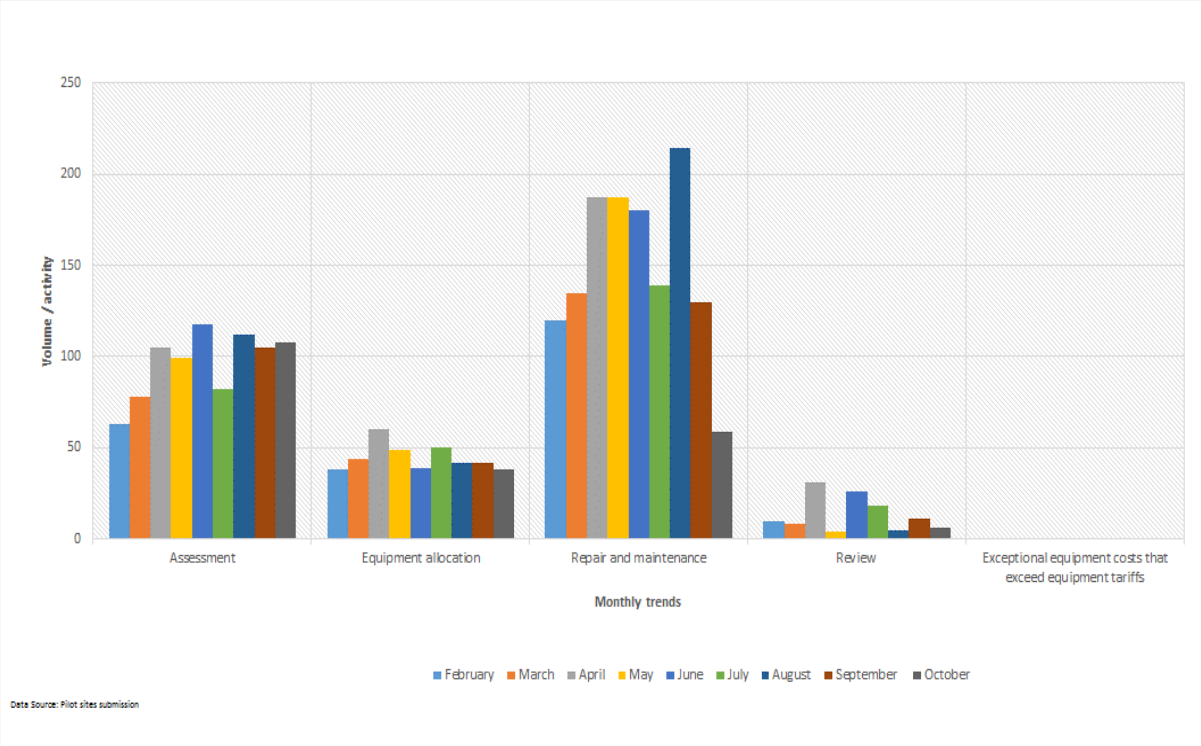

Diagram 6 –Specialised Commissioning activity

Out of the three providers, there was data from only two pilot sites. The average of these two is set out in the table below. The average pilot site cost for specialised services was then compared against the average reference cost for non-complex activity as a reference.

Activity	Average provider cost (complex)	Ref cost average (non-complex)
Assessment	£1,011	£182
Equipment allocation	£2,545	£657
Repair and maintenance	£137	£116
Review	£358	£136
Exceptional equipment costs that exceed equipment tariffs	No info submitted	-

Table 8 – specialised commissioning – average provider cost

The key message here, acknowledging the limited data, was that the cost for providing specialised services is far higher than that of non-complex services. The particular differences are noted in the assessment and equipment currencies.

Activity from the monthly submissions

The total activity collected from providers for the monthly collection was 49,743. The diagrams in this section provide a breakdown of the data collected by provider and currencies.

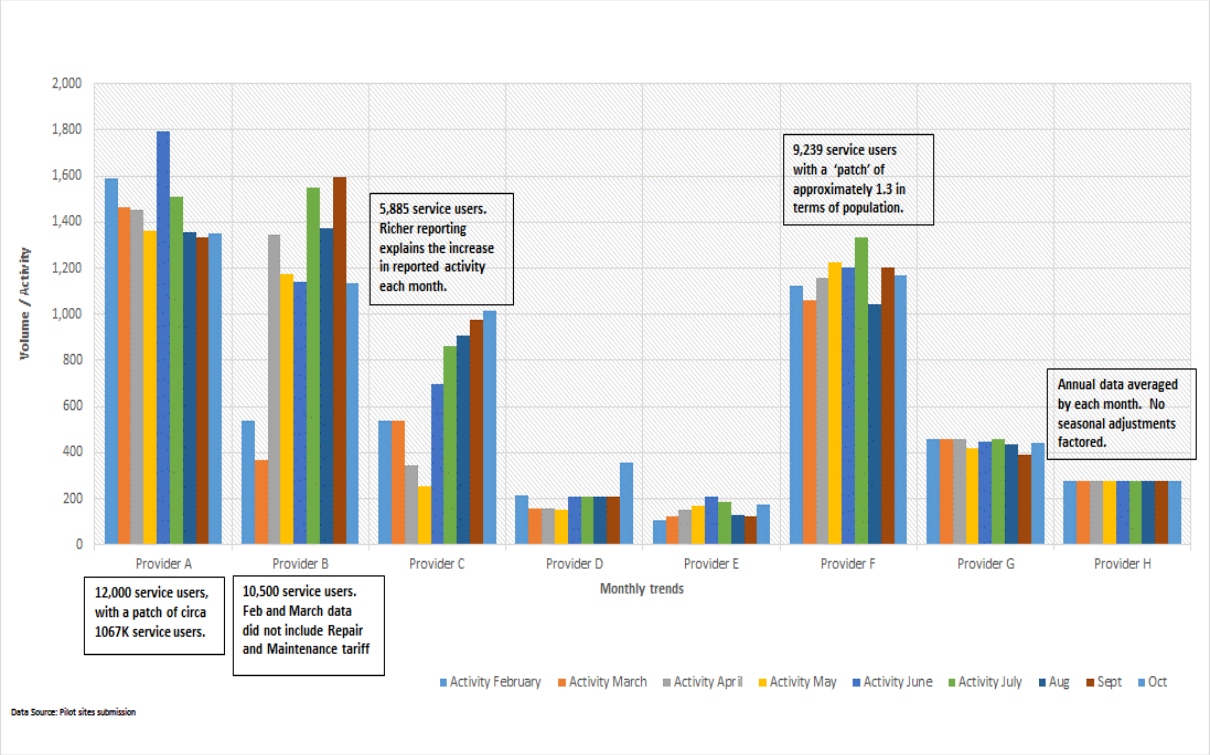

Diagram 7 – Total Activity for Assessment (by Providers)

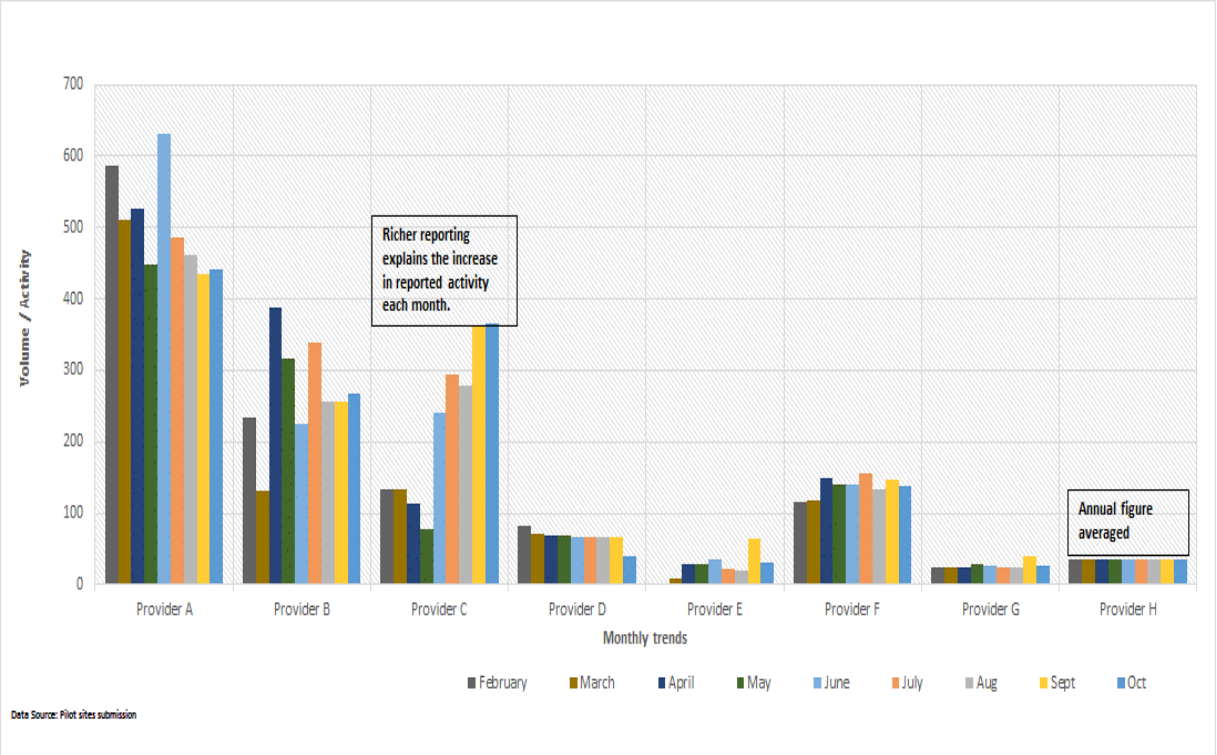

Diagram 8 – Total Activity for Equipment (by Providers)

