

# “Moving Beyond Bean Counting”

## Improving Analytical Capability in Health Visiting

“Local Application”- Health visiting in Hampshire  
End of project report

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## EXECUTIVE SUMMARY

This report provides a summary of a partnership project between Southern Health NHS Foundation Trust (SHFT) and the Institute of Health Visiting.

The project, funded through the Health Foundation - Advancing Applied Analytics Fund, aimed to explore the use of data and current analytical capability in health visiting practice in Hampshire. This baseline information informed a test and learn development project to support health visiting services within SHFT to ‘move beyond bean counting’ and make better use of data. The project specifically focused on the use of routinely collected data from a range of sources to improve the identification of children with risk and vulnerability factors who are currently ‘hidden’ (i.e., they are known to services but are not receiving the support they need).

The project was delivered through a series of three interconnecting phases:

1. National discovery phase – to support an understanding of current health visiting analytical capability and capacity nationally
2. Local application of discovery phase and alpha testing – applying the learning from the national scoping to the test and learning site (SHFT)
3. Dissemination

The findings from the National discovery phase are presented in a separate report<sup>1</sup>.

The main project deliverable, for this 2nd phase of the project, was the development of a prototype ‘My Digital Caseload Tool’ [the tool]. The tool comprised an easy-to-use data dashboard which would benefit health visiting caseload management and support clinical decision making. The project also piloted a new health visitor Digital Lead post; the postholder was responsible for supporting digital transformation in health visiting teams and workforce engagement throughout the project, leading co-production through a series of workshops with health visitors. An I.T. analyst was also recruited, with ring-fenced time dedicated to this project.

Initial evaluation of the prototype tool was extremely positive with health visitors reporting that it made data from a range of sources more accessible to inform their clinical decision making and enabled a greater understanding of the needs within their caseload.

The importance of having Digital Leadership within the health visiting service was highlighted in the evaluation of the digital role. The findings emphasised the value of having a dedicated lead to engage with frontline health visitors throughout the project to inform the development of the tool and ensure its alignment with the needs and purposes of health visiting practice.

Future recommendations include further testing and refinement of the ‘My Caseload Digital Tool’, national and local dissemination of learning. This is supported by the development of a national service guide to support other services understand their analytical capability<sup>2</sup>.

## 1. INTRODUCTION

Health visiting continues to face difficulties in articulating causal impact, and the current data collection systems and analytics have been widely criticised for providing limited information to support quality improvement. This has led to a call for changes to maximise the opportunities afforded by better data and analytics.

In response, with support and funding from The Health Foundation, Southern Health NHS Foundation Trust (‘Southern Health’) formed an innovative partnership with the Institute of Health Visiting (iHV) to carry out a project on improving analytical capability within health visiting, using national insight, local application, and testing.

By bringing together the iHV - the national centre of excellence for health visiting - and the local intelligence and data expertise in Southern Health, the test and learn project aimed to:

1. Gain a greater understanding of the challenges and opportunities faced by managers and clinicians within the field of health visiting data and analytics
2. Fill a gap in knowledge, providing much needed information on the national analytical capability in health visiting and the identification of user stories as a baseline for quality improvement
3. Provide an opportunity to pilot a new Digital Lead post to support digital transformation in health visiting across Southern Health’s health visiting teams
4. Develop an analytical tool to support the identification and clinical management of “hidden vulnerable children” within health visiting caseloads
5. To share findings through a national communications plan and iHV’s established networks to influence health visiting policy and practice.

The COVID-19 pandemic has accelerated digital transformation, and the way we live our lives is changing with ever-increasing digital opportunities. This is particularly relevant to Southern Health’s health visiting teams who had already been commissioned pre-COVID-19 to consider the enhancement of their digital offer. The health visitors were at various stages in this journey of service transformation, so the focus was on how we could enable them to maximise the access to and use of data to support them in their work with families and children; in particular, their work with the most vulnerable families who are often at risk of having their needs overlooked or falling in the gaps between services in the healthcare and social care system. Gaining a better understanding of the challenges and opportunities with the current analytical reports available, and learning more about how health visitors wanted to use data, was key to building an analytical tool with easy-to-use dashboards which would benefit health visiting caseload management.

To build our understanding of the needs of health visitors, in the first “discovery phase” of the project, the iHV completed a national survey of health visitors and convened two national co-design workshops with groups of practitioners and key national experts in fields relevant to health visiting data and analytics. The findings from this phase of the project were collated into a “Discovery phase AIMS Insight report” published by the iHV in January 2021<sup>1</sup>.

Phase one of the project enabled a greater understanding of the experiences, key challenges, opportunities, and enablers of analytical capability in health visiting practice. This intelligence then formed the basis for the second part of the project within Southern Health - “Local application of discovery phase and alpha testing”. Building on the learning from phase one, we utilised rapid cycle improvement methods to refine the user stories to develop a shared understanding of the main problems and the solutions needed to inform the build, test, and iterate the process based on regular feedback.

