EQUITY FOR ALL: CHILDREN'S SPEECH AND LANGUAGE THERAPY SERVICES IN SCOTLAND

Marie Gascoigne

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FOREWORD

The past two years have been incredibly challenging for the entire health and care community in Scotland, across the UK and globally. We have faced considerable challenges and witnessed and experienced the extent of deep health inequalities that exist among our communities and those we seek to help and support.

I am proud that our Allied Health Professional (AHP) community and services have continued to play such an important role in the efforts to face the challenges of COVID-19, and remain moved by the sheer dedication, and contribution of AHPs across Scotland. I also recognise that the challenge of inequalities and disadvantage will not dim in the aftermath of the pandemic, be they directly COVID-19-related or brought about by broader forces.

From small steps to big efforts, every person's contributions will count, and we have always been clear that together we know that we can make a difference to reducing inequity, improving services and supporting delivery of outcomes for the people of Scotland. It is with this intention that the Scottish Government commissioned the not-for-profit organisation Better Communication Community Interest Company in 2018 to support Children's Speech and Language Therapy (SLT) services to complete a comprehensive needs assessment to better understand service delivery models. This aimed to identify service development opportunities and form the basis for local action plans to the benefit of Children and Young People (CYP).

For me, the evidence around predicted need shines a light on what we intrinsically know through implementation of our Ready to Act Strategy; the value of targeted support for those most in need, joint partnership working and improved outcomes-based service planning have all been associated with improved outcomes for children with communication needs.

This report builds on our commitments and we hope it helps all CYP partners to consider their own contribution to driving equity in outcomes. It is not a benchmark, action plan or a summary of academic literature, but instead a prompt to help CYP partners to consider their own contribution to working together as a 'whole system' and to mitigate unintended negative impacts.

It is encouraging to see how this work led by Better Communication has already affected change in many Health Board areas in Scotland. I am hopeful that the interest and attention that has been generated in Scotland on Children's SLT Services will deliver further change for our future. We hope all stakeholders find this summary report helpful in guiding their efforts.

Carolyn McDonald
Chief Allied Health Professions Officer

1.
EXECUTIVE SUMMARY

This report is underpinned by a comprehensive national dataset that considers the population, demographic and predicted speech, language and communication needs of children and young people and triangulates these with the current speech and language therapy service offer both in terms of the demand on services but also the models of provision and interaction with partner agencies supporting children and young people. The methodology for collecting and curating the data was using the Balanced System® understand phase tools. This framework is an outcomes based improvement cycle, part of which includes the curation of datasets relevant to children and young people with speech, language and communication needs (SLCN) and their outcomes[1].

The dataset is significant both in size and scope and therefore this report has synthesised the four key themes and makes suggestions for consideration arising from the analysis. Finally, a case study focusing on one NHS Board area is presented to illustrate at a more granular level the narrative for a given area.

The four themes and associated recommendations are summarised in this executive summary and can also be found in the body of the main report.

1. Gascoigne, M.T. (2008 – 2021) https://www.thebalancedsystem.org

Theme 1

Focus on achieving equity of outcome rather than equality of input

Key findings

- **Disconnected relationship between predicted speech, language and communication need and the resource to meet that need.**

- **Inconsistency of offer.**

- **Variation in equity of reach into populations as evidenced by caseload and referral data.**

Recommendations

1. Resources should be balanced against varying needs of populations.
Across the 14 Health Boards and 32 Local Authorities nationally, there is a clear inequity in how services are resourced relative to predicted need. However, it is not the intention to suggest that moving resource from one part of the country to another is a recommended outcome as this would not of itself solve the issue. There are clearly a significant number of services where the resource simply is inadequate to meet the considerable needs of the population served.

NHS Boards and Local Authorities should be encouraged to undertake local needs assessments and plan jointly to resource the support for speech, language and communication needs in their area. This would be in line with the statutory aims of the Children's Services Planning Cycle[2]

2. Service delivery models need to be tailored to the populations that they serve.
The individual meetings with services allowed detailed exploration of the data in context. The challenges of meeting the needs of 70,000+ children and young people in an inner-city context are completely different to meeting the needs of 400 children and young people in an island community where a specialist intervention might involve a ferry ride and a round trip of 100 miles.

However, in either situation the need for a strong universal, targeted and specialist or individualised offer is key to meeting need and delivering impact. The specialist alone cannot effect the necessary change in either of these two contrasting situations, albeit for different reasons.

3. Shared outcomes for children and young people across the integrated system need to be clearly articulated.
It is a statutory requirement of the health board to work jointly with the local authority (and other local partners) to safeguard, support and promote wellbeing as part of each area's Children's Services Plan. These duties are set out in Pt 3 of the Children and Young People (Scotland) Act 2014. This includes a joint planning cycle of assessing the local needs of children and families, planning and delivery of services, and annual reporting on how outcomes have been improved. Some services were able to provide examples of strong collaborative work with Local Authority and school colleagues but this was by no means universal or systematic. The positive impact of early intervention and prevention methodologies on educational attainment need to drive joint working and creative use of funding streams for the benefit of children and young people.

2 Children and Young People (Scotland) Act, 2014 https://www.legislation.gov.uk/asp/2014/8/part/3

Theme 2

Measuring what we value – systems that value impact measures over measures of inputs

Key Findings

When considering the qualitative mapping of provisions and discussing the potential for evidencing outcomes with the services three issues were consistently raised:

- **The challenge of evidencing outcomes in a meaningful way that evidences the change effected as a result of support.**

- **The frustration that the datasets that are collected and used to monitor services are focused almost entirely on input measures such as numbers of face to face contacts which are not evidence of impact.**

- **The absence of any consistent ways of capturing these important measures of evidence across the country.**

Recommendations

4. A move away from traditional activity reporting towards including measures of impact.
Impact measurement is challenging and needs to be considered at the systems level as well as for individual children and young people. However, the impetus to capture impact is limited by the apparent absence of value placed on such data.

The recommendation is that all Health Boards and Integrated Care Partnerships consider their outcome and impact measurement priorities and seek opportunities to include these important measures in their suite of monitoring tools. Similarly, the datasets provided to Scottish Government should include impact measures and metrics that monitor the range and spread of service offer in order to demonstrate value in these areas.

5. Data systems that are appropriate and responsive to capturing impact measures.
Notwithstanding the challenges of capturing impact evidence, the typical NHS data systems do not readily facilitate this type of data being collected.

The recommendation is that any opportunities to influence the specification of new data systems to include qualitative and impact focused datasets should be maximised.

6. Measures across the integrated system and not in agency silos.
The final recommendation links to theme three of this report. Ideally the outcomes being measured across the system will include shared outcomes for children and young people with colleagues in education and social care.

The recommendation is that local systems should be encouraged to seek opportunities for shared outcomes for children and young people's speech, language and communication across a given area. For example, where schools are working closely with the speech and language therapy service, shared impact data can be gathered and collated that supports both the evidence of the speech and language therapy service contribution but also the educational outcomes for children and young people.

This approach fits with the recommendations of the Coordinated Support Plan Review (November, 2021) that there should be shared outcomes for children and young people across agencies[3].

Theme 3

Integrating systems across health, education and social care to maximise impact

Key Findings

- **The need to incorporate relevant education attainment data and other relevant datasets into the same framework alongside speech and language therapy outcomes.**

- **Not only should the outcomes data be collaborative but so should the service delivery. Two Health Boards have been engaged in detailed strategic work with schools leading to accreditation of the schools. This pro-active and in-depth approach, with a process led and owned by the schools, has potential to support systems wide change in Local Authority planning and outcomes measurement.**

Recommendations

7. Government departments jointly planning strategy for improving children and young people's speech, language and communication outcomes, recognising the central role that these skills play in learning, well-being and long term life outcomes and the contribution of the whole children and young people's workforce including AHPs.
True systemic change led from the centre would be an enabler to local systems in building stronger whole systems responses.

8. Local systems including Health Boards, Health and Social Care Partnerships, Integrated Joint Boards and third sector organisations need to jointly plan for effective integrated systems to support speech, language and communication support.
The datasets brought together for this project provide the basis for joint needs analysis for speech, language and communication in local areas which could form the basis of area strategies identifying all component parts of the system to deliver outcomes.

9. Provision across AHP services, schools and settings should be collaborative and integrated around populations of children and young people that they service.
At an even more localised level, detailed integrated plans at the level of neighbourhoods or clusters of schools and learning communities, such as the best examples of integrated working identified in this project, could be used as exemplars for a consistent approach across the country. At this level the solutions are similar whether for a rural island community or an inner-City area.

Theme 4

Ensuring a workforce that is fit for purpose – flexible skills and competences

Key findings

- **The culture change to move towards a truly outcomes focused and impact measuring system is significant.**

- **Current and future practitioners are not adequately prepared to work effectively in whole systems collaborative contexts.**

- **Leaders within national organisations and local leaders need to prioritise this element of workforce development.**

10. Pre-registration and post-graduate training should include reference to whole systems, population-based models.
Practitioners throughout the system need to have the opportunity to understand and use data to inform service planning and delivery and even individual practice.

11. Competencies for integrated working in complex systems need to be explicitly taught, coached and mentored.
Integrated working is the more challenging approach for the individual therapist relative to the traditional medical model. Preparation and confidence in skills and competences for working with and through others is key to impactful joint working. SLT services need to ensure these skills and competences are in the current workforce and HEIs need to ensure that student therapists are adequately prepared for working in integrated services.

12. Enhanced leadership competencies.
Transformational change requires strong leaders at all levels of the system. These competencies need to be threaded through continuing professional development across agencies so that local systems can develop dispersed leadership across integrated service delivery.

2.
INTRODUCTION

Scottish Government commissioned Better Communication CIC[1], a not-for-profit community interest company established to share the Balanced System® with stakeholders, to conduct a comprehensive needs analysis and review of workforce and provision for children and young people with speech, language and communication needs across Scotland using the Balanced System® Framework and Improvement Methodology[2]. The brief was to conduct quantitative and qualitative analysis that would generate a comprehensive picture across Scotland.

One of the key asks of this project was to explore the possibility of a workforce benchmark for speech and language therapy working in children and young people's services. The difficulty and potential risk of calling datasets 'benchmarks' lies in the reality that even a comprehensive dataset such as that reported in this paper is only describing the landscape 'as is'. In and of itself, it is not possible to make statements about what the workforce 'should be' based on these descriptive data alone. However, the 'golden thread' from predicted need, through demand and capacity, service delivery model to evidence of impact provides a level of comparison within context not previously available.

Key to this analysis was the use of the Balanced System® outcomes focused methodology that ensured the data were set in the context of the populations served and the models of service delivery. The ultimate outcome was to provide insights and recommendations for future workforce development and deployment as part of the integrated children and young peoples' systems working to improve life chances, mental health and well-being through the development of effective speech, language and communication skills. These recommendations would potentially be cross cutting across children and young peoples' services involved in supporting the development of speech, language and communication.

A tension exists in the presentation of the data in this report between respecting the willing participation and valuable contribution made by every speech and language therapy service in Scotland to this dataset and describing and discussing the differences in demand, provision and outcomes and ensuring that they are understood in the context of a descriptive analysis that is not 'reviewing' or judgemental of services but rather seeking to understand inter-relationships in the system that account for the observed data.

This report presents a synthesis of the findings around four cross cuttings themes which emerged from the descriptive analysis. These highlight key challenges for children and young people with speech, language and communication needs and those who work to deliver impactful services that bring about tangible change. Recommendations are made where appropriate and further lines of enquiry are identified. The detail of the raw data is available to each Health Board and will remain accessible for reference but has not been exported due to scale and volume.

Annex 1 provides a case study from one Health Board area which illustrates the detail of analysis at individual service level[3]

[1] www.bettercommunication.org.uk
[2] Gascoigne, M.T. (2008 – 2021) https://www.thebalancedsystem.org
[3] Annex 1: Case Study: NHS Forth Valley

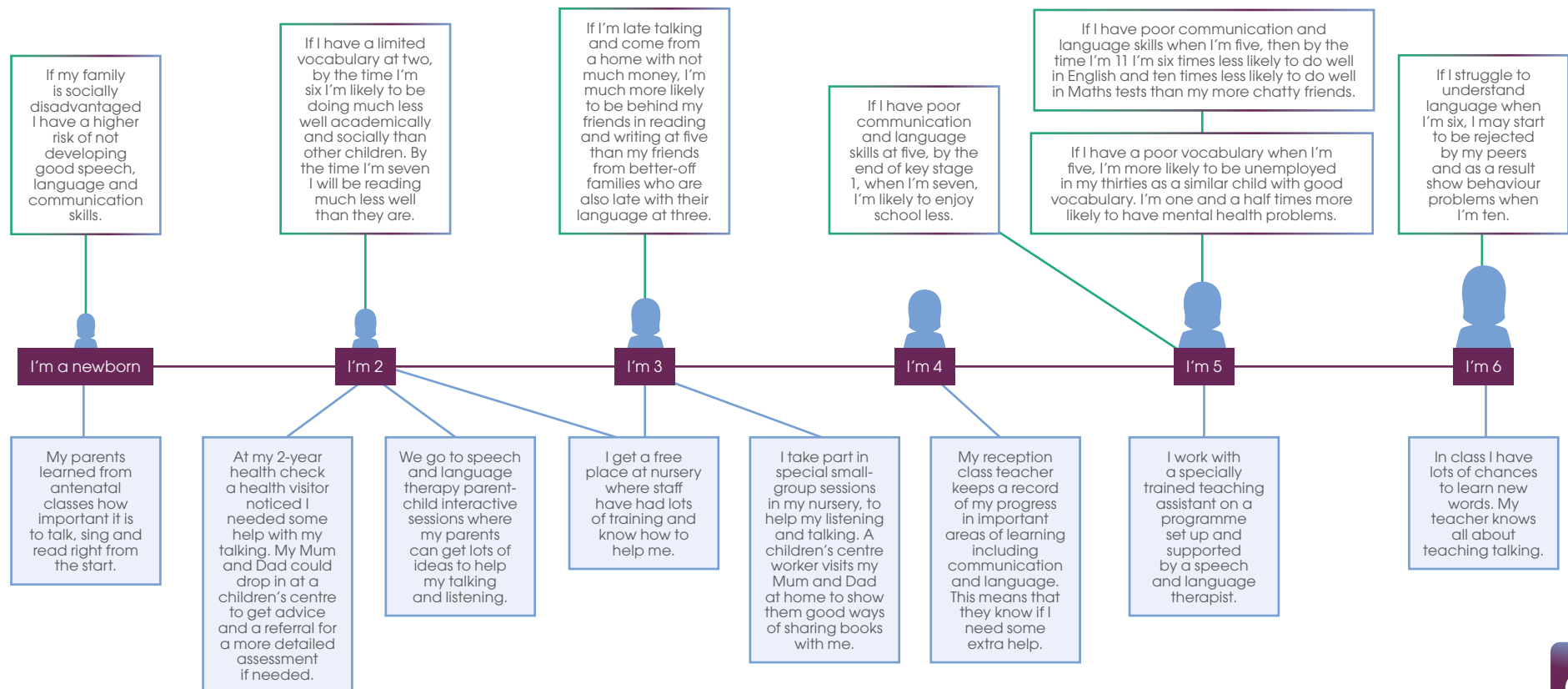# 3.
POLICY CONTEXT & EVIDENCE BASE

The driver for this project sits within the wider policy and evidence context around improving life chances for children and young people whatever their circumstances and ensuring that speech and language therapy services for children and young people are resourced, designed and delivered as part of a whole systems approach to education, health and social care.

Speech, language and communication skills are central to improving educational attainment, mental health, well-being and long-term life outcomes, including employment and social mobility.

Figure 1 below summarises the impact on life chances of some of the key risk factors for poor early language development and protective factors that can help.

Figure 1. Gascoigne & Gross.[4] Graphic from Talking About a Generation (2017)

If my family is socially disadvantaged I have a higher risk of not developing good speech, language and communication skills.

If I have a limited vocabulary at two, by the time I'm six I'm likely to be doing much less well academically and socially than other children. By the time I'm seven I will be reading much less well than they are.

If I'm late talking and come from a home with not much money, I'm much more likely to be behind my friends in reading and writing at five than my friends from better-off families who are also late with their language at three.

If I have poor communication and language skills at five, by the end of key stage 1, when I'm seven, I'm likely to enjoy school less.

If I have poor communication and language skills when I'm five, then by the time I'm 11 I'm six times less likely to do well in English and ten times less likely to do well in Maths tests than my more chatty friends.

If I have a poor vocabulary when I'm five, I'm more likely to be unemployed in my thirties as a similar child with good vocabulary. I'm one and a half times more likely to have mental health problems.

If I struggle to understand language when I'm six, I may start to be rejected by my peers and as a result show behaviour problems when I'm ten.

I'm a newborn — I'm 2 — I'm 3 — I'm 4 — I'm 5 — I'm 6

My parents learned from antenatal classes how important it is to talk, sing and read right from the start.

At my 2-year health check a health visitor noticed I needed some help with my talking. My Mum and Dad could drop in at a children's centre to get advice and a referral for a more detailed assessment if needed.

We go to speech and language therapy parent-child interactive sessions where my parents can get lots of ideas to help my talking and listening.

I get a free place at nursery where staff have had lots of training and know how to help me.

I take part in special small-group sessions in my nursery, to help my listening and talking. A children's centre worker visits my Mum and Dad at home to show them good ways of sharing books with me.

My reception class teacher keeps a record of my progress in important areas of learning including communication and language. This means that they know if I need some extra help.

I work with a specially trained teaching assistant on a programme set up and supported by a speech and language therapist.

In class I have lots of chances to learn new words. My teacher knows all about teaching talking.

The policy and legislative landscape in Scotland has, at its heart, the intention for real change for children and young people, carers, families and communities. The Programme for Government[5] sets out the key deliverables for reducing inequalities, closing the attainment gap, and delivering to the commitments of The Promise[6].

Ready to Act[7] has been implemented across Allied Health Professions (AHP) Children and Young People (CYP) services in Scotland since its launch in 2016 and is underpinned by a commitment to whole systems transformational change in the ways services are designed and delivered. Ready to Act is underpinned by a commitment to Getting it Right for Every Child[8] with improved access to expertise upstream through robust resourcing of early intervention and prevention at universal and targeted levels, changing the conversation at the point of request for help, reaching communities, having the CYP voice at the heart of decisions that impact on their lives and collaborating across professions and agencies to improve outcomes for CYP.

[5] https://www.gov.scot/programme-for-government/
[6] https://www.carereview.scot/wp-content/uploads/2020/02/The-Promise.pdf
[7] https://www.gov.scot/publications/ready-act-transformational-plan-children-young-people-parents-carers-families/
[8] https://www.gov.scot/policies/girfec/

4.
METHODOLOGY – COMPREHENSIVE NEEDS ANALYSIS & MAPPING OF SLT PROVISION FOR CHILDREN AND YOUNG PEOPLE IN SCOTLAND

The methodology, as outlined in the response to the brief was to conduct a comprehensive SLT benchmarking exercise across Scotland, delivered through a mixture of quantitative and qualitative data collection and analysis.

The analysis and interpretation of this dataset at a national level provides an overview of need, demand and workforce capacity triangulated with the qualitative data obtained from mapping of provision and gaps at local area level. The qualitative mapping provides insights into the nature of the services offered and the possibility of triangulating need, workforce, demand, service offer with outcomes and impact although this last element collecting impact data was not part of this initial piece of work.

Scotland is a demographically and geographically diverse country and the analysis places these features at the centre in order to ensure that the findings are interpreted in context and understood in terms of the functional impact and change that is appropriate in each area.

The quantitative datasets included population, demographic and attainment data from national datasets. A specific tool within the Balanced System® triangulates these population-based data with the evidence base regarding prevalence of SLCN and allows a calculation of predicted need. The quantitative tools were used to analyse these datasets and provide predicted needs for speech, language and communication needs at NHS Board and Local Authority levels with detailed analysis possible at Multiple Member Ward (MMW) and Intermediate Zone (IZ) levels.

These datasets have the potential to be used to ensure that service provision, in particular integrated services aimed at prevention and working across the inter-generational cycle, are deployed for maximum impact.

Each SLT service within Scotland was provided with access to a Balanced System® account which was pre-populated with the national data relating to their areas and also provided the predicted SLCN in their areas. This access has been continued beyond the end of the project so as to allow services to use the data as a management and planning tool.

In order to complete the initial quantitative benchmarking, each service was asked to provide caseload, workforce and finance data which was triangulated with the population-based analysis.

