

Meeting speech, language and communication needs: a whole-systems, population-based approach

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Abstract

Speech, language and communication needs (SLCN) remain one of the main areas of concern impacting children and young people's life outcomes. This article sets out the case for taking a population-health based approach to anticipating need and building whole systems around children in their functional contexts, whether home, early years setting, school or further education. The demand on services providing speech and language therapy continues to increase year on year. Using a population-health approach to predicting areas of higher anticipated SLCN and establishing robust collaborative approaches to improving the context for children and young people vulnerable to SLCN, there is the potential to address a significant number needs within everyday contexts. This approach continues to require a highly skilled speech and language therapy workforce. For maximum impact, those skills should be deployed in the places children and young people live, learn and have leisure, working directly with children but also ensuring the wider workforce are supported to enable early identification, prevention, and intervention. This approach requires a move away from a traditional referral model to one of easy access to expertise. Finally, the implications for paediatric services and the opportunities presented by a different way of using the multi-disciplinary team are proposed.

Keywords Easy access; functional outcomes; impact measurement; needs-led; place based; population-based; speech, language and communication needs; whole system

Communication is crucial

"Communication is crucial". The Bercow Report: a review of services for children with speech, language and communication needs (SLCN), made this assertion as one of the key themes following the eighteen-month review of services and engagement with families of children and young people with a range of SLCN.¹ This review and the Better Communication Research Programme that followed, also underlined the importance of early identification of SLCN and identified some of the systemic

challenges in the way children's services were commissioned and deployed to meet those needs.

Fifteen years on, there have been many developments in policy and practice aimed at improving elements of the provision for families, children and young people. However, whilst the theoretical case for taking a systematic, population-based approach to planning and delivering integrated services for children and young people with SLCN is being increasingly recognized, in practice, this approach continues to evolve slowly. The challenges to adopting such an approach are multi-faceted and include:

- Needing a shared understanding of where the responsibility and accountability lie (DHSC, DfE, NHS, LA) nationally and within a given geographical area.
- Having clearly articulated shared outcomes at a population level (shared not only among commissioners and providers of services but crucially shared and agreed with parents and families and young people themselves).
- Having a model of integrated provision to meet need in a given geography.
- Being able to estimate potential need in an anticipatory manner so as to enhance support for families and young people based on predicted need and not merely in response to presenting demand.
- Measuring outcomes in terms of impact not only at the level of the individual but also for the family, the school or setting and ultimately establishing impact measures for cohorts.

This paper will set out the rationale for a population-based approach to planning and delivering services to meet SLCN and provide examples of a methodology that is being used to enable this approach in an increasing number of areas across the UK. The role of the paediatrician as a key part of the specialist provision for children and young people will be considered in the context of a systems approach and finally some questions for reflection and future exploration will be shared.

Definitions, impact and the case for a population-based approach to SLCN

There is a growing body of evidence from longitudinal studies and analysis of cohort datasets from around the world, that make the compelling case for both identifying early and accurately those children and young people with SLCN and making supportive provision available in environments and communities where there are increased risk factors impacting on families. [Figure 1](#) summarizes some of the evidence of long-term implications of having difficulties with speech, language and communication in the developmental years from birth to six years old.²

The cost to the individual, public services and to society of *not* pro-actively seeking to ameliorate SLCN as early as possible is clear. Negative impact on educational, social, emotional and well-being outcomes as well as risk of long-term impact on employment and adult mental health.

However, defining SLCN is not as straightforward as one might imagine.

Prevalence data for SLCN in any population of children and young people

The currently accepted data suggest that 10% of any population of children and young people can be expected to have SLCN that