The local project focused on the following key priorities in practice:

- Capturing the reality of health visiting practice and refining user stories within the Southern Health context
- Supporting health visitors to understand the value of better analytics and engage in data analytics through the introduction of a project health visitor “Digital Lead”, providing a bridge between the analytics team and the health visiting workforce
- Feasibility of using data and analytics to improve the quality of care for children and families with risk factors and additional needs
- Identification of “hidden children”/unmet need/ “work not done” to inform commissioning, service planning and workforce modelling

## 2. BACKGROUND AND CONTEXT

Southern Health offers the Healthy Child Programme (HCP) to approximately 75,000 children aged 0-5 years within Hampshire. This is a universal, early intervention and prevention public health programme led by Specialist Community Public Health Nurses, known as health visitors. At a crucial stage of life, the HCP’s universal reach provides an invaluable opportunity to identify families that need additional support and children who are at risk of poor outcomes<sup>3</sup>.

Four levels of service are offered which include Community, Universal, Universal Plus and Universal Partnership Plus, and assessment of need is identified by health visitors using the Family Partnership Model<sup>4</sup> and Promotional Guides<sup>5</sup>. This approach enables the health visitor and parent to actively work together to explore and identify the nature of parent and child strengths, concerns, or problems. The information from these assessments is entered into structured data forms within the electronic patient record (EPR) which enables Southern Health to extract the data daily using a software system called Tableau.

If further support is required, a plan of care is then agreed in partnership with the family, with clearly identified goals. A paper record of the plan (Figure 1) is given to parents to file in the personal child health record (PCHR) and a copy of this plan is entered into the EPR on a structured care plan form, which includes the goal and plan. Parents also complete a simple goal rating scale on which parents are asked to rate, on a scale of 0-10, their view of where they are at the outset on their journey to achieving their goal. This numerical scale is key to the evaluation of parent-experienced outcomes. There are also boxes to note what’s working already (strengths), next steps for parents, including support from family and friends, and what the health visitor team will do to help, along with a review date.

At follow-up appointments, parents are asked to rate ‘where are you now?’ along the 0-10 scale, and experience shows that parents generally regarded even apparently small shifts as helpful.

Figure 1 - Personalised Care Plans – paper copy for Personal Child Health Record

**My Plan**

The Centre for Parent and Child Support

**NHS**  
Southern Health  
NHS Foundation Trust

Name: .....

NHS Number: .....

My goal:

Date my plan started:  
Today's date:  
Lead professional:  
Healthy Child programme care plan:

Where am I now?  
Goal rating

As far away from my goal as I could be 0 ← → 10 GOAL!

My strengths (what's working well already):

My next steps (including support from family and friends):

How will the health visiting or school nursing team help me?

Practitioner:  
Role:  
Review date:

SH01322 - January 2017 © Southern Health NHS Foundation Trust

0-19  
**CHILDREN'S SERVICES**  
"Keep well, Thrive when"

Children who are subject to section 47 of the Children Act 1989 (child protection) and Children subject to section 17 of the Children Act 1989 (child in need) also have additional alerts added on the EPR.

All the above structured data is captured within a number of reports within Tableau; all of these reports are important in relation to service delivery, however the sheer quantity and detail of reports available can potentially reduce accessibility to key insights. The disparate information also doesn’t present a picture of incremental need for children whose situation changes over time. Within Southern Health, the use of data from health visiting was perceived as predominantly focused on demonstrating compliance to external bodies and key performance indicators (KPIs) which lack depth, measuring only a small proportion of the health visitor’s role and workload. Anecdotal evidence suggests that staff see these reports as “bean counting” and not integral to improving care.

There is also limited use of data within health visiting to capture the level of need within a large group of vulnerable children who have not accessed support services and have been labelled as “invisible children” by the Children’s Commissioner<sup>6</sup>; in 2019 the office of the Children’s Commissioner estimated that 2.3 million children were living with risk because of a vulnerable family background – of these, more than a third were ‘invisible’ (in the sense of not being known to services) and therefore not getting any support.

Therefore, once risk and vulnerability factors are identified, it is important that they are displayed in a visual way to practitioners to enable them to consider the full breadth of these factors, and their context alongside resilience factors, to inform their clinical decision-making. Health visitors can then use this information in their work with families to consider strategies to mitigate vulnerability and plan support.

### 3. APPROACH

The approach taken during this project, to improving analytical capability and support decisions to improve practice, drew on co-production and rapid cycle improvement methodology which is separated into three interlocking phases:

#### **Phase 1: National scoping and Local scoping discovery phase**

To increase understanding of “where we are” as well as “where we need to be”, with the aim of collating capability deficiencies and strengths. The “user needs” are required to describe the functionality/solution that will be valuable to either a user (health visitor or health visitor manager) or a commissioner of health visitor services, and therefore will inform direct patient care.