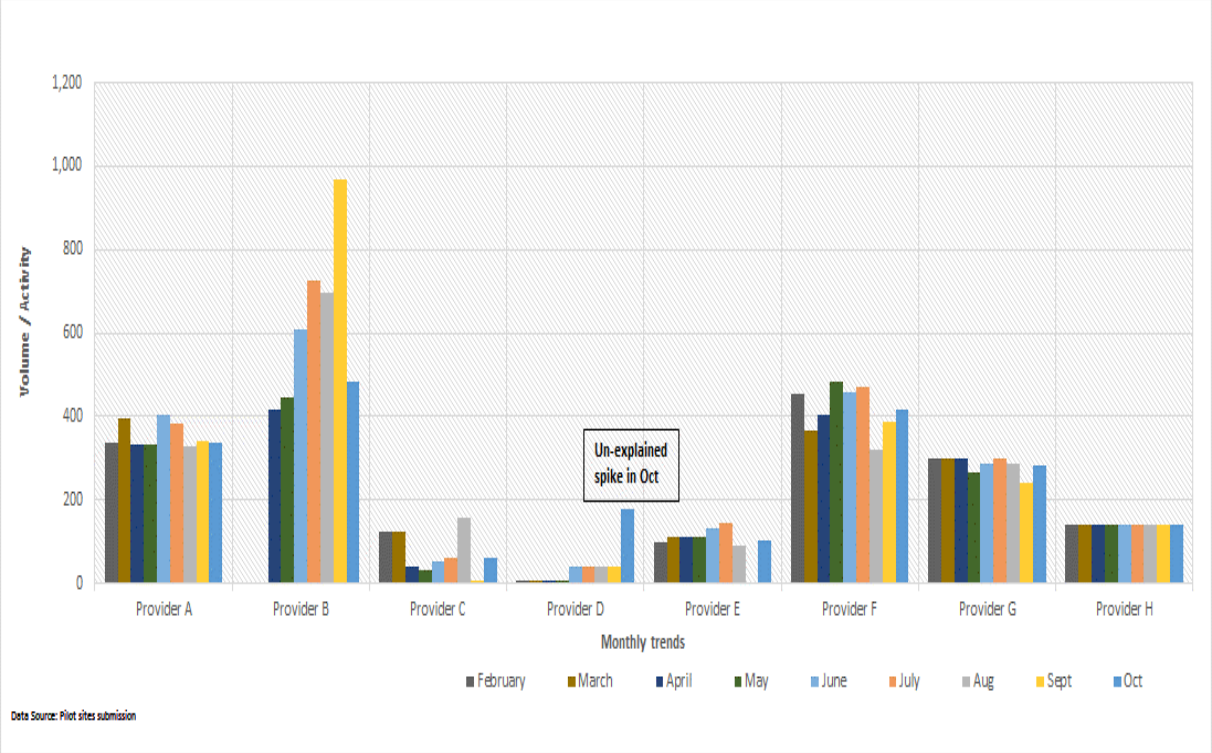

Diagram 9 – Total Activity for Repairs and Maintenance (by Providers)

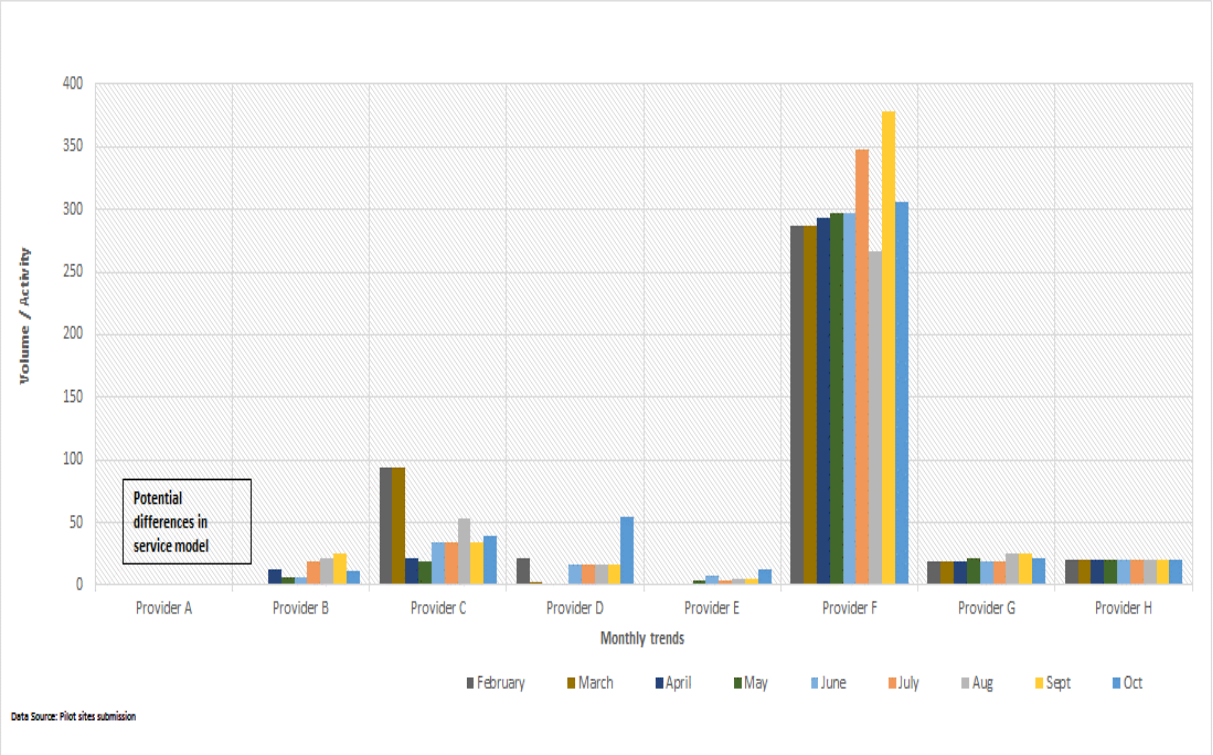

Diagram 10 – Total Activity for Reviews (by Providers)

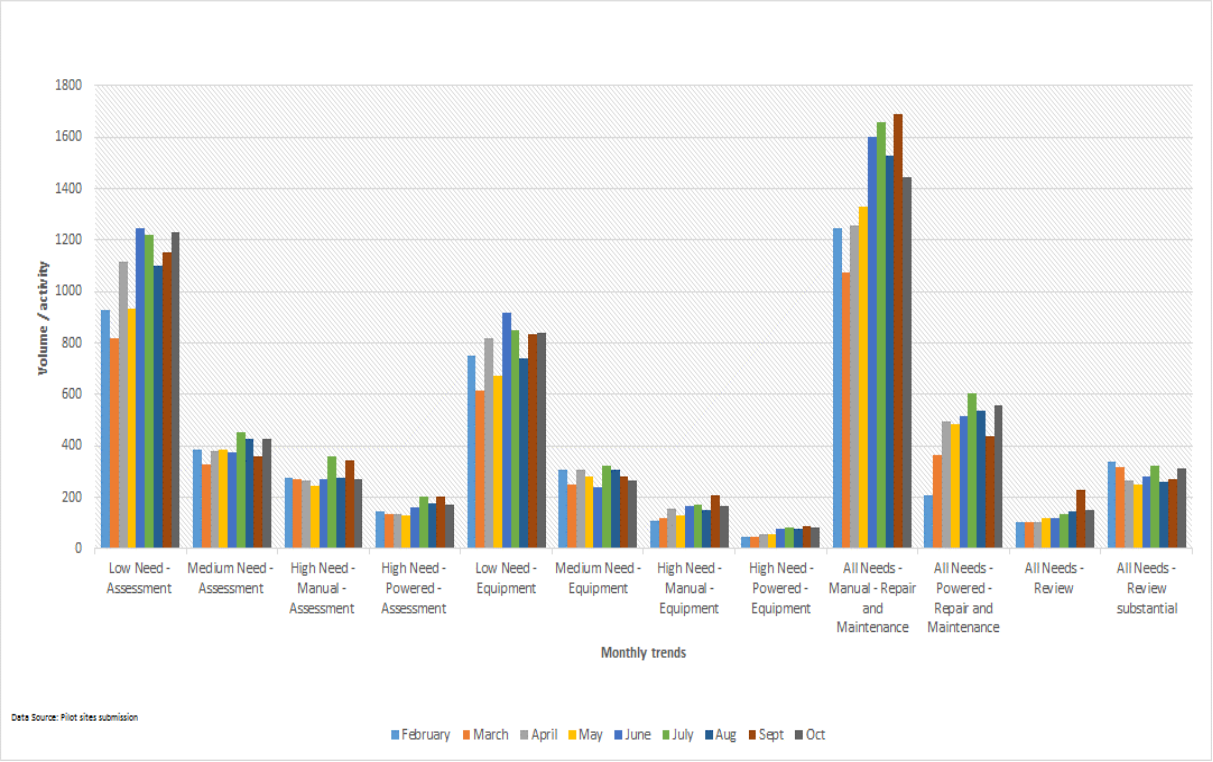

Diagram 11 – Total Activity for Assessment (by Level of Need)