SLT services were also supported through their individual service accounts to map the current provision and gaps in provision to support children and young people with SLCN in their areas. The Balanced System® Mapping Tool is structured around the Five Strands of the Balanced System®: Family Support; Environment; Workforce; Identification and Intervention. Each of the Five Strand areas has desired outcomes at universal, targeted and specialist levels. The Balanced System® Five Strands has already been incorporated into the models developed to support transformation as part of the Ready to Act implementation.

Four of the services had previously been part of a pilot study in 2017 – 2018 and had completed a pilot study using these tools. They were able to provide peer to peer examples to the wider group completing this project.

The qualitative mapping allows analysis of the provisions that are in place to support children and young people with SLCN across the Five Strands and the three levels. In particular, it demonstrates the balance of provisions across the system and these data can be considered in the context of the quantitative analysis of need and demand. The mapping of professionally identified gaps is also part of the qualitative mapping and provides a gap analysis within the same framework.

All children's SLT services across 14 Health Boards and 32 Local Authorities were invited to participate in the project resulting in a complete dataset for Scotland.

The Balanced System® framework provides a 'map' for considering the system as a whole. The Balanced System® has at its core a service delivery model which encompasses best practice and a needs led, population based way of understanding local needs and developing integrated services which includes speech and language therapy but also explicitly identifies the contribution of other partners in achieving outcomes for children, young people and their families[9]. In considering commissioning, provision, workforce, training, and leadership within one framework, it is possible to gain a clearer understanding of the inter-relationship between the component parts and how change to one of these will have an impact across the whole system.

[9] Gascoigne, M.T. (2008 – 2021) https://www.thebalancedsystem.org
[10] https://www.thebalancedsystem.org

The online platform and tools[10] that have been developed over the past fifteen years facilitate a process of understanding, planning, implementing, and reviewing the service delivery in a given area for impact.
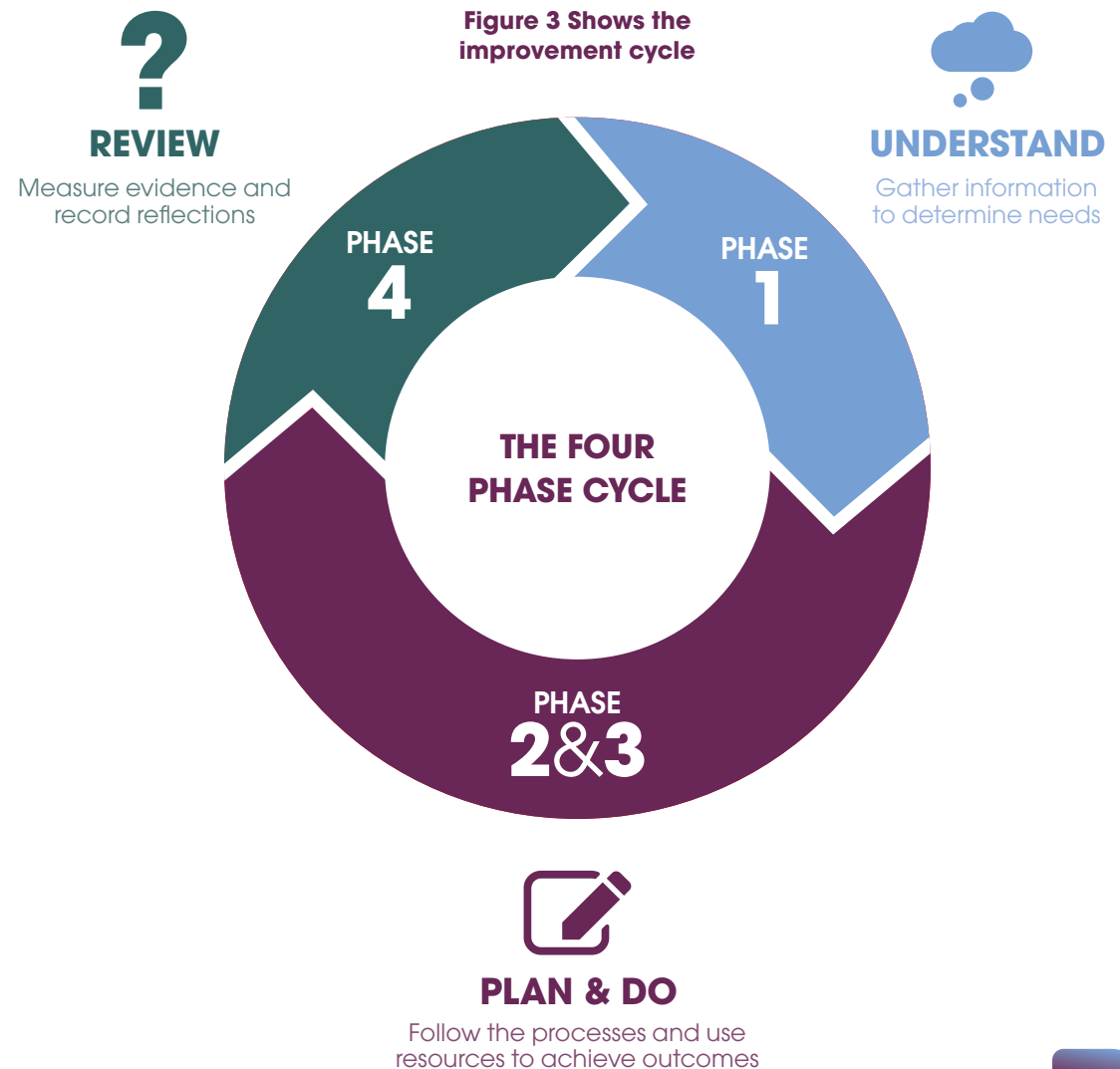
Figure 2 Provides a graphic summary of the framework

THE **BALANCED SYSTEM®** WORKING ACROSS THE **FIVE STRANDS**

INTERVENTION
IDENTIFICATION
WORKFORCE
ENVIRONMENTS
FAMILY SUPPORT

Wider workforce

Specialist
Targeted
Universal

Specialist workforce

Training and development

Leadership

Engaging with parents, carers and young people

Delivered by an integrated workforce

Outcomes commissioned for children & families

An information session was held with the Scotland children and young peoples' SLT leads group to explain the scope and nature of the project and invite each service to nominate a lead to be the link person for the project. Further sessions were then held with the nominated leads as a group and then individually throughout the data collection.

The National Lead AHP for Children and Young People updated AHP Directors periodically during the project as part of regular meetings.

This project was commissioned to carry out the 'understand' phase of needs analysis only, however each service was offered a feedback and mentoring session in order to help them formulate an action plan in response to the learning at a local level. Individual service accounts have been created to allow services to continue to access and use the data they supplied to the project. Some services have indicated that they would like to continue through the Balanced System® methodology to use the implementation part of the framework. This is out-with the scope of this project and would need to be funded on a case-by-case basis.

Figure 3 Shows the improvement cycle

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REVIEW
Measure evidence and record reflections

UNDERSTAND
Gather information to determine needs

PHASE
4

PHASE
1

THE FOUR PHASE CYCLE

PHASE
2&3

PLAN & DO
Follow the processes and use resources to achieve outcomes

Understand phase

The understand phase of the Balanced System® cycle involves collection and analysis of both quantitative and qualitative data.

Qualitative data

The tools to collect qualitative data are grouped into,

- Context and self-evaluation including questions using a theory of change approach to capture current views and aspirations for the provision
- The mapping tool which facilitates a capture of the service offer and the gaps in service relative to the outcomes areas of the Balanced System® Five Strands and three levels
- The evidence tool which seeks evidence of impact relative to the service offer.

The self-rating baseline assessment provides a 'red, amber, green' (RAG) summary in terms of impact across the key areas of:

- Joint commissioning or funding of provision across the system
- Integrated workforce
- Engagement with parents, carers and young people
- Training and development
- Leadership and management

The detailed assessment provides a similar RAG profile for the overall summary of service provision prior to the detailed mapping exercise.

The Balanced System® Mapping Tool captures the offer for children and young people and their families in terms of the provision which is available, or the gaps in provision, relative to each of the outcomes areas of Family Support; Environment; Workforce; Identification and Intervention and at universal, targeted or specialist or individualised levels. Figure 4, shows the high level outcome statements for each of the Five Strands across three levels.

Figure 4

THE BALANCED SYSTEM® HIGH LEVEL OUTCOMES FOR SPEECH, LANGUAGE AND COMMUNICATION NEEDS

FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION
FS3. Specialist - Parents and carers of children with specialist SLCN receive specific specialist support to ensure confidence in their role as a key communication partner for their child and to increase their understanding of the specific communication challenges associated with their child's needs. Young people with SLCN are enabled to be active participants decisions about their support.	EE3. Specialist - Places where children and young people with specialist and complex SLCN spend their time for learning and leisure are communication friendly. The necessary adaptations are in place to maximise access in addition to the enhancements expected at a universal and targeted levels.	WW3. Specialist - Knowledge skills and expertise are developed in identified members of the wider workforce in order to ensure that, working with specialist support, there are staff that are confident and competent to support the delivery of specialist interventions including individual and small group work, support parents, adapt the environment and identify children who need specialist support.	ID3. Specialist - Children with specialist SLCN have their needs identified effectively and quickly. This includes multidisciplinary assessment where appropriate.	IN3. Specialist - Children and young people needing specialist intervention for their SLCN receive appropriate and timely provision in the most functionally appropriate context for their needs. Progress measures will include activity, participation and well-being goals in addition to goals relating to their core SLC impairment.
FS2. Targeted - Parents and carers of children with identified speech, language and communication needs (SLCN) access additional specific support to ensure confidence in their role as a key communication partner and educational support for their child. Families and young people with SLCN are supported to make choices and access services.	EE2. Targeted - Places where children and young people with identified SLCN spend their time for learning and leisure are communication friendly. Appropriate additional enhancements are made that enable children and young people with identified SLCN to more easily understand and to express themselves.	WW2. Targeted - The wider workforce is supported to develop specific knowledge and skills to support children and young people with identified SLCN. Setting and school staff are confident and competent to deliver targeted interventions, support parents, adapt the environment and identify children who need additional support.	ID2. Targeted - Efficient and accessible processes are in place that support the identification of more specific SLCN. The wider workforce, setting and school staff are supported to be confident and competent to identify children and young people who may require targeted support and/or referral to specialist services for their SLCN.	IN2. Targeted - Children and young people benefiting from targeted interventions will have access to evidence based targeted interventions to develop core speech, language and communication skills delivered in the most appropriate functional context. These might include 1:1 and / or small group interventions that are typically designed by specialist practitioners and delivered by those with appropriate training.
FS1. Universal - All parents and carers are supported with information and resources to encourage their role as effective primary communicative partners for their children. Families and young people are able to make proactive choices with respect to their child's or own needs.	EE1. Universal - Places where children and young people spend their time for learning and leisure are communication friendly. Environments have appropriate enhancements that make it easier for all children and young people to understand and express themselves.	WW1. Universal - The wider workforce is supported to have a good basic understanding of speech, language and communication including supportive strategies. Setting and school staff are confident in their role as facilitators of communication. The wider workforce has access to appropriate training around speech, language and communication.	ID1. Universal - Early identification of children and young people whose speech, language and communication needs may require targeted or specialist support is as efficient and accessible as possible. Preidentification information and advice is available in a given area, school or setting.	IN1. Universal - Homes, settings and schools are supported to develop the language and communication skills of all children and young people through language enrichment and supportive activities.

Quantitative data

Quantitative data consists of both datasets that are available from national sources such as population and Scottish Indices of Multiple Deprivation (SIMD) and Education Scotland attainment data and data from services.

A prediction of speech, language and communication need in a given area is made using a triangulation of these data with the evidence base on prevalence for both specific long-term needs such as developmental language disorder (DLD) as well as the reported interaction between poor early language and communication development and socio-economic factors and early opportunity.

These data were further triangulated with the known demand on services using reported caseload, referral and waiting-list data and the workforce available to meet need. The workforce data seen in the context of the predicted need and service offer has resulted in more nuanced understanding of the reported workforce and its impact on outcomes.

The cross cutting themes emerged from the findings of the initial analysis of the full data set together with the individual service workshops which allowed a discussion with the service leads to sense check and explore the emerging narrative for each service. The key findings of the project are presented in the context of the thematic analysis.

Thematic analysis

Four cross cutting themes emerged from the initial analysis. These themes form the structure of this synthesis, offer recommendations and suggestions for further lines of enquiry:

- Focus on achieving equity of outcome rather than equality of input
- Measuring what we value – systems that value impact measures over measures of inputs
- Integrating systems across health, education and social care to maximise impact
- Ensuring a workforce that is fit for purpose – flexible skills and competences

THEME 1:
FOCUS ON ACHIEVING EQUITY OF OUTCOME RATHER THAN EQUALITY OF INPUT

This first theme emerged from the following three observations from the analysis of the dataset:

- Disconnected relationship between need and resource
- Inconsistency of offer
- Variation in equity of reach into populations

Identifying need

The Balanced System® methodology takes a population-based approach to understanding need for a given area of concern in a given geographical population. When considering speech, language and communication needs (SLCN), it includes but does not begin with diagnostic categories, rather the evidence base that suggests that potential SLCN will exist in populations that cannot be formally identified until a particular developmental stage is reached whilst others can be prevented from being impactful in the longer term with appropriate early intervention and prevention. The calculation therefore includes both prediction of need based on prevalence expected in any population and a factor to take account of the interaction between social disadvantage and impacts on language and communication especially in the early years.

The analysis of the population of children and young people (CYP) in Scotland suggests that approximately 25% of CYP 0-18 can be predicted to have some level of SLCN at some stage in their development (see figure 5 below). This does not mean that they necessarily require the specialist support and intervention from a speech and language therapy service provided that the wider CYP system is equipped with strong universal and targeted support that has been developed in conjunction with specialists. This model is reflected in the policy and legislative context for CYP in Scotland articulated clearly in Ready to Act[11] specifically in relation to therapy services, and in the GIRFEC[12] framework for all children and young people.

However, the distribution of this need is remarkably variable. Figure 6, below, shows that the percentage of the CYP population predicted to have some level of SLCN in NHS Ayrshire & Arran is the highest percentage at 31.7%, closely followed by NHS Glasgow & Greater Clyde at 31.5% and NHS Lanarkshire at 31.0%. When these percentages are applied to the population data, the actual number of children and young people predicted to have some level of SLCN in NHS Glasgow & Greater Clyde is 73,000 with 50,000 of these predicted to be in the 0-9 age range. Figure 7 shows the percentage of all the predicted need in Scotland by NHS area. The predicted need in NHS Glasgow & Greater Clyde represents just under a third (27%) of the need in the whole of Scotland.
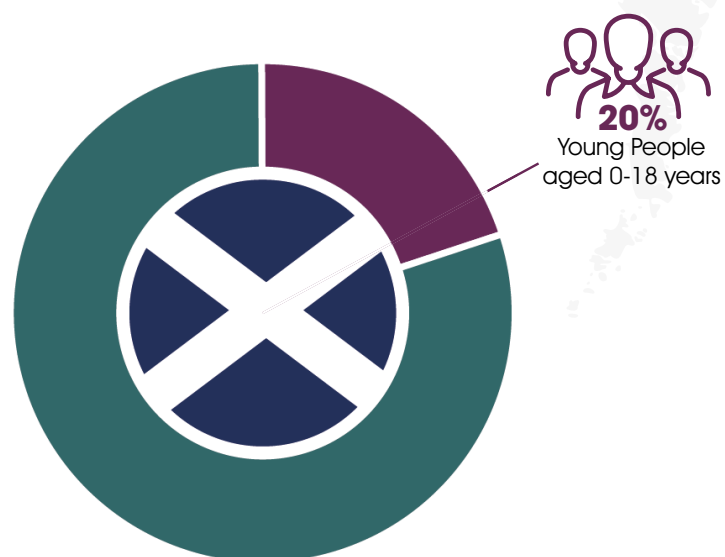
[11] https://www.gov.scot/publications/ready-act-transformational-plan-children-young-people-parents-carers-families/
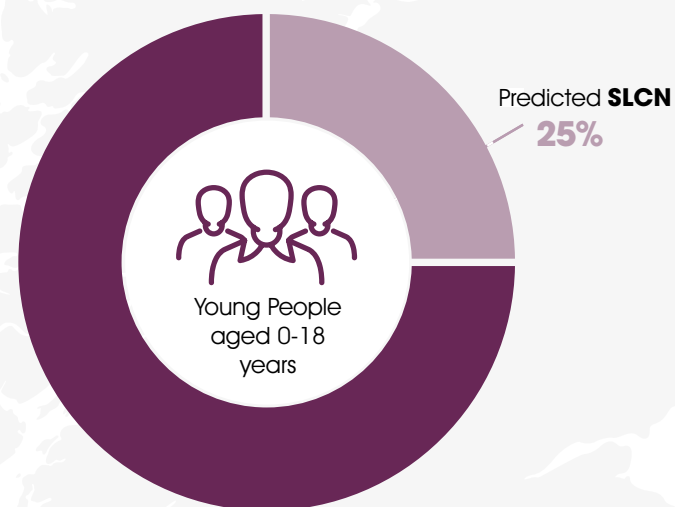[12] https://www.gov.scot/policies/girfec/

Figure 5

Population and predicted Speech, Language and Communication Need (SLCN) in Scotland

20%
Young People
aged 0-18 years

Predicted **SLCN**
25%

Young People
aged 0-18
years

In Scotland, there are
1.1m young people aged 0-18
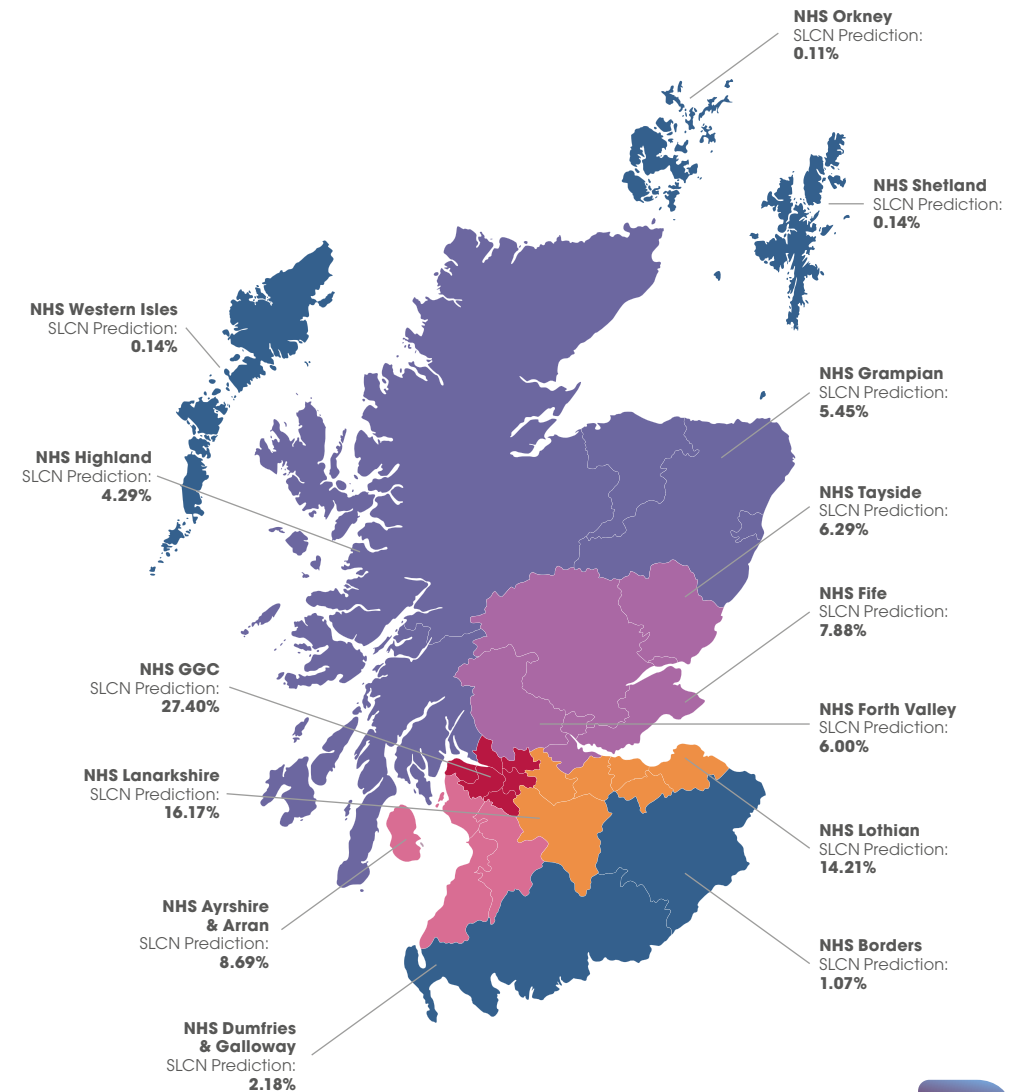(Exact figure is **1,086,721** which is **20%**
of all Scotland's population).