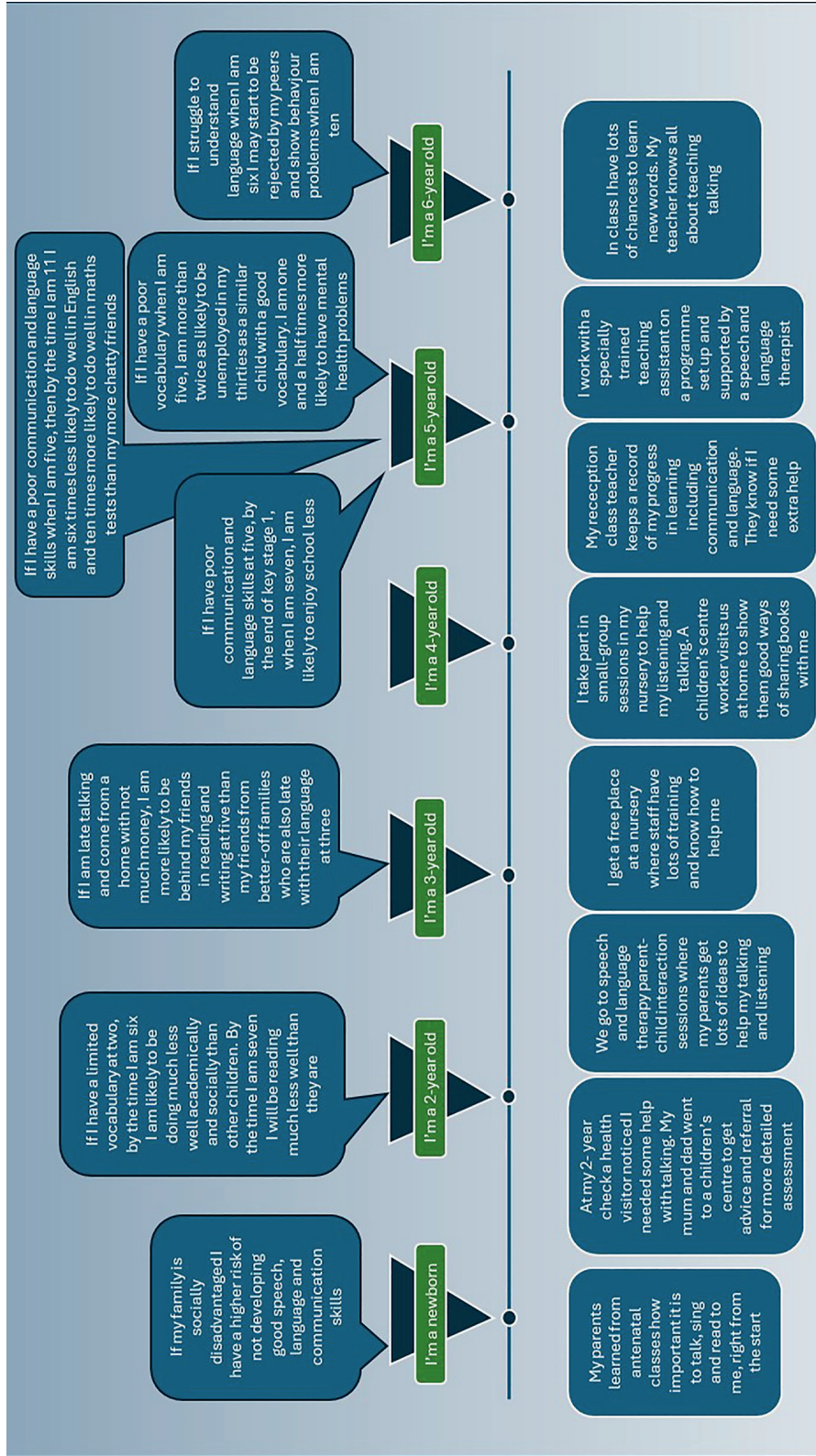


Figure 1 Impact on life chances of poor early language and communication and protective factors that can help.²

are long lasting. Within this 10%, 7.58% can be expected to meet the criteria for Developmental Language Disorder, with the remaining 2.42% being described as having SLCN associated with other developmental needs.

Prevalence data for diagnoses with high co-morbidity with SLCN

Alongside these data, exist prevalence rates for diagnoses which might be expected to include SLCN. These include Autistic Spectrum Conditions, cerebral palsy, deafness and intellectual impairments with SLCN as part of the overall profile of need.

Prevalence data for population need linked to socio-economic factors

There is also a convincing body of research coming from a public health perspective that suggests that in areas of most significant disadvantage, up to 50–55% of children at school entry might be observed to have SLCN of varying levels of concern. There are reports emerging that the impact of the COVID pandemic is resulting in even higher levels of need primarily associated with the unique circumstances of being an infant during lock-down periods. Long term research has been commissioned to explore this empirically but will not report definitively for some time.

The implication of this part of the evidence base is that we can therefore expect different levels of ‘additionality’ to the volume and nature of needs at a population level linked to demographic factors.