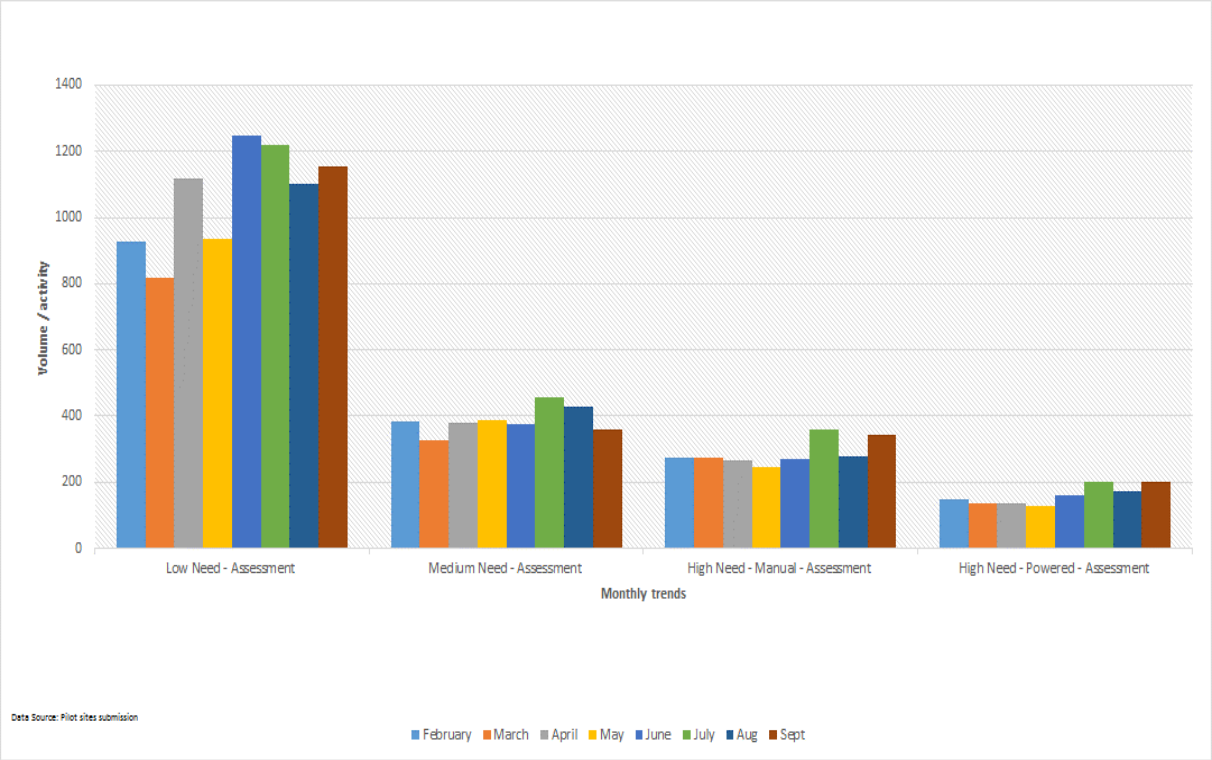

Diagram 12 – Total Activity for Assessment (by Level of Need)

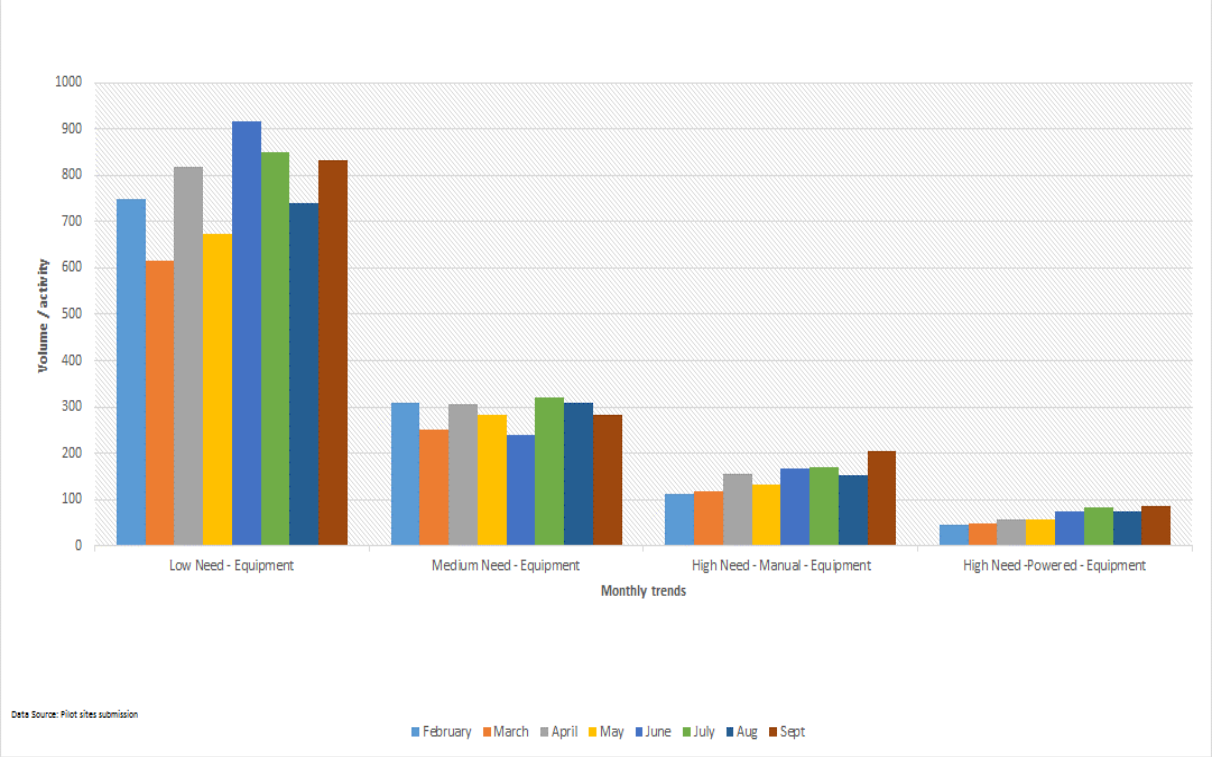

Diagram 13 – Total Activity for Equipment (by Level of Need)

