# **The future of AAC services in England –** a framework for equitable and effective commissioning

The findings of DfE-funded AAC Grants 2012 – 2013

## Contents

# Foreword

Every single human being should have the right to communicate, and the means to communicate – including means that are augmentative and alternative. It still shocks me that this basic right is denied to so many children and adults.

Things are changing, though. The NHS Commissioning Board have made a very welcome commitment to ensuring that specialist AAC assessment and communication aids are made available to all who need them. This is a big task, but it will be made a great deal easier as a result of the work described in this report. The work provides insights into current AAC services across the country, what they provide and what a sensible Pathway for AAC users or potential users should look like. It addresses the challenge of keeping costs down whilst widening access and ensuring quality, examining ways in which equipment might be more efficiently procured, how remote access technologies might be used, and how good local AAC services can be commissioned by Clinical Commissioning Groups so that specialist regional services are not asked to meet needs that should be met locally.

This work, funded by the Department for Education, has been an impressive example of inter-departmental co-operation: education and health working together for the benefit of people who need AAC. It has also been an impressive example of co-operation between AAC specialist service providers. Working closely with stakeholders and with each other, they have developed models for what I hope will be a truly national specialist service.

I urge the NHS Commissioning Board to make full use of these models. I urge Clinical Commissioning Groups to make full use of the guidelines for effective local services. This publication marks an important moment. For the first time, we might be able to escape the current post-code lottery for the right to communicate.

We must take the opportunity. The right to communicate is too important to be left to chance.

Jean Gross CBE, former government Communication Champion.
April 2013

# Introduction

The DfE provided funding for a one year project to develop proposals for a model of AAC service provision for the future. These AAC grants were intended to support organisations' transition to new commissioning arrangements, and to help move provision incrementally towards the model of regional hubs and specialist expertise as envisaged in the SEN and Disability Green Paper, 'Support and aspiration: a new approach to special educational needs and disability'.

Four regions – North, London, Midlands and East, and South – collaborated on eight key objectives, to enable commissioners and commissioned service providers to start working quickly and effectively to reduce inequity and improve service delivery across the country from April 2013. Each region includes consortium members from health, education, and voluntary sector providers of AAC services as follows:

## North

> ACE Centre (lead organisation for the North) is a national charity providing specialised AAC services across the country
> Barnsley AT Service is based within Barnsley General Hospital and is commissioned by three PCTs to provide Assistive technology, AAC and environmental control services across the region
> CandLE Ltd is a charity that provides AAC services across the country, specialising in supporting students with complex needs in mainstream schools.

## Midlands and East

> ACT (lead organisation for the Midlands and East) is commissioned by regional specialised health commissioners to provide AAC and environmental control services across the West Midlands
> ACE Centre.

## London

> Royal Hospital for Neuro-disability (lead organisation for London) is a voluntary sector provider of AAC and environmental control services for adults
> Wolfson Neurodisability team communication service, Great Ormond Street Hospital
> Departments of Developmental Science and Language & Communication, University College, London
> Assistive Communication Service , Central London Community Healthcare
> CENMAC, Greenwich is commissioned by inner London children's services to provide assistive technology assessment, equipment and support for communication in education.

## South

> Bristol Communication Aid Service (lead organisation for the South) is an all age AAC service commissioned by North Bristol NHS Trust
> Kent Communication and Assistive Technology Service is jointly commissioned by health and education commissioners to provide AAC services for children and adults across the authority
> Chailey Heritage Clinical Services is a NHS funded service providing AAC assessments
> Dame Hannah Rogers Trust is a charity which includes the provision of AAC services.

All regions led on specific objectives, with nominated people to liaise with the other objectives to ensure national consistency and coordination. The key objectives and the lead regions were:

**OBJECTIVE 1:** Stakeholder engagement (all regions)
**OBJECTIVE 2:** Mapping AAC Services (all regions)
**OBJECTIVE 3:** Best Practice Guidelines for AAC (North)
**OBJECTIVE 4:** AAC Care Pathway (North)
**OBJECTIVE 5:** Specification for an AAC database (London)
**OBJECTIVE 6:** Procurement (Midlands and East)
**OBJECTIVE 7:** Remote delivery of AAC Services (South)
**Objective 8:** National AAC training and learning provision (London)

This publication focuses on each of these objectives, providing an overview of why and how they took place, and then reports on the outcomes. An electronic version of this publication and additional files can be downloaded from the Communication Matters website at - http://www.communicationmatters.org.uk/cmrm-dissemination

# Executive Summary

The 2008 Bercow Review of services for children and young people (0 – 19 years) with speech, language and communication needs[1] highlighted that 'children and young people who require AAC face a particular struggle to have their needs met under the current commissioning arrangements' and that there was no consistent or equitable system (locally, regionally or nationally) for ensuring that those who need communication aids receive them. The Review recommended a 'hub and spoke' model for AAC services, whereby local services would be supported by regional centres, and that the Communication Champion should review the effectiveness of AAC provision across the country. During her time in office, the former Communication Champion, Jean Gross CBE developed a commissioning model for AAC provision[2] that put flesh on the bones of the 'hub and spoke' model for AAC services.

The DfE funded AAC Grants programme has provided the opportunity for the AAC sector to develop resources to inform commissioners on establishing and developing AAC services and equipment budgets, in order to address the current postcode lottery of AAC provision. These AAC grants were intended to support organisations' transition to new commissioning arrangements, and to help move provision incrementally towards the model of regional hubs and specialist expertise as envisaged in the SEN and Disability Green Paper, 'Support and aspiration: a new approach to special educational needs and disability.' The identification of the key objectives has been based on the collective knowledge of the AAC sector to focus on specific issues relating to the emerging commissioning reforms in light of the Health and Social Care Act 2012 and implications for AAC commissioning and provision.

This publication reports on the 8 key objectives explored through the AAC Grant funding.

### 1. Stakeholder engagement

Central to achieving the outcome of the majority of the objectives was the need to effectively engage all stakeholders, and to consult with them on specific proposals. Stakeholder engagement was shared across all four regions, in order to ensure that as many as possible of the stakeholders involved in the commissioning, delivery and receipt of AAC equipment and services, were consulted.

### 2. Mapping AAC Services

Key to creating a sustainable and effective 'eco system' of AAC services is the knowledge of what services of all types exist and what they currently do. This section reports on the first ever national (England) survey of services providing AAC and mapped a total of 242 services with over 200 further identified. The makeup of AAC services and aspects of communication aid provision is reported. About 21,000 people who use AAC were identified, with about 3,400 of these using powered communication aids: however almost 2,000 people were identified as having an unmet AAC need, with about 500 of these requiring powered communication aids. Almost all services reported that they identified the need for AAC, and provided information services to support this. However most did not provide powered communication aids on a long term basis from their service budget. The full data is available online for further analysis.

### 3. Best Practice Guidelines for AAC

The Best Practice Guidelines outline good practice evidence and supporting information for local commissioners, local AAC services, individuals and families. They were the result of extensive consultation with multiple stakeholders. The guidelines outline the roles and responsibilities of both the regional and local AAC services; referral criteria for regional and local AAC services; skills and resources required for provision of AAC services; and areas for joint working and joint responsibility.

### 4. AAC Care Pathway

A draft National AAC Care Pathway has been developed based on discussion and consultation with various stakeholders and the draft AAC service specification. It reflects the relationship between local and specialised AAC services, which will be commissioned separately, and the challenge to define a complex communication need that could not reasonably be met at a local level. As AAC services have been included within "Complex disability equipment" list of services, which requires the provision of AAC equipment following an assessment, there is a further challenge that there is no correlation between complexity of need and

[1] https://www.education.gov.uk/publications/standard/publicationdetail/page1/DCSF-00632-2008
[2] http://www.thecommunicationtrust.org.uk/commissioners/reports.aspx

complexity of equipment to meet need. The draft service specification for specialised AAC services attempts to illustrate how this could work in practice, depending on procurement arrangements which are still to be agreed.

### 5. Specification for an AAC database

The management of data is crucial to all health, education and social care settings. It is particularly important when many different services and professionals need to co-ordinate their work. However there is currently no consistent method of collecting, managing and analysing data relating to the provision and use of AAC in England. Following analysis and consultation a total of 39 potential different types of data users for AAC data have been identified. These have been grouped into 12 proposed groups who would have similar requirements and similar levels of access to the data. A table is presented outlining 26 proposed groups of related data which have been identified with regard to service users and their pathways. Consultation with stakeholders will continue to refine the data groups, match the data users to permissions to view the data groups and identify individual fields, data types and coding systems within each data group.

### 6. Procurement

This objective has mainly concentrated on specialty service procurement by considering different options and possibilities, to prepare the way for further work by the Department of Health Clinical Reference Group, and in particular for its AAC sub-group during 2013/2104. Three 'models' for procurement, recycling and technical upkeep have been considered, (as well as the possibility of using rental agreements as well as or instead of outright purchase): a single national procurement centre; a sub set of specialist centres procure on behalf of all specialist centres; and all specialist centres procure for their own needs. Recommendations include: the development of a National Framework Agreement: procurement should be the responsibility of each Specialist Service within that framework; that each Specialist Service should have technical capacity; and a national data source should be provided, where cost effective, to promote and facilitate recycling of equipment.

### 7. Remote delivery of AAC Services

This section explores whether it is possible to provide services to some people remotely either by remote computer access for training or equipment support or by video conferencing to replace or enhance face to face appointments. A combination of methods were used to inform the recommendations, including literature reviews and cost analysis, a small number of structured remote access and videoconferencing trials, and a user survey. Detailed findings are reported, including: high levels of awareness of the use of remote access and videoconferencing tools amongst service providers, with 70% having used remote access technology personally or at an organisation level. Of the people surveyed, over 50% found videoconferencing most useful from home or in a school. Importantly the majority of AAC service users are happy or comfortable with the remote delivery of AAC services.

### 8. National AAC training and learning

This objective investigated regional variation in availability of training to professionals supporting people using AAC in England, the amount and type of training currently provided, and priorities for future training. In response to a survey of 187 services 80% indicated they provide some form of AAC-related training to professionals. Use of specific AAC products, systems and technology and introducing/awareness raising of AAC products are both rated as high priority and are two of the three subject areas in which services are delivering the highest proportion of training activity. Respondents to the questionnaire highlighted a strong emphasis on their provision of training to speech and language therapists, teachers, and care assistants, with training in the use of specific AAC products, systems and technology a primary focus of activity. Training appears most commonly offered at foundation level (introduction to basic concepts in AAC), and typically delivered monthly or twice yearly.

### Conclusion

The challenge of the AAC Grants programme has been to consult and make recommendations in a rapidly changing political, technological and economic environment. It necessitated the need to reach consensus with the wider AAC community about the future of services and provision for children and adults who need and use AAC. As a result of the activities described in this report the AAC community is better informed and engaged, and has a higher profile in the public domain than ever before. There is still much to be done to untangle the myriad of issues, but all involved are driven to improve AAC provision by the recognition that AAC changes people's lives.

# Objective 1: Stakeholder Engagement

## The aim of this objective

Central to achieving the outcome of the majority of the objectives, was the need to effectively engage all stakeholders, and to consult with them on specific proposals. Stakeholder engagement was shared across all four regions, in order to ensure that as many as possible of the stakeholders involved in the commissioning, delivery and receipt of AAC equipment and services were consulted.