This phase started with a national survey, followed by two national scoping workshops, led by the iHV. The details and findings of these can be found in the “Discovery phase AIMS Insight report” produced by the iHV in January 2021<sup>1</sup>.

Within SHFT, there was limited knowledge of user needs and the local scoping discovery phase enabled us to refine our assumptions to inform the local application of discovery phase and alpha testing. The national survey identified that 20% of the respondents were from Southern Health which enabled us to have an insight on local thoughts and feelings of data use in the organisation. These findings aligned with the national findings, highlighting that there was a mixed understanding of analytics and data use in health visiting. The Southern Health respondents also showed a mixed understanding of what information they could access readily through the EPR and how it could inform clinical decision making. From the survey insights, it was agreed that specific points needed to be addressed in the minimal viable product (MVP) version of the tool which would be created within the scope of this project.

The aspects of analytics that the MVP and project would address were:

- Understanding of health visitors’ capability in the use of data and data analytics in health visiting
  - » ensuring that there is no negative impact on time
  - » that data entry is prioritised
- Caseload management/prioritisation of caseload
  - » collating and presenting data to inform clinical decision-making
  - » highlighting children with vulnerabilities and risk factors who were previously ‘hidden’ and not receiving support
- Ease of use
  - » Collate data from various sources and present them in one, easy to access, place
  - » have a visual and easy to interpret tool

#### **Phase 2: Local application of discovery phase and alpha testing**

This phase continued to build on the learning in phase 1. Southern Health seconded a Digital Lead from the health visiting service to lead at a local level; this enabled the service to research, prototype, and test and learn about users’ needs to inform the development of the tool, as well as support dissemination of information about the progress of the MVP and the project to the health visiting service and other stakeholders within Southern Health.

### Phase 3: Dissemination

This phase supported local and wider system learning through the dissemination of our findings, sharing experiences of leading change in practice. This included our successes, as well as challenges, to improve care as part of a learning culture. Sharing the learning from phase 1 and 2 provides context and background to the challenges faced by the health visiting profession, as well as to the solutions developed within this project to drive quality improvement. Wider recommendations also inform future learning and developments for the use of data and analytics in health visiting. No such resources for health visiting currently exist.

#### 3.1 Recruitment of Digital Lead

The need to maximise the opportunities afforded by data and analytics in health visiting is vital to improve services offered and reduce the risk of children being hidden. Given this large scope and the identified gaps within health visitors’ knowledge, capability, and opportunity, a Digital Lead for health visitors and a Data Analyst, whose main role was to work with the clinicians on this project, were recruited. These roles engaged with frontline health visitors throughout the project to inform the development of the tool and ensure that the MVP met the requirements of the discovery phase and the needs and purposes of health visiting practice. It was also important that there was clear communication between the I.T. team, the health visiting workforce, and wider stakeholders.

The aim of the Digital Lead role was to:

- Work with frontline health visitors and management to empower staff to engage in digital transformation.
- Encourage and support health visitors to lead the way in service redesign and to view technology as an enabler.
- Engage health visitors and optimise their time to help Southern Health procure systems that are fit for purpose.
- Offer clinical expertise to improve the design of clinical systems to meet clinical need, ensuring ease of use and increased staff confidence.
- Ensure that technology solves problems for users and doesn’t create new ones.
- Be a conduit of information and a link between technology, Data Analysts and frontline staff.
- Help the workforce to understand that analytics and data aim to improve clinical decision-making and prioritisation of patient care, whilst also ensuring data is collected in the least intrusive way so it interferes as little as possible with clinical time.
- Ensure I.T. training supports staff so that they are educated in the use of data and analytics, and it becomes normalised within health visiting and integral to service delivery.

The Digital Lead post was advertised internally within Southern Health as a secondment and a formal interview process followed. Interview questions were focused on obtaining a health visitor with the following knowledge and skills:

- Health visiting experience working with complex levels of vulnerability
- A passion for analytics
- An understanding of Tableau (the analytical tool used in Southern Health)
- Leadership skills
- An ability to engage frontline staff

#### 3.2 Recruitment of Analyst

A pre-requisite for the recruitment of the Data Analyst, was to ensure they had good communication skills and were able to engage with health visitors to understand their needs around co-production of the digital tool. However, the following skill set was also crucial to enable completion of all aspects of the digital tool as follows:

- Good knowledge of coding language such as Structured Query Language (SQL) and understanding of structuring information within a Data Warehouse.
- The ability to quickly understand existing data process arrangements and augment these where required with regard to the information within the digital tool.
- Business Intelligence authoring capability to display the data within a dashboard. Whilst our specific digital tool was Tableau, we were able to recruit an Analyst with experience predominantly in other Business Intelligence software who was able to quickly adapt and transfer their skills for the development of the dashboard.