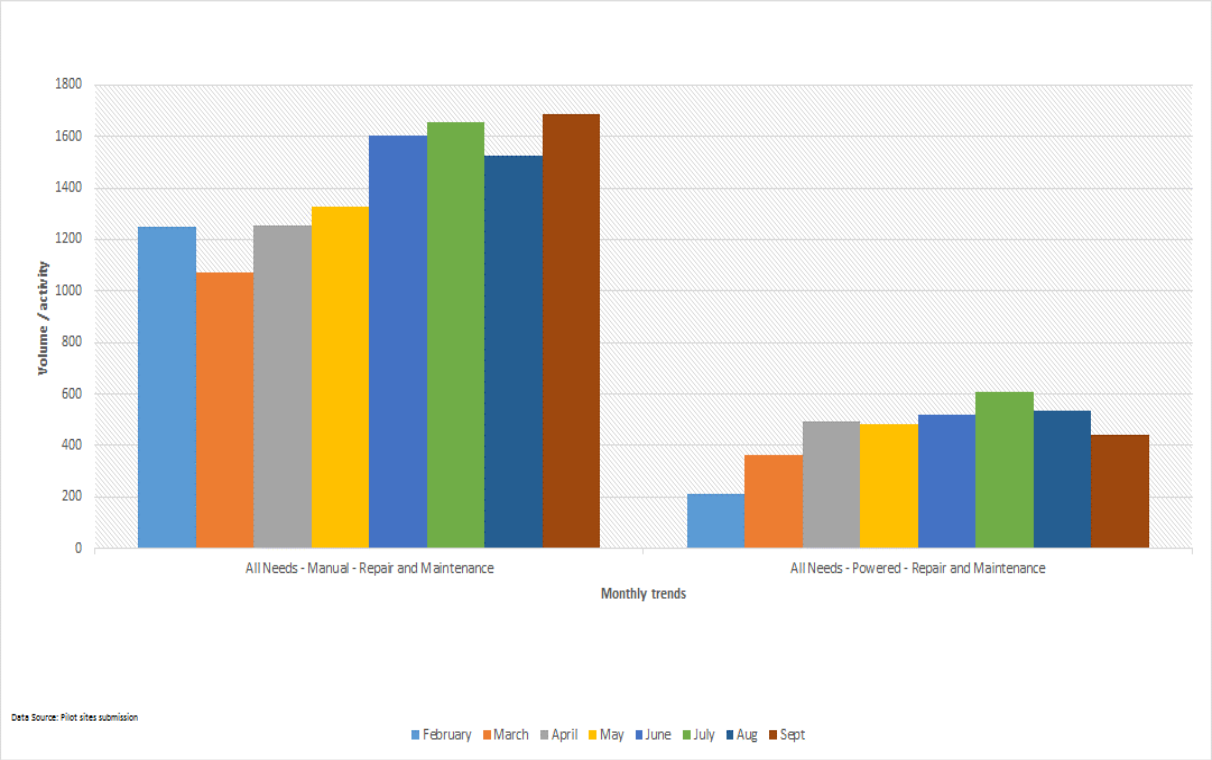

Diagram 14 – Total Activity for Repairs and Maintenance (by Level of Need)

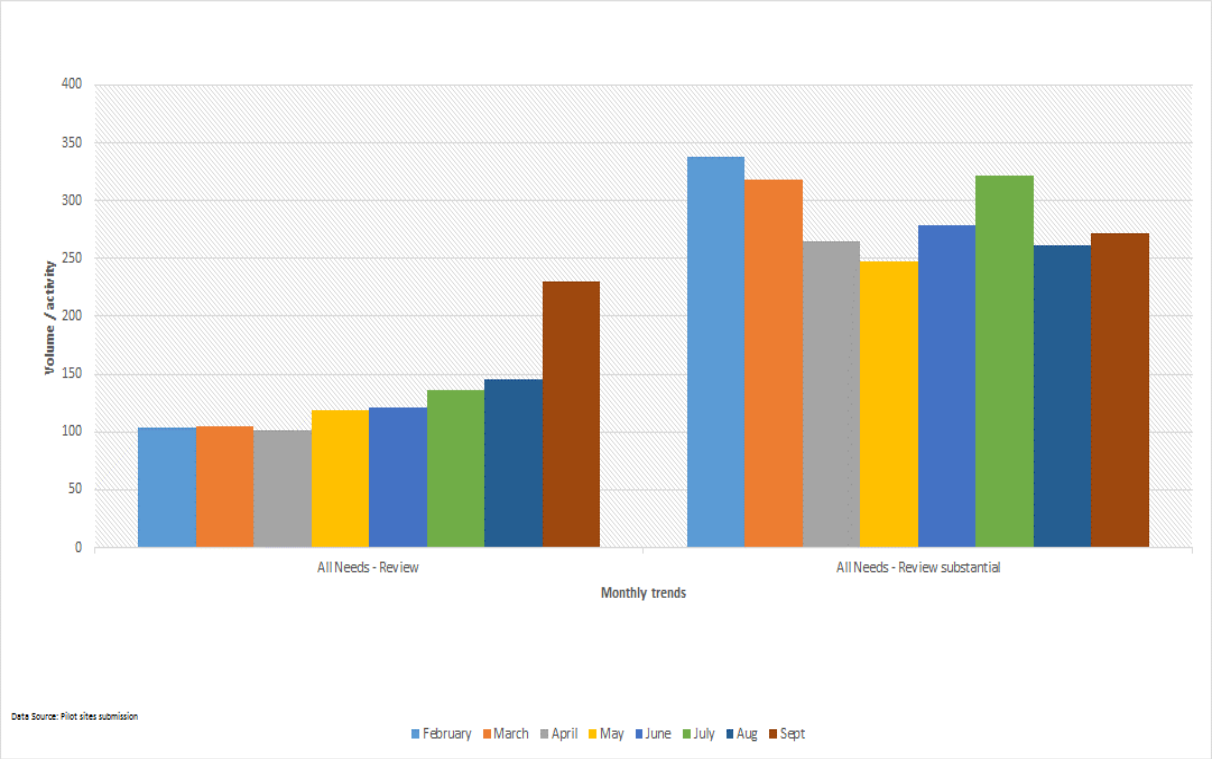

Diagram 15 – Total Activity for Reviews (by Level of Need)

6.3.1. Quarterly Data Collection - Findings

The object of the quarterly data collection was to test the currency costing methodology and assumptions used in the Deloitte report.

As part of the data collection exercises, the project team requested that each pilot site complete a quarterly return in May, August and November which focussed on a more contextual and qualitative narrative to underpin the monthly returns. A copy of this is appended at the end of this report for information. Each provider site was requested to provide data across each element of the pathway from Assessment to Review for ten patients in each pathway and included the number of staff to treat each patient, the length of time in minutes and the banding of the staff member involved in a patient's treatment. Within the equipment pathways, additional information was sought including the cost of a wheelchair prescribed across each level of need and whether or not a chair was recycled or newly issued.

Assessment currency

This section describes the analysis and findings from data collected relating to the assessment currency.

Time spent by staff on assessment pathways

The objective of this test was to:

- Understand the total staff time (by pilot site) spent on assessment activities.
- Compare against the assumptions used in the Deloitte report.

Using the data collected from the pilot sites, an analysis was undertaken to determine the number of staff time spent on each the of the assessment pathways across low, medium and high levels of need.

Data from 163 patients were collected by the four providers who submitted the quarterly returns. The data captured the total staff time spent across the patient pathway. The average hours have been weighted to take into account the sample size. The findings are described in the table below:

Pathway stages	Manual		Powered	
	Low Need	Medium Need	High Need	High Need
Pilot site Hours	1.30	2.74	4.17	5.43
Deloitte's Hours	1.42	4.84	7.01	8.34
Variance hours	-0.12	-2.10	-2.84	-2.91
Variance%	-8%	-43%	-41%	-35%
Deloitte's study				
Deloitte's direct costs	£59	£163	£209	£236
Deloitte's full costs	**£92**	**£253**	**£324**	**£364**
Revised on time				
direct costs	£54	£92	£124	£154
full costs	**£84**	**£143**	**£193**	**£237**

Table 9 – Comparison of staff time spent on assessment

The findings from this analysis appear to show:

- Low need assessment – the differences between the pilot site assumptions compared to Deloitte's is minimal.
- All assessment areas – the total time spent by pilot site staff on the assessment pathway is less than the Deloitte report assumptions.

The assumptions and limitations to note are:

- The data was based on three pilot site returns. The project team was also unable to verify the number of providers who were involved in the Deloitte study.
- The costs do not take into account market forces factor.
- The findings do not take into account the potential efficiency of the service and also the experience of staff involved in carrying out the assessment.

Staff bandings used on assessment

The object of this test is to:

- Understand the bandings of staff used in the assessment currencies.
- Compare against the assumptions used in the Deloitte report.

As part of the quarterly returns, provider pilot sites were requested to include information in relation to the staffing complement involved in the care of each service user. This included the banding and time recorded in their participation of patient care for each patient across the three quarters from assessment to review pathways. Data returns indicate that:

- Wide range of staff grades used across the four providers that submitted data.
- Bands 6 were the most utilised grouping of staff in the assessment and equipment pathways. This compared against the assumptions used in the Deloitte report where bands 7 were allocated across the pathways.
- As expected, more senior staffing were used in the provision of equipment across the more complex levels of need across each pathway.
- Band 3 staffing were the most common utilised staffing group in low need.
- Band 6 the most prevalent amongst the medium level of need.
- Band 6/7 was the most common amongst the higher level of need.
- The reported staffing mix is not consistent across each quarter, this may be because of the inconsistency of data returned each month – data is richer in the May and August return, and there is greater prevalence of recording against the higher levels of need for these returns which need a greater level of support to deliver care to these patients.
- Only one provider utilised Band 2 staff.

The diagram below shows the breakdown of staff bands against the assessment currencies.