Of these **275,000** have a predicted
Speech Language and Communication Need (SLCN)
(Exact figure is **275,680** young people that have a predicted SLCN,
which is **25%** of Scotland's 0-18 population).

THE
BALANCED
SYSTEM

Figure 6: Showing the percentage of CYP 0-18 predicted to have SLCN in each of the Health Board areas in Scotland

31.7%
31.5%
31.0%
28.1%
26.2%
22.6%
Median 22.0%
21.9%
Mean 21.0%
22.1%
19.8%
14.7%
14.5%
10.0% (x3 locations)

0 to 18 SLCN prediction % of total 0-18 population.

- NHS Ayrshire & Arran
- NHS Borders
- NHS Dumfries & Galloway
- NHS Fife
- NHS Forth Valley
- NHS GGC
- NHS Grampian
- NHS Highland
- NHS Lanarkshire
- NHS Lothian
- NHS Orkney
- NHS Shetland
- NHS Tayside
- NHS Western Isles

0 to 18 SLCN prediction % of total 0-18 population.
Colour shows details about area name.

Figure 7: Showing the distribution as a percentage of the predicted SLCN for CYP 0-18 across Scotland

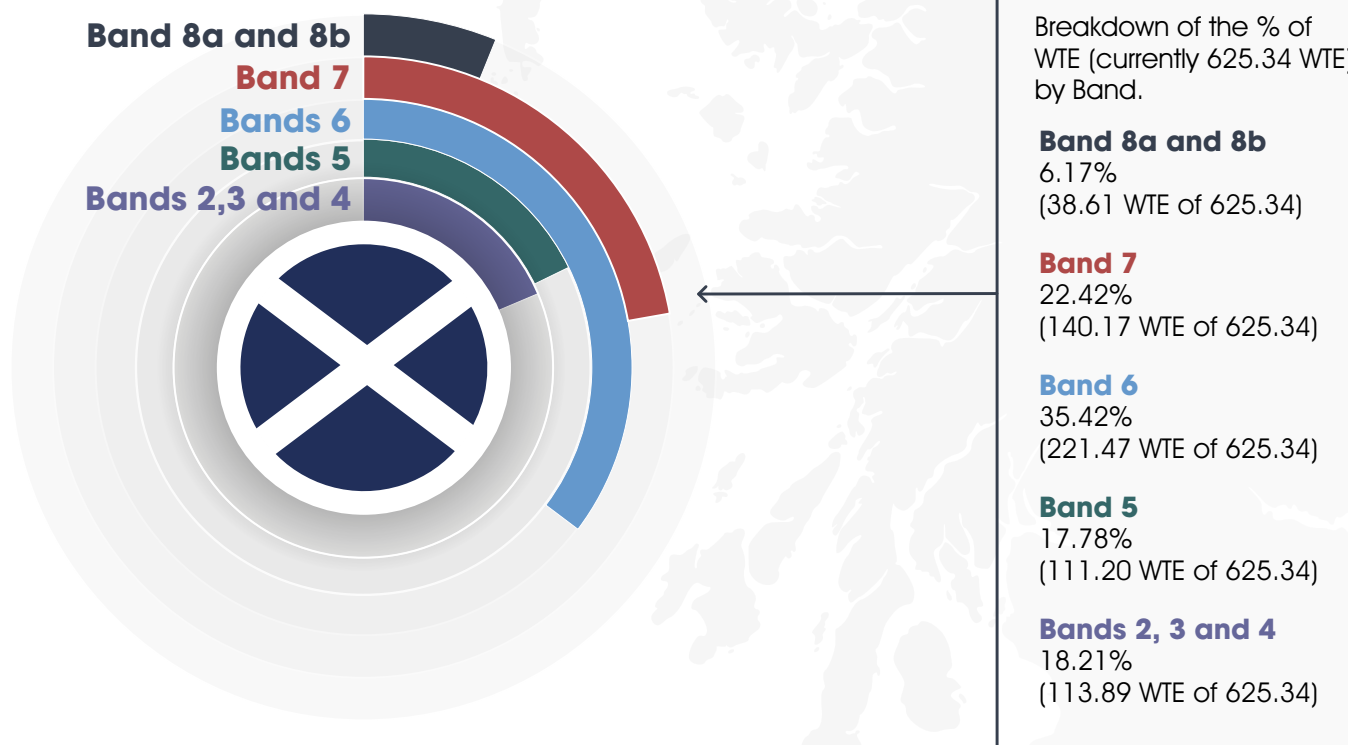% of Scotland's overall SLCN Prediction (0-18) by NHS Area

NHS Orkney
SLCN Prediction:
0.11%

NHS Shetland
SLCN Prediction:
0.14%

NHS Western Isles
SLCN Prediction:
0.14%

NHS Grampian
SLCN Prediction:
5.45%

NHS Highland
SLCN Prediction:
4.29%

NHS Tayside
SLCN Prediction:
6.29%

NHS Fife
SLCN Prediction:
7.88%

NHS GGC
SLCN Prediction:
27.40%

NHS Forth Valley
SLCN Prediction:
6.00%

NHS Lanarkshire
SLCN Prediction:
16.17%

NHS Lothian
SLCN Prediction:
14.21%

NHS Ayrshire & Arran
SLCN Prediction:
8.69%

NHS Borders
SLCN Prediction:
1.07%

NHS Dumfries & Galloway
SLCN Prediction:
2.18%

Workforce to meet need

The analysis of the speech and language therapy workforce reported to be working with children and young people shows that there were 625.34 whole time equivalent (WTE) within speech and language therapy services of which 511.45 were registered SLTs working at Band 5 or above. This represents approximately 61.5% of the total registered SLT workforce identified as working for the NHS in Scotland. It is worthy of note that of the total 119.3 SLTs identified nationally at Band 8 (a,b,c) from NHS data only 32% (38.61 WTE) at this senior level are part of the CYP workforce as opposed to the adult workforce.

Figure 8

Scotland's CYP speech and language therapy workforce make up

Band 8a and 8b
Band 7
Bands 6
Bands 5
Bands 2,3 and 4

Breakdown of the % of WTE (currently 625.34 WTE) by Band.

Band 8a and 8b
6.17%
(38.61 WTE of 625.34)

Band 7
22.42%
(140.17 WTE of 625.34)

Band 6
35.42%
(221.47 WTE of 625.34)

Band 5
17.78%
(111.20 WTE of 625.34)

Bands 2, 3 and 4
18.21%
(113.89 WTE of 625.34)

The distribution of the workforce nationally was analysed in two ways.

The 'traditional' analysis of whole time equivalent to number of CYP was calculated across all 14 Health Boards (see figure 9). However, a more nuanced calculation of the WTE workforce to number of CYP with predicted SLCN provides a better measure of workforce to meet need and this calculation is presented in figure 10 below.

These data show that whilst there is a significant variance in the workforce proportional to either measure, the spread is greater when the ratio to predicted SLCN is considered with a range between 1.54 WTE SLT/1000 CYP predicted to 14.00 WTE SLT/1000 CYP predicted. The median figure of 2.71 is a more representative measure of central tendency than the mean of 3.92 due to the outlier areas. If the significant outlier is excluded from the mean calculation, a mean of 3.14 WTE SLT/1000 CYP predicted need is the result. For the purposes of this report therefore the figure of 3 WTE SLT/1000 CYP predicted need will be used as the mean.

3.14
The avg. WTE per 1000 0-18 SLCN predicted need

Figure 9

Reported WTE per 1000 0-18 population in each NHS area across Scotland
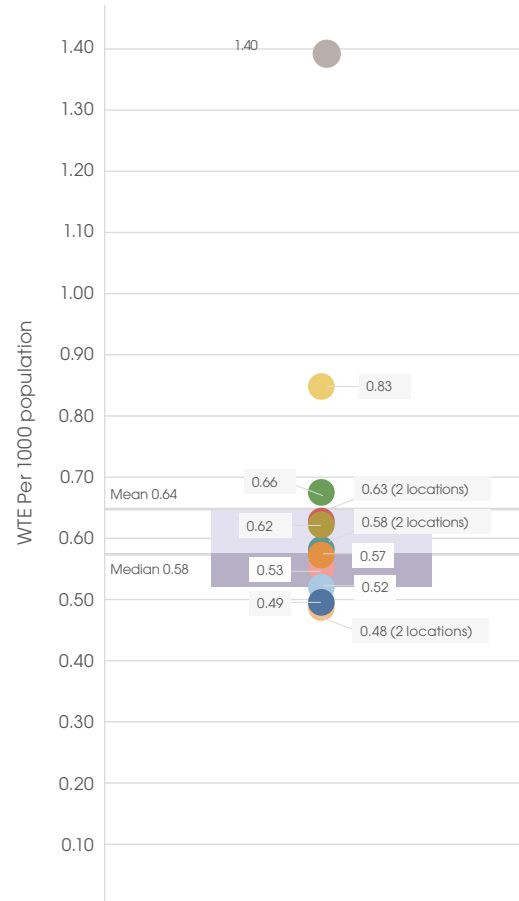
Figure 10

Reported WTE per 1000 0-18 SLCN predicted need in each NHS area across Scotland
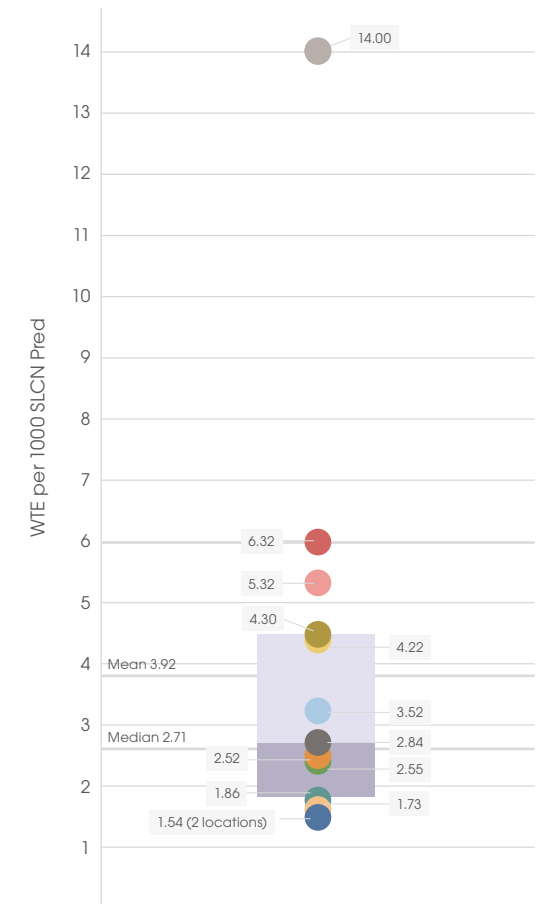
In order to further examine this workforce data relative to the populations served, the WTE SLT/1000 predicted need were compared with the percentage of predicted need across the 14 Health Board areas. Figures 11 and 12 illustrate these alongside each other and the arrow draws attention to the fact that the three areas with the highest percentage of predicted SLCN, together accounting for 50% of the total predicted need in the country have the lowest workforce ratio to need.

Figure 11 Showing the percentage of CYP 0-18 predicted to have SLCN in each of the Health Board area in Scotland
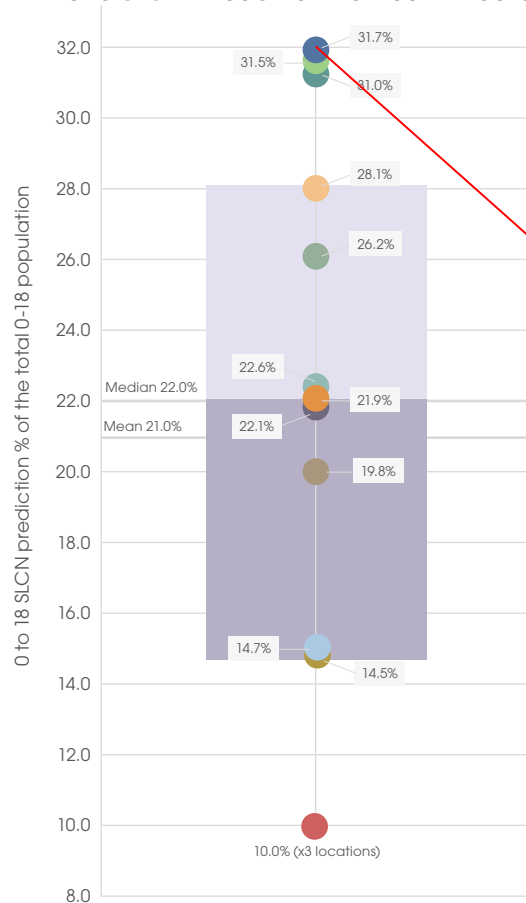
Figure 12 Showing the reported WTE per 1000 0-18 SLCN predicted need in each Health Board area across Scotland
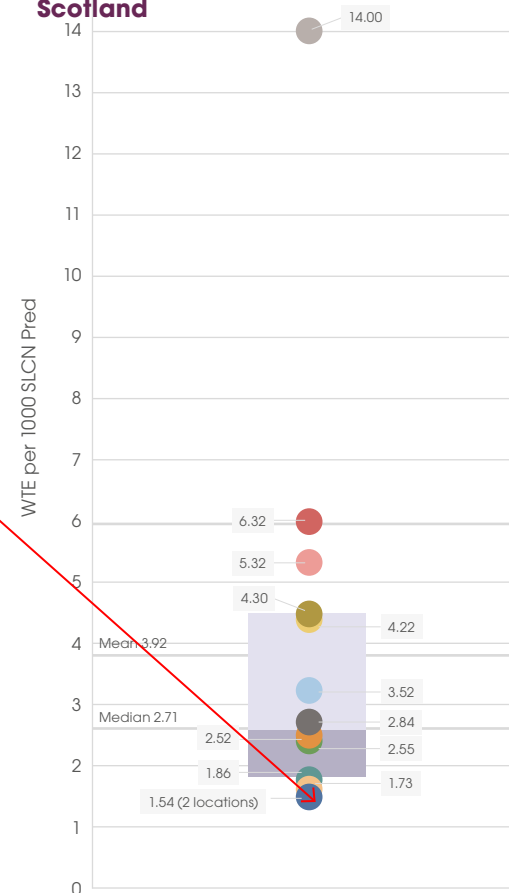
The disconnect in the relationship between predicted need and workforce to meet that need is evident from figures 11 & 12 above. However, it is crucial to firstly understand that this benchmarking descriptive dataset cannot in isolation inform what the adequate or ideal ratio of SLT WTE / 1000 CYP predicted need would be and therefore no assumptions can be made that a simple redistribution of resource would be an impactful solution.

The geography of Scotland with the variations in rurality was explored in relation to the observed significant variation in resource ratios. The three island Health Boards, NHS Western Isles, NHS Shetland and NHS Orkney, have very small populations and rank very low on the Scottish Indices of Multiple Deprivation used as part of the prediction of need calculations. Therefore another measure associated with rurality was explored alongside these data.

The rurality index used by Scottish Government [13] was used to allocate a rurality score to each Local Authority area and the workforce ratio and the rurality scores were then plotted to better understand the inter-relationship. Figure 13 below presents this graphically and it can be seen that there is not a convincing relationship between rurality and the workforce ratio across the full dataset. However, the impact on the service delivery model in more rural areas in practical terms will be considered further in the qualitative analysis.
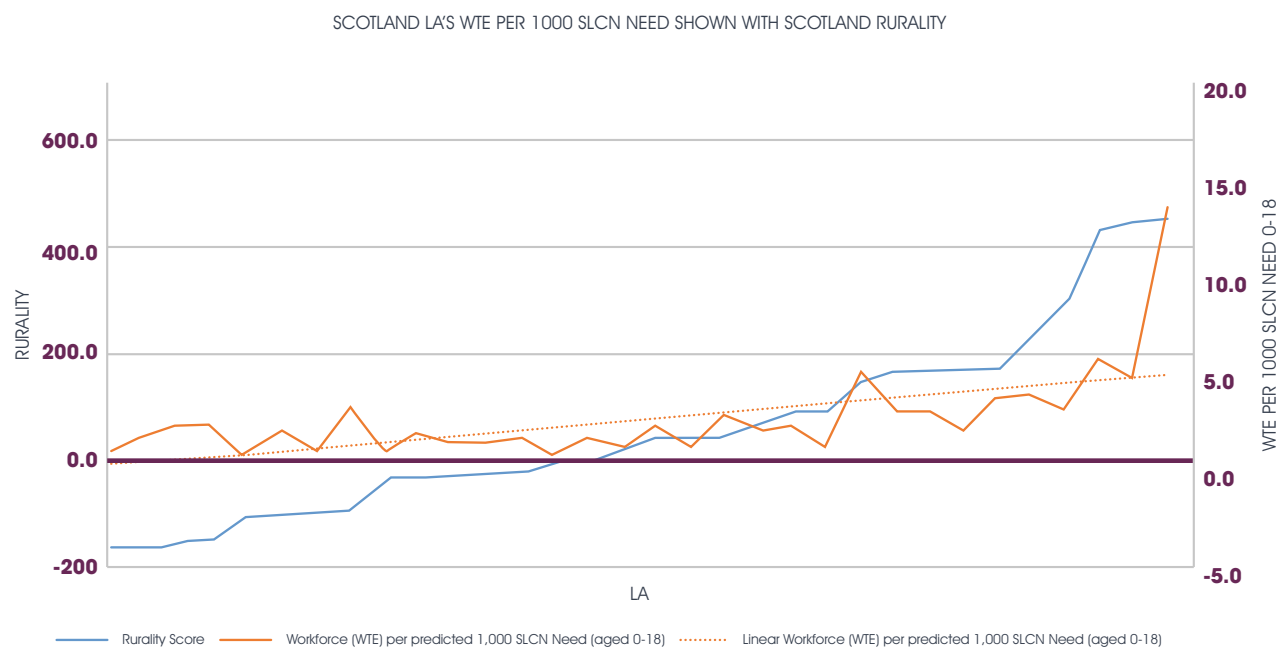
[13] https://www.gov.scot/publications/scottish-government-urban-rural-classification-2016/pages/2/

Figure 13 showing the inter relationship between rurality and workforce to predicted need ratio

Rurality index applied to workforce and predicted need data

SCOTLAND LA'S WTE PER 1000 SLCN NEED SHOWN WITH SCOTLAND RURALITY

RURALITY

LA

WTE PER 1000 SLCN NEED 0-18

— Rurality Score — Workforce (WTE) per predicted 1,000 SLCN Need (aged 0-18) ······ Linear Workforce (WTE) per predicted 1,000 SLCN Need (aged 0-18)

COUNCIL AREA	RURALITY SCORE (DIFFERENCE TO SCOTLAND OVERALL RURALITY SCORE)	WORKFORCE (WTE) PER PREDICTED 1,000 SLCN NEED (AGED 0-18)
LA1	-157.7	1.4
LA2	-157.2	2.3
LA3	-149.1	2.7
LA4	-142.0	2.9
LA5	-107.5	1.2
LA6	-105.2	2.5
LA7	-102.5	1.5
LA8	-92.0	3.8
LA9	-39.2	1.6
LA10	-25.7	2.4
LA11	-23.0	1.9
LA12	-20.5	1.9
LA13	-16.8	2.2
LA14	3.5	1.2
LA15	5.7	2.2
LA16	25.7	1.7
LA17	43.7	2.6
LA18	45.8	1.9
LA19	52.0	3.2
LA20	66.9	2.7
LA21	95.2	2.7
LA22	102.4	1.7
LA23	155.0	5.5
LA24	169.9	3.7
LA25	172.0	3.5
LA26	174.3	2.6
LA27	176.4	4.2
LA28	237.4	4.4
LA29	305.5	3.7
LA30	438.3	6.3
LA31	451.5	5.3
LA32	457.5	14.0

Benchmark

The quantitative data presented in this section already moves the analysis from merely comparing to population regardless of the differences in circumstances from one area to another, towards a more meaningful analysis of the workforce described against the predicted need of the population served.

However, the rich picture that includes the model of service delivery and understanding the extent of the integration within the wider provision for children and young people that includes colleagues in education and social care, schools and settings, provides the possibility of looking beyond these quantitative datasets. The variability of the Scotland wide data means that trend comparisons with the qualitative data have not been possible, however, a number of case studies have been extracted that provide examples of the 'thread' from population, demographic, workforce, demand and on to service model and evidence of integration. Asking services to evidence their impact for children and young people was not part of this project brief but a small number of services were able to provide some impact data based on having been involved in the pilot study for this approach in 2016.