### 3.3 Workshops and co-production

Five local application workshops were organised by the Digital Lead with workshops 1 and 2 allowing the Digital Lead, Analysts, and attendees the time and space to capture the reality of health visiting, collate user stories and explore barriers to using data, and to consider what was required to shape change. This information enabled the Analyst to explore what visualisation models were available and to build a digital tool that met users’ needs. Workshops 3 and 4 allowed for a rapid cycle review process of refining and tweaking of the MVP. Workshop 5 enabled us to agree communications, finalise a “How to use” guide, and plan for roll out of the digital tool.

#### 3.3.1 Workshop 1

The purpose of the first workshop was to introduce the project to the co-production group and consider what data was needed. This included exploration of current practice, barriers/enablers of data use and analytical capability in health visiting – with solutions for improvement. Open questions were used predominantly to enable participants to express their views, reasons, and explanations.

Key themes were as follows:

- It needed to be visually appealing
- Information should be easy to find



The second part of the workshop focused on the key barriers to data use and analytical capability to help identify hidden children - in breakout groups, the “Five Whys” approach to root cause analysis was used to build on the findings of the national survey.

Root cause analysis using five whys:

#### The Five Whys?

“What is it? By repeatedly asking the question ‘why?’ (use five as a rule of thumb), you can peel away the layers of a problem to get to the root cause. Five whys can help you determine the relationship between different root causes of a problem. It is a simple tool and can be completed without statistical analysis.

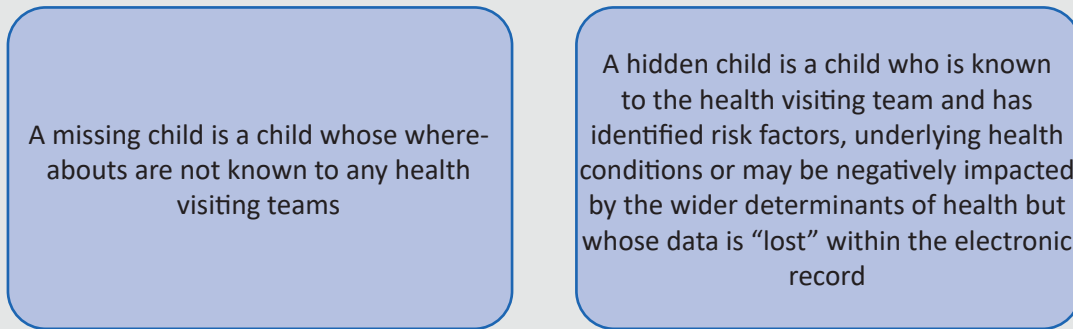
When to use it? You can use this tool either in isolation or to complement a root cause analysis. Because it quickly helps identify the source of an issue or problem, you can focus resources in the correct areas and ensure you are tackling the true cause of the problem, not just its symptoms”

NHS Improvement (2018)

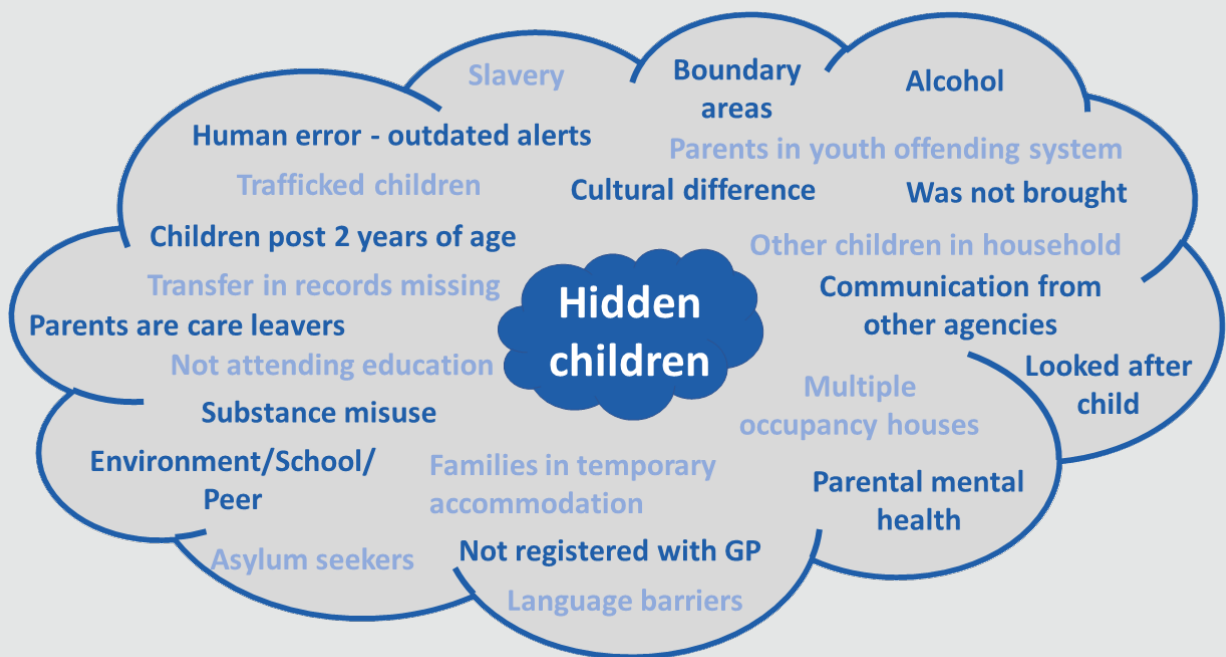
### 3.3.2 Workshop 2

The second workshop focused on what is meant by “hidden children” and how this is different to “missing children”.