## Activity to achieve this objective

Stakeholder engagement and consultation was carried out through:

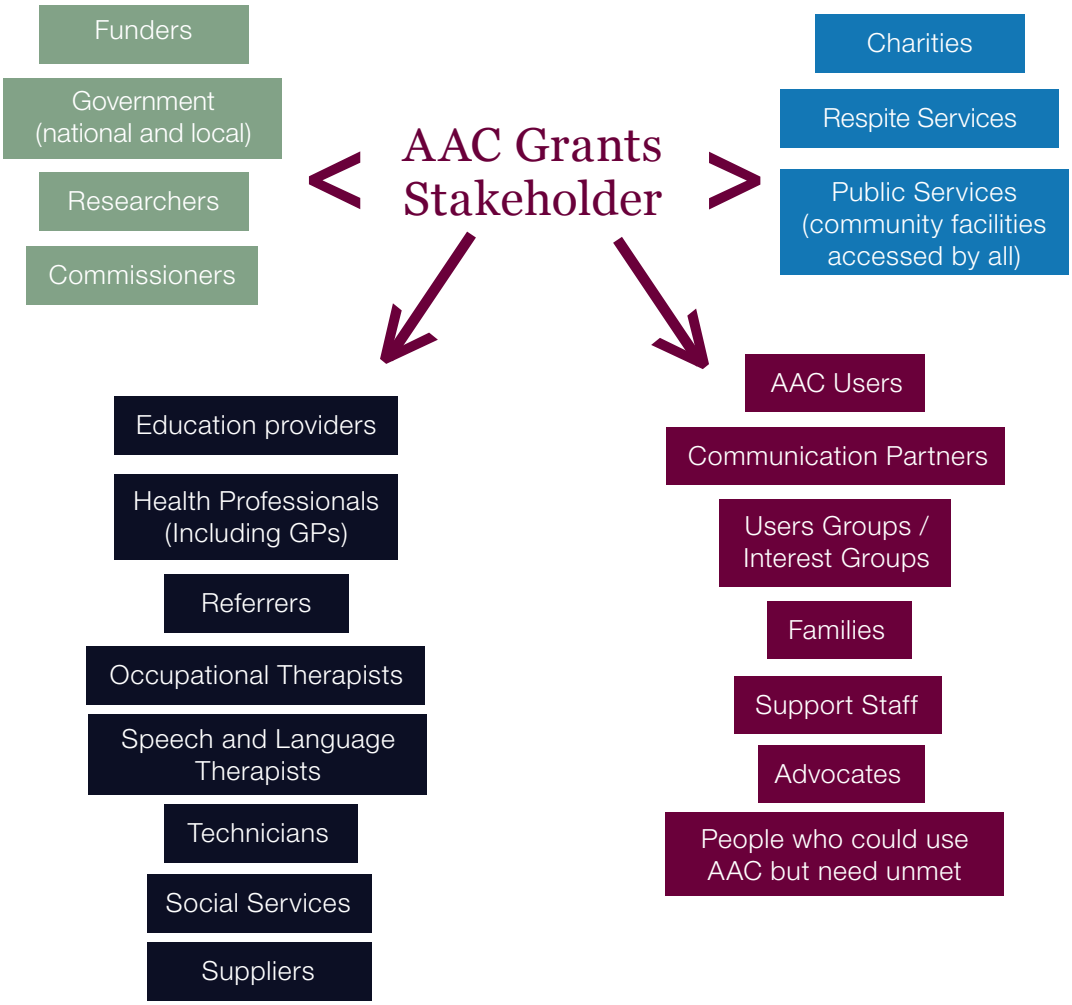
> Development of an expression of interest database to identify people who wanted to be included in the consultations, which was shared across the regions
> Meetings in all regions, and nationally, with different stakeholders
> Attendance at conferences with key note presentations and engagement with attendees (1Voice and Communication Matters conferences)
> Meetings with specialist groups, for example speech and language therapists
> Consultation with suppliers
> A survey of AAC users, their families and those who work closely with them.

In addition all stakeholders had an opportunity to provide feedback on the proposed AAC service specification via the NHS Commissioning Board's website.


Example from the symbolised scale rating consultation documents

## STAKEHOLDER MEETINGS

One of the key questions examined at the early meeting held in the north was what constitutes a stakeholder in a project such as this. The model that came out of the meeting was as follows:




Model for Stakeholder Engagement Cohort

As suggested by the colour coding this breaks down into four groups:

1. Commissioners and funding bodies
2. Service Providers (including commercial suppliers)
3. Service users
4. Public services accessed by service users.

It proved difficult in all areas to attract commissioners to the meetings as Clinical Commissioning Group commissioners had not yet been appointed.

Where possible invitations to meetings and other key materials were symbolised or had easy read versions produced. A symbolised scale rating was also produced based on the Talking Mats principle.

These materials have all been made publicly available at: http://www.candleaac.com/AAC_grants.htm

Department for Education

AAC Grants Project 12 - 13 2012 - 2013 For The North

You are invited to come to a meeting of the Northern consortium

If you can attend on the day, please complete the form below.

Return the form to CandLE:

info@candleaac.com

CandLE Limited, Suite 205, Ulverston Business Centre, 25 New Market Street, Ulverston, Cumbria, LA12 7LQ

Sample sections from the symbolised notification for meetings

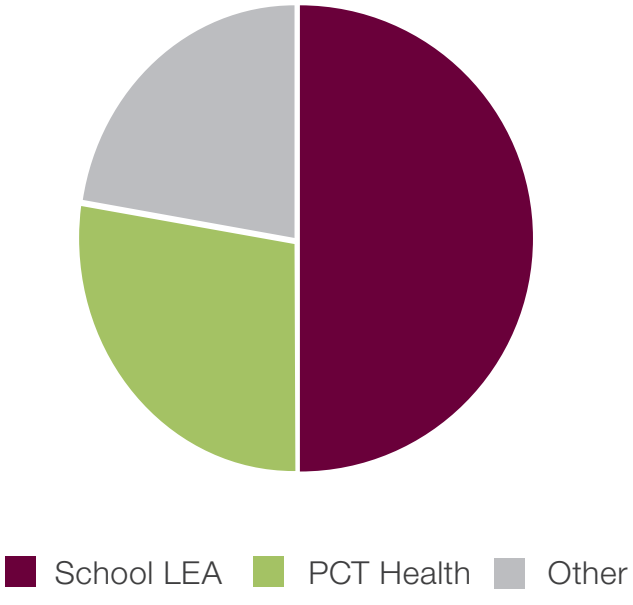
Widgit Software provided symbolisation free of charge as part of the stakeholder consultation process, and examples are reproduced on page 5 & 7 with their kind permission.

# Outcomes

## AAC USER SURVEY

The AAC user survey has been completed by 85 people at the time of publication, and was rolled out nationally following its initiation in the Midlands and East region.

The current results indicate that only 27.4% of respondents obtained their devices through Local PCT or Health Service funding, whilst 50% obtained their devices through a school or Local Education Authority. Other sources included charity, disabled student grants and self-funding. However, 65.5% of respondents were doing so in regard to an AAC user who is in full-time education or training. While this might be a true reflection of the proportion of AAC users in the education sector, more effort is required to ensure that respondents are representative of the full adult population of AAC users.




Funding Sources for Communication Aids from AAC user survey

### STAKEHOLDER MEETINGS

Stakeholder meetings took place across England in all of the regions, including drop in sessions, often followed up by emails and phone calls. Feedback on stakeholder satisfaction so far suggests that the 80% satisfaction target will nearly or substantially be met.

## What worked?

> The expression of interest database worked well, enabling project workers to build up a large group of interested participants in the project.
> Large turnout of a range of stakeholders, especially in the North and the South
> Focus groups engaging those with specific interests allowed detailed discussions on objectives of concern to participants.
> Enough information was received and engagement made to enable detailed reporting for all objectives.

## What didn't work?

> Contacting stakeholders was hampered by a lack of centrally based information on who stakeholders were and where they were located. It was difficult to identify a central place where information for all four regions could be centrally held. The involvement in the project of multiple agencies with very different ways of centralising information made this challenging.
> The two groups that were the most difficult to reach were commissioners and AAC users. This was despite efforts by project workers to engage these groups and the special attention given to making materials accessible.

## Lessons learnt

> The need for one central point of contact in a project where multiple agencies are working in different regions. Communication Matters and the Royal College of Speech and Language Therapists have both been suggested as possible conduits for this.
> Engagement with AAC users may be better achieved through one to one interviews where time and resources are available.
> More time needs to be given to discussion at meetings to ensure stakeholders are given sufficient time to do this thoroughly.

# Objective 2: Mapping AAC Services

## The aim of this objective

Key to creating a sustainable and effective 'eco system' of AAC services is knowledge of what services of all types exist and what they currently do. To develop equitable provision nationally also requires knowledge of where services are, and where they are not. The work described here reports on the first ever national (England) survey of services providing AAC.

## Activity to achieve this objective

A 'tool' was created to collect the data, developed from the Communication Matters (CM) Research Matters project[3] (where more specialised services were surveyed), and was designed to audit and map local service provision. The tool was referenced against the CM AAC Service Standards[4] and was designed through consultation with other consortia members by the University of Sheffield (School of Health and Related Research[5]), in conjunction with Barnsley Assistive Technology Team[6] who oversaw the national collection of the data.

In order to achieve a high response rate and, importantly, to ensure a high level of data quality, the survey was filled in by an interviewer whilst talking to the service manager.

A brief summary of the data collected is presented below. The full data will be made available as an anonymised data set via the CM website.[7] All of the statistics can be analysed using the online tool against sector and Specialised Commissioning Hub (SCH) areas, among other variables.

The map (fig. 1) shows the geographical coverage of services providing AAC that were surveyed.

[3] http://www.communicationmatters.org.uk/page/aac-evidence-base-project
[4] http://www.communicationmatters.org.uk/sites/default/files/downloads/standards/aac_services_standard_aug_2012.pdf
[5] http://www.sheffield.ac.uk/scharr/sections/hsr/rrg
[6] http://www.barnsleyhospital.nhs.uk/at/
[7] http://www.communicationmatters.org.uk/dfe-aac-project/objective-2

Figure 1: Geographical coverage of services providing AAC surveyed (of any type, with any criteria).


# Results

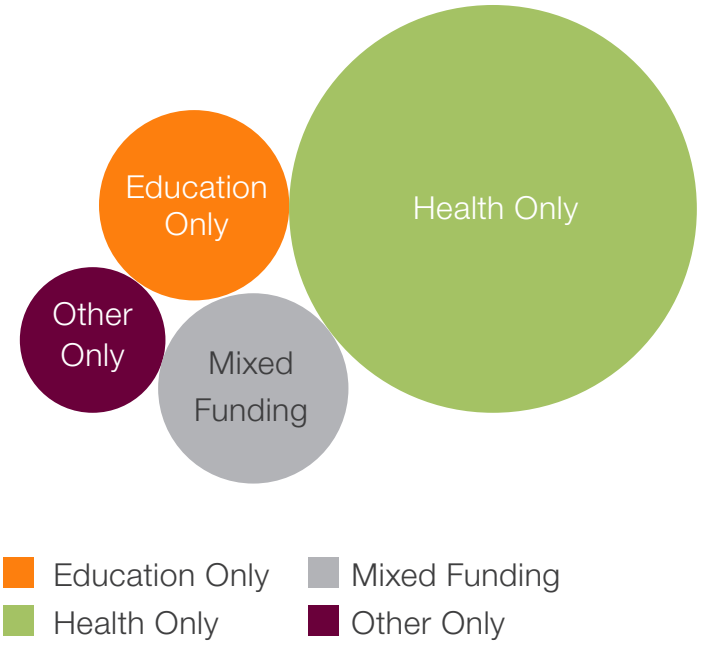
## MAKEUP OF AAC SERVICES

A total of 242 services were mapped with over 200 further identified – making this the largest such survey conducted in England, to date.