Demand on services

The next level of analysis with these data considered the demand on the service in terms of referrals or requests for assistance, caseload volumes and waiting list data. An overarching observation on these datasets was the inconsistency between Health Board areas as to what was recorded and how, and what was possible to extract and collate for the purposes of this project. A number of services were able to provide detailed analyses of these datasets by age range and primary location for support, whilst others were only able to provide totals without the granularity that would have been ideal. The most inconsistently held dataset related to waiting lists which was surprising given the attention that waiting times attract as a key performance indicator. A number of areas continue to have a waiting list for assessment and a further waiting list for therapy intervention. This is not in keeping with guidance for referral or request for assistance to support being a seamless process.

Referrals and cease contact

The referrals and cease contact datasets were requested for a 12-month period in order to get a measure of the demand on the service which is distinct from the need in the area served by the service – a distinction that is not always explicit. The 'input and output' comparison within each NHS Health Board service also allows a view on the balance of throughput and identifies any imbalances which will generate pressures. These data also provide a view on the service model which can be triangulated against the qualitative mapping of the service offer.

For example, a service which is operating a 'traditional' refer – assess – treat model as a uni-professional team that is not integrated into the wider system offer from other health, education and social care colleagues, may struggle to cease contact with a child or young person when the core outcomes are achieved if there are ongoing challenges that are not being addressed as part of an integrated system around the child or young person. Equally a service operating in the absence of a strong targeted offer may feel compelled to continue an open duty of care for a child at a specialist or individualised level when this is not necessarily the best route to achieving functional outcomes.

A final example is to consider that low referral rates into the specialist or individualised level can be a good indicator that the system is working well to support children and young people at universal and targeted levels, whilst accepting it can also be an indication of unidentified need. Hence the need to examine these data as part of a 'golden thread' from predicted need, through demand, through service model and resource, through to outcome demonstrated by impact.

The national datasets for these two measures are summarised in figures 14 and 15 below. Whilst two services did not report their cease contact data the overall trend is for a net increase of referrals over cease contact though, as can be seen by the example illustrated with the green arrow, a number of services demonstrate the opposite trend.

Caseload

Services were asked to report caseload data for a given day as a 'snapshot' of the open duties of care for each service. The data request asked for this information broken down by age band and by primary site of service offer of support (school, clinic, home etc). Many services were not able to provide the level of granularity requested. Of those that could, their raw data was inspected to look for patterns such as children and young people of school age having school as their primary site of support. There is an emerging trend towards this best practice model but a number continue to use clinic settings for all or part of the school age pathway. This again can be triangulated with the qualitative mapping of the service offer for each service.

The caseload data were then analysed as a percentage of the 0-18 population and also as a percentage of the predicted need in the given area. Figures 14 and 15 summarise the national dataset.

Figure 14

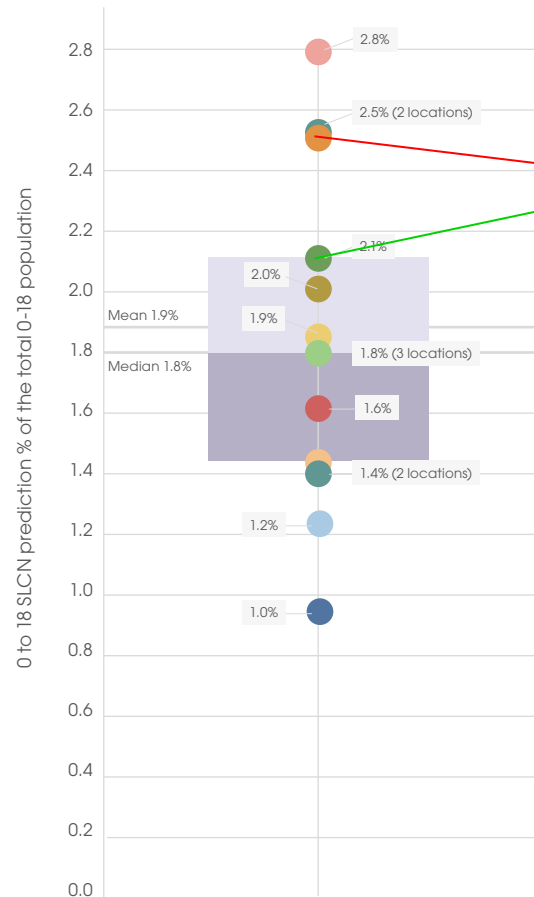Reported Referrals 0-18 as a % of the 0-18 population in each NHS area across Scotland.

0 to 18 SLCN prediction % of the total 0-18 population

2.8%
2.5% (2 locations)
2.1%
2.0%
Mean 1.9%   1.9%
1.8% (3 locations)
Median 1.8%
1.6%
1.4% (2 locations)
1.2%
1.0%

Figure 15

Reported Cease Contracts 0-18 as a % of the 0-18 population in each NHS area across Scotland.

Cease Contact/Discharges as % of 0-18 population

2.7%
2.3%
2.2%
2.0% (2 locations)
1.7%
Mean & Median 1.4%
1.5%
1.1%   1.2%
1.1%
0.7%
0.4%
2 locations: not reported
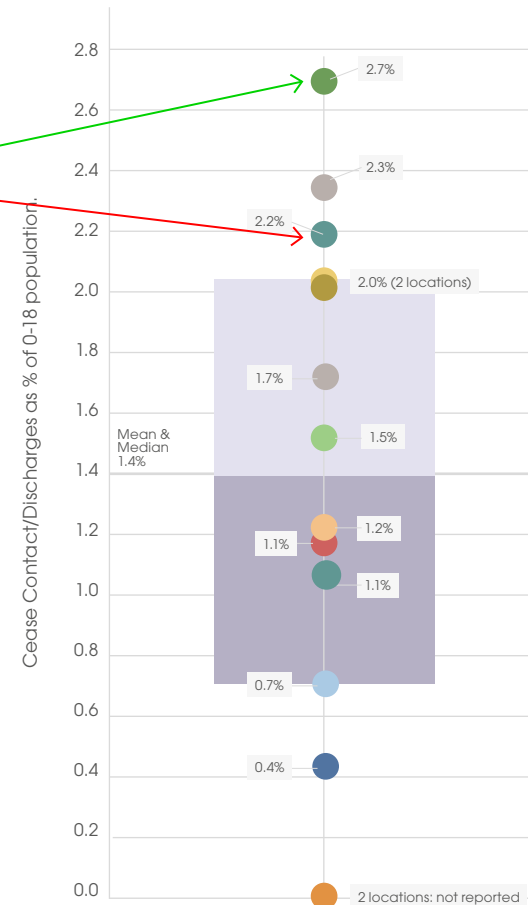
Figure 16

Total reported caseload as % of 0-18 population in the NHS area across Scotland

Total caseload as % of 0-18 population

- 6.3%
- 3.8%
- 3.2%
- 3.0%
- 3.0%
- 2.9%
- Mean 2.5%
- Median 2.2%
- 2.2%
- 2.1%
- 1.7%
- 1.5%
- 1.4%
- 1.1%
- 0.8%
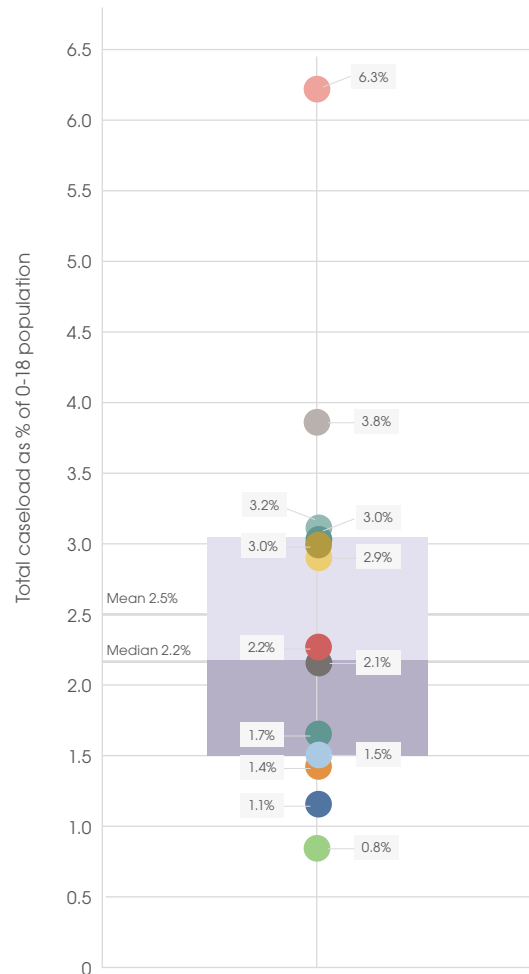
Figure 17

Reported Caseload as % of the predicted SLCN in 0-18's in the NHS area across Scotland

Caseload as % of predicted SLCN

- 63.1%
- 38.2%
- 22.2%
- 20.6%
- 14.0%
- 14.6%
- Mean 16.2%
- Median 10%
- 10.2%
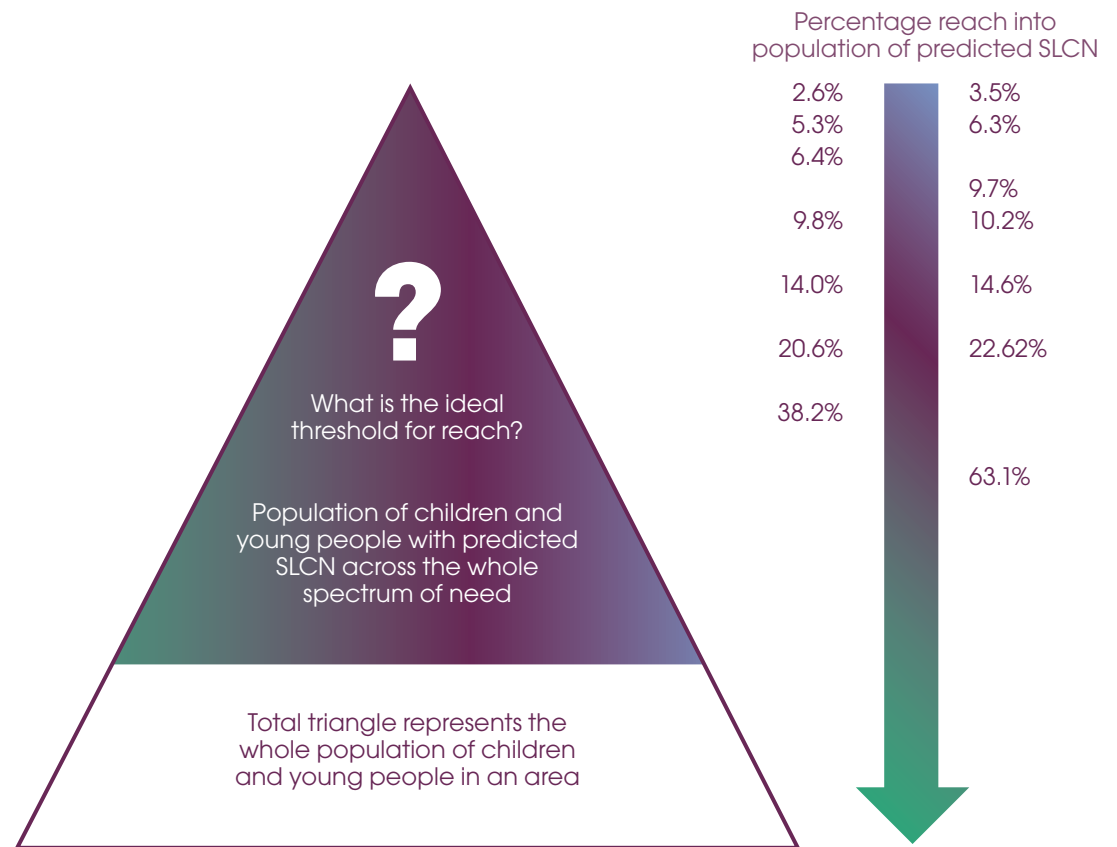- 9.8%
- 6.4%
- 6.3%
- 5.3%
- 3.5%
- 2.6%
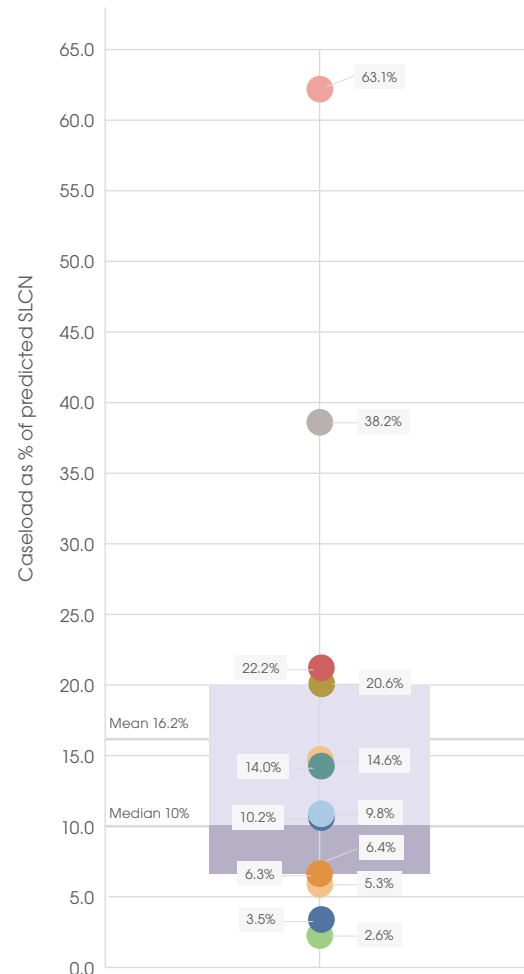
Figure 16 presents a dataset that has been discussed in the literature and the typically reported figure for a service in the UK as a whole is between 3-4% of the 0-18 population being active on the caseload at any moment in time. So whilst there is an outlier at 6.3%, in fact the mean and median both fall below the 3-4% range, as do half of the services reporting caseload data.

Figure 17 presents the caseload data as a percentage of the predicted SLCN in that area, so an indication of 'reach' into the target population across the whole spectrum of SLCN. It would not be anticipated that a speech and language therapist would be directly involved with the majority of children as opposed to influencing and developing good universal and targeted support alongside.

Figure 18 presents this visually as reach into that population. The point of note with this dataset is that there is no professional consensus as to what threshold of reach might be appropriate and yet again there is an inter-dependency with the model of service provision whereby a lower reach might actually be achieving good outcomes in the local system based on other, non-caseload related activity evidenced by impact measures as opposed to caseload or face to face contact data. Based on other examples from across the UK using the Balanced System®, services delivering good impact data tend to reach around 20-25% of the 0-4 and 5-9 populations where they are working in an integrated way offering a range of universal, targeted and specialist provisions.

Figure 18 showing graphically the reach into the potential population of predicted SLCN across the services (not to scale)

Percentage reach into population of predicted SLCN

2.6%	3.5%
5.3%	6.3%
6.4%	
	9.7%
9.8%	10.2%
14.0%	14.6%
20.6%	22.62%
38.2%	
	63.1%

? What is the ideal threshold for reach?

Population of children and young people with predicted SLCN across the whole spectrum of need

Total triangle represents the whole population of children and young people in an area

Theme 1: Conclusions & recommendations

The analysis of these quantitative datasets clearly evidences the wide range and disparity of data across Scotland and is summarised in the following key findings:

- Disconnected relationship between predicted speech, language and communication need and the resource to meet that need
- Inconsistency of offer
- Variation in equity of reach into populations as evidenced by caseload and referral data

The recommendations follow the individual feedback meetings held with each NHS Health Board SLT service to work through their data in context and pursue specific lines of enquiry.

1. Resources should be balanced against varying needs of populations.

Across the 14 Health Boards and 32 Local Authorities nationally, there is a clear inequity in how services are resourced relative to predicted need. However, it is not the intention to suggest that moving resource from one part of the country to another is a recommended outcome as this would not of itself solve the issue. There are clearly a significant number of services where the resource simply is inadequate to meet the considerable needs of the population served.

NHS Boards and Local Authorities should be encouraged to undertake local needs assessments and plan jointly to resource the support for speech, language and communication needs in their area. This would be in line with the statutory aims of the Children's Services Planning Cycle[13].

2. Service delivery models need to be tailored to the populations that they serve.

The individual meetings with services allowed detailed exploration of the data in context. The challenges of meeting the needs of 70,000+ children and young people in an inner-city context are completely different to meeting the needs of 400 children and young people in an island community where a specialist intervention might involve a ferry ride and a round trip of 100 miles.

However, in either situation the need for a strong universal, targeted and specialist or individualised offer is key to meeting need and delivering impact. The specialist alone cannot effect the necessary change in either of these two contrasting situations, albeit for different reasons.

3. Shared outcomes for children and young people across the integrated system need to be clearly articulated.

It is a statutory requirement of the health board to work jointly with the local authority (and other local partners) to safeguard, support and promote wellbeing as part of each area's Children's Services Plan. These duties are set out in Pt 3 of the Children and Young People (Scotland) Act 2014. This includes a joint planning cycle of assessing the local needs of children and families, planning and delivery of services, and annual reporting on how outcomes have been improved. Some services were able to provide examples of strong collaborative work with Local Authority and school colleagues but this was by no means universal or systematic. The positive impact of early intervention and prevention methodologies on educational attainment need to drive joint working and creative use of funding streams for the benefit of children and young people.

13 Children and Young People (Scotland) Act, 2014 https://www.legislation.gov.uk/asp/2014/8/part/3

THEME 2.
MEASURE WHAT IS VALUED — SYSTEMS THAT VALUE IMPACT OVER INPUTS

The ambition of this project was to not only provide a comprehensive quantitative dataset but to use the Balanced System® Five Strands to map provision and then to explore the relationships between the models of service offer, the workforce available and the wider context in terms of integrated working across the system that supports children and young people. The online tools that were used to capture the qualitative mapping also have provision for capturing evidence of outcome for a provision. Whilst evidence capture was not part of the request of services, a small number of services were able to include evidence of outcomes.

Service mapping involved describing the offer to support children and young people's speech, language and communication needs using the Balanced System® Five Strand outcome framework across the universal, targeted and specialist or individualised levels. Figure 19, below, illustrates the framework into which provision was mapped.

Figure 19

THE BALANCED SYSTEM® HIGH LEVEL OUTCOMES FOR SPEECH, LANGUAGE AND COMMUNICATION NEEDS

THE BALANCED SYSTEM

FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION
FS3. Specialist - Parents and carers of children with specialist SLCN receive specific specialist support to ensure confidence in their role as a key communication partner for their child and to increase their understanding of the specific communication challenges associated with their child's needs. Young people with SLCN are enabled to be active participants decisions about their support.	EE3. Specialist - Places where children and young people with specialist and complex SLCN spend their time for learning and leisure are communication friendly. The necessary adaptations are in place to maximise access in addition to the enhancements expected at a universal and targeted levels.	WW3. Specialist - Knowledge skills and expertise are developed in identified members of the wider workforce in order to ensure that, working with specialist support, there are staff that are confident and competent to support the delivery of specialist interventions including individual and small group work, support parents, adapt the environment and identify children who need specialist support.	ID3. Specialist - Children with specialist SLCN have their needs identified effectively and quickly. This includes multidisciplinary assessment where appropriate.	IN3. Specialist - Children and young people needing specialist intervention for their SLCN receive appropriate and timely provision in the most functionally appropriate context for their needs. Progress measures will include activity, participation and well-being goals in addition to goals relating to their core SLC impairment.
FS2. Targeted - Parents and carers of children with identified speech, language and communication needs (SLCN) access additional specific support to ensure confidence in their role as a key communication partner and educational support for their child. Families and young people with SLCN are supported to make choices and access services.	EE2. Targeted - Places where children and young people with identified SLCN spend their time for learning and leisure are communication friendly. Appropriate additional enhancements are made that enable children and young people with identified SLCN to more easily understand and to express themselves.	WW2. Targeted - The wider workforce is supported to develop specific knowledge and skills to support children and young people with identified SLCN. Setting and school staff are confident and competent to deliver targeted interventions, support parents, adapt the environment and identify children who need additional support.	ID2. Targeted - Efficient and accessible processes are in place that support the identification of more specific SLCN. The wider workforce, setting and school staff are supported to be confident and competent to identify children and young people who may require targeted support and/or referral to specialist services for their SLCN.	IN2. Targeted - Children and young people benefiting from targeted interventions will have access to evidence based targeted interventions to develop core speech, language and communication skills delivered in the most appropriate functional context. These might include 1:1 and / or small group interventions that are typically designed by specialist practitioners and delivered by those with appropriate training.
FS1. Universal - All parents and carers are supported with information and resources to encourage their role as effective primary communicative partners for their children. Families and young people are able to make proactive choices with respect to their child's or own needs.	EE1. Universal - Places where children and young people spend their time for learning and leisure are communication friendly. Environments have appropriate enhancements that make it easier for all children and young people to understand and express themselves.	WW1. Universal - The wider workforce is supported to have a good basic understanding of speech, language and communication including supportive strategies. Setting and school staff are confident in their role as facilitators of communication. The wider workforce has access to appropriate training around speech, language and communication.	ID1. Universal - Early identification of children and young people whose speech, language and communication needs may require targeted or specialist support is as efficient and accessible as possible. Preidentification information and advice is available in a given area, school or setting.	IN1. Universal - Homes, settings and schools are supported to develop the language and communication skills of all children and young people through language enrichment and supportive activities.