Key themes identified:



The workshop attendees also explored and identified the following factors that staff felt warranted consideration within the vulnerability dashboard to help identify hidden children:



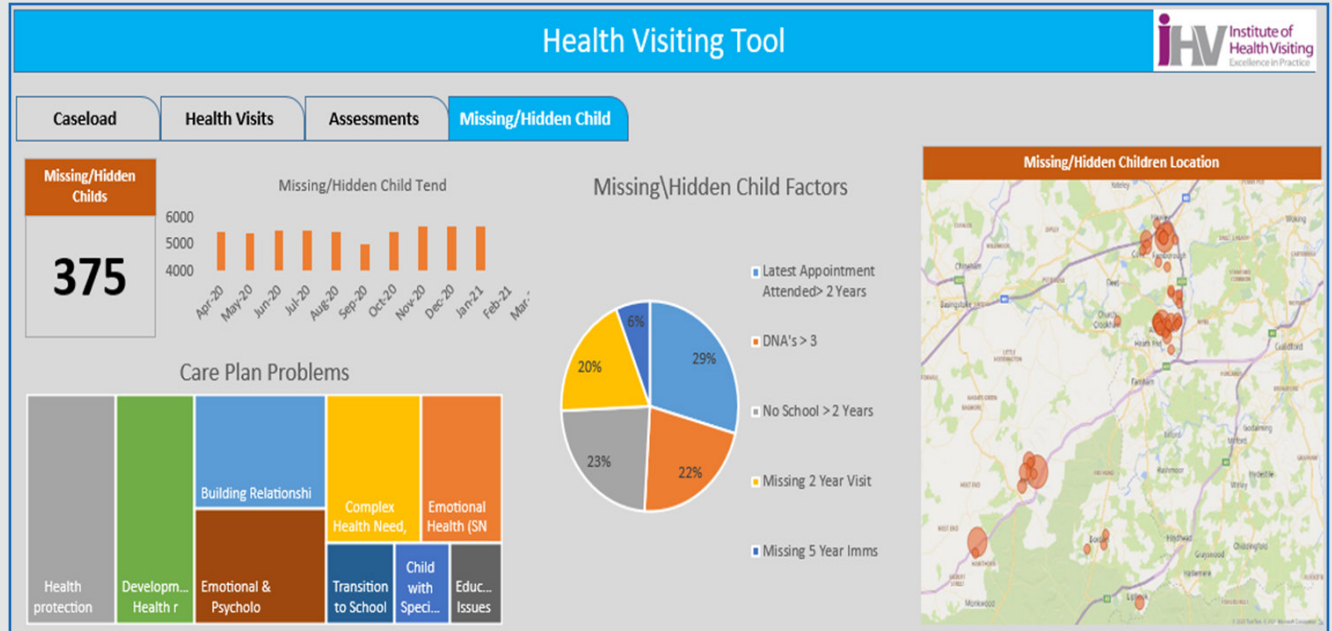
The co-production group was also asked to discuss the workshop with their teams, to allow for wider reach of the co-production process and allow for a larger number of contributions into the development of the digital tool.

### 3.3.3 Workshop 3

All the information collated from workshops 1 and 2 informed the development of the prototype digital tool, and workshop 3 focused on design and iteration.

Figure 2 demonstrates the initial prototype digital tool that was presented to participants of this workshop.

Figure 2 - The prototype digital tool



Feedback included:

*What health visitors liked:*

- The colour visualisation
- That it's streamlined and simple
- It is more engaging than the spreadsheet version
- The map of caseload was helpful

*Improvements required:*

- To be able to look at team caseloads and practitioner caseloads
- To have a key to explain the graphs
- Make it clear what the graph is relating to
- Be able to see unknown transfer outs
- Clear/consistent language on what areas, topics and data is called

There was also a focus on the importance of including parents in co-production and co-design of services, including transparency around how their data is processed. The Digital Lead worked with the patient involvement team to disseminate a parent survey and 40 parents/carers responded with the main findings as follows:

- 85%** of parents/carers knew that health visitors and family nurses kept data about their family in the clinical records
- 53%** of parents/carers said that the use and storage of data was not explained to them
- 65%** of parents/carers said that they knew that health visitors and family nurses kept data to identify areas they may need support in
- 58%** of these parents/carers said that they understood why this data/information was kept

Whilst this was a relatively small sample size, the findings highlighted the importance of parental engagement in the co-production of service improvements that affect them. To respond to this feedback, as part of the ongoing implementation of the tool, a parent leaflet will be designed which is specific to health visiting detailing how children and family data are processed.