Identification of need via the SEND system and classifications of need

Finally, the SEND system invites schools and settings to identify children with special educational need that might be met within schools and settings or may be at a level where an Education, Health and Care Plan (EHCP) is required to ensure the right level of support to enable learning and participation.

Within the SEND system, schools and settings are asked to identify the ‘primary’ area of need from a fixed list of categories of which SLCN is one. However, other categories include Autistic Spectrum, Hearing, Moderate and Severe Learning Disability. The consequence of the SEND classification system in this instance is both the variability of how the primary need classification is applied and also the challenge of SLCN being part of the profile of needs for those other ‘primary need’ classifications additionally to the SLCN primary need group resulting potentially in under-identification in the SEND datasets.

Evidence of the natural history of SLCN in the early years

To add to the mix, as in other developmental areas, there is a rich variation in the natural history of very young children’s speech, language and communication development.

A longitudinal cohort study in Victoria, Australia, assessed children at 2 years and again at 4 years.³ The 2-year-olds were categorized into ‘late talkers’ (19%) and ‘typical talkers’ (81%). The assessment at age 4 categorized the children as either ‘impaired’ or ‘typical’. The striking finding though of these data illustrated in Figure 2 is that,

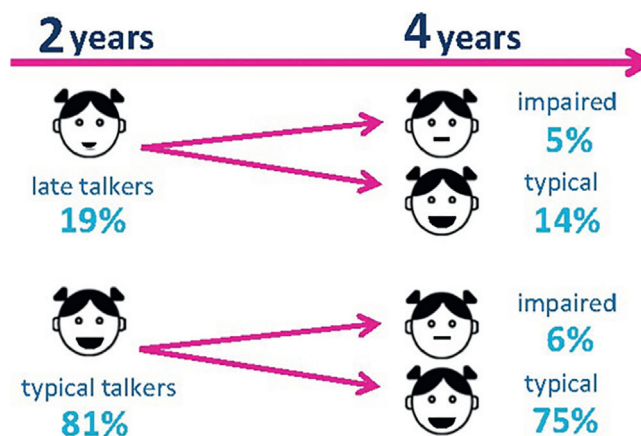


Figure 2 Language pathways of late and typical talkers, between 2 and 4 years of age. Reproduced from reference 3 with permission from Oxford University Press.

- of the 19% of ‘late talkers’ aged 2 – only 5% were identified as ‘impaired’ in their SLC skills aged 4, with the other 14% presenting as typical.
- of the 81% presenting as ‘typical’ in their communication aged 2, 6% were identified as showing ‘impairment’ age 4.

This study adds yet another dimension to the challenge of how we define and identify a speech, language and communication need in the critical period prior to school entry.

Summary of factors impacting population prevalence for SLCN

There is an emerging data profile that is troubled by deficit models, co-morbidities, inconsistency of classification and lack of sensitivity to differences in demographic factors which are known to be relevant and impactful on need. The other significant challenge, especially when seen in the context of the crucial milestone of good communication skills aged five on future life outcomes, is that identifying those children who will *in due course* be identified as having longer term developmental language disorders, is challenging in the very early years.

In a system driven by a deficit model which aims to identify ‘cases’ these challenges may not be seen as significant. However, the methodology that will be outlined in this paper comes from the theoretical perspective that if we are designing services to have maximum impact on children and young peoples’ outcomes for life, in respect of the component of speech, language and communication (though the principles can be applied across other areas of need), then the emphasis needs to shift towards an inclusive, anticipatory, whole system response methodology.

Taking a population-based approach to impactful support for SLCN

The Balanced System⁴ is a population-based, outcomes focused approach, integrating systems to support children and young people, which has been evolving since 2003 and has developed iteratively with both national policy and legislation. More detailed information can be found at www.thebalancedsystem.org.