The majority of the services mapped (64%) delivering AAC were funded purely through health routes (fig. 2). Services provided solely by education accounted for 14% of the services mapped, as did those with 'mixed' funding (from more than one source/sector). Variation in the models across the (SCH) regions is notable (fig. 3).

Most services reported spending less than 30% of their time on AAC (three fifths spending 0-30% of their time on AAC). Some services reported doing quite a bit of AAC (about a fifth spending 30-59% of their time on AAC) and only a few doing a lot of AAC (less than one tenth spending over 90% of their time doing AAC).

Figure 2: Funding Source of services




Specialism of staff within services also reflected the same pattern. Most services (70%) having less than 2 whole time equivalent staff with any level of specialism in AAC.

The services responding described the AAC training attended by their staff. The average per whole time equivalent staff member was reported to be about 7 days a year. However the largest part of this was self-directed and team based learning with training from suppliers being next most reported. Accredited training was reported at less than a day a year per staff member.

Services reported on the components of the service they provided. Almost all services reported that they identified the need for AAC, and provided information services to support this. The service components least often reported as being delivered were (in order, with the least often first): custom manufacture; equipment customisation; research and development; replacement of equipment during repair; maintenance of equipment and repair of equipment.

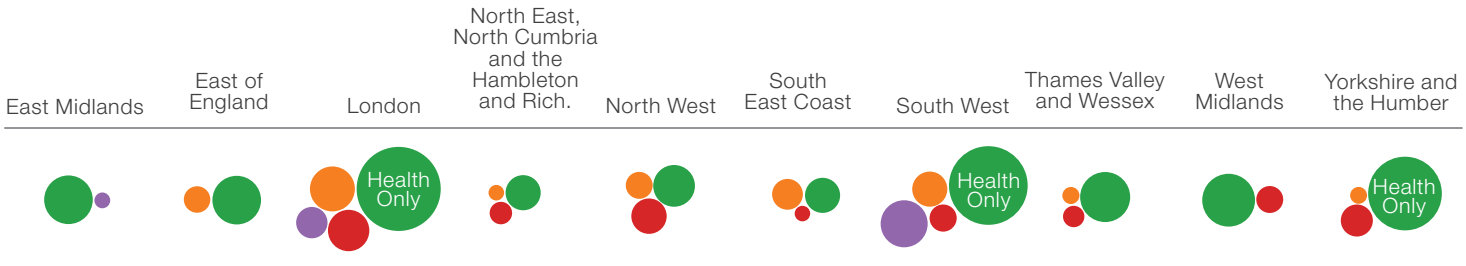



Figure 3: Service funding (commissioning) source per SCH region

## AAC SERVICE USERS

One of the main questions asked around AAC provision is “What is the level of need?” This is a question that until recently has been very challenging to answer with any degree of confidence. Whilst this work does not answer this question it provides data that goes some way to helping inform our estimates.

The graphs (fig.4 and fig 5) represent the data returned. The numbers on the horizontal axis are the % of the population reported using AAC and ‘high tech’ (powered) communication aids respectively (calculated from caseload numbers reported added to any unmet need reported). The majority of services reported AAC use of less than 0.1%, with a very few services reporting figures over 0.5% - the average (mean) reported was 0.1% (fig 4). Powered communication aid usage was mostly reported as less than 0.02% of the population, with 15% of service reporting levels between 0.02 and 0.04% and a few services levels over 0.06%. The mean was 0.02% (fig 5).

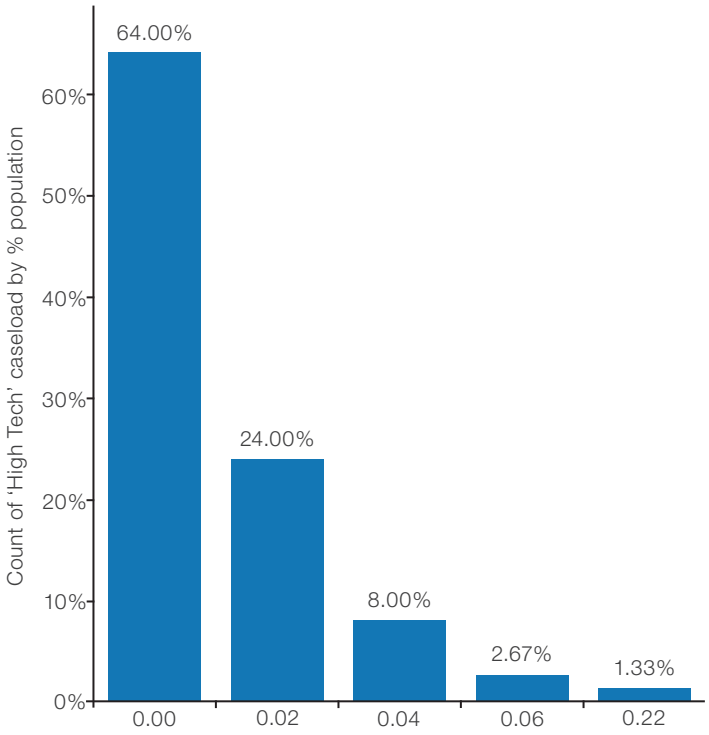



Figure 4: AAC use reported as % of population

These numbers need to be interpreted carefully; however they do not suggest that current estimates of 0.5% of the population needing AAC and 0.05% needing powered communication aids are inappropriate. The low figure for AAC use reported is likely to be because many services reported not storing data on this population. Some services reported data around/over the 0.5% mark and this suggests that the level of need can exist in a population. The data on powered communication aids is relatively close to the 0.05% predicted value with evidence of some services achieving this level of provision. Again the lower level may indicate the 0.05% figure is too high but is also potentially due to under reporting or unmet need.

Looking at the raw numbers about 21,000 people who use AAC were identified, with about 3,400 of these being people who use powered communication aids. The mean per service was 98 people using AAC and 20 using powered communication aids. Almost 2,000 people were identified as having an unmet AAC need, with about 500 of these requiring powered communication aids. 49% of services said they did not refer people onwards who do not use, but could use AAC.

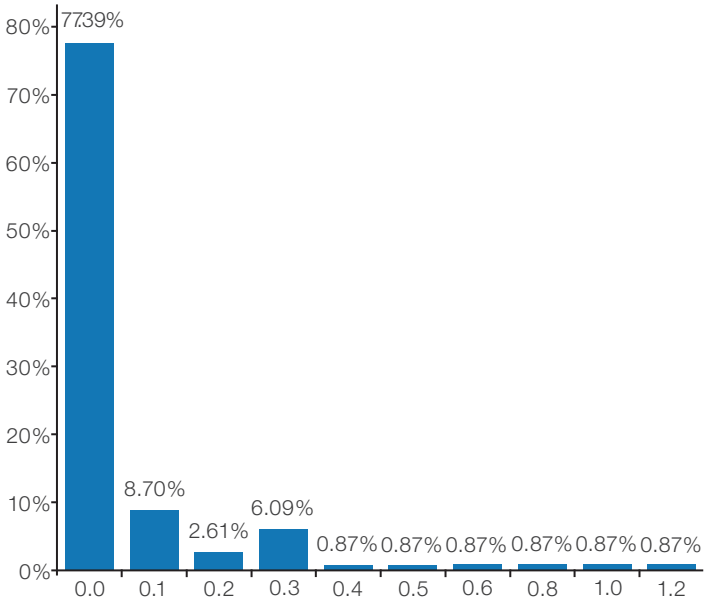



Figure 5: Powered Communication Aid use reported as a % of population

## COMMUNICATION AID PROVISION

Most services (66%) did not provide powered communication aids on a long term basis from their service budget (fig. 6). Around £800k of provision funding was identified as being spent in the previous 12 months. Interestingly the figure identified for spending on loan bank equipment was slightly higher – around £860k. This suggests that much provision is happening through 'extended loans' from loan banks. On a per-population basis, the average reported spend was about 8p per person (of population) for both loan bank and provision making about 16p in total.


Figure 6: Access to funding for long term use of equipment

Only 16% of services responded that they had no access to a loan bank, however only 11% reported that this loan bank was sufficient for their needs. Access to funding for equipment (either loan or provision) appears to vary substantially across regions (fig. 7). Funding for equipment also appeared to vary by sector with the average spend by education by population being 43p and for health it was 12p (fig. 8).

However, within the data collected, the vast majority of the money was spent by Health (fig.9).

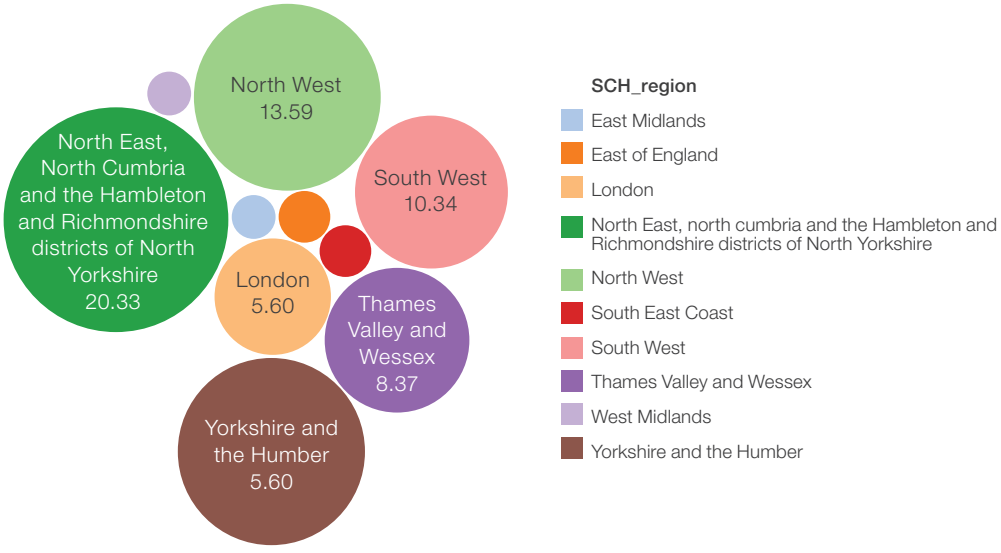



Figure 7: Average equipment spend per population by SCH area (pence)

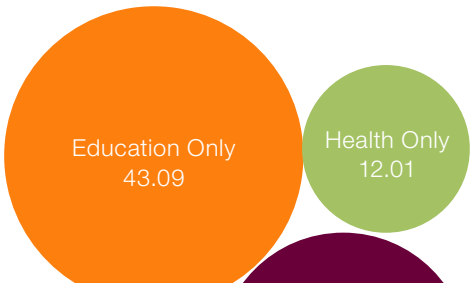



Figure 8: Average equipment spend per population by sector (pence)