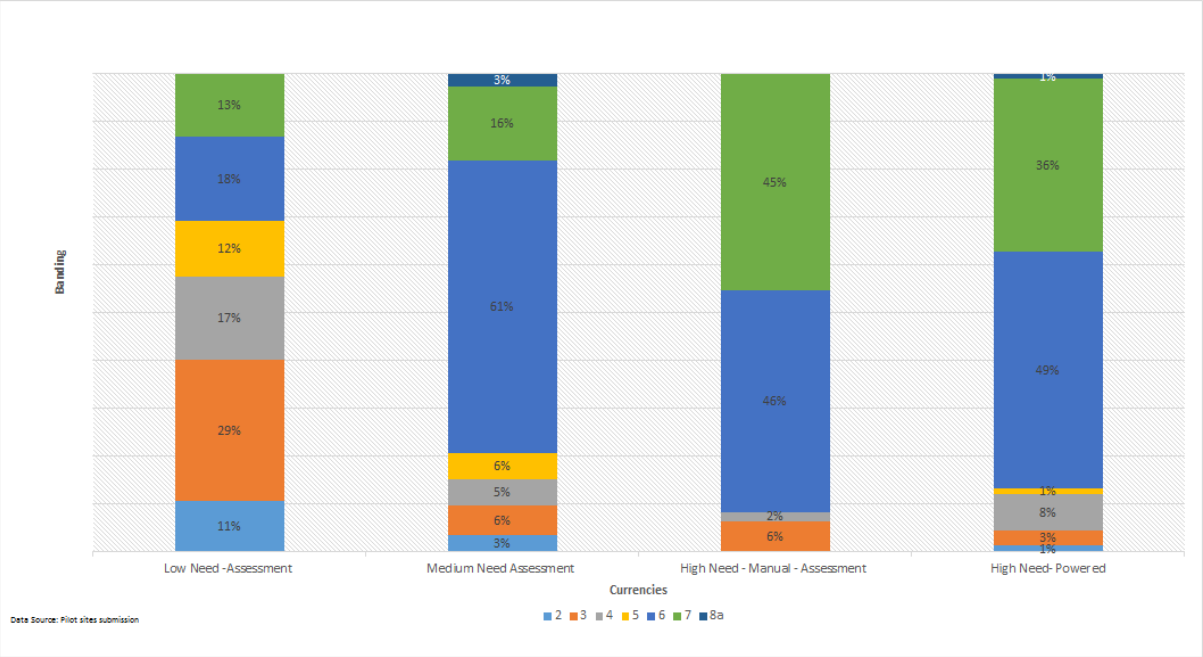

Diagram 16 – Banding of staff involved in assessment

Staff bandings used on equipment review

A similar analysis was undertaken on staff bandings used for undertaking equipment review. The table below highlights the breakdown of bands against the equipment currencies:

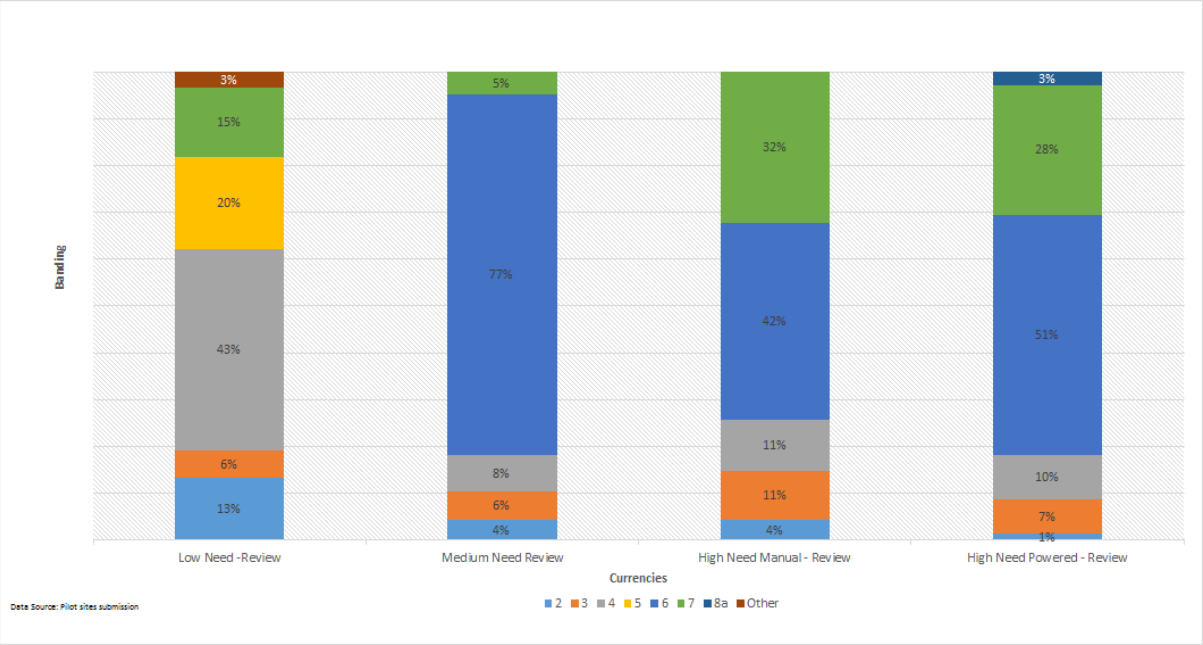

Diagram 17 – Banding of staff involved in equipment review

The findings appear to show that majority of the work on assessment / review of equipment was undertaken by a Band 6 in the medium and high need category.

In contrast, majority of the staff time spent on the low need equipment was undertaken by a Band 4.

Equipment Currency

This section will look at the analysis and findings from data collected relating to the equipment currency.

The cost of wheelchairs

The object of this test is to:

- Understand the cost of equipment as reported by each pilot site.
- Compare these against the assumptions used in the Deloitte report.

In total, 184 wheelchairs were reviewed from three pilot providers who submitted data.

Pathway stages	Manual			Powered
	Low Need	Medium Need	High Need	High Need
Pilot site Equipment Cost	£196	£477	£1,123	£2,764
Deloitte's Equipment cost	£318	£839	£2,564	£3,491
Variance Equipment cost	-£122	-£362	-£1,441	-£727
Variance%	-38%	-43%	-56%	-21%
Reference Cost 2014/15	**£241**	**£381**	**£687**	**£1,320**

Table 10 – Weighted cost of wheelchairs

The findings from this analysis appear to show:

- The standardised equipment cost of the pilot sites was less than those quoted in the Deloitte report across all areas.
- The most significant differences were noted in the high need (manual) category.
- The pilot site costs are higher than the Reference Cost in all areas except the low need equipment currency.
- Significant differences in the cost of equipment between providers. The unit cost appears to range from £125 to £337 for a new low need wheelchair. Diagram 18 below highlights the variation in the reported costs of a sample of low need wheelchairs from two providers.
- Further exploratory work should be undertaken to bear in mind the range of prices for more sensitive benchmarking.

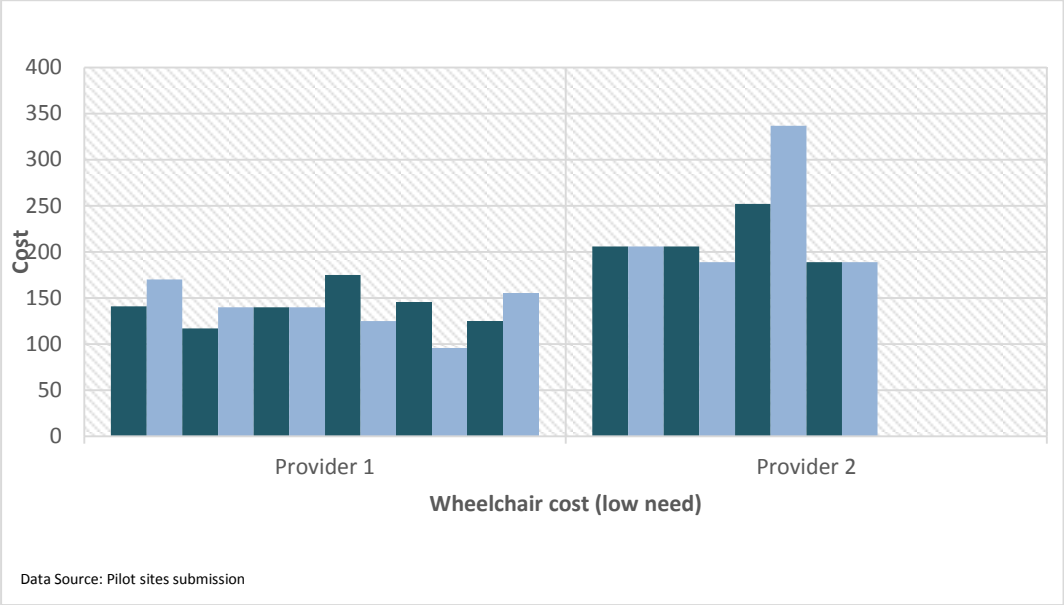

Diagram 18 – Variation in the reported costs of low need wheelchairs from two providers.

The assumptions and limitations to note are:

- The Deloitte Report assumed that all wheelchairs issued were new. The data collected from the pilot site shows a total of 184 wheelchairs were issued. The breakdown of new to re-cycled ratio is covered in the next section.
- The analysis assumes that all pilot provider wheelchair cost includes indirect costs as per the Deloitte tariff.

Wheelchairs issued – trends

The object of this test is to:

- Understand any trends in the issuing of wheelchairs to service users.