Figure 3, provides an overview of the implementation cycle for a given geographical population from needs analysis, through

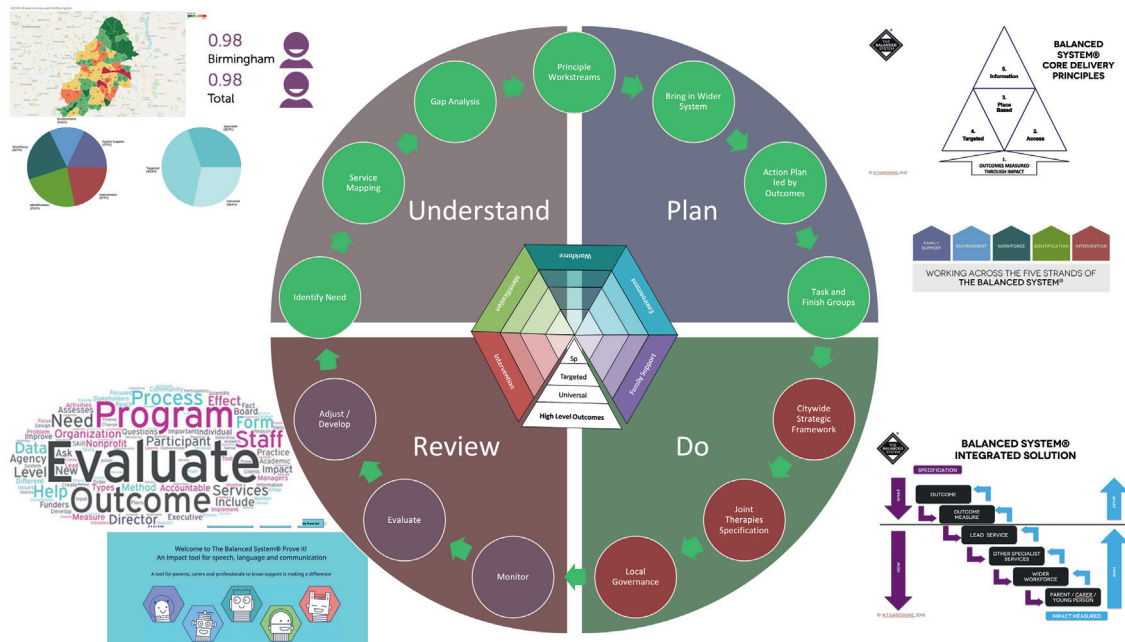


Figure 3 The Balanced System implementation cycle overview.

planning to meet local need, to transforming services based on core delivery principles and finally evaluating outcomes through measures of impact at individual, school or setting, cohort and population level.

Understand

The understand process involves the following key elements:

- Predicting speech, language and communication need in the population based on a specific geographical footprint
- Mapping the current provision from all elements of the system against the Balanced System High Level Outcomes Framework (see [Figure 6](#) below)
- Analyzing the available workforce to meet need
- Gap analysis

Predicting SLCN in a population: the methodology takes the evidence base and datasets outlined above and triangulates these with the population and the local demography. The unique element of this particular approach is applying a range of demographic datasets linked to disadvantage to enable a graded prediction of the proportion of children predicted to have a need to be calculated for a specific ward or other geographical footprint. The outcome is both a prediction of the percentage of the child and young person population predicted to have a SLCN across the whole spectrum from those who should not, with appropriate contextual support, need specific intervention from a speech and language therapist, to those who will need to be supported in a more individualized manner.

For example, in Birmingham, there is significant need across the city and relative to the overall national picture most of the wards within the City of Birmingham fall into one of the two most high need quintiles nationally. However, within that overall profile it is possible to predict areas of relatively greater and lesser need from a speech, language and communication point of view *within* the city, which can then be used to tailor the service

delivery from not only the speech and language therapy service but also other parts of the system workforce (including health visitors, early years practitioners, educational psychologists, paediatricians) who have a contribution to make to achieving the speech, language and communication outcomes at a system level ([Figures 4 and 5](#)).

Mapping current provision to meet need within the Balanced System High Level Outcomes Framework: practitioners and clinicians of all disciplines ultimately want to ensure that the provision available to meet need is appropriate and impactful. This leads to the need to consider the response to the identified need, the model of provision within an area.

The guidance in recent years for commissioners of early years Public Health provision for SLCN has strengthened the role of Public Health Nursing in early identification and intervention at a targeted level for those whose speech, language and communication skills are identified at the 2-year check.⁵ So, the indication is that the policy context requires an emphasis on early identification and prevention, and for some immediate support for families without a referral to a speech and language therapist. However, for this to be impactful at a system level, there is the need for a framework into which all the elements of provision can be aligned. The Public Health England guidance includes the Balanced System High Level Outcomes as a reference for a potential framework for commissioners and service providers to consider. [Figure 6](#), below, shows the outcomes framework.