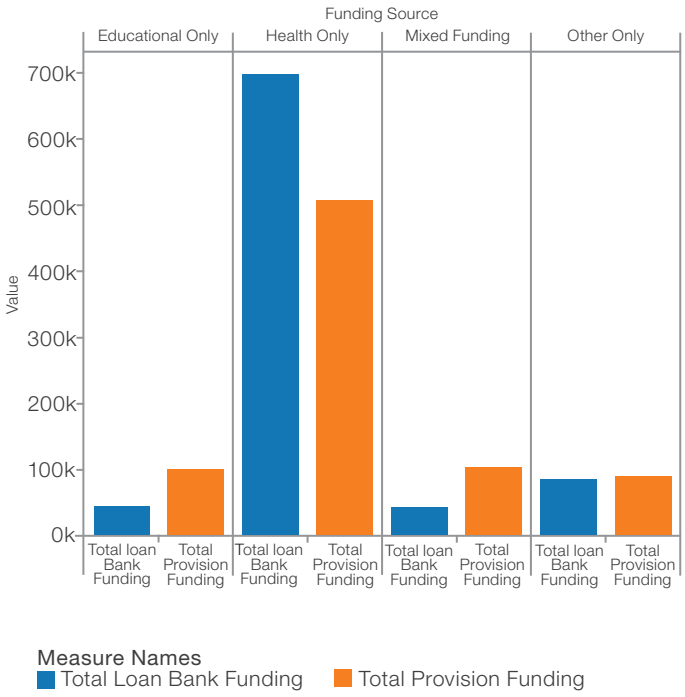
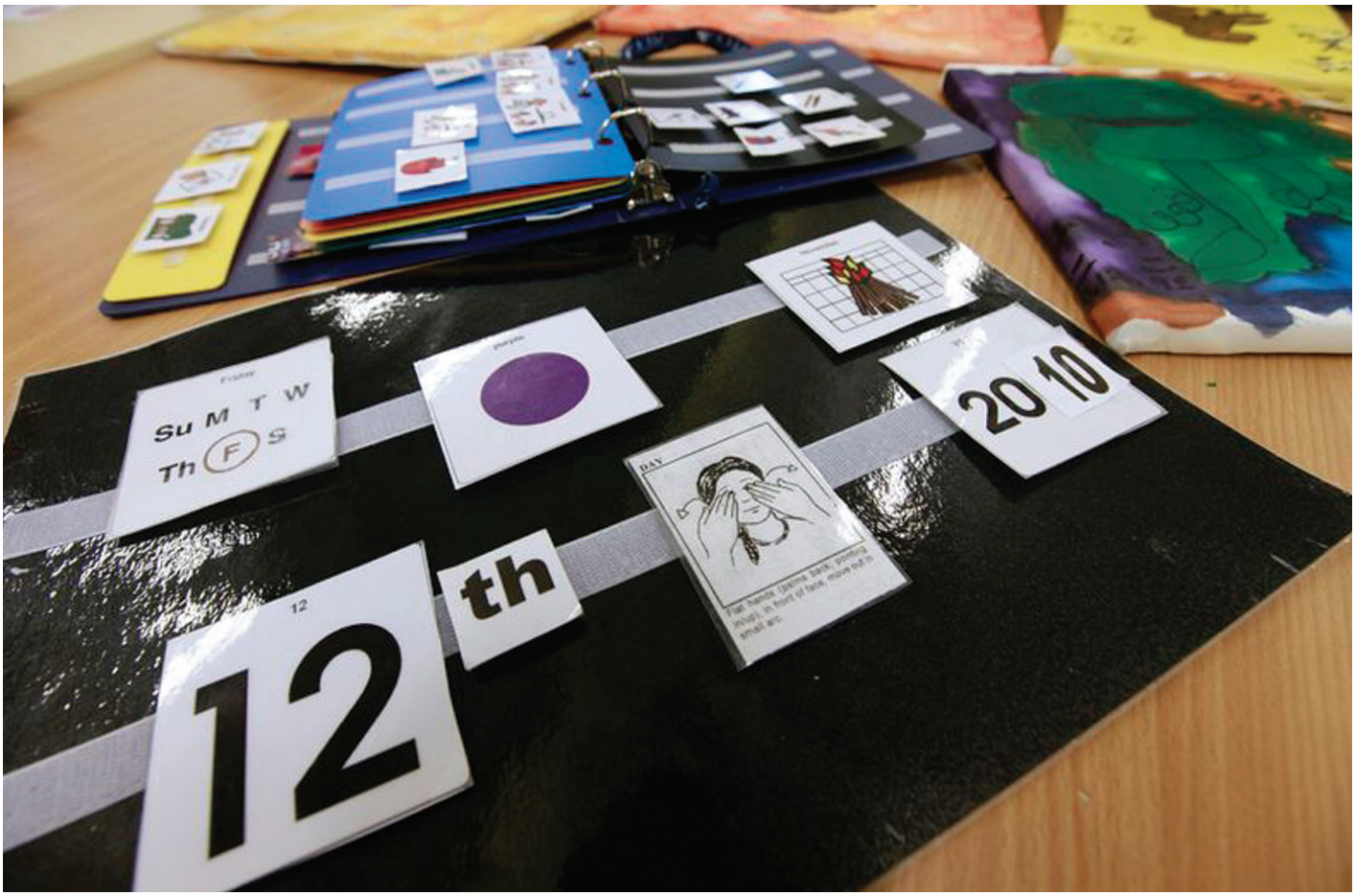



Figure 9: Total equipment spend reported by sector (£)




# Objective 3: Best Practice Guidelines for AAC

## The aim of this objective

The Best Practice Guidelines are intended to ensure consistency of practice and standards nationally and universal access to supportive resources. They provide a practical support, to help existing and new, local and regional teams, identify the skills and resources needed to support people accessing their service. For those using the AAC services it explains what they should expect to be receiving from a local and regional AAC service. It is also a guide to commissioners to help ensure they are commissioning a service that is using best practice.

## Activity to achieve this objective

Existing documentation from AAC services nationwide was collated, and the views of existing AAC service providers were gathered at the regional information events. The format of the guidelines were informed by those contributing to the consultation process and the published documentation by the NHS Commissioning Board (NHS CB) draft service specification for specialised AAC services in England.

A range of stakeholders were consulted on the draft guidelines, including those involved in the AAC Grant programme, and consideration was given to the supporting resources already in existence and published by recognised sources, e.g. Communication Matters. The final document and supporting resources reflect the simplicity requested by those consulted, with the structure suggested by the NHS CB.

# Best Practice Guidelines

## INTRODUCTION

**These best practice guidelines are intended for use by:**

> Regional (or hub) AAC services
> Local (or spoke) AAC services
> Individuals accessing AAC services
> Commissioners of AAC services

**The best practice guidelines outline the:**

> Roles and responsibilities of both the regional and local AAC services
> Referral criteria for regional and local AAC services
> Skills and resources required for provision of AAC services
> Areas for joint working and joint responsibility.

**Signposting to the following additional supportive information is also included:**

> Communication Matters Standards document (appendix A)[8]
> Communication Matters Outcomes document (appendix B)[9]
> AAC Competencies information (in development at time of publication).

# Regional Services (Hub)

## ROLE OF THE HUB

The regional AAC service will fulfil:

> Assessment of AAC needs when the individual meets the referral criteria below
> Regional management, including procurement, of high tech AAC systems
> Training and service development of local spoke AAC teams
> Regional co-ordination of :
  - care planning (see objective 4: AAC Care Pathway)
  - service standard development (appendix A)
  - quality assurance and improvement of local AAC teams (appendix A).

## INDIVIDUALS MAY BE REFERRED TO THE HUB WHEN THEY HAVE, OR ARE (A COMBINATION OF THE FOLLOWING):

> Severe physical disability especially of the upper limbs
> Additional sensory impairment to the communication impairment
> In need of specialist switch access, which may need to be bespoke
> In need of a device that integrates spoken and written communication, as well as environment control
> Able to understand the purpose of a communication aid
> Individual working beyond cause and effect understanding
> Multiple disabilities which in combination impact on the individual's ability to communicate
> Communication technology needs beyond the competence of the local AAC service
> Experience of using low tech AAC which is insufficient to enable the individual to realise their communicative potential.

## HUB TEAM SHOULD PROVIDE SERVICES FOR THE DEFINED POPULATION IN THE AREA OF:

> Electronic assistive technology (EAT) to support communication
> EAT to support learning
> Seating and positioning to access EAT for communication/learning
> Access and control of EAT for communication/learning
> Mounting of EAT for communication / learning
> Equipment procurement and stock management
> Systems to collate and analyse information to enhance and develop the service
> Service and equipment integration with other assistive technologies, such as Environmental Control
> Training to a wide range of stakeholders from the user, families and local team members

[8] http://www.communicationmatters.org.uk/nationalaacstandards
[9] http://www.communicationmatters.org.uk/sites/default/files/downloads/standards/aac_outcome_measurement_sept_2012.pdf

> Raising awareness in areas where service uptake is low, to facilitate referral of those who could benefit from specialist assessment and equipment provision.
> Experience, capacity and remit to deliver services across a wide geographical region.

### HUB TEAM SHOULD HAVE ACCESS TO SERVICES TO PROVIDE:

> Competence in personalisation and customisation of equipment (software, electronic and mechanical) (appendix A)
> Cognitive and sensory assessment competence to support AAC assessment and intervention (appendix A)
> Information systems, quality improvement and research methodology
> Training and workforce development competence, to support the development and competence of local AAC spoke services.

### HUB AND SPOKE TO WORK TOGETHER TO:

> Establish a collaborative approach to outcomes measurement and data gathering on which to base quality assurance, service development and to inform future commissioning practice (appendix B)
> Build local (spoke) competence to manage directly the needs of core AAC population
> Jointly manage the needs of the region's population that require specialised AAC services
> Establish skills level of spoke team to ensure spoke team can work independently where they have the skills and access support when needed.

### HUB WOULD CONSIST OF:

> A multi-disciplinary team assessment providing services in the area of communication assessment team, access and control of technology, seating and positioning, adaptations of EAT, and EAT for learning.

To achieve this, the team may include: Speech and Language Therapist, Clinical Scientist and Technologist, Occupational Therapist, Specialist Teacher and access to Physiotherapist, Psychologist and other relevant professionals
> Technological and engineering facilities for customisation and modification of EAT.

### HUB WOULD HOLD:

> An assessment and loan bank of AAC Systems (appendix B)
  - Including ability to issue, monitor, maintain, recall and refurbish equipment
> Full range of software
> Full range of vocabulary packages.

## Local AAC Services (Spoke)

### ROLE OF THE SPOKE:

> Assessment of core AAC population needs
  - where referral does not fit with specialised access criteria outlined above
  - including language assessment, access assessment, critical evaluation of AAC systems available in relation to individual's need (appendix A)
> Spoke team to move independently through the AAC care pathway (see section on objective 4: AAC Care Pathway) until support from hub team needed
> Independent local management of AAC systems for core AAC population and specialised AAC population if local team possess the competencies (competencies framework in development)
> Provision of training related to supporting the core AAC population and specialised AAC population where local team possess the competency
> Awareness training for local teams and schools
> Local co-ordination of
  - care planning for core AAC population and specialised AAC population where local team possess the competency (competencies framework in development)
  - service standard development (appendix A)
  - competency development of spoke team (competencies framework in development).


## LOCAL SERVICES (SPOKE) TO PROVIDE:

Services in the following where competencies are present in the spoke team (NB: support is available from the hub where skills not present / need further support):

> Electronic assistive technology (EAT) to support communication
> EAT to support learning
> Seating and positioning in relation to access to EAT
> Access and control of EAT for communication / learning
> Mounting of EAT for communication/learning.

## LOCAL SERVICES (SPOKE) TEAMS TO PROVIDE:

Access to the following, where competencies are present in the spoke team (Note - support is available from the hub where skills are not present or further support is required):

> An expertise in all low-tech AAC strategies and techniques
> A multi-disciplinary team including at least SLT, OT and teachers where appropriate
> Ability to modify equipment and software within the equipment's own parameters
> A loan bank to include the more common and less expensive AAC devices: it may include high tech systems in some cases where the local team have the competencies to support this (competencies document in development)
> An ability to contribute to data collection using data systems managed by the Hub (see objective 5: Specification for an AAC database)
> Training of the team around an individual
> On-going support for individuals referred to the hub, with responsibility for re-referral as appropriate
> A timely review of equipment provided and feedback to hub as appropriate
> Wider assessment as needed to support the specialised AAC assessment and intervention to support AAC assessment and intervention
> Use of an outcomes measurement appropriate to the population of people using AAC (see appendix B).