### 3.3.4 Workshop 4 & 5

Workshops 4 and 5 continued the iterative process, utilising feedback from the attendees and gathering insights on how the digital tool would be implemented.

#### Workshop 4

A prototype of an interactive version of the digital tool was demonstrated to attendees at this workshop with an explanation of how it would be used in practice. The workshop also focused on ongoing evaluation with a facilitated discussion with attendees to inform the rapid cycle review.

Workshop attendees were given a feedback form to complete each time they used the digital tool between workshops 4 and 5 which they then returned to the Digital Lead. Capturing ongoing feedback on the tool’s use in practice enabled the Analyst and Digital Lead the opportunity to respond and make changes in real time. Feedback was very positive in this workshop and ongoing co-production at this stage only required minor amendments to the tool, such as name changes to the tabs.

Attendees also contributed to the development of the guide on how to use the digital tool.

#### Workshop 5

The final workshop brought together all the learning from previous workshops, including prototype and functionality testing.

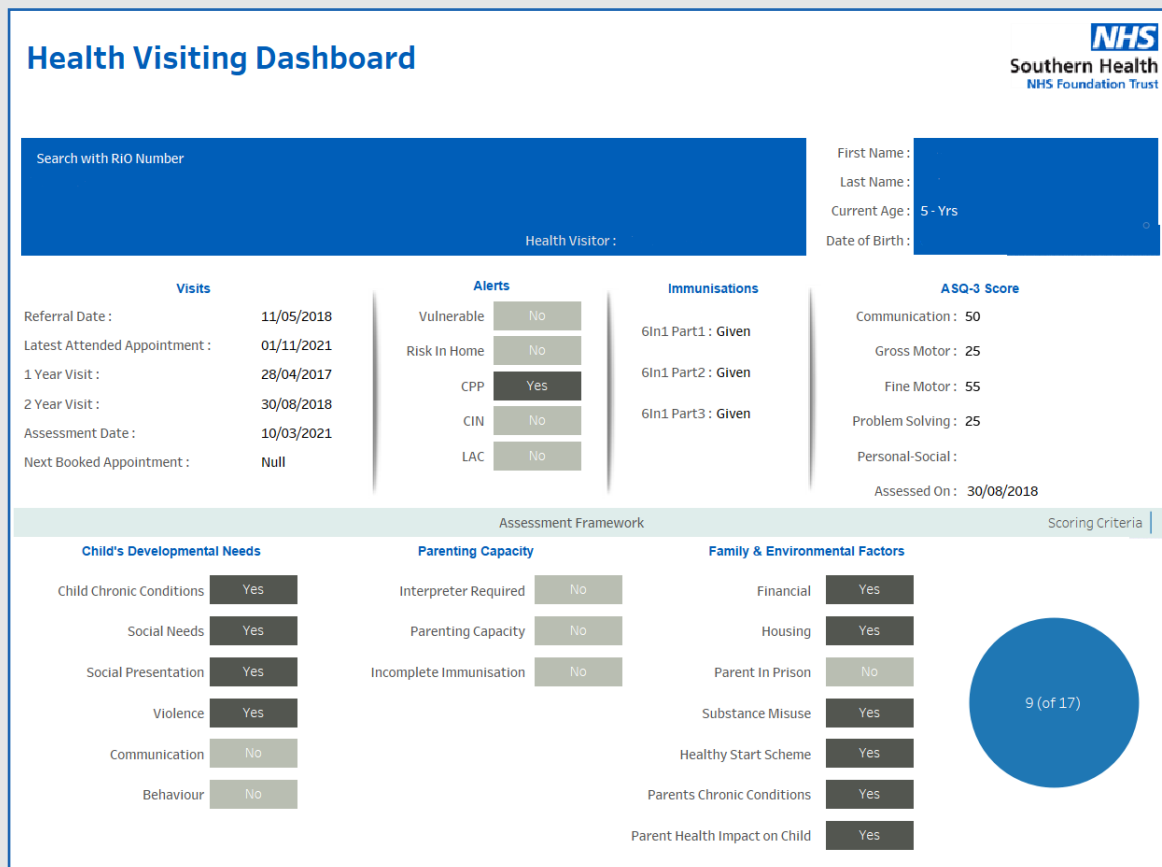
Again, overall feedback was positive and included discussions on the future development of the digital tool and its use in wider practice.

Timescales for rollout were agreed, alongside the “how to” guide to accompany the digital tool. The attendees agreed to act as champions, supporting the rollout and training of the health visitors in their teams as required. Examples of two different aspects of the MVP are set out below. Figure 3 shows the ‘My Digital Caseload Tool’ landing page with a visualisation of data from multiple sources at the caseload level; and Figure 4 presents an example of data presented in this way at the individual child level.