The outcomes framework is built around Five Strands of Family and Young Person Support; Enabling Environments; Workforce Development; Early Identification and Effective Intervention and for each of these Five Strands outcomes are identified at universal, targeted and specialist or individualized levels. This results in fifteen high level outcomes against which existing provision for children, young people and families can be mapped and gaps in provision identified.

Birmingham wards showing 0-18 SLCN % prediction
2019 wards with mid-2019 population data

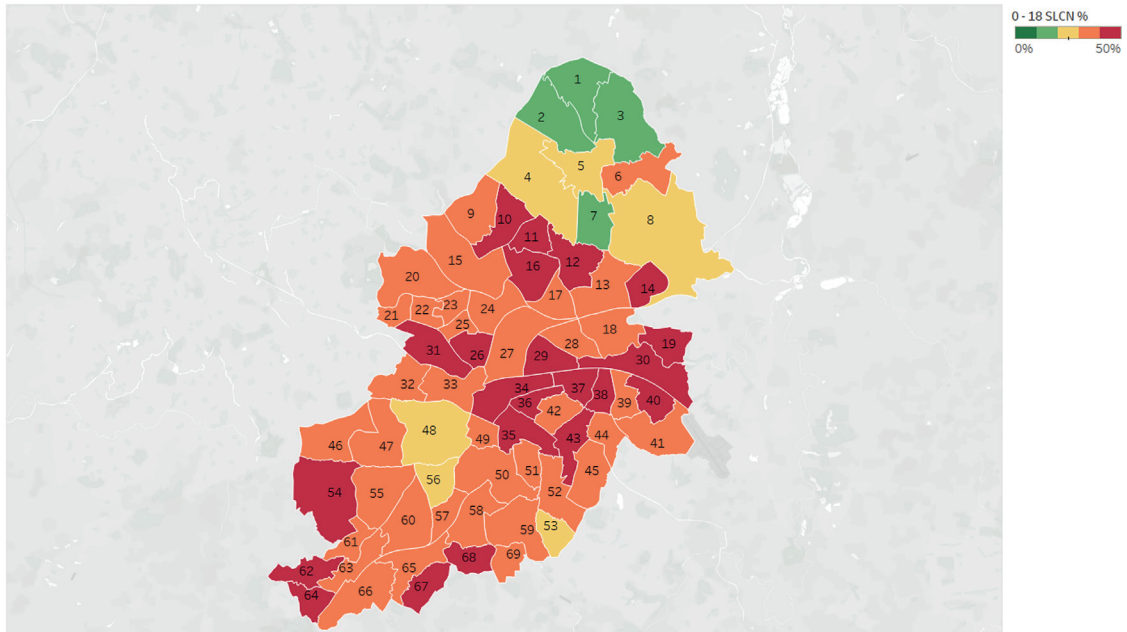


Figure 4 Showing the % predicted SLCN using the Balanced System methodology by ward for the City of Birmingham relative to national (England) data.

Birmingham wards showing 0-18 SLCN prediction numbers
2019 wards with mid-2019 population data