# Objective 4: AAC Care Pathway

## The aim of this objective

The aim of the AAC Grant activity has been to improve outcomes for children and adults who need or use AAC and to clarify how AAC services and equipment can be accessed. The Care Pathway needs to reflect the relationship between local and specialised AAC services, which will be commissioned separately. In reality, the categorisation of services is not this simplistic and existing AAC services cannot be compared on a like for like basis. In addition, this is within a context of considerable variability currently in policy, provision and availability of local and specialised AAC services and equipment budgets.

Whilst every attempt had been made to identify the optimum AAC care pathway for the sector, inevitably the reality of the emerging commissioning environment has eclipsed this. It soon became clear that it was necessary to focus the AAC sector's attention on the opportunities to consult on the reality of the proposals that were emerging rather than a hypothetical model based on an ideal commissioning scenario.

The profile of the range of AAC services currently available is vast. In order to differentiate services for the purposes of defining commissioning responsibility, this has been described simplistically as local and regional/specialised, or 'Hub and spoke' services. However, every AAC service is commissioned on a different basis, with varying geographical areas, age ranges, staff competencies, services being delivered, equipment being provided, level of need being met – to name but a few.

In light of this, the biggest challenge was to establish eligibility criteria for an individual to access specialised AAC services as opposed to local AAC service provision, as these will be the responsibility of local Health and Wellbeing Boards. It was essential for the distinction between local and specialised commissioning responsibilities to be made very clear in order to meet the requirements of being included within the final list of specialised services to be commissioned by the NHS CB. Specialised services are those with low patient numbers but which need a critical mass of patients to make treatment centres clinically and cost effective, usually catering for rare diseases and other complex conditions. This means that the catchment or planning population needed to commission the service will be over one million.

## Activities to achieve this objective

AAC Stakeholder events were used as an opportunity to engage interest in the issues of defining a national AAC care pathway that reflected existing local and regional models, but also aligned to the emerging framework for specialised health service commissioning arrangements. People who expressed an interest were invited to consider a range of issues relating to the complex challenge of defining what should be provided by commissioners and services at a local and specialist level. These issues reflected on both service delivery and AAC equipment provision.

A series of questions were posed to people who expressed an interest in this objective as follows:

1. At what point should a referral be made to a specialist service?
2. What criteria should be used for funding equipment from a specialist service?
3. What is it reasonable to expect local commissioners to provide?
4. What else should specialist services offer to local AAC services?
5. What should specialist services do to support the establishment of local services where they do not exist?
6. Do you have an AAC care pathway in place in your local authority? If so, would you be willing to share information about this?

[10] https://www.engage.commissioningboard.nhs.uk/consultation/ssc-area-d/
[11] http://www.commissioningboard.nhs.uk/wp-content/uploads/2012/11/comm-int.pdf

A specialist service was defined as a regional AAC service that provides a wider range of assessments and training and with access to a wider range of AAC equipment than is available from a local authority-based service.

Commissioners were defined as people who have responsibility for agreeing the funding for services and AAC equipment budgets

Responses were received from over fifty people, which reflected services in thirty five authorities. Typically, people reflected on their own practice and there was consensus for the need to use specialised AAC services to assess and provide for individuals with complex needs based on the competency of the local workforce. Opinions on responsibility for equipment provision varied – some took the view that all equipment should be provided by specialised services, whilst others preferred to retain autonomy over their own equipment budgets where they existed.

## Outcomes

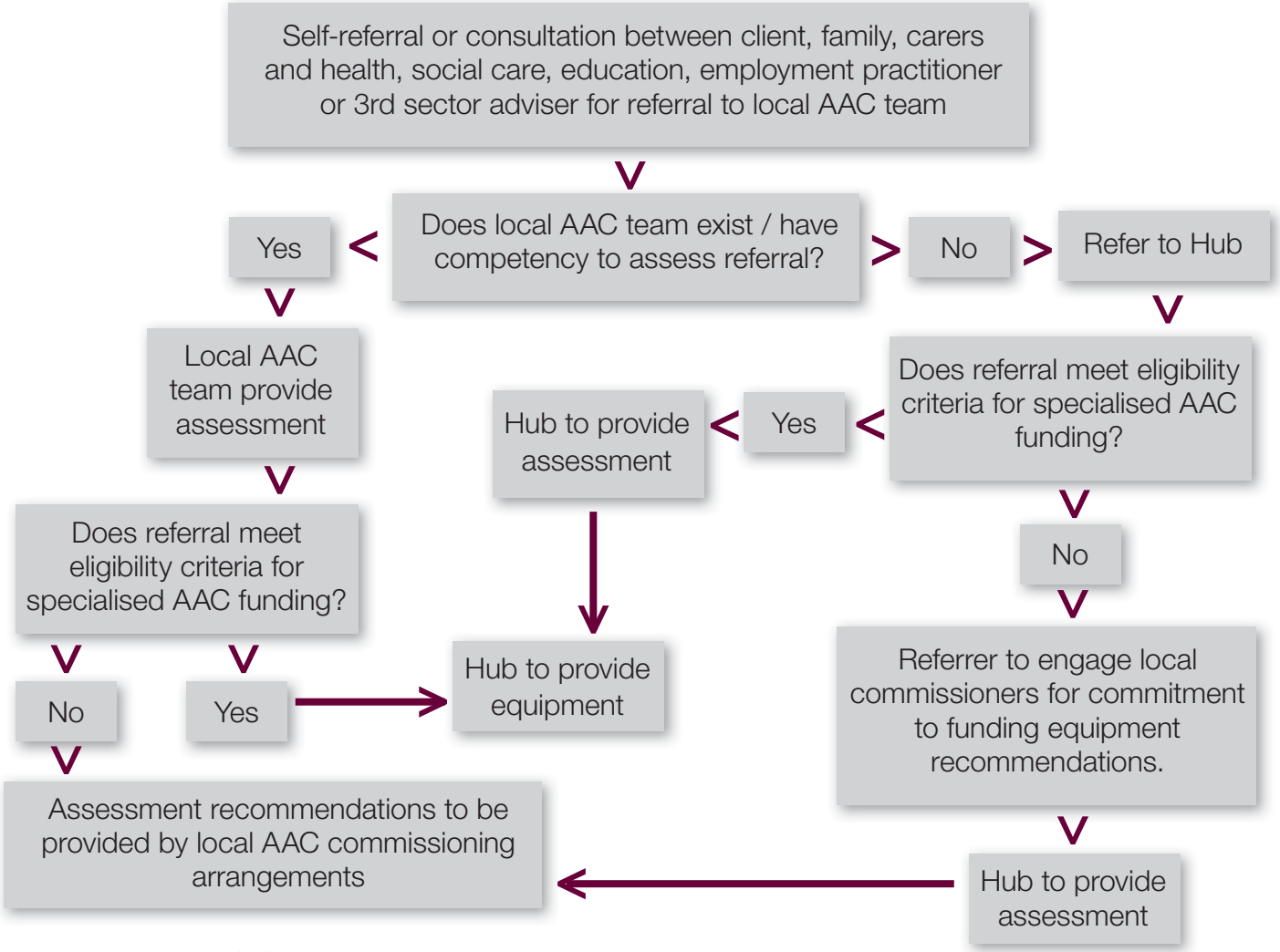
The challenge, therefore, was to develop criteria that made this distinction as explicit as possible. This therefore required the need to define a complex communication need that could not reasonably be met at a local level, despite the huge variability in local services and AAC expertise. Also, AAC services have been included within "Complex disability equipment" list of services, which requires the provision of AAC equipment, following an assessment. This further complicates the AAC care pathway in that there is no correlation between complexity of need and complexity of equipment to meet need.

A draft service specification has been developed for specialised AAC services in the latter half of 2012. Within this document an attempt is made to develop criteria that define eligibility to access specialised services, by defining a complex need for AAC, in addition to a definition of need for AAC that can be provided at a local level. The criteria were put forward and the draft service specification[10] was made available for public consultation early in 2013. Details of a qualifying individual's characteristics are listed on the Draft National AAC Care Pathway April 2013 (see fig. 1 below). It is understood that these criteria will be used as a working document for the following year as the new commissioning arrangements are embedded from 1st April 2013. Review and development of these criteria will be the responsibility of the Clinical Reference Group (CRG) with responsibility for the "Complex disability equipment" services, which include:

- Complex specialised wheelchair and seating service
- AAC / Communication aids
- Environmental control equipment for patients with complex disability
- Prosthetics
- National artificial eye service

In addition, the CRG will oversee decisions to be taken during the next year relating to the tariff for services and equipment, procurement procedures and data management. Responsibility for commissioning specialised services will be with the Area Teams for ten specialised commissioning hubs across England who will be in post from 1st April 2013[11]

The following diagram is an attempt to illustrate how this could work in practice, depending on procurement arrangements to be agreed:




Draft National AAC Care Pathway April 2013

**An individual for whom a specialist AAC service is needed would have/be (a combination of)**

> Severe physical disability especially of the upper limbs.
> Additional sensory impairment to the communication impairment.
> In need of specialist switch access, which may need to be bespoke.
> In need of a device that integrates spoken and written communication, as well as environment control.
> Able to understand the purpose of a communication aid.
> Developed beyond cause and effect understanding.
> Multiple disabilities which in combination impact on the individual's ability to communicate.
> Communication technology needs beyond the competence of the local AAC service.
> Experience of using low tech AAC which is insufficient to enable them to realise their communicative potential.

**An individual for whom a local AAC service is needed would have/be (a combination of)**

> No/mild physical disability.
> Communication technology needs within the competence of the local AAC workforce.
> Co-morbid conditions that do not impact on the individuals' communication disability.
> Minimal upper limb impairment.
> Language commensurate with cognitive skills.
> Preverbal communication skills.
> Not achieved cause and effect understanding.


# Objective 5: Specification for an AAC database

## The aim of this objective

The management of data is crucial to all health, education and social care settings. It is particularly important when many different services and professionals need to co-ordinate their work. The provision of AAC will in most cases involve several different services and many professionals. A hub and spoke model has been proposed. Hubs, spokes, schools, community therapy teams, commissioning bodies and others, will require data to improve service provision. Supporting the service user will be SLT's, OT's, teachers, clinical scientists, clinical technologists and others who will require data to inform decisions, co-ordinate processes, record progress, measure outcomes and manage equipment and funding.

During the transition to new structures for specialised commissioning within the NHS, it was identified by the NHS that all equipment areas being dealt with by the NHS Clinical Reference Group (CRG) on Complex Disability Equipment, had a need for better data collection mechanisms. It was proposed that databases would be implemented at a national level.

In the light of these changes, and without knowing which technologies and applications would eventually be used to implement a potential national level database, producing a detailed database design was not a priority, as it would be much more effective for this to be done by the team tasked with implementing any national database. Instead, the focus of the objective changed to providing information to support the future implementation team in making design decisions. Updated goals of this objective are therefore as follows:

> To identify potential users of data who will benefit from accessing data on AAC provision
> To identify the requirements of each of these potential users of data
> To identify broad categories of data that would need to be managed
> To identify permissions for each user type to view each category of data at either an individual identified level or anonymous aggregated level
> To propose potential data items, data types and coding systems within each data category
> To identify members of the AAC community at all levels who would be interested in continuing to provide feedback beyond the DfE project, should the NHS wish to utilise this.

These goals are to be met by reviewing literature and documentation on AAC data, preparing draft plans and consulting with a range of stakeholders to review and comment on those plans.

## Activities to achieve this objective

Consultation on this objective has been intentionally delayed in the expectation that referral processes and pathways via the NHS AAC Service specification would be finalised, and also that plans for how any national database would be technically implemented would be known. At the time of writing of this report, consultation is on-going and will be continued as part of the Clinical Reference Group on Complex Disability Equipment.