The data collected from pilot sites (three providers) showed that a total of 184 wheelchairs were issued. The breakdown of these is illustrated in the table below:

	Quarterly Activity – Wheelchairs prescribed			
Level of Need	**May**	**Aug**	**Nov**	**Total**
Low	22	22	10	54
Med	19	19	10	48
High Need Manual	16	20	10	46
High Need Powered	11	15	10	36
Total	68	76	40	184

Table 11 – Number of wheelchairs prescribed

As noted in the table above, it appears that May and August's data return was significantly more robust than November's return. In addition, as expected, activity against the lower level of need was richer than that of more complex needs. This is in line with the projected hypothesis of the majority of activity falling within the low level of need as modelled in the Deloitte Tariff. Potential explanation could also be that this is easier to define and a more discrete bundle of activity than more complex counterparts.

Wheelchairs issued – breakdown of new / re-cycle

The object of this test is to:

- Understand the split of new versus re-cycled wheelchairs issued.
- To compare the cost against the Deloitte tariff and Reference Cost.

As noted in the previous section, there were a total of 184 wheelchairs prescribed from the data collected. Data would suggest that the percentage of recycled chairs in circulation appears to be more prevalent within the lower levels of need. The table below summarises the breakdown of new and re-cycled wheelchairs.

Level of Need	Total No of chairs issued	Volume Recycled	Volume New	% Recycled	Average Recycled Cost	Average Non Recycled Cost
Low Need	54	19	35	35%	267	329
Medium	48	10	38	21%	321	694
High Need Manual	46	6	40	13%	996	1,491
High Need Powered	36	6	30	17%	1,467	3,062

Table 12 – Percentage of new / re-cycle wheelchairs issued

The table above indicates that 35% of chairs prescribed to those within the low level of need were given a recycled/refurbished chair, whilst 21% across the medium level of need received a recycled chair. As expected, those in the more complex categorisation received fewer recycled chairs (although it is noted that there was a greater percentage across those with complex powered chairs rather than manual chairs 17% and 13% respectively).

The majority of chairs prescribed however, were not recycled. Average costings (non-weighted) have been calculated by totalling the costs associated with each level of need and dividing by the number of recycled or new chairs.

It was not possible to track the lifecycle of a chair, and therefore the level of upkeep, once issued, for example is it possible for repairs to outweigh the cost of a new chair?

As noted in the analysis of monthly data collation, quarterly data review would also suggest significant drift across provider pilot site data, reference cost data and tariffs proposed by Deloitte. Comparison against all three models in table 13 below indicates that

- The reference cost averages are significantly lower than Deloitte's across all levels of need.
- There is a reasonably close fit between the average reported re-cycled cost and Reference costs.
- The average new cost aligns very closely with the Deloitte tariff for the low, medium and high need powered.
- Significant drift across the medium level of need (prices ranging from £381 – £839) as averages.

- Reference cost activity is significantly lower across the higher complexity of need in comparison with Deloitte's proposed costing.

Level of Need	Total No of chairs issued	Average Recycled Cost (pilot)	Average New Cost (pilot site)	Deloitte Tariff	14/15 Reference Cost
Low	54	267	329	318	241
Med	48	321	694	839	381
High Need Manual	46	996	1,491	2654	687
High Need Powered	36	1,467	3,062	3491	1320

Table 13 – Comparison of wheelchair cost

Wheelchairs services – in house versus out-sourced

The data collected from pilot sites showed that majority of the services were provided via an in-house service.

Repairs and maintenance

The analysis for this currency is addressed in section 3.4.2 of this report.

Quarterly data for repairs and maintenance was limited to just one pilot site. Further data will need to be collected to enable a more meaningful analysis of the repairs and maintenance currencies.

Reviews

This section will look at the analysis and findings from data collected relating to the repairs and maintenance currencies.

Staff time spent on reviews

The object of this test is to:

- Understand the total staff time spent on undertaking a review phase.
- To compare against the time assumed in the Deloitte report.

Only limited amount of data was received from the pilot site for this analysis. Just two providers submitted data. A comparison of the staff time undertaken for the review phase (referral, triage and review assessment) shows the following:

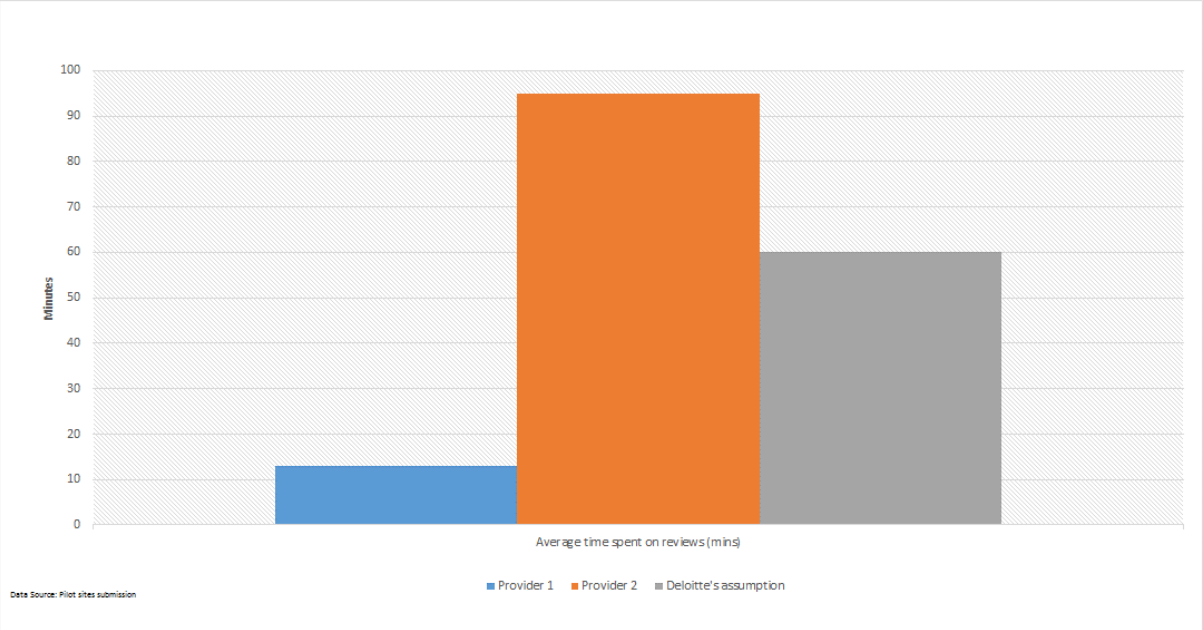

Diagram 19 – Staff time spent on reviews

The limited data available also highlighted that the most common band of staff used to undertake the reviews were Bands 3, 6 and 7.

6.4. What we recommend / next steps

The recommendations from the data collection task are as follows:

6.4.1. Recommendation One – extend the pilot to increase the number of providers

The evidence to substantiate this recommendation is:

The sample size to undertake a meaningful analysis was small. Eight providers submitted data but of these, only four submitted quarterly data to test the costing methodology used by Deloitte in designing the currency model.

Increasing the number of providers would provide a bigger sample size and greater data to ensure a more reliable and accurate conclusion.

6.4.2. Recommendation Two – proposal to further review the equipment currencies

The evidence to support this recommendation includes:

The national unit cost for equipment appears significantly lower than the pilot sites unit cost (MFF adjusted) and the Deloitte tariff.

There appears to be a potential that the reference cost does not fully reflect the full cost of providing equipment.

The unit cost submitted by pilot providers appears to vary quite significantly across the currencies.

7. Conclusions and Three Key Recommendations

The scope of the pilot programme agreed with the sponsor included:

1. Data definition (currencies) – to build and strengthen the definitions proposed in the Deloitte report.
2. Data collection – to design a data collection tool and liaise with providers from the pilot sites to collect the required data to test the currency and tariff assumptions used in the Deloitte report.
3. Data validation – undertake validation, testing and benchmarking of the data collected against the Deloitte, reference cost and provider costings.
4. Recommendations – to conclude with preparation of a final report outlining the key recommendations to support the development of a shadow tariff programme.

The key questions that the project sought to answer were:

Were the currencies proposed reasonable?

The findings of the report appear to substantiate that the draft currencies proposed by Deloitte were reasonable, subject to revisions in the areas below. The majority of the pilot providers were able to eventually align their services against these currencies and collect the required data to support this programme.

The assessment currencies were broadly compatible with the service models of most of the pilot providers. It will require a final review of the definitions though, so the distinction between a low need and a medium need assessment is clear.

The repairs and maintenance currencies will also require a further review of the definitions. The report found that the complexity and differences in the service model made this challenging to collect the necessary data.

Were the tariffs proposed by Deloitte reasonable?

As with the currencies, the report found the tariffs for most of the currencies reasonable with the exception of the equipment tariff. However, the limitation of data must be noted, especially in replicating the costing methodology used.

The report noted that the cost of providing the service using the assessment tariffs were not insignificant compared to the reference cost and the Deloitte tariff.