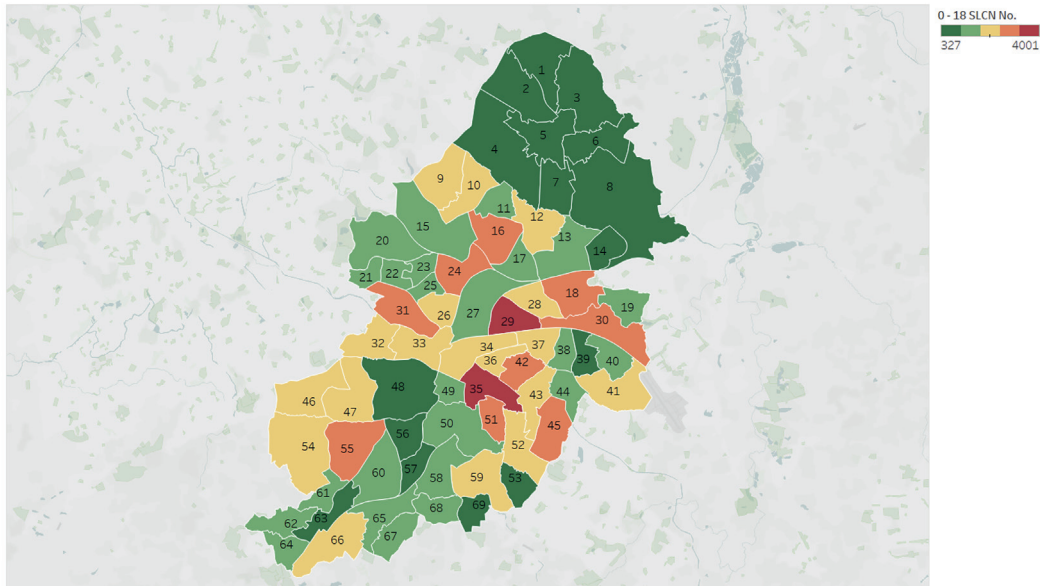


Figure 5 Showing the number of CYP predicted to have need by ward for the City of Birmingham with the colour coding representing quintiles within the population of Birmingham.

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



FAMILY SUPPORT	ENVIRONMENT	WORKFORCE	IDENTIFICATION	INTERVENTION
<p>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.</p>	<p>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.</p>	<p>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.</p>	<p>ID3. Specialist - Children with specialist SLCN have their needs identified effectively and quickly. This includes multidisciplinary assessment where appropriate.</p>	<p>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.</p>
<p>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.</p>	<p>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 expressthemelves.</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>
<p>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.</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>

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Figure 6 The Balanced System High Level Outcomes as referenced in the Public Health England Guidance to Commissioners of Provision for SLCN.

This approach is therefore based on the fact that many professionals, from many disciplines, have a shared ambition to enable good outcomes for the same population of children and young people, however, the traditional structures, funding streams and the silos in accountability can result in fragmented experiences for families, gaps in provision and even duplication of effort in some areas.

To achieve an integrated local system, it is essential to see the contribution of the therapy workforce alongside that of other practitioners including paediatricians, health visitors, psychologists as well as educators, teachers, early years practitioners and social care professionals, in the contexts of families, settings and schools, and leisure facilities where children and young people spend their time.

It is also crucially important to recognize the role of specialists, in this case speech and language therapists, in building, developing and delivering, the provision at a universal and targeted level as well as offering specialist interventions. Conversely, it must be understood that in many instances children or young people with the most complex overall diagnostic profiles may best be supported by consistent targeted and high-quality universal support delivered by appropriately trained and supported members of the wider workforce around them as well as by a family that is supported in order to embed supportive strategies in the day to day activities of family life.

Figure 7 demonstrates this non-linear relationship between complexity or low incidence of need, intervention and the workforce to deliver intervention. When considering the specific role of therapists, a number of important distinctions need to be made:

- There is no automatic 'read across' between children and young people who might be described as having complex or

specialist needs in terms of an Education, Health and Care Plan (EHCP) and the requirement for specialist level therapy support. It is often the case that targeted support is appropriate for children and young people where specific needs exist as part of a wider profile.

- Similarly, there will be children and young people with specific needs who may not otherwise be identified at a complex or specialist level who *will* require specialist interventions in order to maximize their potential.
- Children and young people may be accessing support from all three levels simultaneously.
- Functional outcomes should always be the priority, evaluated through measures of impact rather than measures of input.
- In some cases where children and young people are not expected to make further progress in an area of need or where parents and educational staff have been equipped with information and strategies sufficient to ensure ongoing functional outcomes, therapeutic intervention may no longer be indicated.

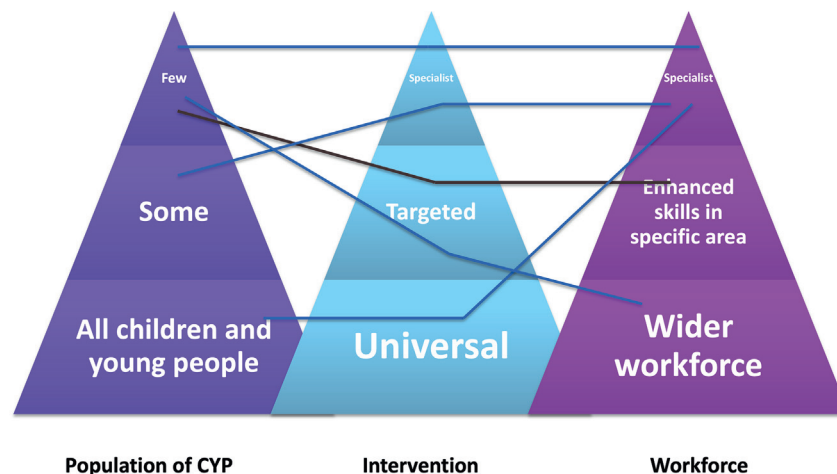
Plan and do: planning for differential population profiles of need