Figure 3 - My Digital Caseload – Landing page



Figure 4 - My Digital Caseload – At child level



Further details on the building of the digital tool can be found in the Health Visiting Service Guide V1.0 (2021).

### 3.4 Roll out and engagement of the wider workforce and stakeholders

To ensure successful rollout of the digital tool and engagement by staff, a clear communication plan was required. The following points were highlighted as important to the plan:

- The co-production group to be champions of the digital tool within their health visiting teams and local areas
- Detailed timings of the launch of the digital tool and pathways, including the Southern Health bulletin, staff Facebook and direct emails
- A one-page guide to show staff how to access and use the digital tool
- Promotion of the tool by the safeguarding nurses within Southern Health during safeguarding supervision sessions
- Evaluation of the MVP and consideration of next steps

Unfortunately, during this phase of the project, the Digital Lead had to step down, which impacted on the communication, rollout, and evaluation of the digital tool.

## 4. EVALUATION

A formal evaluation process was required to determine:

- The impact that the Digital Lead and Data Analyst had on the development of a minimal viable product
- The extent to which the project had met its objective to improve health visitors’ understanding of the use of data and analytics in health visiting

Rapid cycle review and evaluation methods were used throughout the project to inform the development of the digital tool MVP. Formal pre- and post-evaluation surveys of health visitors were conducted to evaluate the impact of the MVP. To capture the ‘learning journey’, the Digital Lead also completed reflections throughout the project. Capturing data from multiple sources, including both qualitative and quantitative methods, provided a richness of data which informed product development, next steps, and future recommendations.

## 4.1 Evaluation of the Digital Lead role

To fully understand the impact of the Digital Lead role, a 360° evaluation was undertaken. This explored whether the intended scope and objectives of the role had been achieved, and whether the role had an impact on the understanding of analytics within health visiting and if this was understood outside of the project team. The Digital Lead also completed a reflection at the start, middle and end of the project on how they perceived the role and its impact. These evaluations gathered feedback to support wider learning and consideration of the application of this role in other services.

### 4.1.1 360° Evaluation of Digital Lead role

A 360° evaluation was developed and distributed to individuals who the Digital Lead had contact with during the project; this included all members of the steering group, attendees of the Southern Health workshops and those staff to whom the digital tool had been rolled out to. In total there were 12 respondents. See Appendix 1 for full list of questions.

The first step in the evaluation was to understand the reach of the Digital Lead role; 100% reported being aware of the Digital Lead and 67% had had direct contact with the Digital Lead throughout the project. This score of 67% was not a surprise with a possible explanation being that there had been an unplanned change of staffing midway through the project due to the original Digital Lead no longer being in post when full MVP roll out had commenced. This created an unavoidable delay before an alternative member of staff was able to take on the responsibilities of the Digital Lead role and regain momentum with the digital tool rollout.

When staff were asked what they understood by the Digital Lead role, there was general consensus that it was about data collection and how this data could be used to improve services with comments including:

*“To work with SCPHNS to identify what was needed in terms of analytics, then work with health visitors and SHFT to develop a tool which would support these needs.”*

*“Looking at different digital ways of working to enhance the Health Visiting service.”*

*“To lead the project and to then promote the tool that was created. To share learning and engage teams”*

*“To lead the project and to then promote the tool that was created. To share learning and engage teams”*

*“How we can best use data to reach service users and promote health”*

*“To look for hidden families in the data.”*

*“To lead local implementation and engagement with frontline practitioners to co-ordinate the local development of the tool and guide and to provide an interface between IT and frontline practitioners”*

The respondents were asked a number of statements enquiring about how the Digital Lead role supported them personally and how the Digital Lead led the use of analytics in health visiting. Key findings included an overall positive response to the personal support that respondents received from the Digital Lead, but a small drop-off in positive response to the questions ‘Kept me updated with the progress of the tool’, and a possible explanation is that the Digital Lead stepped down from the role and this may have impacted on the response as, for a time, there was no one to keep them updated.

A large proportion of health visitors understand the importance of analytics in health visiting and would like systems better tailored to their needs. This can be seen from the free comments about the benefits of having a Digital Lead, which include other aspect about wider communication and improving patient care.

*“Connection with IT, raising the importance of use of analytics, providing leadership”*

*“Support for SCPHNs in identifying the need for analytics and how it could improve practice”*

*“Someone who has dedicated time for digital promotion, development and new projects work rather than trying to fit it in around their daily responsibilities”*

*“Encouraging use of data to enhance care, identifying best practice”*

*“Keeping up to date with the digital world. Smarter quicker ways of inputting data. Looking and reviewing what we do and is it relevant”*

Finally, the respondents were asked if the Digital Lead role was needed in the future, 67% answered that this role was needed in the future. The remainder answered that they were unsure if it was needed. Responses included:

*“For practice to be moving forward and continually improving so we deliver a high-quality service. If our service is to be scaled back, our processes more than ever, need to be relevant up to date and timely”*

*“Data has an important role to play in health visiting in the future”*

*“Without protected time, analytics will not be prioritised in health visitors”*

*“Use of analysis will become more important as resources in health visiting are not at a level we would wish”*

*“I think with the way the service is going (more and more digital) having a lead to go to with ideas, issues or concerns is essential. I don’t think it works as champion role as the role will get bigger”*

*“It seemed like a good idea in the beginning, but now seems to have floundered and clinical staff have not seen any change - perhaps the role needed to continue for a longer period to enable this work to be embedded in clinical practice?”*

Building on this, the respondents were asked about how the Digital Lead role could have greater impact. The themes included: wanting better communication and updates on how the project was evolving, ongoing support of improving data processing, and further support and training on new initiatives.