There is currently no consistent method of collecting, managing and analysing data relating to the provision and use of AAC in England. Information gathered by Sheffield University as part of the Communication Matters: Research Matters project showed a wide range of methods of data collection regarding AAC assessment and provision. A total of 92 AAC services throughout England were asked "Which database system do you use to record your data?"

In response:
> 25% named a specific clinical database such as Rio, Lorenzo or SystmOne
> 21.7% listed only standard office databases or spreadsheets such as Microsoft Access or Excel
> 15% did not answer or provided unclassifiable answers
> 10.8% indicated a probable major database system using generic initials such as PAS or CRS
> 10.8% specified a combination of a major database and local desktop databases
> 6.5% listed a local or custom database without stating how it was implemented
> 5.4% stated that they used paper systems only
> 4.3% named a specific education database such as B-Squared or DataBridge.

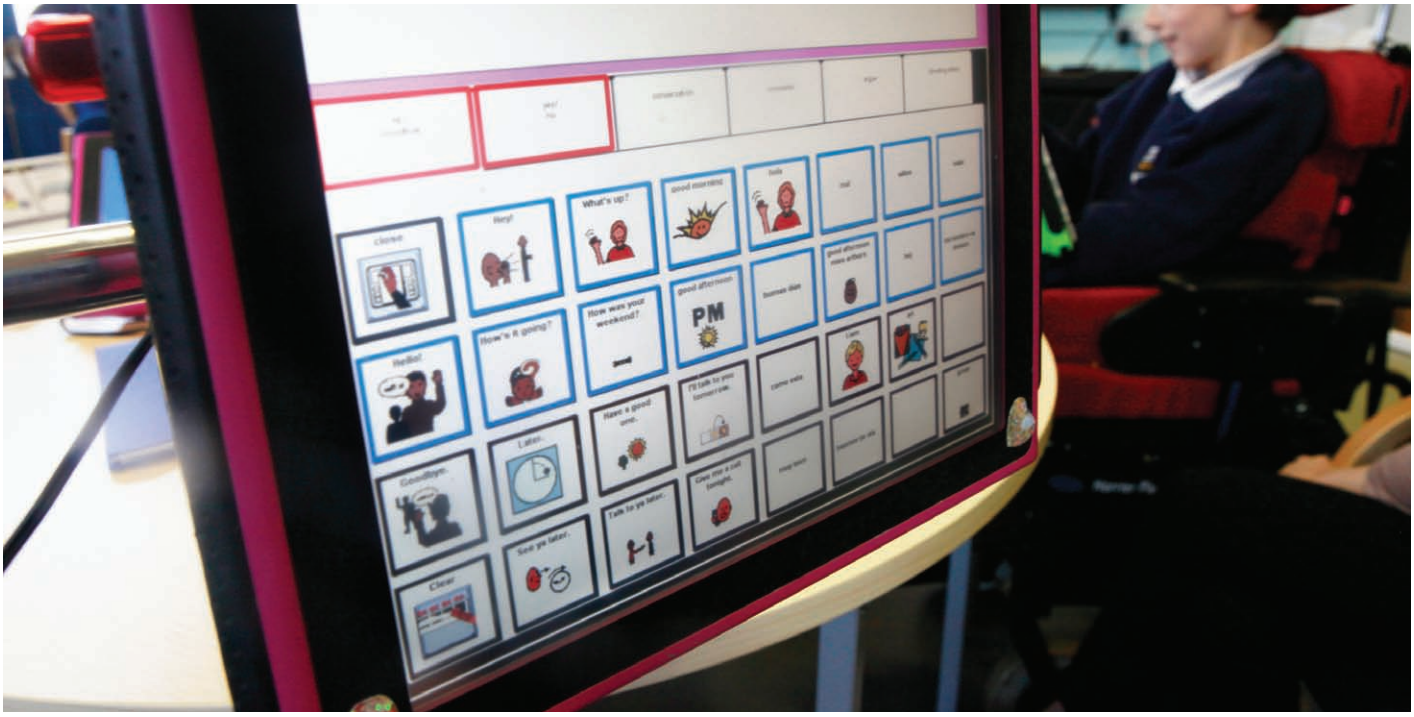
## Outcomes

In all a total of 39 potential different types of data users for AAC data have been identified. These have been grouped into 12 proposed groups who would have similar requirements and similar levels of access to the data. These data user types and groups will be amended following completion of the consultation with stakeholders.

There are 26 proposed groups of related data which have been identified with regard to service users and their pathways. These groups are presented in table 1 below.

| | DATA GROUP NAME | DESCRIPTION |
|---|---|---|
| 1 | Identifier | A unique identifier for the service user. NHS Number. |
| 2 | Service user name | Service user's name. |
| 3 | Demographic data | Users demographic data. |
| 4 | Service user contact details | Address, telephone, email. |
| 5 | Family / Next of kin contact details | Address, telephone, email. |
| 6 | Other services contact details | Contact information for all involved parties. |
| 7 | Diagnosis details | Primary diagnosis resulting in communication needs and any relevant secondary diagnoses. |
| 8 | Referral to Spoke | Information provided to the spoke when referral received. |
| 9 | Referral to Hub | Information provided to the hub when referral received from spoke. |
| 10 | Remote connection details | Fields to record details of video-conferencing and remote support facilities for the service user. |
| 11 | Contact log / progress notes | Fields to track day to day interactions. |
| 12 | Goals / aims / targets | Fields to record the goals of intervention. |
| 13 | Assessment / review information | Information generated by the assessment (at spoke or hub level). |
| 14 | Assessment / review conclusions | Recommendations made by the assessment (at spoke or hub level). |
| 15 | Workload planning / task management | Fields to record tasks required (at spoke or hub level). |
| 16 | Loan episode details | Fields to record a loan of assessment equipment to a service user. |
| 17 | Loan episode conclusions | Fields to analyse outcome of a loan episode. |
| 18 | Equipment issue | Fields to record the issuing of the service user's own equipment. |
| 19 | Equipment return | Fields to record the return of the service user's own equipment with reasons. |
| 20 | Current AAC device / technique | The AAC device or technique the service user is currently using. |
| 21 | History of AAC devices / techniques used | List of previous techniques and equipment used. |
| 22 | Other related equipment | List of other equipment used, such as environmental controls and wheelchairs. |
| 23 | Clinical Outcomes | Formal outcome measures and other data with a function in measuring outcomes (TOMs, Goal Attainment Scaling etc). |
| 24 | Service user satisfaction data | Results of user satisfaction surveys and questionnaires. |
| 25 | Contracting outcomes | Contracting outcomes, eg CQUINS. |
| 26 | Tariff details | |

Consultation with stakeholders will continue to refine the data groups, match the data users to permissions to view the data groups, and identify individual fields, data types and coding systems within each data group. This information will then be made available to the Clinical Reference Group on complex disability equipment and the NHS informatics team tasked with implementing an AAC database.




# Objective 6: Procurement

## The aim of this objective

Up to now the procurement and supply of communication aids has developed and existed within an insubstantial and uncoordinated national service funding system. Much of the activity within the AAC field has been focused on where and how aid funding can be achieved, leaving little room for broader considerations such as “what is the most cost effective way of procuring AAC equipment?” and “how can we make best use of this, often, very expensive equipment?”. The establishment of AAC as a NHS CB specialised service, and its consequent national funding for equitable provision of AAC, affords us an opportunity to devise a new system which is defined by:

> Equipment is made available to assessing professionals when and where they need it
> Minimum administration needed to obtain equipment
> Minimum administrative and logistical costs
> Maximum use of equipment (minimum redundancy)
> Maximum use of equipment (optimised technical maintenance)
> Maximum purchasing power
> Sustainability for suppliers
> Optimising innovation.

## Activity to achieve this objective

There is still considerable uncertainty about how funding priorities for aids identified and required by local (CCG, spoke) services will be decided. In fact there remains a mixed view as to whether local services will be identifying high tech solutions or whether this is the sole province of Specialist AAC Services. These uncertainties mean that formulating a single preferred procurement system at hub and spoke levels is not possible at this time. Therefore this objective has mainly concentrated on specialty service procurement, by considering different options and possibilities, to prepare the way for further work by the Department of Health Clinical Reference Group, and in particular for its AAC sub-group during 2013/2014.

To stimulate discussion and opinion, a number of models were proposed and sent for consultation with the regional representatives of this project, the suppliers of AAC equipment and the NHS Supply Chain.

# Outcomes

Three 'models' for procurement, recycling and technical upkeep have been considered, (as well as the possibility of using rental agreements as well as, or instead of, outright purchase):

> A single national procurement centre
> A sub set of specialist centres procure on behalf of all specialist centres
> All specialist centres procure for their own needs

## RENTAL OPTIONS

Historically one of the barriers to effective recycling was 'ownership' of AAC equipment bought from hard fought funding sources. Given that all AAC Specialist Services will be funded by the NCB, equipment mobility should be easier to achieve, but (although outside of the scope of this project) ownership of equipment procured by CCG's may still present difficulty. With this in mind, and also to realise any advantages for the Specialist Services, a rental system for AAC equipment was considered.

Very few suppliers offer this option and it is believed to be a more expensive way of providing equipment. As many suppliers have to buy in equipment, rather than manufacture it in the UK, this means a high initial outlay that needs to be recovered as quickly as possible, if the company is to maintain sufficient profit to continue to grow and offer a better service. There is also built in maintenance and extra administration costs that have to be included in the costs. This can lead to monthly payments, which mean over a reasonably short period of time the outright purchase would have been a lower cost option.

## DISCUSSION

Currently (unlike environmental control equipment) there is no general planned preventative maintenance programme of AAC equipment carried out by the suppliers. Equipment repair is carried out by the suppliers and by some of the larger NHS services. Anecdotally there is a considerable amount of AAC equipment that is stored in a technically non-functional state, and the point is made by the suppliers that the diversity of knowledge of the mechanics of AAC equipment would be difficult for an NHS based service to cope with. However it seems unlikely to be most efficient to return all categories of technical repair to the suppliers, which means that a combination of NHS based technical capacity with supplier involvement, will be best. Some degree of NHS technical capacity will be needed.

Recycling of 10% of AAC equipment has been cited in The Report of Communication Champion[12], and one example of 30% from an existing regional centre. Recycling, optimised across the country, could therefore result in a considerable saving to the NHS (£1M+ for each £10M spent on AAC equipment).

It is the suppliers' view that experience and history have shown that discounts in this marketplace are difficult to establish. Extended warranties have been used before to 'add value'. Greater levels of procurement certainty, arising out of increased NHS CB funding, will provide an opportunity for continuing dialogue between the (final arrangement of) procurement hubs, the suppliers, and the NHS Supply Organisation. Such discussions will also be an opportunity to address what is said to be 'huge' unfunded support of the NHS by suppliers, by way of loaning equipment for assessment, trial and training. A new procurement model must establish what the 'complete product' is, and devise procurement practices for value, clarity and commercial stability.

The NHS Framework, originally set up for environmental control equipment, has had little impact on AAC provision and is very little used. NHS Supply Chain will work with the AAC sub group, of the DH Clinical Reference Group, to develop a suitable framework for the future.

At the moment there is a considerable amount of diversity in the availability of AAC devices, and supporting such a wide diversity will need to be examined in relation to cost effective provision.

[12] Two Years On: final report of the Communication Champion for children http://www.communicationmatters.org.uk/sites/default/files/downloads/news/2011_final_report_of_communication_champion.pdf


## SUMMARY

There are strong and competing pressures in this area. The national austerity programme demands that the NHS produces real savings and cost reductions, while suppliers already feel that they provide things that the NHS does 'not pay for'. Under the new commissioning arrangements, beginning in 2013/2014, the NHS is going to invest a considerable amount more in AAC, and it will need to get best value for money, whilst sustaining a vibrant and innovative supply chain, and facilitating equitable provision of AAC for users.