In the whole system planning phase it is important to consider the extent to which the nature and volume of the provision is adjusted in response to the needs analysis of the population and the current offer in place. For instance, in an area where predicted need is higher than the 'average' it may be that both the amount of support at a targeted level and the type of support is adjusted accordingly (Figure 8).

In order to achieve the system wide outcomes across the Five Strands and Three Levels, there are five key elements of



RELATIONSHIP BETWEEN POPULATION, INTERVENTION AND WORKFORCE



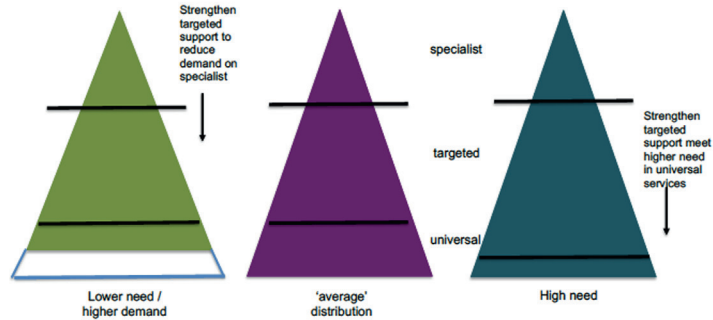
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Figure 7 Showing the variable relationship between level of need, intervention and workforce to deliver support.



ADJUSTING PROVISION TO ACHIEVE EQUITY OF OUTCOME

ADJUSTING MODEL TO MEET NEED



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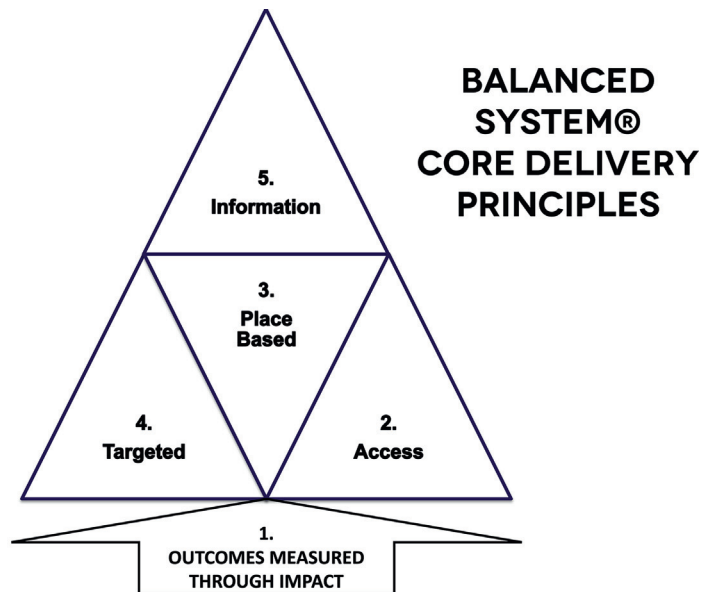
Figure 8 Showing how the population needs analysis influences the volume and nature of the offer across universal, targeted and specialist levels in order to achieve equity of outcome.

delivery that underpin the delivery framework. The core principles for transforming service delivery have at the centre the need to make **access** to expert advice as easy as possible for children, young people and their families, to ensure that when possible provision is in the most functionally **relevant place** and as a system, to ensure that there is a **robust targeted offer** available to complement the universal and specialist offers within the system.

Figure 9 presents these graphically.

Measuring Impact: the delivery is underpinned by a drive to **measure impact** and move away from metrics for monitoring

services that rely mainly on measures of activity or input. These traditional measures, such as sessions, minutes and hours of 1:1 therapy, are not in themselves useful in evaluating the *impact* of the intervention on the functional outcomes for children and young people. More attention has to be placed on capturing functional change, which may not be evident from formal assessment, but may be seen in 'before and after' evaluations of activity, participation or well-being. For example, evaluating the impact of environmental adaptations in a classroom that have enabled access and participation may be more relevant to a child or young person's functional outcome than a measure of time spent by a therapist in the school.