For each provision, the online tool asks for a description of the provision, the desired or anticipated outcome of this being part of the service offer, and then a series of fields identifying the target population, the frequency, who delivers and where the provision is delivered and who funds the activity. Two key points to this approach are that,

a) The provision and the outcome are at the forefront of the data capture – the 'so what?' and

b) The data capture is about the whole system service offer of what is available to support children and young people – it is not child and family specific, it is not diagnostic category led although specific provisions may be identified that relate to a particular group of children and young people.

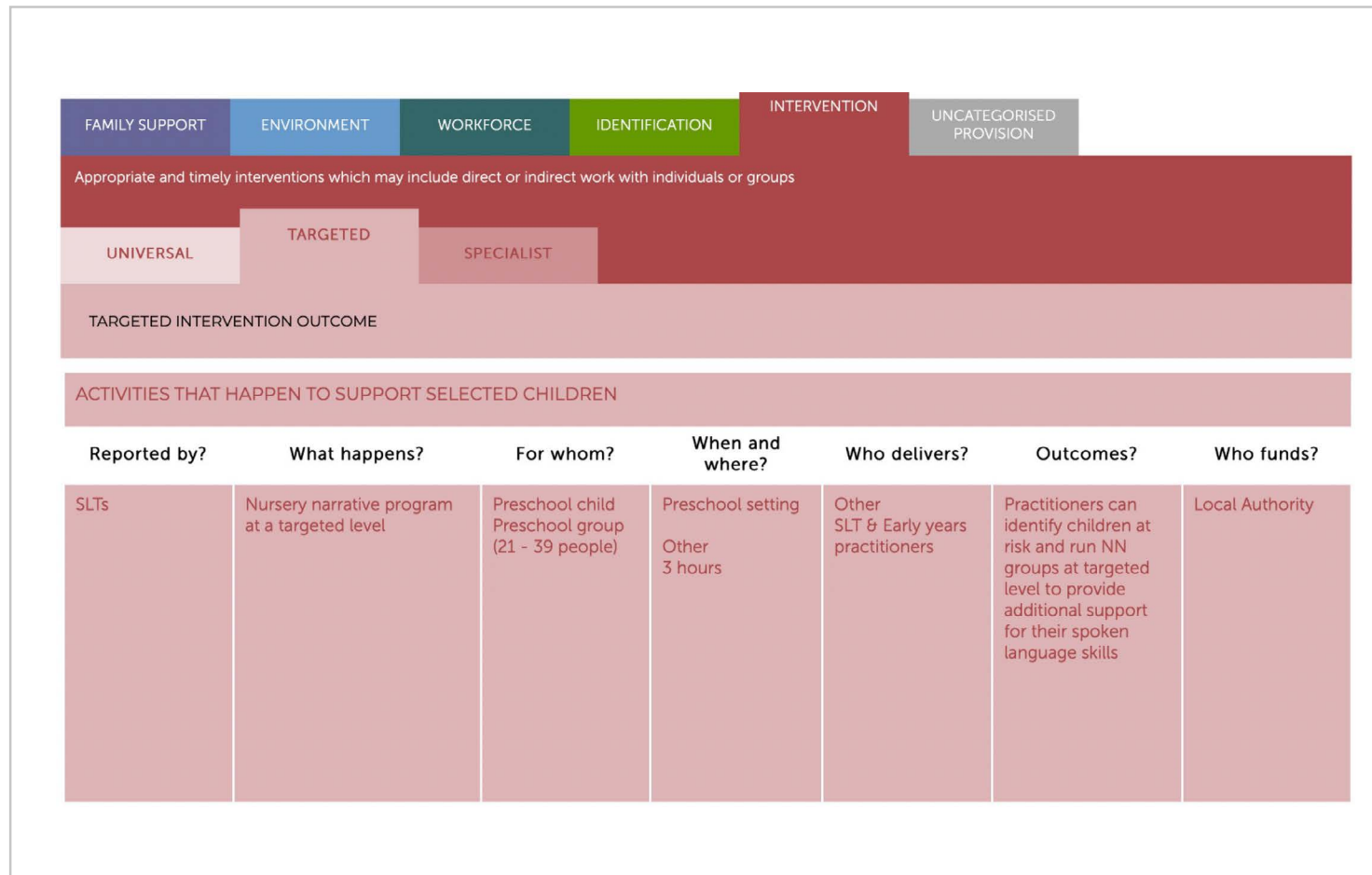Some examples of provisions as entered into the system can be seen in figures 20, 21 and 22 below.

These examples have been chosen to illustrate service offers which are ensuring a broad whole system approach going beyond the traditional specialist intervention.

They also illustrate a range of funding streams for the activities described including Health Board, Local Authority and Joint Health Board and Local Authority funding.

Figure 20

FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION	UNCATEGORISED PROVISION

Appropriate information and support is provided for children and their families about speech, language and communication skills

UNIVERSAL	TARGETED	SPECIALIST

UNIVERSAL FAMILY SUPPORT OUTCOME

ACTIVITIES THAT HAPPEN TO SUPPORT ALL CHILDREN

Reported by?	What happens?	For whom?	When and where?	Who delivers?	Outcomes?	Who funds?
SLTs	In 2019 Breast feeding groups	All parent/carers (Not applicable)	Community setting Other three times a year	Health Visitor Speech and language therapist	By joining established breast feeding groups, SLT can raise awareness about our service and offer advice to parents for all stages of communication development and/or eating and drinking from babies to school aged children. Parents gain knowledge, advice and practical strategies to support their child's communication development at home.	Health Board

Figure 21

FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION	UNCATEGORISED PROVISION

Appropriate and timely interventions which may include direct or indirect work with individuals or groups

UNIVERSAL	TARGETED	SPECIALIST

TARGETED INTERVENTION OUTCOME

ACTIVITIES THAT HAPPEN TO SUPPORT SELECTED CHILDREN

Reported by?	What happens?	For whom?	When and where?	Who delivers?	Outcomes?	Who funds?
SLTs	Nursery narrative program at a targeted level	Preschool child Preschool group (21 - 39 people)	Preschool setting Other 3 hours	Other SLT & Early years practitioners	Practitioners can identify children at risk and run NN groups at targeted level to provide additional support for their spoken language skills	Local Authority

The Scotland wide summary presents a picture of the average service offer being relatively well balanced across the five strands and three levels. Given that the Balanced System® Five Strands were introduced to the AHP workforce in Scotland as part of the Ready to Act strategy in 2016, these data may represent a picture that is already in transition to a whole systems approach.
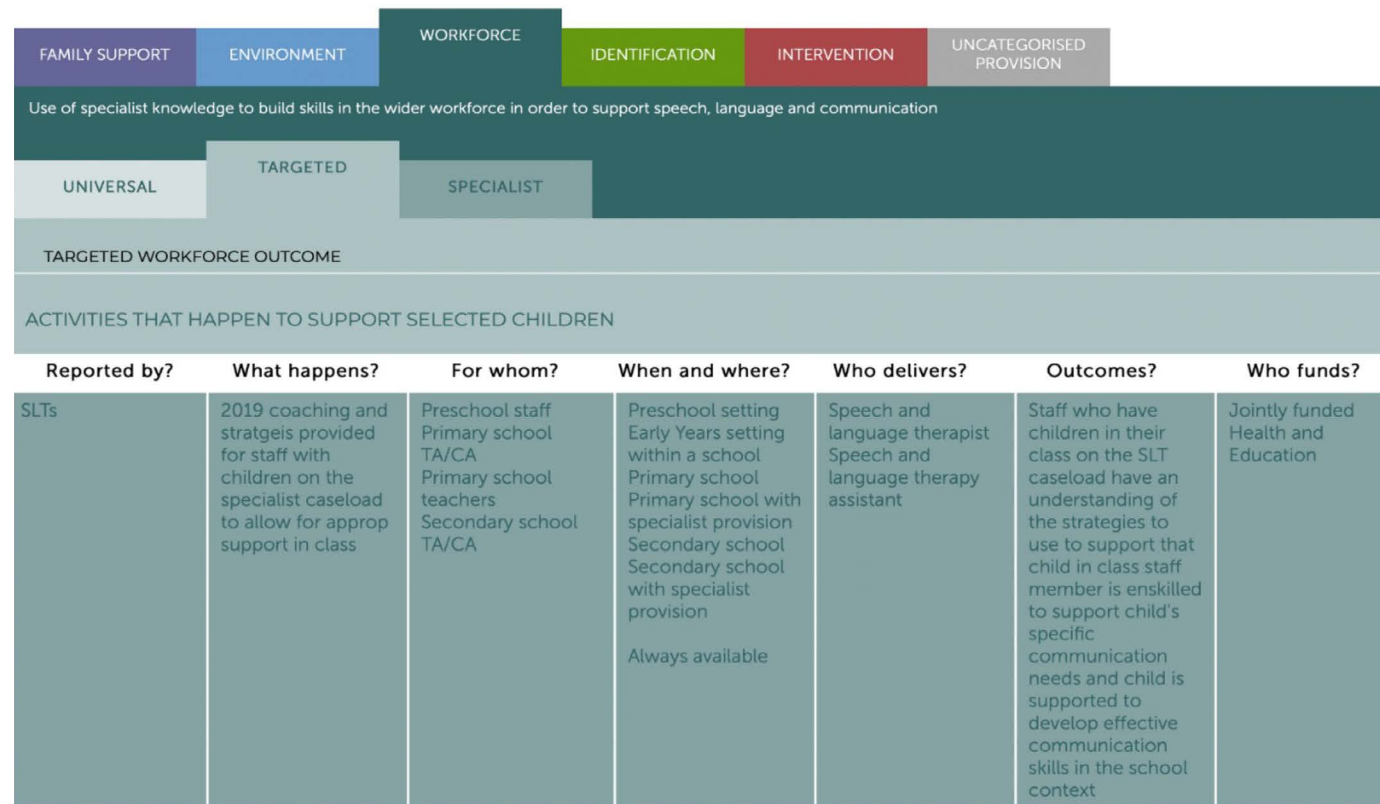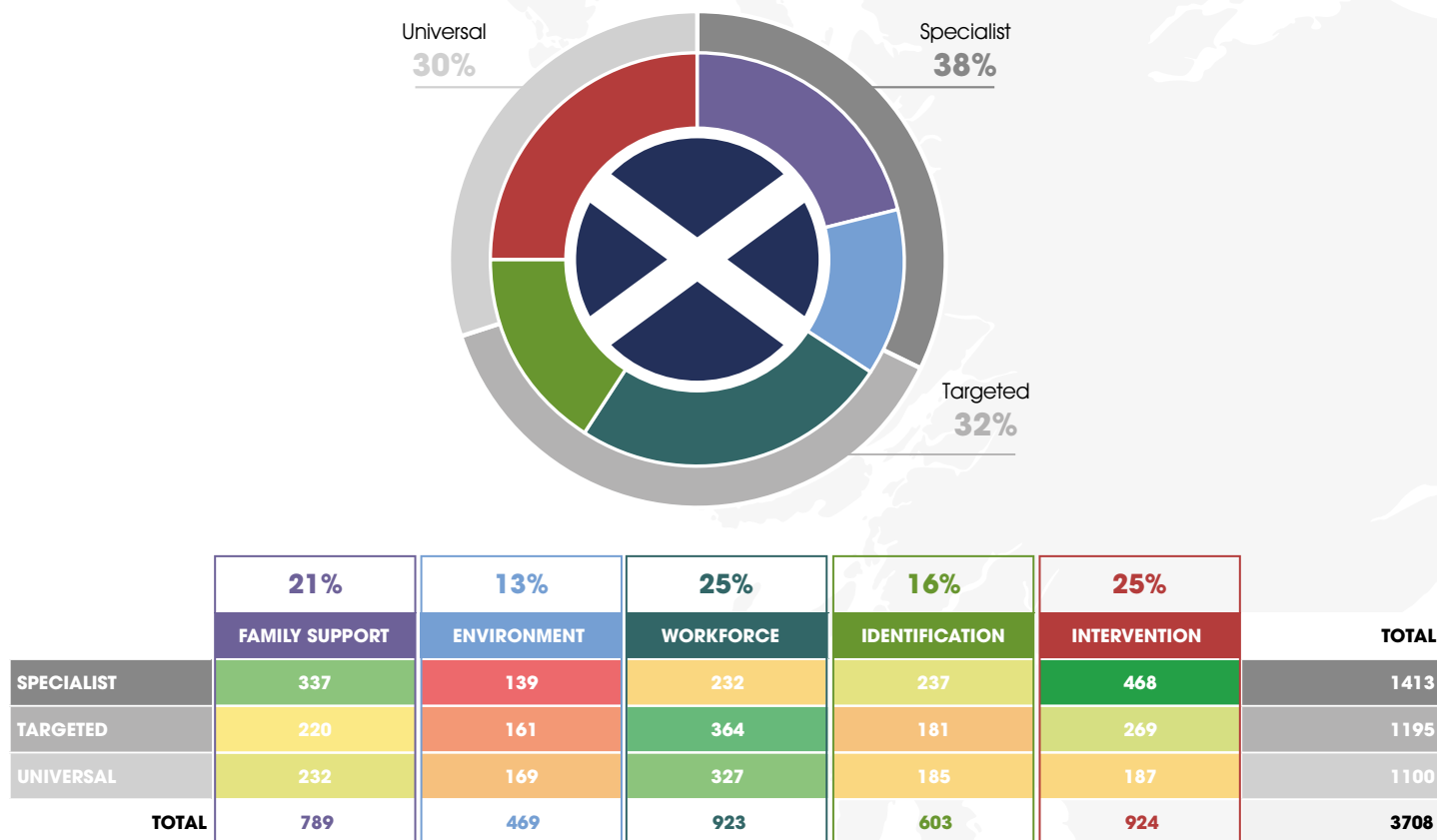
Figure 22

Reported by?	What happens?	For whom?	When and where?	Who delivers?	Outcomes?	Who funds?
SLTs	2019 coaching and stratgeis provided for staff with children on the specialist caseload to allow for approp support in class	Preschool staff Primary school TA/CA Primary school teachers Secondary school TA/CA	Preschool setting Early Years setting within a school Primary school Primary school with specialist provision Secondary school Secondary school with specialist provision Always available	Speech and language therapist Speech and language therapy assistant	Staff who have children in their class on the SLT caseload have an understanding of the strategies to use to support that child in class staff member is enskilled to support child's specific communication needs and child is supported to develop effective communication skills in the school context	Jointly funded Health and Education

Figure 23

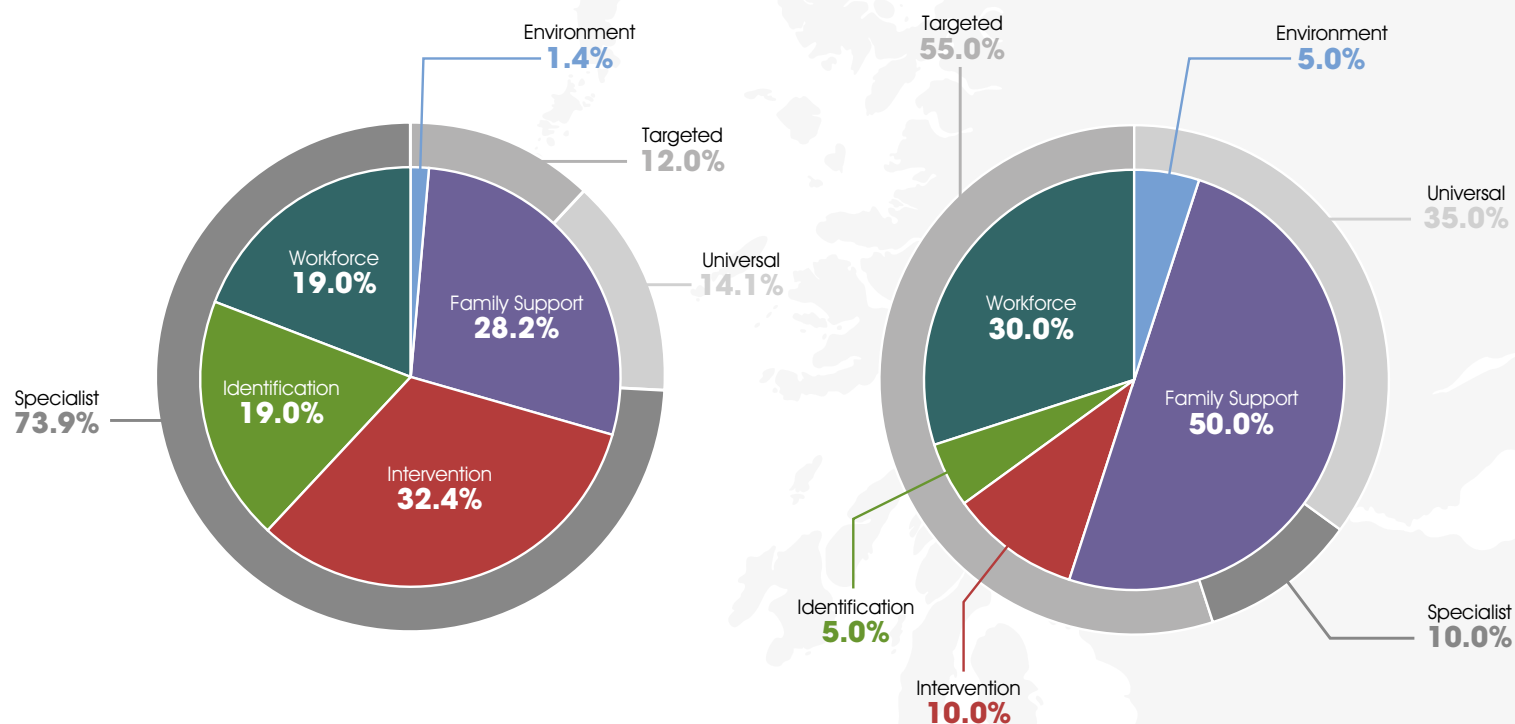# Provisions currently reported by SLT services

As part of this project, every service in Scotland mapped their provision. This resulted in 3708 provisions described in this format and attributed to the outcome area to which it was relevant. Figure 23, below shows the overall Scotland wide summary of the distribution of provisions across the Balanced System® Five Strands and three levels.

	21%	13%	25%	16%	25%	
	FAMILY SUPPORT	**ENVIRONMENT**	**WORKFORCE**	**IDENTIFICATION**	**INTERVENTION**	**TOTAL**
SPECIALIST	337	139	232	237	468	1413
TARGETED	220	161	364	181	269	1195
UNIVERSAL	232	169	327	185	187	1100
TOTAL	789	469	923	603	924	3708

However, taking a more granular view looking at service by service, it can be seen in figure 24, below, that there is wide variation. The service represented on the left is predominantly offering specialist provision with 52% of the overall provisions representing identification and intervention offerings. This epitomises a traditional refer-assess-treat model of delivery. In contrast the service represented on the right presents 55% of the provisions as being targeted. Services were free to categorise their provision within the outcomes area that they felt appropriate to their service. In this instance it is likely that a proportion of the provisions described as family support could also be described as intervention.

Figure 24 Showing two service summaries contrasting service models

COMBINED PROVISION SPLIT BY STRAND AND LEVEL

Environment
1.4%

Targeted
12.0%

Universal
14.1%

Workforce
19.0%

Family Support
28.2%

Specialist
73.9%

Identification
19.0%

Intervention
32.4%

Targeted
55.0%

Environment
5.0%

Universal
35.0%

Workforce
30.0%

Family Support
50.0%

Specialist
10.0%

Identification
5.0%

Intervention
10.0%

The golden thread that links these qualitative data to the quantitative analysis of population, demographic and predicted need outlined under theme one of this report is that the service model can both influence the workforce need and be influenced by the available workforce to meet the presenting need. In areas such as the urban inner city with very high predicted speech, language and communication needs in the community, a strong offering of family support targeting the most vulnerable can be predicted to be more impactful than a series of time limited one to one therapy sessions in isolation. Both have value but the judgement as to what will be most impactful in achieving the outcome of prevention, for example, is critical for those children and young people and their families. However, the systems around the services have to adapt to measure the value of these activities.