There needs to be a central focus to ensure maximum buying power and to optimise recycling of equipment. The technical upkeep of the equipment will be a balance between the suppliers expertise at the more specialised level, and where it can be more economically provided at locally NHS service level, where repair and maintenance can take advantage of local capacities in technical support (rehabilitation engineering for example).

**The recommendation is therefore:**

A National Framework Agreement, which includes all AAC equipment including ancillaries and supporting equipment, should be established via the OJEU process which will meet Public Procurement and NHS Standing Financial Instructions. On behalf of the NCB it would be led by the NHS Supply Chain, who will represent and coordinate with the AAC Specialist Services. This National Framework will be an opportunity for negotiations on best value for money, and for suppliers to properly represent the totality of their product/service.

Procurement should be the responsibility of each Specialist Service, which is defined by the NCB and the AAC Specialist Service Specification, operating with and within the National Framework Agreement.

Each Specialist Service should have a technical capacity, to enable it to ensure that the AAC equipment in their catchment area is maintained, to optimise its use, and avoid unnecessary redundancy. The technical maintenance of the equipment will be a combination of 'in-house' capacity and liaison and collaboration with suppliers to ensure the most cost effective approach. Similarly, the technical capacity will ensure that uncommitted equipment is made ready for recycling.

A national data source should be provided, and a network between the Specialist Centres be established, to promote and facilitate recycling of equipment on as wide a basis as possible, but should only apply to equipment where recycling costs are less than the equipment cost. The costs of recycling should be built into Specialist Services contract costs.

# Objective 7: Remote delivery of AAC Services

## The aim of this objective

The aim of this objective was threefold: to submit a recommendation for remote delivery of specialised AAC services; to submit a costing of such service provision; and to highlight the cost saving implications of such a delivery model.

## Activity to achieve this objective

A survey was undertaken of current AAC services, users and suppliers to establish: the prevalence of use of remote access and videoconferencing technology; barriers and limitations encountered; user experiences; products being used. This survey was carried out face to face as well as online (see appendix 1).

An evaluation tool was designed to consistently and objectively analyse and compare currently available remote access and videoconferencing technologies (see appendix 2).

An information pack was produced to standardise the trial methodology but also to inform those carrying out remote AAC interventions in order to: manage expectations; allay technology fears; identify suitable users and session types; and to meet clinical governance requirements (see appendix 3).

A small number of remote access and videoconferencing trials were carried out according to a structured trial protocol and methodology. This enabled the collection of some quantitative data for cost analysis in addition to identifying solutions to the technological and organisational barriers and limitations highlighted in the survey. The qualitative data was analysed to extract themes in user experiences (see appendix 4).

A costing exercise was carried out to compare costs of face to face (home, clinic and community based) AAC service delivery versus remote AAC service delivery (see appendix 5).

A literature review was carried out to establish an evidence base for this objective (see appendix 6).

All the appendices referred to in this section can be viewed on the Communication Matters website at - http://www.communicationmatters.org.uk/cmrm-dissemination

# Outcomes

## REMOTE ACCESS AND VIDEO CONFERENCING SURVEY

### CONCLUSIONS FOR REMOTE ACCESS:

> Awareness and use of remote access and videoconferencing tools is prevalent amongst service providers. 70% have used remote access technology personally or at an organisation level.
> The most popular use of this technology is for troubleshooting problems of electronic devices.
> The most popular form of remote access software identified was Teamviewer.
> Technical issues were the most common problem identified (connection, performance and functionality issues).
> Technical knowledge and skills about remote access (and specific applications) is limited amongst professionals working in the field of alternative and augmentative communication.
> Security issues were a concern for remote access. From an IT perspective, 50% of respondents required at least one change of configuration setting for either their computer or network. Restrictions of information encryption and firewalls set by IT for organisations were also identified.
> Information governance was highlighted as a barrier or concern for 35% of respondents.

### CONCLUSIONS FOR VIDEOCONFERENCING:

> 64% of respondents have used video conferences for personal or work purposes. Meetings were the most frequently used application.
> 76% of those using videoconferencing for clinical work, cited training sessions as their main usage. However, catch-up and review sessions also feature highly.
> 100% of respondents who used this technology had experience of Skype. This was due to it being free to use and sessions often taking place from home to home due to services being blocked at work (25%), or other network connection issues such as connection dropping (63%).
> Of the people surveyed, over 50% found videoconferencing most useful from home or in a school. This is perhaps due to fewer firewall restrictions than in the NHS or other public sector organisations.
> 65% of respondents expressed frustration at attempting to carry out videoconferences at work due to organisational blocking of free software packages or lack of wireless connections in suitable places.
> The majority of AAC service users are happy or comfortable with the remote delivery of AAC services.
> Clinical governance was identified as a concern for network administrators (and occasionally leads to videoconferences not being able to take place.
> 60% of users have experienced poor quality video and sound, and a further 30% have suffered jitter (sound and video not synchronising). Respondents considered the sound and video quality of products used to be useable, but not excellent.
> Network and broadband speeds would need to be checked before videoconferences took place to ensure that quality is as good as possible and jitter kept to a minimum.
> Out of the trial participants, only 1 was unsure if they would use the technology again. All other participants would be comfortable or very happy to use videoconferencing again.

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## ONLINE EVALUATION TOOL

The online tool that was developed and used for the project will be made available as a product online via the communication matters website.

### RECOMMENDATIONS

> For management and development of the tool a more appropriate relational database system would provide improved structure, scalability and reporting.
> The incorporation of a cost analysis model.
> The incorporation of hardware for video conferencing systems.
> In order for the tool to be relevant as a decision making instrument it is important for it to be a living document, updated and managed on a regular basis. It is therefore recommended that ownership and management of the tool be appointed to a service or organisation.

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## INFORMATION PACKS

They can be used and adapted to suit the needs of organisations using videoconferencing and remote access in the future.

### RECOMMENDATIONS

> In order for the pack to be relevant as a decision making instrument it is important for it to be a living document, updated and managed on a regular basis.

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## REMOTE ACCESS AND VIDEOCONFERENCING TRIALS

> The project trials supported the literature evidence that videoconferencing is an acceptable form of AAC service delivery for people in review and support contexts. The trials demonstrated that user acceptance and consent are vital components of successful videoconferences and remote access sessions (user acceptance in the project trials was high). These technologies should therefore not be used as the only form of service delivery but added to the service provider's toolbox for appropriate cases.
> Videoconferencing and remote access technology is an acceptable form of AAC service delivery for professionals. All professionals throughout the trials were encouraged by their features and usefulness.
> Remote access technology is an acceptable form of service delivery for trouble-shooting and configuration changes on suitable AAC devices.
> Videoconferencing is an acceptable form of service delivery for meetings.
> All the trials demonstrated some cost savings which ranged from 33% to 71% for patient, clinical trials, from 33% to 84% for non-clinical trials and up to 95% for remote access trials. Our trials clearly demonstrated that there are savings to be gained from carrying out appointments using videoconferencing.
> The trials highlighted the need to engage local IT infrastructure at the planning stage of implementation.

## COSTS

A questionnaire was completed following each trial that provided information about the comparative costs of carrying out a session face to face or via remote access or videoconferencing

## CONCLUSIONS

> Although only a few trials were carried out, all of them demonstrated a cost benefit.
> The cost savings ranged from 33% to 71% for patient, clinical trials, and from 33% to 84% for non-clinical trials. Savings of up to 95% were demonstrated for the remote access trials. These are significant savings and means that if scaled up the savings could be considerable if more appointments and non-clinical meetings were carried out remotely.
> From this study it is clear that there are savings to be gained from carrying out appointments using videoconferencing. This saving needs to be offset against the cost of installing and using videoconferencing hardware and software in organisations where no infrastructure exists already.
> Cost savings established using remote access and videoconferencing not only benefit organisations directly through budgetary savings but also through potential for increased productivity without compromising quality. Less time spent travelling means that more people can pass through the service.
> The potential for providing services in a different way also means that there could be additional support provided during the assessment process and afterwards at little extra cost. This could equate to faster assessment times and so more people being seen without increasing costs.

## RECOMMENDATIONS

> A more systematic cost benefit analysis should be carried out to see whether these cost benefits are replicated when carrying out a larger scale trial.
> Comparison of different service delivery methods and their impact on cost of episode of care.

## LITERATURE REVIEW RECOMMENDATIONS

Future research should continue to investigate clinical and operational aspects of telerehab using video conferencing. The studies all acknowledged the need for further research and gaps in the current evidence base. Suggested studies include:
> Technological requirements to support diagnostic protocols and intervention procedures
> Further work on clinical efficacy and effectiveness
> Further work on client, clinician, and caregiver satisfaction
> Determination of client candidacy for remote service delivery
> A range of service delivery locations including controlled trials in laboratory settings and real-world locations such as clinics, schools, and client homes in both rural and urban areas
> Cost-benefit analyses
> Practical implementation issues such as scheduling, workflow, sustainability and organizational readiness.

# Objective 8: National AAC training and learning provision

## The aim of this objective

> Investigate regional variation in availability of training to professionals supporting people using AAC in England

> Examine the amount and type of training currently provided, and priorities for future training.

## 1: Regional variation in availability of training

Data on the provision of training to professionals was drawn from 187 services; representing 72% of those mapped as part of the AAC services mapping activity (see Objective 2)

Table 1 (below) shows the geographical distribution of training provision in relation to 10 Specialised Commissioning Hub (SCH) regions in England. Eighty percent of the services provide some form of AAC-related training to professionals. While the number of services represented in each SCH region varies, within each region a majority of services offer training.

| | Number of services providing training | Number of services not providing training | Total |
|---|---|---|---|
| East Midlands | 6 | 4 | 10 |
| East of England | 8 | 4 | 12 |
| London | 42 | 6 | 48 |
| North East, North Cumbria and the Hambleton and Richmondshire districts of North Yorkshire | 7 | 1 | 8 |
| North West | 13 | 2 | 15 |
| South East Coast | 9 | 1 | 10 |
| South West | 29 | 7 | 36 |
| Thames Valley and Wessex | 10 | 3 | 13 |
| West Midlands | 9 | 4 | 13 |
| Yorkshire and the Humber | 17 | 5 | 22 |
| **Total** | **150 (80%)** | **37 (20%)** | **187** |

Table 1 Services providing training to professionals

[13] http://www.communicationmatters.org.uk/page/aac-evidence-base-project

## 2: Training provision

A web-based questionnaire survey was used to gather information on the amount and type of training currently available from services in England in relation to:

> profile of professionals trained
> subject areas covered
> frequency of training
> level of training delivered (foundation, intermediate, advanced)
> priority subject areas for future training.

Training providers were identified via established AAC networks (e.g. AAC service provider Special Interest Group), Communication Matters Research Matters: An AAC Evidence Base research project[13], web-searches and with reference to publically available membership databases (e.g. hosted by Communication Matters and the Foundation for Assistive Technology), and through participation in service mapping conducted as part of objective 2 until February 2013.

### RESPONDENTS

One hundred and twenty one training providers in England responded to the survey (44% response rate), representing four classes of organisation:

(i) Clinical services including NHS, education and charities providing established clinical services (n=98; adult services 38%; paediatric services 48%, combined adult and paediatric services 13%; unknown 1%)
(ii) Independent (clinical) services (n=9)
(iii) commercial organisations producing and supplying AAC equipment (n=11)
(iv) charities representing the AAC community (n=3).