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Figure 9 The Balanced System Core Delivery Principles.

Easy access: easy access requires services to consider the most appropriate place and process for children and young people and their families to access initial advice and guidance.

Easy access processes are likely to involve community-based sessions where initial therapy advice and guidance can be provided with one of the following outcomes:

1. Reassurance and signposting to generic information that will provide further detail on development and things that parents, carers and families can do to support development at home.
2. Additional signposting to targeted opportunities in the community for support around specific areas of concern that are not felt to require further therapy specific assessment or intervention.
3. Invitation to participate in further enquiry-based investigation to determine whether more specific support may be required.
4. Referral to another service based on observations.

Ideally, easy access processes will replace the emphasis on traditional referrals and facilitate pro-active and pre-emptive support for families. Evidence from services which have adopted 'easy access drop-in' sessions show a significant drop in waiting time and increased parental confidence. Data from a transformation trail blazer in Lancashire was presented at the RCSLT 2023 conference and the video can be seen at <https://www.thebalancedsystem.org/downloads/rslt-conference-presentation-2023/>.

Where services are part of specialist multi-disciplinary pathways, the intention is not to replace these but to explore the possibilities for sharing of information and resources with families and providing functional interventions to support outcomes, pending more specialist assessment – the diagnostic process should not delay support.

Place-based provision: place-based provision requires therapy services to aim to provide support in the most functional contexts for children and young people and their families.

Typically, this will require services to seek community-based settings in the early years and to work from schools and other educational contexts for older children and young people. The rationale for this approach includes that all therapeutic support should be functional and therefore is best provided in contexts which allow real life experience to drive the application of support. There is also the rationale of ease of access and enabling access to support without placing additional burdens on families to bring children and young people to less functional clinical settings. Finally, there are significant opportunities for integrated working with colleagues across health, education and social care by supporting children and young people in context.

Robust targeted offer as part of the continuum of universal, targeted and specialist support: the Balanced System has at its core the continuum of provision from the universal offer through a strong targeted level of support to the specialist or individualized offer for a relatively small number of children and young people for a time limited part of their overall support.

The therapy service is required to ensure that there is a robust targeted offer in their geographical area. This will include training, coaching and support for colleagues in the wider system workforce and settings as well as the direct delivery by therapists of targeted interventions, support and adaptations.

The majority of children and young people accessing therapy services will require targeted support. Some may additionally require specialist interventions but these will over and above the universal and targeted support that should be in place.

Information: finally, a single information resource for families and system colleagues will enable services to be planned holistically and avoid duplication of effort confusion for families.

The requirements of an information resource include that it should provide a 'one stop shop' for families and practitioners wanting to understand what support is available in a given area for the children and young people they support.

Information should be clearly presented and accessible based on their likely needs or enquiries and therefore integrated to avoid having to access multiple sites online to find different pockets of information.

In some areas, the Local Offer platform has been extended and adapted and in other areas more bespoke solutions are in place. The outcome in either case should be for families to access information that has been curated into one place for them.

Implications and opportunities for paediatric services of a population-based approach to meeting SLCN

The emphasis in this paper has been the importance of a population-based approach to SLCN and naturally the role of the speech and language therapist has featured prominently. So, what potential does this approach have for paediatric colleagues?

Firstly, it will be important to understand changes that may be introduced in therapy services to move towards more accessible and place-based service delivery. This need not challenge multi-disciplinary teams and processes but can work alongside, potentially enabling earlier support for children and families.

The approach is increasingly being used for planning and delivery of children's occupational therapy and physiotherapy services as well as speech and language therapy. Therefore, whilst the contribution to outcomes from a paediatric child health medical perspective perhaps remains focused on more specific cohorts, there may be opportunities for supporting families differently looking at their overall pathway of support.

Waiting times for paediatric health assessments continue to be a challenge. So, are there opportunities to anticipate demand in certain geographical areas and plan provision accordingly? Are there opportunities to consider access to paediatric expertise in more community bases alongside the wider workforce not only of the traditional multi-disciplinary team of therapists and health colleagues but alongside the early years and education workforce? Are there opportunities to influence and quality assure information and strategies that families can adopt with their children whilst waiting for a formal assessment? ◆

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