As noted in section 5.3.1, there are significant differences in the equipment tariff when comparing the data provided by pilot providers, reference cost and the Deloitte tariff. Further work will need to be done to clarify the data definitions of the equipment currency and to also understand the variations in the costings submitted by the pilot providers.

Whilst recognising the pathway to a fully robust validated tariff will take time, there has been progress made since the pilot commenced in November 2014. There has been significantly more data collected to test the initial assumptions contained within the Deloitte report and a greater understanding of the definitions and complexities facing the wheelchair services.

This pilot could not have been possible without the co-operation of the eight providers who volunteered to collect and submit data.

In conclusion, the key recommendations from this pilot programme are:

7.1. Key recommendation one – extend the pilot for a further six months

The key recommendation here is to extend the pilot for a further six months. The reasons and benefits are:

1. To provide a bigger sample of data and meet the minimum recommended sample size of 12 provider pilot sites.
2. To allow more data to be collected, especially to further test the repairs & maintenance and equipment currencies.
3. To provide organisations that initially expressed an interest but subsequently did not take part the opportunity to participate.
4. To provide more information to replicate the costing methodology used by Deloitte in the currency model.
5. To raise the profile of the wheelchair programme further.

7.2. Key recommendation two – further review of the equipment currencies

The key recommendation here is to further review the wheelchair equipment currency (Ref section 5.4.2). The reasons and benefits are:

1. To further understand the differences in equipment cost between pilot sites.
2. To gather more information to understand the costing of wheelchair equipment.
3. To gather more information so the sample size is more representative. Only four organisations submitted quarterly breakdown of data.

Appendix One – Wheelchair Currencies Development Implementation Group

Commissioners	
Name	Organisation
Yvette Pearson	Dorset CCG
Ulrike Ellis	Leicester City CCG
Usha Prema	NHS Ealing CCG
Caroline Gilmartin	Waltham Forest CCG
Fiona Ellis	Shropshire CCG
Sue Glanfield / Jacqui Damant	Somerset CCG
Glyn Meacher	Salford CCG/LA
Helena Grace	East Sussex CCG
Hannah Hanfy	NHS Havering CCG
Kate Smith	West Hampshire CCG
Ellen Power	NHS Broughton and Hove CCG
Myles Walshe	South Commissioning Support Unit
Mona Hayat / Diane Pearson / Alison O'Grady	NHS Central London (Westminster) CCG
Sarahlee Richards	NENE CCG
Richard Nicholson	NHS West Kent CCG
Patrick Zola / Tafadzwa Mugwagwa	Newham CCG
Providers	
Nancy Rhodes / Samantha Sterling	Leeds Teaching Hospitals
Sue Patterson / Carol White	North East London FT
David Lock	Millbrook Healthcare
Faith Kombo / Michael Henderson	East London Foundation Trust
Liz Turner	University Hospital of South Manchester
Ann Dyson	Sussex Community NHS Trust
Henry Lumley	North Bristol NHS trust
Kay Purnell	Blatchford Clinical Services
Ian Legrand / Nick Goldup	Whizz-Kidz
Meg Bodycoat / Sam Esson	Guy and St Thomas Trust Wheelchair services
Imelda Doherty	Provide
Alexandra Hadayah	Barts Health NHS Trust
Deloitte	
Chris Williams	Deloitte
Keith Stewart	Deloitte
Norris Christian	Deloitte
Sohrab Khan	Deloitte
Staff	
Alexis Lloyd	NHS North East London CSU
Sarah Pudney	NHS England - Commissioning for Service Transformation
Ramesh Rajah	NHS North East London CSU
Sue Nowak	NHS England – Pricing Development
Jonas Akuffo	NHS Improvement
Mandy Nagra	NHS England - Pricing Development

Appendix Two – Updated Data Definitions / Glossary of Terms

Phrase / Term	Monthly / Quarterly	Definitions
Low	Monthly and Quarterly	Occasional users of wheelchair with relatively simple needs that can be readily met.
		Do not have postural or special seating needs.
		Physical condition is stable, or not expected to change significantly.
		Assessment does not typically require specialist staff (generally self-assessment or telephone triage supported by health / social care professional or technician).
		Limited (or no) requirement for continued follow up / review.
		Equipment Requirements - Basic wheelchair (self or attendant-propelled) / standard cushion / up to 1x accessory / up to 1x modification.
Medium	Monthly and Quarterly	Daily users of wheelchair, or use for significant periods most days.
		Have some postural or seating needs.
		Physical condition may be expected to change (e.g. weight gain / loss; some degenerative conditions).
		Comprehensive, holistic assessment by skilled assessor required.
		Regular follow up / review.
		Equipment requirements - Configurable, lightweight or modular wheelchair (self-or attendant propelled) / low to medium pressure relieving cushions / basic buggies / up to 2x accessories / up to 2x modifications.
High	Monthly and Quarterly	Permanent users who are fully dependent on their wheelchair for all mobility needs.
		Complex postural or seating requirements (e.g. for high levels of physical deformity)
		Physical condition may be expected to change / degenerate over time.
		Very active users, requiring ultra-lightweight equipment to maintain high level of independence
		Initial assessment for all children.
		Comprehensive, holistic assessment by skilled assessor required.
		Regular follow up / review with frequent adjustment required / expected.
		Equipment requirements - Complex manual or powered equipment, including tilt in space chairs, fixed frame chairs, seating systems on different chassis / high pressure relieving cushions / specialist buggies / multiple accessories / multiple and / or complex modifications / needs are met by customised equipment.
Equipment currencies	Monthly/Quarterly	Equipment currencies are based on the complete package of the wheelchair. Users deemed to have a higher level of need on any element of the equipment package would be reimbursed at that higher level of provision for the equipment package as a whole, for example, a basic chair with an enhanced pressure-relieving cushion would be costed at the medium level of complexity.

Phrase / Term	Monthly / Quarterly	Definitions
Lap belt	For Info	The group agreed on the 12th January that a basic/standard lap belt would be an assumed part of the chair package. Any different prescription would be an assumed modification / accessory as necessary (guidance below on categorisation).
Number of staff to undertake activity	Quarterly	Number of staff required to undertake the specific activity across that specific element of the pathway. This will include support staff to undertake activity, including referral, triaging etc. The input is numerical, i.e. 2.
Time of activity (in minutes)	Quarterly	Representation of time undertaken (in 5 minutes blocks to complete activity in that specific element of the pathway. This includes referral, triage, assessment, prescribing, Rehab Engineer assessment and customer feedback. **Please do not account for time spend on checking modification and handover of equipment**. Time to be combined if more than 1 member of staff involved). The value of the metric is to be recorded in minutes.
Banding of staff	Quarterly	Numerical representation of staff banding, i.e. Band 5, Band 7.
Cost of chair	Quarterly	Full package cost of chair inclusive of VAT, and any additional modifications / accessories / cushion as required.
Cost of repair per chair (unit price)	Quarterly	The cost of repair and maintenance. The tariff has assumed that services will be outsourced to a third party provider and taken as a reasonable proxy for efficient provider prices. The unit cost for each chair can be calculated using the total R&M budget against activity for the period. In calculating the average R&M unit cost per chair, please use a combination of low, medium and high needs categorisation. This only applies to the manual wheelchairs.
Accessory	Quarterly	An accessory is defined as an addition that can be procured or bought through the supply chain.
Modification	Quarterly	A modification is defined as a customised addition/bespoke fitting of a piece of furniture or equipment that cannot be bought 'off the shelf'.
Exceptional equipment costs	Monthly	To be used to record the cost of exceptional equipment that exceeds the normal equipment tariff. Please note that this does not include specialised services / equipment.
Review	Monthly and Quarterly	Clinical follow up to wheelchair users (and provision of additional accessories, where necessary). A review is defined as an evaluation of an existing equipment provision; not the prescription of a new chair. This would be classified in the assessment and equipment elements of the pathway.
Review substantial accessory	Monthly and Quarterly	All Needs - Review substantial accessory (a review of existing equipment issued to the service user followed by a minor modification / onward referral to R&M / new accessory (cushion or seat backs). If (as arising from the review) a complete new assessment or new wheelchair is required this will be recorded in the assessment and equipment pathways as a new episode of care.
Unit Cost to Provider (£)	Monthly	This should include 'on cost' as per the submissions made for the reference cost submission. This includes capital charges and overheads.
Currency	-	Units of wheelchair service activity such as an assessment, a piece of equipment or a review. Currencies are the unit of measurement that forms the basis of payment between commissioners and providers.

Phrase / Term	Monthly / Quarterly	Definitions
Tariff	-	The prices for a unit of wheelchair activity as defined by a currency
Commissioning	-	Commissioning ensures that the health and care services provided effectively meet the needs of the population. It is a complex process with responsibilities ranging from assessing population needs, prioritising health outcomes, procuring products and services to managing service providers.
Cost	-	The expenditure of funds or use of property to acquire or produce a product or service. The opposite of revenue.
Reference Cost	-	The national average unit cost of a wheelchair activity, reported as part of the annual mandatory collection of reference costs from all NHS organisations in England, and published each year since 1997-98.
Block contract	-	A method of funding healthcare services using a fixed sum based largely on historic funding patterns and locally negotiated annual increases.
Lower quartile	-	The first quartile (designated Q1) is called the lower quartile or the 25th percentile (splits off the lowest 25% of data from the highest 75%)
Upper quartile	-	The third quartile (designated Q3) is called the upper quartile or the 75th percentile (splits off the highest 25% of data from the lowest 75%)

Appendix Three – Establishing a new dataset

CCGs now have to submit a quarterly report to NHS England on the wheelchairs they have commissioned .