Face to face contacts do not in and of themselves equate to evidence that a service is impactful. Within the Balanced System® there is an example of an evidence tool which facilitates services to capture evidence across four levels of measure: Input, Reach, Implementation and Impact into which some services entered data.

Figure 25 below, shows a 'heat map' of the sample that was provided into the five strand areas of Family Support, Environment, Workforce, Identification and Interventions for each of the four levels of evidence: Input; Reach; Quality and Impact. This is not a comprehensive dataset across all services and represents three SLT services' data. However, it does give an indication that impact data is available albeit not as readily as input or reach.

Figure 25
SLCN Evidence levels achieved

Level	Family Support	Environment	Workforce	Identification	Intervention
Specialist	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact	☐ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact
Target	☑ Level 1: Input ☑ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☑ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact
Universal	☑ Level 1: Input ☑ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☐ Level 4: Impact	☑ Level 1: Input ☑ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact	☑ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact	☐ Level 1: Input ☐ Level 2: Reach ☐ Level 3: Quality ☑ Level 4: Impact

Theme 2: Conclusions & recommendations

This section of the report outlines the qualitative mapping that has been gathered and the importance of understanding the service model and impact measures as part of the interpretation of the workforce data.

When considering the qualitative mapping of provisions and discussing the potential for evidencing outcomes with the services three issues were consistently raised:

- The challenge of evidencing outcomes in a meaningful way that evidences the change effected as a result of support
- The frustration that the datasets that are collected and used to monitor services are focused almost entirely on input measures such as numbers of face to face contacts which are not evidence of impact
- The absence of any consistent ways of capturing these important measures of evidence across the country

Recommendations emerging from theme two therefore include:

1. A move away from traditional activity reporting towards including measures of impact

Impact measurement is challenging and needs to be considered at the systems level as well as for individual children and young people. However, the impetus to capture impact is limited by the apparent absence of value placed on such data.

The recommendation is that all Health Boards and Integrated Care Partnerships consider their outcome and impact measurement priorities and seek opportunities to include these important measures in their suite of monitoring tools. Similarly, the datasets provided to Scottish Government should include impact measures and metrics that monitor the range and spread of service offer in order to demonstrate value in these areas.

2. Data systems that are appropriate and responsive to capturing impact measures

Notwithstanding the challenges of capturing impact evidence, the typical NHS data systems do not readily facilitate this type of data being collected.

The recommendation is that any opportunities to influence the specification of new data systems to include qualitative and impact focused datasets should be maximised.

3. Measures across the integrated system and not in agency silos

The final recommendation links to theme three of this report. Ideally the outcomes being measured across the system will include shared outcomes for children and young people with colleagues in education and social care.

The recommendation is that local systems should be encouraged to seek opportunities for shared outcomes for children and young people's speech, language and communication across a given area. For example, where schools are working closely with the speech and language therapy service, shared impact data can be gathered and collated that supports both the evidence of the speech and language therapy service contribution but also the educational outcomes for children and young people.

This approach fits with the recommendations of the Coordinated Support Plan Review (November, 2021) that there should be shared outcomes for children and young people across agencies[14]

14 https://www.gov.scot/publications/short-life-working-group-co-ordinated-support-plans-csps-final-report/

THEME 3.

INTEGRATING SYSTEMS ACROSS HEALTH, EDUCATION AND SOCIAL CARE TO MAXIMISE IMPACT

As part of the benchmarking data collected, funding sources for speech and language therapy services were captured. This allowed a national picture of the funding coming from Local Authorities, through a range of initiatives, and from schools directly.

Historically, Scotland has provided an exemplar for Local Authority contributions to meeting the Additional Support Needs of children and young people including the speech, language and communication needs of those with the most complex needs. Only two of the Health Board areas report no Local Authority contribution to Additional Support Needs. In more recent years, the Attainment Challenge initiatives and the encouragement to schools to use Pupil Equity Fund monies where appropriate to enhance the provision to support speech, language and communication, have also resulted in additional opportunities for speech and language therapy services to work in collaboration with schools and Local Authorities to make a greater system wide impact for children and young people.

Figure 26

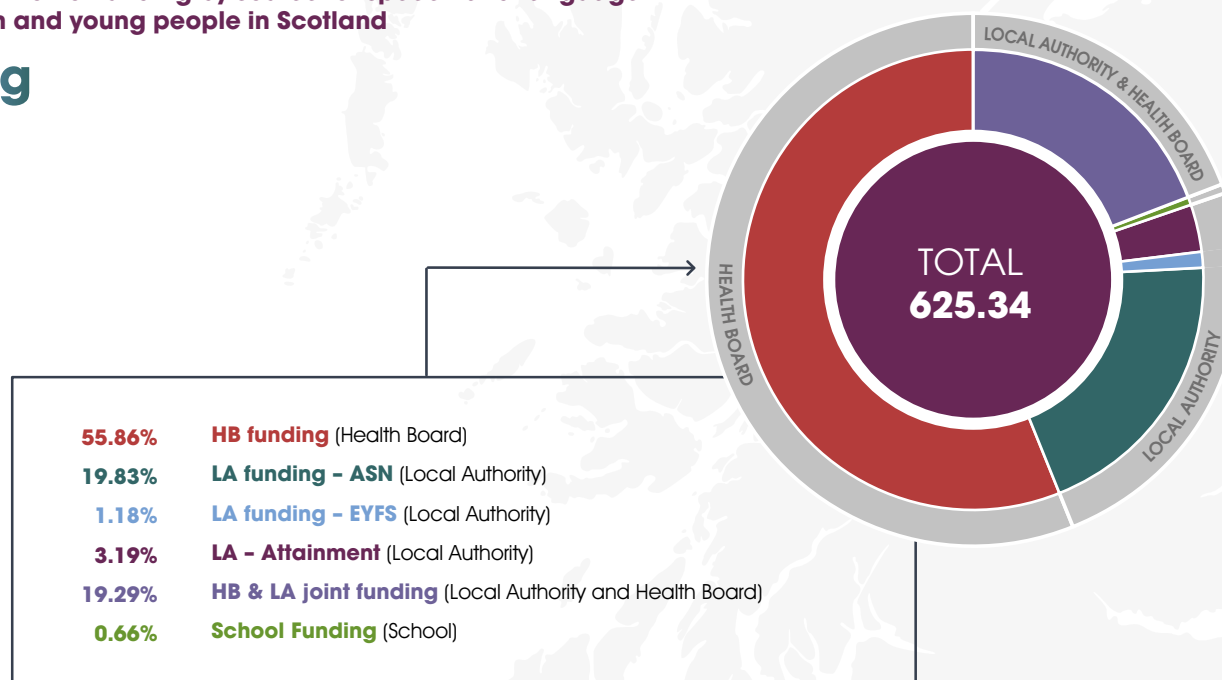The % of funding each LA contributes to its respective Health Board
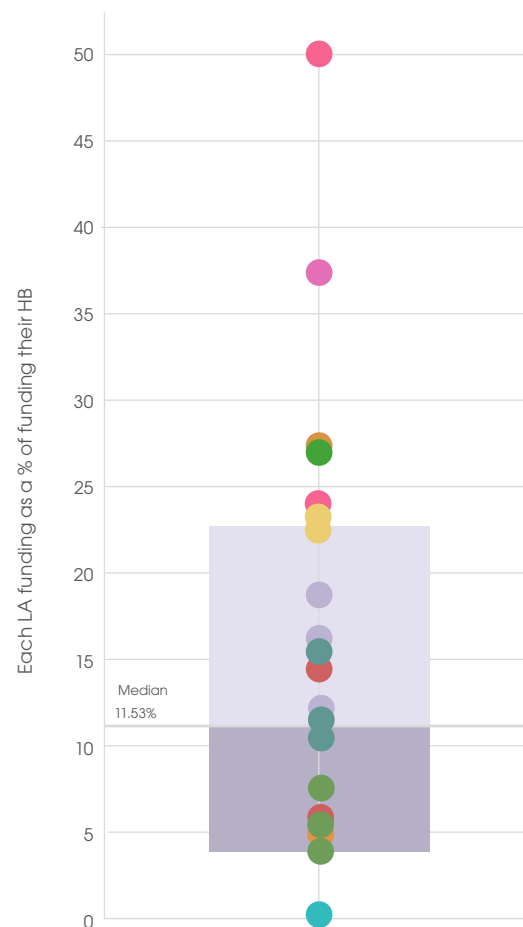
In the course of data collection, it has become apparent that the integration of provisions that collectively maximise the impact for children and young people with speech, language and communication needs is extremely variable.

Figure 27, below, shows that the majority of funding for speech and language therapy services comes from Health Boards alone. Joint funding between Health Board and Local Authority account for just under 20% of SLT posts in a small number of services, whilst a further 20% is attributed to Local Authority funding specifically associated with Additional Support Needs. Interestingly, the Attainment Challenge and use of PEF funding by schools directly accounts for less that 2% of the speech and language therapy funding.

Figure 27 showing the proportion of funding by source for speech and language therapy services for children and young people in Scotland

Service funding

55.86%	**HB funding** (Health Board)	
19.83%	**LA funding – ASN** (Local Authority)	
1.18%	**LA funding – EYFS** (Local Authority)	
3.19%	**LA – Attainment** (Local Authority)	
19.29%	**HB & LA joint funding** (Local Authority and Health Board)	
0.66%	**School Funding** (School)	

TOTAL
625.34

As part of the data curation from nationally available datasets, attainment data was collected from all 32 Local Authorities. Whilst the variation in speech and language therapy services funding, model of provision, and workforce to meet need, makes an overarching conclusion difficult to generalise, there were some specific examples where the attainment data in a specific age band was noted to be counter to the trend for that area alongside a targeted programme of support at an early intervention and prevention level having been introduced. These examples are not sufficient to declare a direct relationship but do suggest an interaction that should be studied further over time.

Theme 3: Conclusions & recommendations

The illustrations from the local services of the nature of collaboration and shared outcomes, highlight the need to incorporate relevant education attainment data and other relevant datasets into the same framework alongside speech and language therapy outcomes.

Not only should the outcomes data be collaborative but so should the service delivery. Two Health Boards have been engaged in detailed strategic work with schools leading to accreditation of the schools. This pro-active and in-depth approach, with a process led and owned by the schools, has potential to support systems-wide change in Local Authority planning and outcomes measurement.

Recommendations for theme three therefore include:

1. Government departments jointly planning strategy for improving children and young people's speech, language and communication outcomes, recognising the central role that these skills play in learning, well-being and long term life outcomes and the contribution of the whole children and young people's workforce including AHPs

True systemic change led from the centre would be an enabler to local systems in building stronger whole systems responses.

2. Local systems including Health Boards, Health and Social Care Partnerships, Integrated Joint Boards and third sector organisations need to jointly plan for effective integrated systems to support speech, language and communication support.

The datasets brought together for this project provide the basis for joint needs analyses for speech, language and communication in local areas which could form the basis of area strategies identifying all component parts of the system to deliver outcomes.

3. Provision across AHP services, schools and settings should be collaborative and integrated around populations of children and young people that they serve

At an even more localised level, detailed integrated plans at the level of neighbourhoods or clusters of schools and learning communities, such as the best examples of integrated working identified in this project, could be used as exemplars for a consistent approach across the country. At this level the solutions are similar whether for a rural island community or an inner City area.

THEME 4.

ENSURING A WORKFORCE THAT IS FIT FOR PURPOSE – SKILLS AND COMPETENCIES TO WORK ACROSS THE CHILDREN AND YOUNG PEOPLE'S CONTEXT

This final theme does not relate specifically to a benchmarking dataset other than to note the skill mix from figure 28, below. This detailed workforce profile is as a result of an accurate report by each SLT service as of October, 2019 and includes SLTs funded by both health and education funding streams. Band 6 is the most predominant band with 35.42% of all children and young people's speech and language therapists reported to be at this grade. What is more relevant to this theme is the small number of Band 5 posts within this workforce profile which suggests limited opportunities to enter the speech and language therapy workforce as a newly qualified practitioner. The long term risks of this trend include attrition of the workforce pipeline and a failure to maximise on the skills and competences of this element of the registered workforce.

Delivery of a whole systems approach, with a school and settings-based model of provision, and focus on building a strong targeted offer, relies on a workforce of motivated and enthused professionals. Working in schools and settings can be incredibly rewarding but also requires resilience and outstanding interpersonal and negotiation skills. Speech and language therapists coming forward to work in integrated children and young people's teams need to have high expectations of themselves and the teams around them. This work is highly appropriate for newly qualified speech and language therapists, however it requires good preparation both at under graduate level and in the support and supervision systems within services. Student placements in schools and settings offering targeted interventions alongside education colleagues provide excellent skills development as well as having the potential to add huge value to service outcomes.

An area for further enquiry is to audit the clinical placement offering in school and settings based work and enquire of HEIs as to the quantum of placements offered in these contexts. Similarly, in the course of the data collection, it became evident that professional value is not equitably distributed across roles. Only 32% of the Band 8 posts nationally are in children and young peoples' services. This does not reflect the complexity and specialist knowledge, skills and experience to work across health, education and social care in a leadership role, negotiating contracts and building multi-agency coalitions in each of the Local Authority areas in which the service operates.
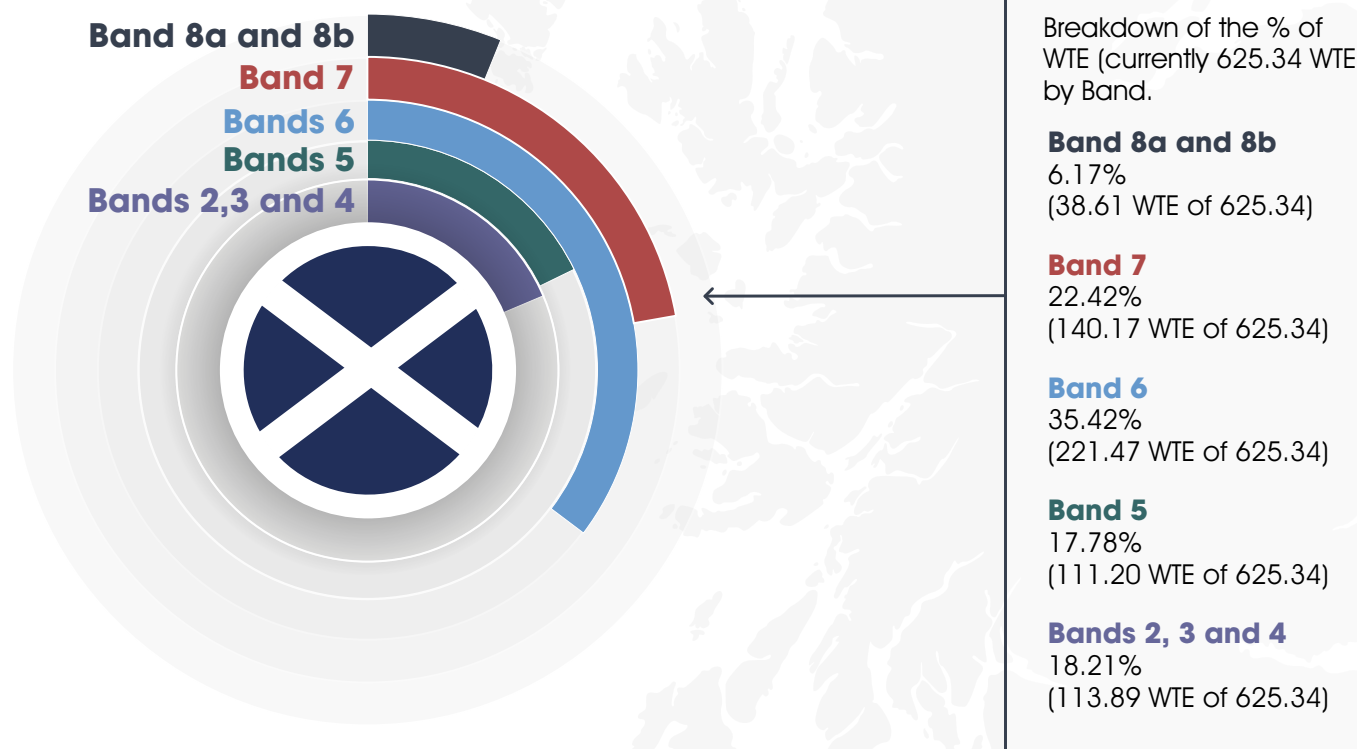
The use of datasets such as those curated through the Balanced System® methodology and based on a population based, public health informed approach to workforce strategy in therapy services is novel. Accessing and using these datasets as a management tool would support service leadership in planning and delivering services. Scottish Government collects, curates and makes available a rich platform of data that is ever more accessible as technology advances. Speech and language therapy services, and other therapies, should be supported to understand and access the available data in a form that is functionally applicable.

Leadership skills and competences continue to emerge, in conversation with services, as a key area for continuing professional development across all AHPs. A strategic focus on developing this skill set is needed, beginning with personal agency and leadership at Undergraduate and Pre-registration level, and continuing through the career pathway with continuous professional development through coaching and mentoring approaches in order to facilitate the ultimate outcome of strong local systems around children and families.

Figure 28

Scotland's speech and language therapy workforce make up

Band 8a and 8b
Band 7
Bands 6
Bands 5
Bands 2,3 and 4

Breakdown of the % of WTE (currently 625.34 WTE) by Band.

Band 8a and 8b
6.17%
(38.61 WTE of 625.34)

Band 7
22.42%
(140.17 WTE of 625.34)

Band 6
35.42%
(221.47 WTE of 625.34)

Band 5
17.78%
(111.20 WTE of 625.34)

Bands 2, 3 and 4
18.21%
(113.89 WTE of 625.34)

THE
BALANCED
SYSTEM

Theme 4: Conclusions & recommendations

Moving towards a truly outcomes focused and impact measuring system requires the workforce to be prepared. The following recommendations provide some indicators of areas where attention could be focused as part of this ongoing transformation.

Recommendations from theme four include:

1. Pre-registration and post-graduate training should include reference to whole systems, population-based models

Practitioners throughout the system need to have the opportunity to understand and use data to inform service planning and delivery and even individual practice.

2. Competencies for integrated working in complex systems need to be explicitly taught, coached and mentored

Integrated working is the more challenging approach for the individual therapist relative to the traditional medical model. Preparation and confidence in skills and competences for working with and through others is key to impactful joint working. SLT services need to ensure these skills and competences are in the current workforce and HEIs need to ensure that student therapists are adequately prepared for working in integrated services.

3. Enhanced leadership competencies

Transformational change requires strong leaders at all levels of the system. These competencies need to be threaded through continuing professional development across agencies so that local systems can develop dispersed leadership across integrated service delivery.

Summary and overall conclusions

This piece of work began as a request to systematically understand the children and young people's speech and language therapy workforce in the context of the populations served and the models of service delivery in place across Scotland.

Thanks to the existing culture of collaboration and participation generated by the leadership of the Ready to Act transformational programme, all 14 Health Boards across Scotland participated and enabled the collection of these rich data within the Balanced System® framework.

The Balanced System® is at its core a change methodology and in analysing and synthesising these data, in feeding back to each service their own narrative, the four cross cutting themes which form the basis of this report emerged. Those individual conversations indicate that the process of taking part in the project, of understanding and mapping individual services, has already effected change in many areas.

Marie Gascoigne
Director
Better Communication CIC

EQUITY FOR ALL: CHILDREN'S SPEECH AND LANGUAGE THERAPY SERVICES IN SCOTLAND

CASE STUDY:
NHS FORTH VALLEY SPEECH, LANGUAGE & COMMUNICATION NEEDS

SPEECH, LANGUAGE AND COMMUNICATION SERVICE ANALYSIS, DELIVERY AND DEVELOPMENT

The Speech and Language Therapy Service that is part of NHS Forth Valley has been actively involved in service re-design and innovation over a number of years. Part of this has involved participation in two of the Scottish Government funded projects exploring the service delivery models and workforce needs of speech and language therapists working with children and young people. Alongside these projects, NHS Forth Valley have been pro-active in working with schools and settings, especially in Falkirk, and have enhanced their offer through additional funding via the Education Scotland Attainment Challenge and through schools' use of Pupil Equity Funding.

Between 2017 and 2021 42% of Falkirk schools have taken part in the Balanced System® Scheme for Schools and Settings alongside the robust offer from the NHS Forth Valley Speech and Language Therapy team.