## Findings

### PROFILE OF PROFESSIONALS RECEIVING TRAINING

Respondents were asked to identify the professional groups to whom they have given training in the past 12 months. Table 3 shows the proportion of services providing training to professionals working in health and education. Speech and language therapists are the dominant professional group receiving training, with 64% of all services providing training support for this profession. Adult services also show a relatively high focus on training care assistants, and paediatric services show a strong emphasis on training education staff. Notably, commissioners, doctors and psychologists are poorly represented.

Table 3. Profile of professionals receiving training*

| | Percentage of all services providing training to each profession (n=107) | Percentage of adult clinical services providing training to each profession (n=32) | Percentage of paediatric clinical services providing training to each profession(n=42) | Percentage of combined adult and paediatric clinical services providing training to each profession (n=11) |
|---|---|---|---|---|
| Speech and language therapists | 64 | 47 | 64 | 100 |
| Teaching assistants | 62 | 13 | 95 | 64 |
| Teachers | 58 | 9 | 83 | 64 |
| Care assistants | 51 | 66 | 33 | 55 |
| Occupational therapists | 39 | 38 | 31 | 55 |
| Other | 24 | 19 | 29 | 18 |
| Nurses | 21 | 34 | 7 | 27 |
| Physiotherapists | 21 | 19 | 19 | 27 |
| Managers | 18 | 16 | 12 | 36 |
| Clinical technicians | 15 | 9 | 10 | 27 |
| Social workers | 13 | 25 | 5 | 9 |
| Psychologists | 8 | 13 | 7 | 9 |
| Commissioners | 7 | 3 | 5 | 27 |
| Doctors | 7 | 3 | 5 | 18 |

* highlighted pink cells represent the four most commonly trained professional groups.

## SUBJECT AREAS COVERED AND FREQUENCY OF TRAINING

Respondents reported the proportion of training activity delivered in a range of specified subject areas, and the frequency of training delivery in the past 12 months. Subject areas reflect an essential range of AAC-related training support issues. These issues were drawn from World Health Organization's International Classification of Functioning, Disability and Health (WHO, ICF, 2001), from discussion with experts in the field, and from relevant literature[14,15]. Table 4 presents the mean proportion of training activity in each subject area, and frequency of delivery.

Table 4. Mean proportion of training delivered in each subject area, and frequency of delivery

| Subject area | Frequency of training delivery | | | | Overall mean proportion |
|---|---|---|---|---|---|
| | 1/week (n=6) | 1/mth (n=35) | 1/6mths (n=34) | 1/12mths (n=9) | |
| Motor and sensory function | 0.0 | 2.5 | 5.1 | 0.0 | 3.8 |
| Cognition and language | 7.5 | 6.5 | 6.2 | 2.1 | 7.6 |
| Seating and positioning for AAC use | 1.7 | 2.4 | 2.5 | 1.7 | 2.9 |
| Language development and learning through AAC | 10.8 | 10.7 | 13.5 | 7.3 | 11.0 |
| Introducing/awareness raising of AAC products, systems and technology | 11.7 | 13.1 | 12.0 | 20.3 | 12.5 |
| Use of specific AAC products, systems and technology | 53.3 | 34.5 | 27.7 | 38.2 | 30.8 |
| AAC use for daily living activities | 5.0 | 5.6 | 7.0 | 5.6 | 6.4 |
| Acceptance, rejection and abandonment of AAC | 0.0 | 0.9 | 0.9 | 1.1 | 1.1 |
| Adapting the environment to facilitate AAC use | 1.7 | 5.9 | 6.3 | 3.9 | 5.4 |
| Developing the interpersonal interaction skills of people using AAC | 1.7 | 5.7 | 5.1 | 4.5 | 5.4 |
| Developing the interpersonal interaction skills of significant others | 1.7 | 5.1 | 7.1 | 3.2 | 5.4 |
| Managing others' attitudes towards people who use AAC | 0.8 | 1.2 | 1.2 | 1.1 | 1.2 |
| AAC service delivery and funding | 0.8 | 0.8 | 1.2 | 8.7 | 2.1 |
| Supporting social/community participation of people who use AAC | 3.3 | 3.8 | 4.2 | 2.3 | 3.6 |
| Measuring outcomes | 0.0 | 1.3 | 0.0 | 0.0 | 0.8 |

[14] Raghavendra, P., Bornman, J., Granlund, M., & Bjorck-Akesson, E. 2007. The World Health Organization's International Classification of Functioning, Disability and Health: Implications for clinical and research practice in the field of augmentative and alternative communication. Augmentative and Alternative Communication, 23, 349-361

[15] Rowland, Fried-Oken, Steiner, Lollar, Phelps, Simeonsson and Granlund (2012) Developing the ICF-CY for AAC Profile and Code Set for Children Who Rely on AAC. Augmentative and Alternative Communication, 28; 21-32

The primary area of activity, highlighted above, concerns training related to the use of specific AAC products, systems and technologies (31%), although the proportion of training activity in this area varied considerably across the sample (range 0-100%). Introducing/ awareness raising of AAC products, systems and technology (13%) and aspects of language development and learning through AAC (11%) were also subject areas of relatively high activity. All other subject areas are relatively poorly represented, most notably training in outcome measurement which represents less than 1% of overall reported training activity. The majority of respondents indicated that they provided training on average once a month or once every six months (n=69, 82%). Five of the six services offering weekly training were commercial services, the remainder being a NHS clinical service.

## TRAINING LEVELS

The level at which training was delivered was classified by respondents according to three bands:

**Foundation:** Aimed at those new to AAC. Training at this level would typically introduce general and basic concepts in AAC and/or provide an overview of the area.

**Intermediate:** Aimed at those with basic knowledge of, and some experience in, AAC. Training would typically provide comprehensive study of a particular area of AAC or its application to a particular group of people.

**Advanced:** Aimed at those with a good level of knowledge and a variety of experiences in AAC. Training at this level will assume an understanding of the field and may target highly specialist issues and/or wider service delivery issues.

These reflect the European Qualifications Framework (EQF) at foundation (EQF2/3/4), intermediate (EQF 5) and advanced (EQF 6/7)[16] levels, and draw on the Keeping Pace with Assistive Technology (KPT) guidelines[17], and Communication Matters' working papers on developing an AAC competency framework.

Most training was provided at foundation level which was reflected consistently across each subject area (mean = 64.3%; range 44.3-73.3%). A notably smaller proportion of training was delivered at intermediate level (mean = 30.0%; range = 18.3-42.9%) and less still at advanced level (mean = 5.7%; range = 8.3-12.9%).

[16] http://ec.europa.eu/education/lifelong-learning-policy/eqf_en.htm
[17] http://www.at4inclusion.org/kpt/

Figure 1 displays the proportion of training at each level for each of the three most commonly presented subject areas.

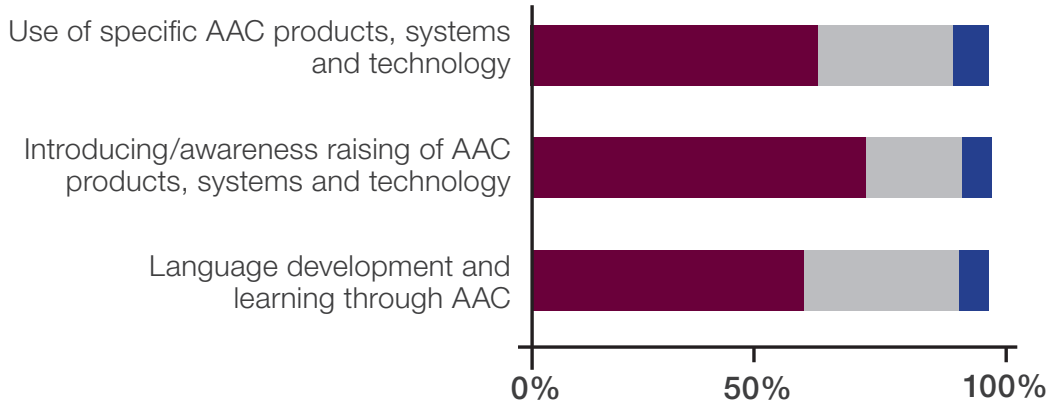


Figure 1. Level of training.

## PRIORITY SUBJECT AREAS FOR FUTURE TRAINING

Respondents ranked 15 subject areas (see table 4 for list of subject areas) according to perceived priority for training (1 = highest priority). Overall, the subject area receiving the highest priority ranking was use of specific AAC products, systems and technology, with the lowest mean rating (5.35) and with 10 (17%) respondents ranking it as a first priority (range of ranks 1-13). Other highly ranked subject areas were adapting the environment to facilitate AAC use, which was ranked first by 5 (8%) respondents (mean 5.92, range 1-14), and introducing/awareness raising of AAC products, ranked first by 12 (20%) respondents (although with a slightly lower mean priority ranking; mean 6.05, range 1-15).

Use of specific AAC products, systems and technology and introducing/awareness raising of AAC products are both rated as high priority and are two of the three subject areas in which services are delivering the highest proportion of training activity. It is notable that whilst adapting the environment to facilitate AAC use received a relatively high priority rating, this subject area receives very little attention from current reported training provision (see table 4).

Those rated as lowest priority were training in: supporting social/community participation of people who use AAC (mean 7.75, range 1-15), measuring outcomes (mean 11.62, range 3-15) and AAC service delivery and funding (mean 11.88, range 5-15). This reflects the current training subject profile, as respondents reported relatively little training activity in these areas (see table 4).

Commercial and independent providers reported a marginally stronger emphasis on motor and sensory function, and cognition and language as priority subject areas for training.

The range of prioritisation scores varied considerably across the group with 14 of the 15 subject areas receiving a top priority ranking (i.e. ranked 1) by at least one respondent. This may reflect localised areas of interest/ specialisms and/or needs.

# Summary

Respondents to this questionnaire survey highlighted a strong emphasis on their provision of training to speech and language therapists, teachers, and care assistants, with training in the use of specific AAC products, systems and technology a primary focus of activity. Training appears most commonly offered at foundation level (introduction to basic concepts in AAC), and typically delivered monthly or twice yearly.

[14] Lower mean scores indicate higher priority


# Conclusion

The challenge of the AAC Grants programme has been to consult and make recommendations in a rapidly changing political, technological and economic environment. For many years, the AAC community has tussled with the difficulties of identifying responsibility for commissioning AAC services and equipment provision at a local, regional and national level. There have been numerous campaigns from individuals and organisations that have applied pressure on successive Governments to clarify this responsibility and to urge better investment in the sector. The one universal truth that has sustained this commitment to untangle the myriad of issues and to persist in attempts to improve AAC provision is that AAC changes people's lives.

The AAC Grants Programme has necessitated the need to reach consensus with the wider AAC community about the future of services and provision for children and adults who need and use AAC. There have been many frustrations throughout the period of delivery of the AAC Grants programme due to the changes that are occurring currently in light of the commissioning reform in health and education as a consequence of the process of the Health and Social Care Act and the Children and Families Bill. However, despite these challenges I believe the AAC community is better informed and engaged and has a higher profile in the public domain than ever before. It has been a pleasure and a privilege to be so closely involved in identifying solutions for the future of AAC provision with the support and engagement of so many people, whose contributions have been invaluable.

We have a commitment from the Prime Minister that the NHS will make AAC available to more people, which is fantastic news. I believe the DfE-funded AAC Grant activity has played a significant role in setting the scene for this opportunity and I look forward to seeing how AAC services and provision evolve and improve over the next twelve months.

Anna Reeves

Anna Reeves
AAC Coordinator

# Acknowledgements and Contributors

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Photographs used with permission of the ACE Centre. Image on page 34 used with kind permission of Communication Matters.

## Contributors

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