The dataset questions used are:

No	Question
1a	The total number of patients currently registered with the service, split by adults and children.
1b	The total number of open episodes of care (referral to treatment) split by adults and children.
2a	The number of new patients referred to the service within the reporting period, split by adults and children
2b	The number of patients re-referred to the service within the reporting period, split by adults and children
3	The number of patients (split by adults and children) whose episode of care was closed in the reporting period, where equipment was delivered in: • 18 weeks or less • 19 weeks plus • No equipment prescribed
4	The number of patient referrals (split by adults and children) whose prescription decision was made in the reporting period and is assessed as: • Low need • Medium need • High need • Specialist need • No equipment provided (patient is assessed as none required) Within the following timescales: • 1 to 2 weeks; 3 to 4 weeks; 5 to 6 weeks; 7 to 8 weeks; 9 weeks plus
5	Following prescription decision, the number of service users (split by adult and children) which is assessed as: • Low need • Medium need • High need • Specialist need for which equipment was handed over to the patient in the reporting period within the following timescales: • 1 to 2 weeks; 3 to 4 weeks; 5 to 6 weeks; 7 to 8 weeks; 9 weeks plus
6	The current expenditure on wheelchair services annually by the clinical commissioning group
7	The number of official patient complaints received by the wheelchair service or CCG in the reporting period
8	The number of official patient compliments received by the wheelchair service or CCG in the reporting period

Appendix Four – Tariff Data Collection process

Whizz-Kidz tariff data collection process

1.0. Introduction

1.1. The steps listed are those that Whizz-Kidz takes to collect and aggregate the tariff cost of service delivery data. Completed episodes for medium need for April 2015 are used as an example.

1.2. The VBA steps used are set up specifically to work within Whizz-Kidz folder structure. For any other organisation they would need to be altered to reflect that organisation's folder structure.

2.0. Step-by-step guide

2.1. Paper version data collection sheets are clipped to paper version beneficiary case file and sections are filled out by relevant staff as the episode of care progresses.

2.2. At the end of every month the paper version collection sheets for each episode of case are copied into excel spreadsheets using the same template and saved in a folder named the month in question within a folder named as the type of need. E.g. Completed case collection sheets\Medium need\04 2015.

2.3. There are MS Excel spreadsheets (known as Collection sheet grabbers) for each need category. These perform the following actions (using a combination of VBA and formulas):

a. COUNT the number of workbooks within the specified month folder (chosen in the excel spreadsheet in a picklist) in the given need folder (based on the spreadsheet in use).
b. OPEN all workbooks in that folder.
c. COPY sheets containing collection sheet data from the saved versions to the grabber.
d. Generate SUMPRODUCT formula to add together all cells into newly pasted sheets.
e. Generate list of equipment, cushions, accessories and modifications using INDIRECT.
f. COUNT total number of assessments and equipment issued.
g. EXPORT tables generated in parts d, e & f into a new workbook that is hard coded (i.e. no formulas, no links).

2.4. This VBA is executed for each of the grabbers so that (where applicable) there are 8 exported summary files that contain data about each need category.

2.5. Another MS Excel spreadsheet (known as the Aggregated Tariff Data Template) then performs the following actions (using a combination of VBA and formulas):

a. OPEN all workbooks whose name contains the date chosen (based on a selection from a picklist).
b. COPY all data from these workbooks into specified sheets in the aggregator template.
c. MULTIPLY the time in minutes in each sheet with the cost per minute for staff, based on a VLOOKUP to a table in the spreadsheet.
d. DIVIDE the total cost by the number of assessments, then add an additional 18% (on-cost), then an additional 50% (central cost) and then an additional 20% (trust overheads).
e. SUM the cost of equipment, cushions, accessories and modifications and DIVIDE by the number of equipment issues, to give the average cost for equipment.

2.6. The figures generated in parts 5.d. and 5.e. for each need category are those that are entered in the NHS tariff Unit Cost to provider sections.

Author: G Skerry, MI Analyst, Whizz-Kidz.

Appendix Five – Data Collection Templates

Monthly Activity Submission Template

Please complete fields outlined in YELLOW only

Submitted by (name, title & organisation)	
Submitted by (e-mail address)	
Name of Commissioning Organisations	
Activity Period	**Mar-15**
If you cannot submit activity please state in the comments box why and when a solution and submission can begin.	

Categorisation and activity bundling				Activity and Cost		
Deloitte Activity Code	Activity	Tariff for activity based on Deloitte's report (£)	Unit Cost to Provider (£)	Volume of Activity	Cost of Activity (£) using Deloitte's tariff (£)	Cost of Activity (£) using Unit cost to Provider tariff (£)
LO00A	Low Need - Assessment	£92			£0	£0
ME00A	Medium Need - Assessment	£253			£0	£0
HI01A	High Need - Manual - Assessment	£324			£0	£0
HI02A	High Need - Powered - Assessment	£364			£0	£0
LO00E	Low Need - Equipment	£318			£0	£0
ME00E	Medium Need - Equipment	£839			£0	£0
HI01E	High Need - Manual - Equipment	£2,564			£0	£0
HI02E	High Need -Powered - Equipment	£3,491			£0	£0
AA01M	All Needs - Manual - Repair and Maintenance	£22			£0	£0
AA02M	All Needs - Powered - Repair and Maintenance	£197			£0	£0
AA00R	All Needs - Review	£46			£0	£0
AA00C	All Needs - Review substantial (a review followed by a modification/new accessory or resulting in a completely new follow-up assessment if a new wheelchair is required)	£180			£0	£0
SPEC COMM	Assessment	No currency				£0
SPEC COMM	Equipment allocation	No currency				£0
SPEC COMM	Repair and maintenance	No currency				£0
SPEC COMM	Review	No currency				£0
Exceptions	Exceptional equipment costs that exceed equipment tariffs	No currency				£0
			Total	**0**	**£0**	**£0**

Quarterly Activity Submission Template

Please complete fields outlined in YELLOW only

Submitted by (name, title & organisation)	
Submitted by (e-mail address)	
Name of Commissioning Organisation	
Activity Period	**Mar-15**

Activity Category				Sample of Users by Level of Need (record number of minutes against each category (to nearest 5 minutes bundle))									
				1	2	3	4	5	6	7	8	9	10
Assessment	LO00A	Low Need - Assessment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
	ME00A	Medium Need - Assessment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
	HI01A	High Need - Manual - Assessment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
	HI02A	High Need - Powered - Assessment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
	SC	Specialist Commissioning Activity	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
Equipment	LO00A	Low Need - Equipment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
			Cost of 'package' (inc of 20% VAT)										
			Is this a recycled chair? Y/N										
			No of modifications										
			No of accessories										
	MO00E	Medium Need - Equipment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
			Cost of 'package' (inc of 20% VAT)										
			Is this a recycled chair? Y/N										
			No of modifications										
			No of accessories										
	HI01E	High Need - Manual - Equipment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
			Cost of 'package' (inc of 20% VAT)										
			Is this a recycled chair? Y/N										
			No of modifications										
			No of accessories										
	HI02E	High Need - Powered - Equipment	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
			Cost of 'package' (inc of 20% VAT)										
			Is this a recycled chair? Y/N										
			No of modifications										
			No of accessories										
	SC	Specialist Commissioning Activity	Banding of staff										
			Time of activity in minutes										
			Is the service provided in house or via mobile service?										
			Cost of 'package' (inc of 20% VAT)										
			Is this a recycled chair? Y/N										
			No of modifications										
			No of accessories										
Repair & Maintenance	AA01M	All Needs - Manual - Repair and Maintenance	Low Need (manual) - Cost of repair per chair (unit price)										
			Medium need (manual) Cost of repair per chair (unit price)										
			High need (manual) - Cost of repair per chair (unit price)										
	AA02M	All Needs - Powered - Repair and Maintenance	Cost of repair per chair (unit price)										
	SC	Specialist Commissioning Repair	Cost of repair per chair (unit price)										
Review	AA00R	All Needs - Review	Banding of staff										
			Time of activity in minutes										
	AA00C	All Needs - Review substantial accessory (as per definition on monthly return)	Banding of staff										
			Time of activity in minutes										
Review	SC	Specialist Commissioning - All Needs Review	Banding of staff										
			Time of activity in minutes										
	SC	Specialist Commissioning Activity - All Needs - Review substantial accessory (as per definition on monthly return)	Banding of staff										
			Time of activity in minutes										