Baseline context:

Figures 1 - 5, below, show extracts from the Balanced System® tools relating to the population and demographic for children and young people in NHS Forth Valley. NHS Forth Valley as a whole area is ranked 7th of 14 Health Boards nationally. However, the analysis at a Local Authority level indicates significant variation in need across the three Local Authority (LA) areas within the NHS Forth Valley footprint. The Social Mobility Index places Clackmannanshire as the least socially mobile LA of all 32 Scotland LA's. The SIMD shows it to be 8th most disadvantaged LA nationally whilst the population analysis indicates Clackmannanshire to be the smallest of the three LAs within NHS Forth Valley area. In stark contrast to Clackmannanshire, Stirling is the 4th most socially mobile LA.

Figure 1 Showing the rank by Scottish Indices of Multiple Deprivation (SIMD) of the Health Board areas of Scotland

NHS Orkney
Rank: **12**

NHS Shetland
Rank: **12**

NHS Western Isles
Rank: **12**

NHS Grampian
Rank: **9**

NHS Highland
Rank: **8**

NHS Tayside
Rank: **6**

NHS Fife
Rank: **5**

NHS GGC
Rank: **1**

NHS Forth Valley
Rank: **7**

NHS Lanarkshire
Rank: **2**

NHS Lothian
Rank: **4**

NHS Ayrshire
& Arran
Rank: **3**

NHS Borders
Rank: **11**

NHS Dumfries
& Galloway
Rank: **10**
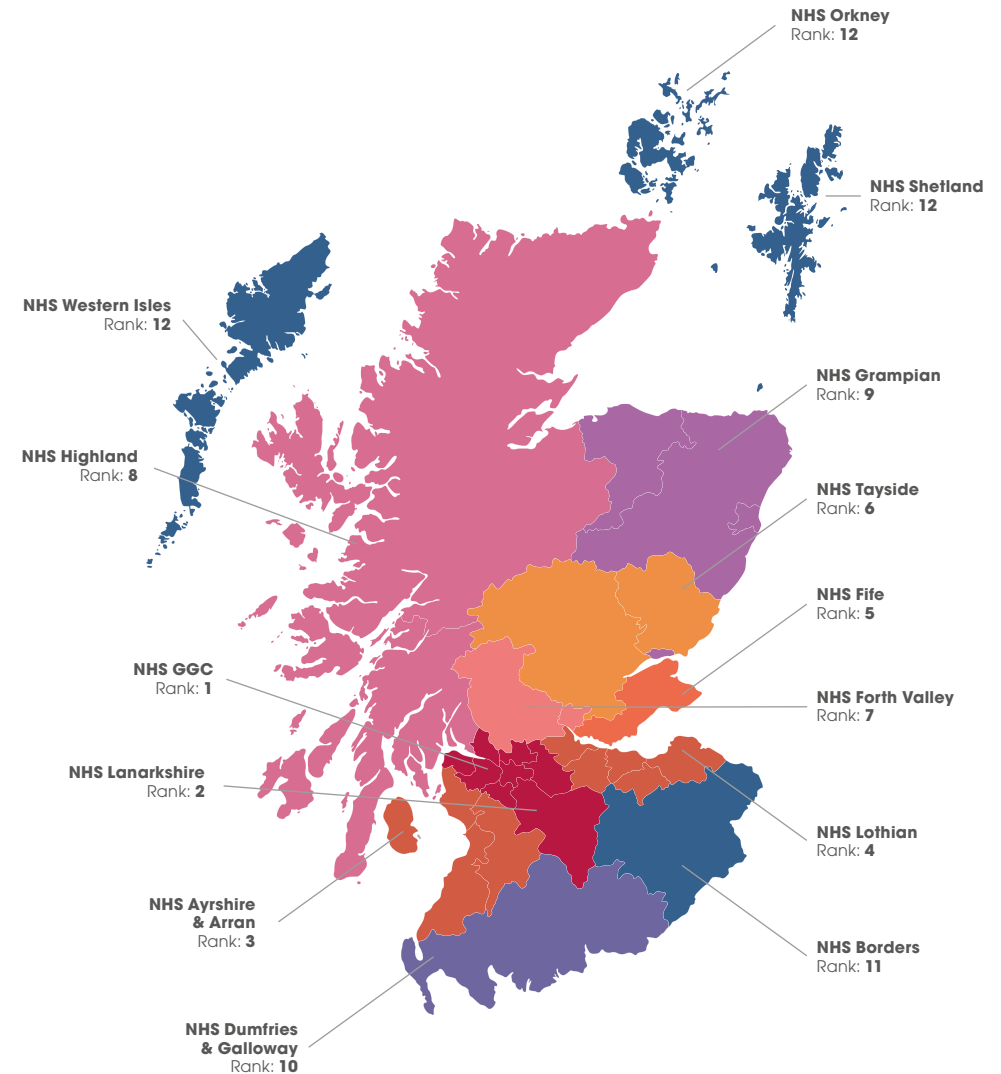
Figure 2: Showing the population of children and young people in NHS Forth Valley by age band

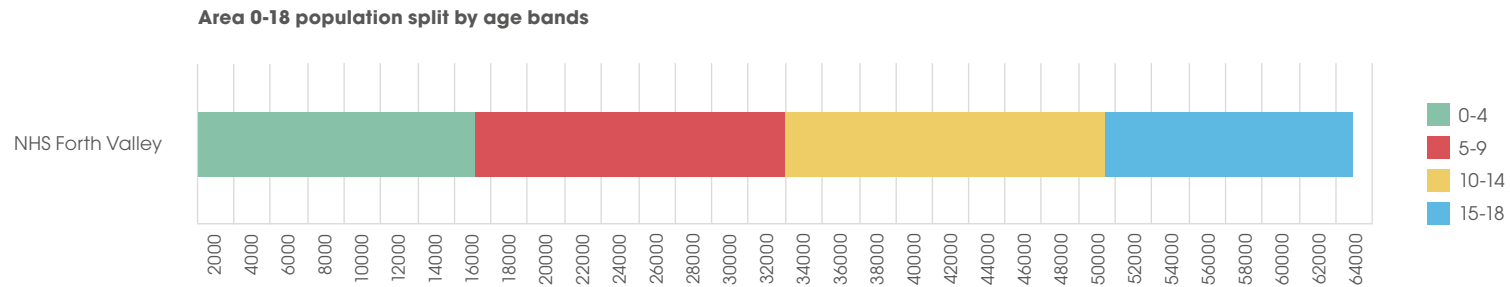Area 0-18 population split by age bands

Legend:
- 0-4
- 5-9
- 10-14
- 15-18

Figure 3: Showing the population of children and young people by Local Authority within the NHS Forth Valley footprint by age band

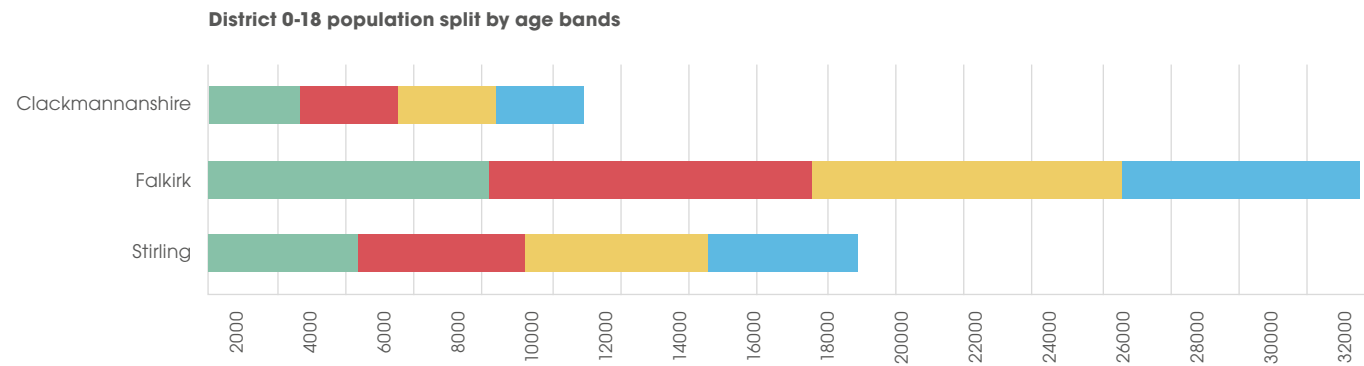District 0-18 population split by age bands

Figure 4: Showing the SIMD and Social Mobility ranks of Local Authorities within the NHS Forth Valley footprint

Local Authority	LA SIMD	Social Mobility
Clackmannanshire	25% (8)	32
Falkirk	16.36% (13)	13
Stirling	12.4% (15)	4

Figure 5: Showing the SIMD at Multi Member Ward Level within Clackmannanshire LA

Multi Member Ward	MMW SIMD
Clackmannanshire Central	42.86% (43)
Clackmannanshire East	9.09% (181)
Clackmannanshire North	11.11% (167)
Clackmannanshire South	35.00% (69)
Clackmannanshire West	31.25% (85)

Forth Valley Speech and Language Therapy (SLT) service identified at the very start of their work using the Balanced System® a need to have a better understanding of the local population related to disadvantage, prevalence and predicted SLCN. This was highlighted as a priority in order to inform both service development and key stakeholders regarding the level of need and to address any potential unmet need. With greater understanding of the population, the service predicted that they would then be able to target the local areas with highest need, redistribute existing services and develop new services in line with need rather than prevailing service models.

The service identified that the 'Balanced System®' would fully complement and facilitate the transformational change as described in 'Ready to Act':

"The Balanced System® will allow us to map our service, demonstrate what is already in place across the five strands and identify gaps, particularly as we seek to more effectively deliver quality universal one, universal two and targeted services.[1]"

Strategic self evaluation:

Establishing a strategic self-evaluation baseline of the services using the Balance System® Core Model, highlighted key areas for development:

- Engagement and reaching out to parents and carers
- The pivotal role of leadership and management
- Development of the training offer for the wider workforce

It also highlights the successes around integrated working, although capturing impact is an area for development. Funding of SLT is perceived to be well developed, however the reach, quality and capturing the impact of this work would benefit from further consideration.

Figure 6: Balanced System Baseline Self-Evaluation Tool

Area	Level 1: Input	Level 2: Reach	Level 3: Quality	Level 4: Impact
Commissioning/ funding	To what extent are all commissioners with a remit for children and young people including the needs of this population in needs assessment and commissioning of their element of children and young people's services?	To what extent are commissioners ensuring that their collective activity reaches the full population of children and young people with SLCN?	To what extent are providers delivering services to meet the specifications developed by commissioners as intended?	To what extent has the collective commissioning activity for children and young people yielded demonstrable change in their speech, language and communication skills?
Integrated workforce	To what extent is the workforce working in an integrated way?	To what extent does an integrated workforce support all pupils with SLCN?	To what extent is the integrated workforce demonstrating high quality collaborative working?	To what extent is the integrated workforce impacting on the wider community?
Engaging parents and carers	To what extent are services for children and young people with SLCN engaging with parents in support of their children's SLCN?	To what extent are parental engagement strategies and activities reaching all parents of pupils with SLCN?	To what extent is parental engagement consistently of high quality?	To what extent are improved parental participation and confidence in supporting pupils' SLCN demonstrated?
Leadership and management	Is there leadership and management of provision across agencies and disciplines?	Are the leadership and management arrangements facilitating services to reach all children with SLCN as appropriate?	Is the leadership and management of high and consistent quality?	Does the leadership and management contribute to achieving improved speech, language and communication skills for children and young people with SLCN?
Training and development	Is there a range of training and development on offer to parents and the workforce?	Is the training and development accessible in terms of funding, time, location?	Is the training and development of high and consistent quality?	Does the training and development result in improved skills to support children and young people with SLCN?

Legend:
- Not at all (red)
- Partially (orange)
- Mostly (yellow)
- Complete (green)
- Don't know (grey)

The service identified that future success would include:

- Improved understanding of the population with communication needs in order to inform and implement the most effective support of children with speech, language and communication needs in Forth Valley
- Shared understanding and language of the current gaps and provisions within the service in order to inform more effective service delivery in line with Ready to Act
- Data to demonstrate the services value and impact in order to influence key stakeholders

The service anticipated that it would know it has made a difference through:

- An informed plan to reshape services based on population need, gaps and strengths
- The action plan which includes developing provision to address gaps in service, while maintaining strengths
- Shared understanding of strands and levels along with time and resources to input into the tools, enabling prioritisation over other key drivers

Predicted speech, language and communication need across Forth Valley

Figures 7 and 8, show the predicted speech, language and communication needs of children and young people across Scotland. Overall in Scotland, the SLCN Prediction for children aged 0-18 is 275,574. Of these, it is estimated that 6% (16,456) live in the NHS Forth Valley area. The predicted level of SLCN by population for Forth Valley is in the higher range of need across Scotland, with only four other areas having greater predicted need.

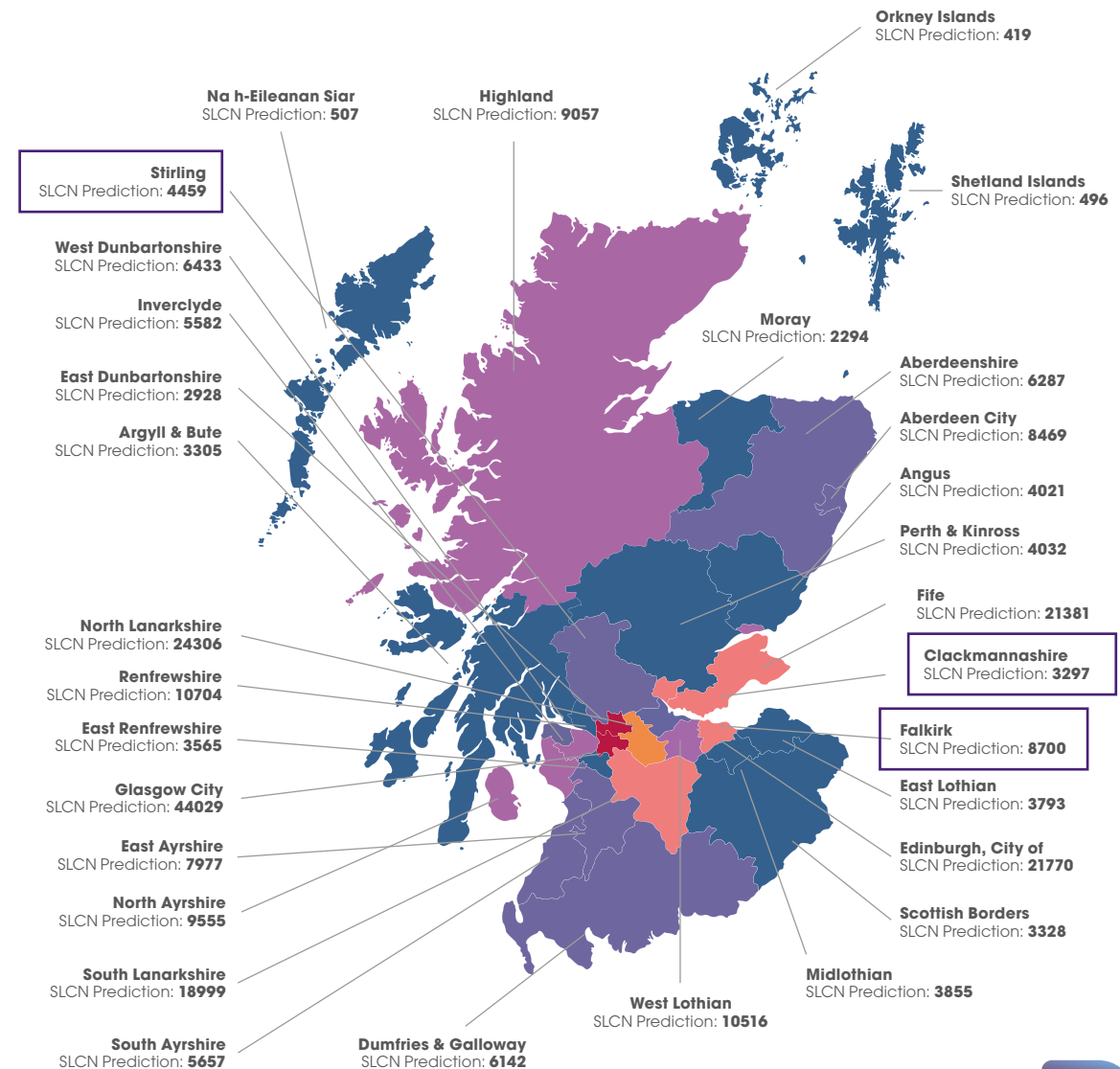**Figure 7: Predicted speech, language and communication needs in Scotland using the Balanced System^w Prediction of SLCN tool**

Orkney Islands
SLCN Prediction: **419**

Na h-Eileanan Siar
SLCN Prediction: **507**

Highland
SLCN Prediction: **9057**

Shetland Islands
SLCN Prediction: **496**

Stirling
SLCN Prediction: **4459**

West Dunbartonshire
SLCN Prediction: **6433**

Moray
SLCN Prediction: **2294**

Inverclyde
SLCN Prediction: **5582**

Aberdeenshire
SLCN Prediction: **6287**

East Dunbartonshire
SLCN Prediction: **2928**

Aberdeen City
SLCN Prediction: **8469**

Argyll & Bute
SLCN Prediction: **3305**

Angus
SLCN Prediction: **4021**

Perth & Kinross
SLCN Prediction: **4032**

Fife
SLCN Prediction: **21381**

North Lanarkshire
SLCN Prediction: **24306**

Clackmannashire
SLCN Prediction: **3297**

Renfrewshire
SLCN Prediction: **10704**

Falkirk
SLCN Prediction: **8700**

East Renfrewshire
SLCN Prediction: **3565**

East Lothian
SLCN Prediction: **3793**

Glasgow City
SLCN Prediction: **44029**

Edinburgh, City of
SLCN Prediction: **21770**

East Ayrshire
SLCN Prediction: **7977**

Scottish Borders
SLCN Prediction: **3328**

North Ayrshire
SLCN Prediction: **9555**

Midlothian
SLCN Prediction: **3855**

South Lanarkshire
SLCN Prediction: **18999**

West Lothian
SLCN Prediction: **10516**

South Ayrshire
SLCN Prediction: **5657**

Dumfries & Galloway
SLCN Prediction: **6142**

Figure 8: Showing the predicted need within NHS Forth Valley in the context of the Scotland dataset

0 to 18 SLCN prediction % of total 0-18 population.

Median 22.0%
Mean 21.0%

NHS Forth Valley 26.2%

- NHS Ayrshire & Arran
- NHS Borders
- NHS Dumfries & Galloway
- NHS Fife
- NHS Forth Valley
- NHS GGC
- NHS Grampian
- NHS Highland
- NHS Lanarkshire
- NHS Lothian
- NHS Orkney
- NHS Shetland
- NHS Tayside
- NHS Western Isles

Analysis of the reported caseload compared to predicted SLCN highlights a significant variation, relative to the national picture. Initial inspection suggests this is low relative to what might be expected, however more detailed analysis of referral and discharge patterns and triangulation with the model of service delivery which exemplifies intervention across the three levels of universal, targeted and specialist or individualised, suggests an explanation which points to effective early intervention and prevention and integrated working across health and education services. 30.5% of mapped provisions across the whole of the service are at the universal level.

Furthermore, the proportion of children and young people waiting for intervention at the time of the analysis was amongst the smallest in Scotland. This again links with the advice and support provided for families at a universal level which reduces the demand for specialist referral.

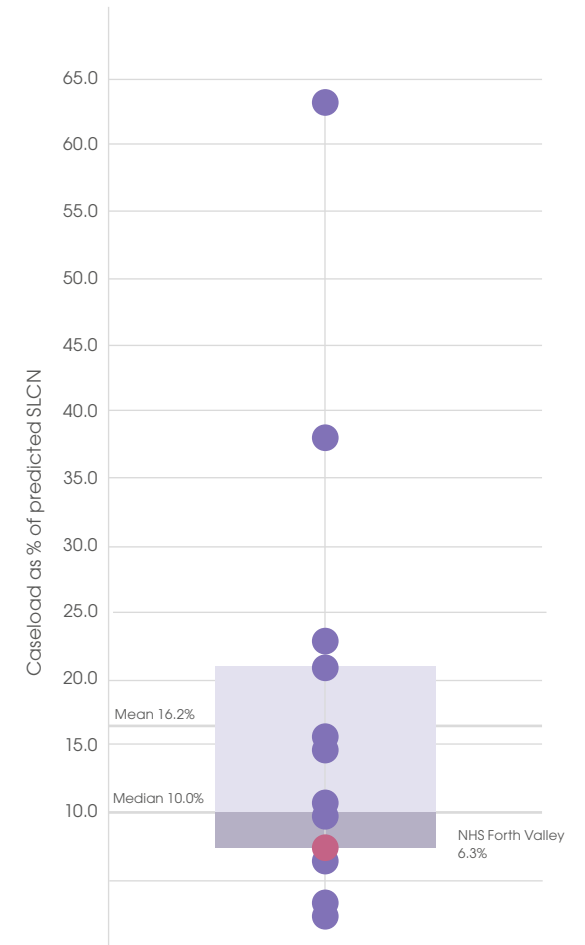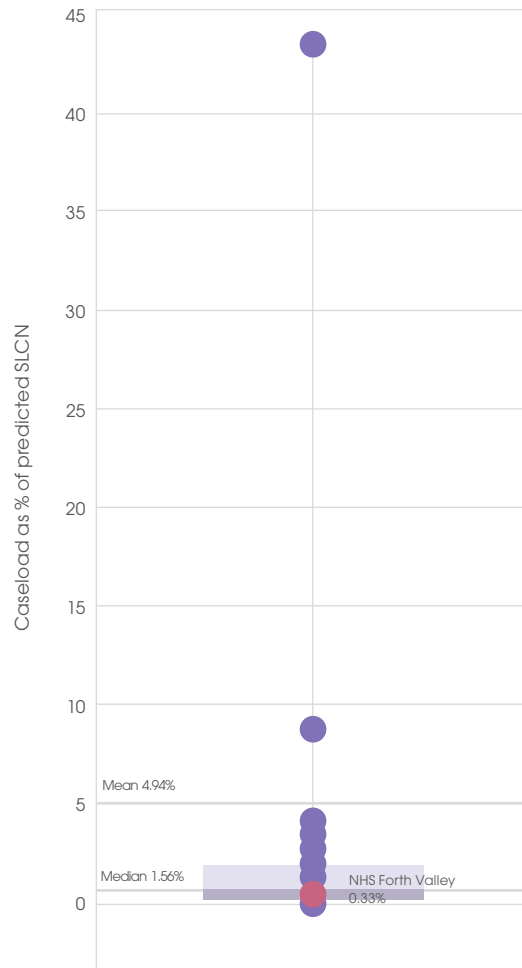## Figure 9: Reported Caseload as % of the predicted SLCN in 0-18's in the NHS area across Scotland

Caseload as % of predicted SLCN

Mean 16.2%

Median 10.0%

NHS Forth Valley 6.3%

Figure 10: Reported Wait (assessment or therapy) as a % of SLCN predicted need in each NHS area across Scotland

Caseload as % of predicted SLCN

Mean 4.94%

Median 1.56%

NHS Forth Valley
0.33%

Workforce to meet need

Analysis of the speech and language therapy (SLT) workforce for NHS Forth Valley shows the ratio of whole time equivalent (WTE) staff per 1000 children and young people and also per 1000 children and young people predicted to have SLCN. Figures 11 and 12 below present this information graphically.

Figure 12 shows the ratio of staffing to predicted need in the context of the national picture. This indicates that NHS Forth Valley has slightly below average staffing ratios.

Whilst there is currently no additional funding reported to be coming directly from the schools, there is an additional 6.1 WTE (overall in Forth Valley) funded via Pupil Equity Funding (PEF) or Attainment Challenge funding. Funding from these Government initiatives represent 13.5% of the overall WTE for Forth Valley of 45.15.

Figure 11: Showing ratio of WTE SLT per 1000 children and young people

Workforce (WTE) per 1,000 children (aged 0-18)

0.97
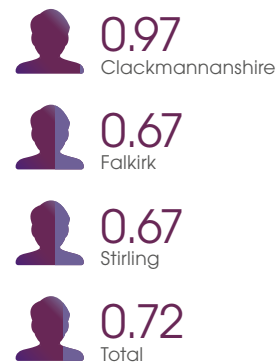Clackmannanshire

0.67
Falkirk

0.67
Stirling

0.72
Total

Figure 12: Showing ratio of WTE SLT to children and young people predicted to have SLCN

Workforce (WTE) per predicted 1,000 SLCN need (aged 0-18)

2.54
Clackmannanshire

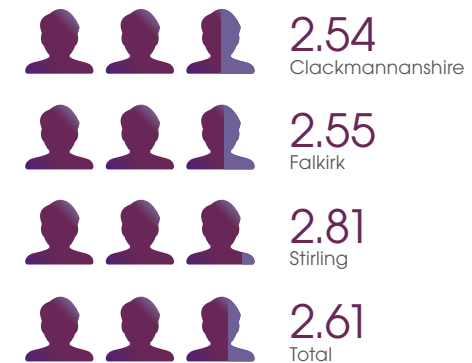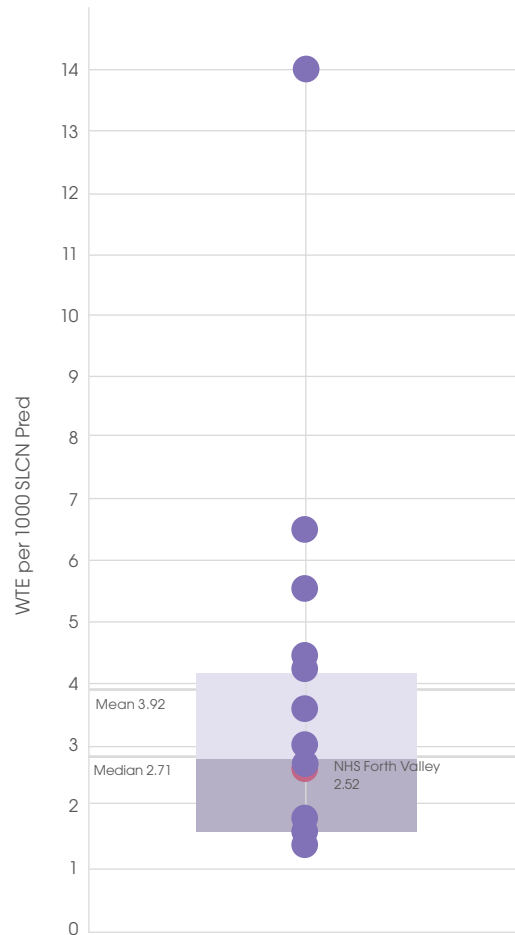2.55
Falkirk

2.81
Stirling

2.61
Total

Figure 13: Showing the ratio of WTE SLT per 1000 children and young people predicted to have SLCN for NHS Forth Valley in the context of the national dataset

The Service Journey

The SLT service in NHS Forth Valley have been using the Balanced System® framework and tools since 2016. Since the initial baseline work, the service identified the key driver to be the child as central to services, working closer with families by taking the service to where families are. The service is now reported to be more accessible generally. The service reports a significant shift in terms of moving away from a process focused 'assess and treat' model, towards identifying what the child and family need, when and where they need it.

In addition to the strategic work, NHS Forth Valley speech and language therapy service have developed their offer to schools, to include the Balanced System® for Schools and Settings, this resulted in 14 schools achieving accredited status for their approach to promoting and supporting speech, language and communication across universal, targeted and specialist levels.

Strategic self re-evaluation:

Current strategic self-evaluation across the service:

NHS Forth Valley SLCN understand baseline evaluation

Area	Level 1: Input	Level 2: Reach	Level 3: Quality	Level 4: Impact
Commissioning/ funding	To what extent are all commissioners with a remit for children and young people including the needs of this population in needs assessment and commissioning of their element of children and young people's services?	To what extent are commissioners ensuring that their collective activity reaches the full population of children and young people with SLCN?	To what extent are providers delivering services to meet the specifications developed by commissioners as intended?	To what extent has the collective commissioning activity for children and young people yielded demonstrable change in their speech, language and communication skills?
Integrated workforce	To what extent is the workforce working in an integrated way?	To what extent does an integrated workforce support all pupils with SLCN?	To what extent is the integrated workforce demonstrating high quality collaborative working?	To what extent is the integrated workforce impacting on the wider community?
Engaging parents and carers	To what extent are services for children and young people with SLCN engaging with parents in support of their children's SLCN?	To what extent are parental engagement strategies and activities reaching all parents of pupils with SLCN?	To what extent is parental engagement consistently of high quality?	To what extent are improved parental participation and confidence in supporting pupils' SLCN demonstrated?
Leadership and management	Is there leadership and management of provision across agencies and disciplines?	Are the leadership and management arrangements facilitating services to reach all children with SLCN as appropriate?	Is the leadership and management of high and consistent quality?	Does the leadership and management contribute to achieving improved speech, language and communication skills for children and young people with SLCN?
Training and development	Is there a range of training and development on offer to parents and the workforce?	Is the training and development accessible in terms of funding, time, location?	Is the training and development of high and consistent quality?	Does the training and development result in improved skills to support children and young people with SLCN?

Legend:
- Not at all
- Partially
- Mostly
- Complete
- Don't know

The journey is ongoing and the changes in the self-evaluation tools reflect this. There has been a shift since the original strategic self-evaluation as the service evolves.

For families, the universal level workshops, without request for assistance, enable more families to access support when it is appropriate for them. Families access information via social media or local information sources that support them and their child before asking for specialist input. This changing shape of the service has happened over time. Families accessing specialist services have different conversations from the start of their interactions with the service, specialist 1:1 therapy is no longer always perceived as gold standard and the only option. Wider support and information from a range of providers including early years settings and schools is valued and impactful. There is recognition that families have changing needs over time and therefore this flexible approach to accessing the service is key to achieving outcomes. Families can access a range of alternative offers, including education, advice, coaching and information online.

Schools are a great deal more skilled through work with the service and the use of the Balanced System® for Schools and Settings. The majority of schools now have a shared language, which is vital to joint discussions with the speech and language therapist, as well as being better able to support children at universal and targeted levels. It is easier to implement or reinstate provision in a school that has been engaged with the service and also the Balanced System® framework rather than starting from scratch.

This further informs identification and referrals from schools, as they now have a greater range of approaches to use first and alongside, as well as an understanding of their contributions and that of the SLTs.

The process of service development
NHS Forth Valley Children and Young People's Speech and Language Therapy Service have worked in partnership with Clackmannanshire, Stirling and Falkirk local authorities to undertake a transformational approach to improving outcomes for children and young people.

The joint vision is that,
By July 2022 Children and Young People in Forth Valley will demonstrate improved outcomes through access to a Speech and Language Therapy service that is based on relationships, is accessible, person centred, outcome focused, integrated and delivers quality universal, targeted and individualised support.

The service aims for
• Children and families to access support in timely and accessible ways
• Support to be based on the needs of the population rather than the needs of the service. That is, embedded within the community
• A greater presence in schools and nurseries across all strands and levels. To be seen as part of the education team and building relationships to improve outcomes

Schools that have used the Balanced System® for Schools and Settings are accustomed to having named therapists and are confident and comfortable having a SLT in school. The service is in the process of embedding this approach for all schools, not just those that have invested in project work previously. There are however some COVID related barriers, for example the challenges in accessing children and placements.

Challenges may come from internal school processes and expectations. The role of leadership is key in enabling speech and language therapists' integration. The service recognises the need for an internal culture change too, being linked to schools and settings rather than clinic based and in providing a full range of inputs from universal to specialist requires a shift if understanding and approach to a therapist role.

Current service delivery

Generally, families see that specialist input is one of a range of options that may be appropriate at certain points in time but is not necessarily the way to meet outcomes. However, there are some who still want to see the 'expert'. The team recognise the significance of not making assumptions that everyone understands the service development plans and the rationale behind it, this applies to families and professionals. A significant number of children and families still need to be seen face to face in order to access services effectively, even if this level is not where they will stay.

The service has recently launched a number of **animations** to explain to families and colleagues how the service meets outcomes for children and young people as part of the Balanced System® approach with colleagues across education and health[2].

The service is working towards the equal distribution of provisions across all three locality areas relative to the differing needs, however they are aware that some provisions vary for a given locality. Reviewing all provisions across all localities has informed reflections on the reasons for variations and subsequent decision making and service planning.

[2] https://www.youtube.com/playlist?list=PLDZkNdIBNNeLCOhjhGsjE_UF9OJ5HYxrZ

Figures 14, 15 and 16 show the latest detailed evaluation of the provision areas to meet need, the current provision map by strand and level and the proportional distribution of provisions.

Figure 14 Showing recent detailed evaluation of provision to meet need in NHS Forth Valley SLT service
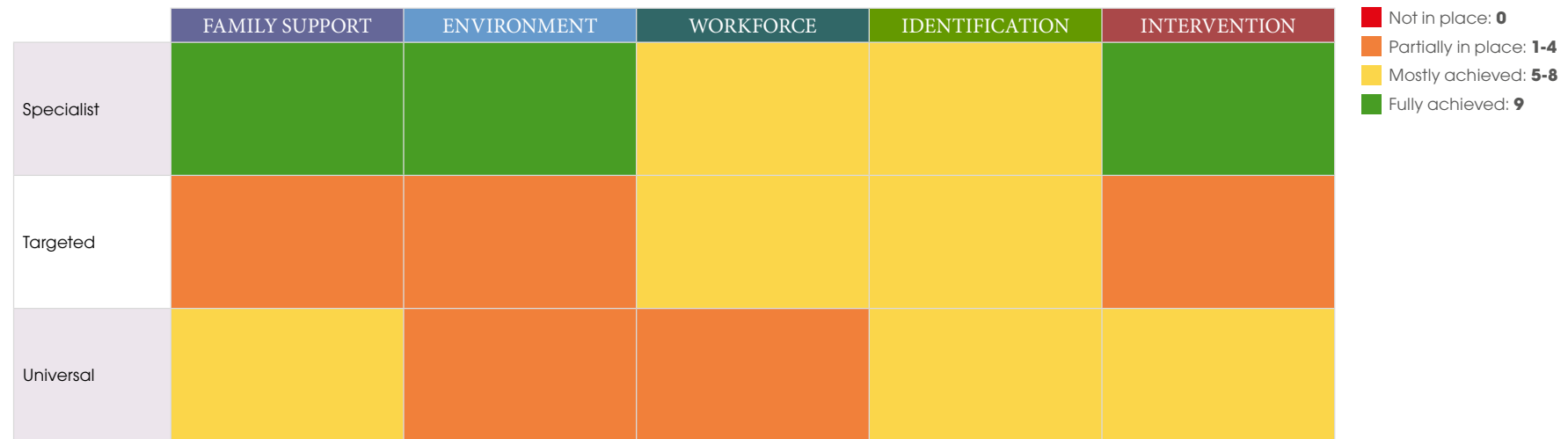
	FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION
Specialist					
Targeted					
Universal					

Legend:
- Not in place: **0** (red)
- Partially in place: **1-4** (orange)
- Mostly achieved: **5-8** (yellow)
- Fully achieved: **9** (green)

Figure 15 Showing recent 'heat map' of provisions meeting outcomes across the five strands and three levels of the Balanced System

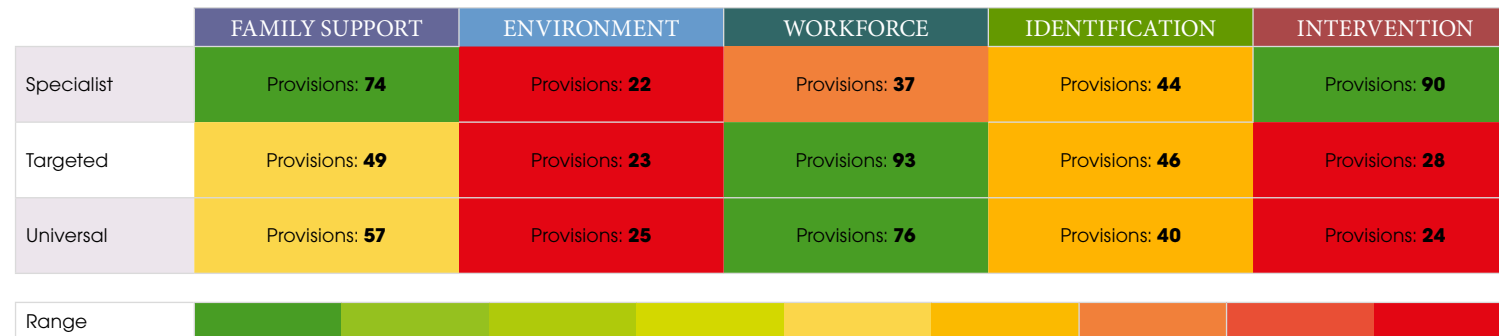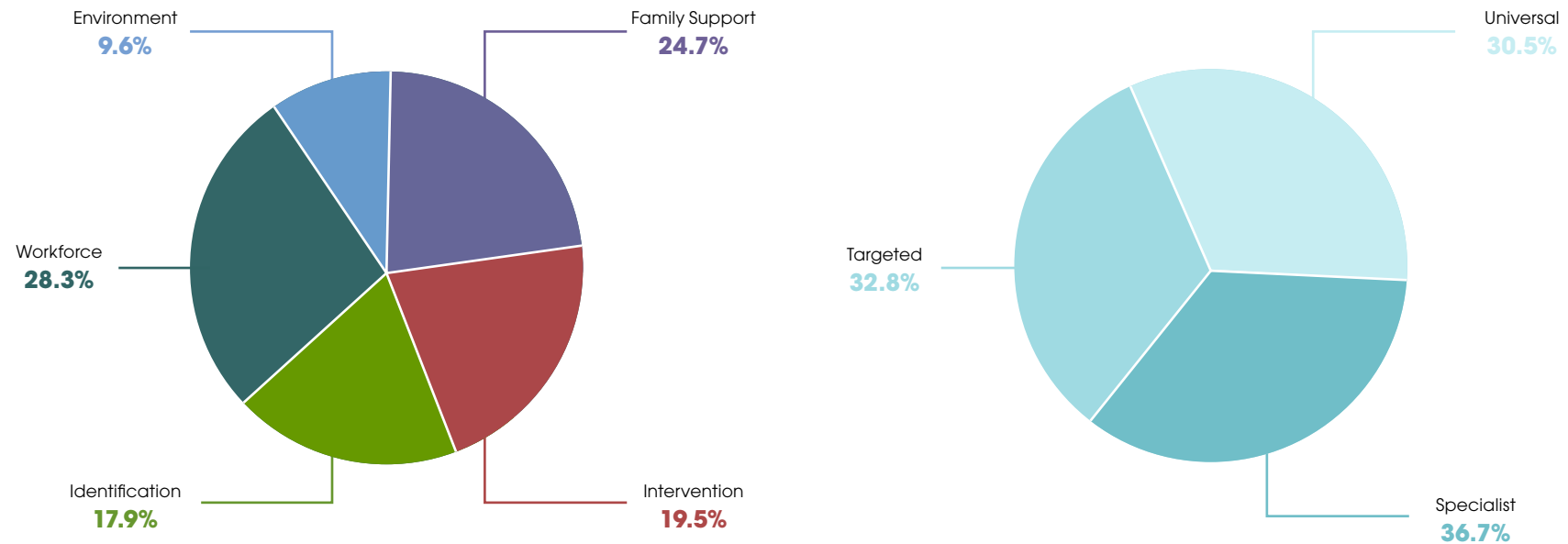|	FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION
Specialist	Provisions: **74**	Provisions: **22**	Provisions: **37**	Provisions: **44**	Provisions: **90**
Targeted	Provisions: **49**	Provisions: **23**	Provisions: **93**	Provisions: **46**	Provisions: **28**
Universal	Provisions: **57**	Provisions: **25**	Provisions: **76**	Provisions: **40**	Provisions: **24**
Range					

Figure 16: Showing the distribution of provisions across the Five Strands and Three Levels

Combined provision split by Strand and Level

Environment
9.6%

Family Support
24.7%

Workforce
28.3%

Identification
17.9%

Intervention
19.5%

Universal
30.5%

Targeted
32.8%

Specialist
36.7%

Challenges and opportunities

The services leads reported the following.

Key to successful service delivery moving forwards:
1. Joined-up working
2. Leadership from SLT and education
3. Positive relationships at the operational level
4. Good communication and clear expectations linked to outcomes, so that everyone knows what is reasonable to expect

The service has identified that to support and embed the developing service model, staff need to feel confident in making changes to delivery methods and contexts so that they can support families in the most effective way. We believe that by positioning our service in the centre of the community, for example in educational settings, that we can improve outcomes for children and young people with communication needs and reach the most vulnerable children in our local population. We recognise there is a need for high quality professional development and support for practitioners as this approach is embedded and that change and this new approach across the service may initially be anxiety-provoking for some practitioners.

Conclusions
1. Leadership, effective relationships and a culture of flexibility and openness to change are all key to making things work and underpin all strands and levels
2. Families need to be at the centre of what we do in order to benefit children and maximise outcomes
3. All 3 levels across all 5 strands of the Balanced System® are equally needed to deliver transformational and sustainable improvement for children with communication needs

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