*“Have more people involved in development, speak within teams about what the role and project is”*

*“Reviewing some of our data processes and their relevance”*

*“More engagement with staff - attending monthly operational meetings. Digital training for staff to help with engagement”*

*“Less hunting for data”*

*“Started well, and informed of project, but then seemed to go quiet - have not had a full update of where it has ended and how clinical staff can actually use this data”*

*“Difficult due to current methods of working but would be great for Digital Lead to arrange hands on workshops with teams to explore analytics which is available”*

The evaluation highlights that this role is valued and needed by the health visiting service in Southern Health, although more communication about the purpose of the role and a higher visibility would be beneficial. It can also be seen from the comments that when there was a gap in the post this was noticed by some staff and impacted on their successful implementation of the tool.

#### **4.1.2 Digital Lead reflections**

The Digital Lead completed reflections at the beginning, middle and towards the end of the project, examining the impact of their role and what they achieved. Key points included:

- An acknowledgement of the difficulty of transitioning to a strategic leadership role and trying to balance 2 roles and the importance of clinical supervision to support this transition
- The importance of a Digital Lead role in promoting analytics and the positive impact it can have on service delivery for children and families
- As time progressed, the Digital Lead gained a better understanding of what the role involved and connecting with several different stakeholders both internally and externally. This networking helped the Digital Lead to build up confidence in what they were trying to achieve and helped to develop a better understanding
- You cannot always pre-empt situations, particularly in the context of a pandemic with Government social distancing guidance and a national lockdown. This had a major impact on health visiting and created further work pressures.

When the final reflection took place, the Digital Lead was no longer in post and the role was being temporarily covered by another member of staff whilst the evaluation process took place. Due to this, this part of the reflection identifies the following:

- Difficulties of stepping into a new role which you are not familiar with and have not been involved with directly
- Difficulty in accessing resources which were held individually rather than in a shared drive
- The importance of the role and the support which is needed to carry out the role

Throughout the reflection process, it is evident that the workload of the Digital Lead role was higher than anticipated and it was difficult to balance their substantive post with this additional role, especially considering the competing demands on the health visiting service during the pandemic. This also highlights the importance of regular supervision; both during the transition to a new role and during the project.

However, the overall role of Digital Lead has had a positive impact on the development of the digital tool, engagement with the project and respondents understanding, with them wanting the role to continue and recommendations of how it can be developed in the future.

For the Digital Lead, there is a significant transition process into the role regardless of previous experience and that the workload is high. It is important to recognise that the role requires strong leadership and support from wider management and administration teams, including individual supervision.

## **4.2 Evaluation of the Digital Tool**

Following the introduction of the prototype digital tool and feedback from the users, the steering group agreed that the name of the tool was important to ensure users understood its purpose. Therefore, the tool was renamed My Digital Caseload Tool.

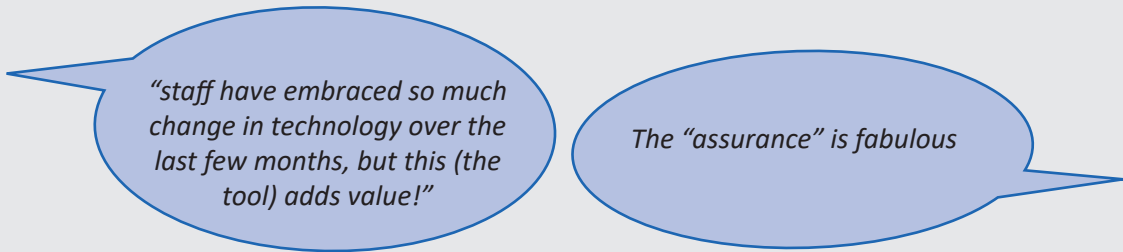
A risk was also identified whereby the tool could potentially be seen as a decision-making tool. To help avoid this the vulnerability tab was renamed “Factors for consideration”.

The evaluation of The My Digital Caseload Tool was undertaken by the Southern Health health visiting teams using a pre- and post-evaluation survey of the digital tool before and after roll-out. 16 health visitors completed the pre-evaluation survey, and 4 health visitors completed the post-evaluation survey. There are several reasons for the low response rate which includes competing priorities within the health visiting service such as work force recovery, the communication process, and the loss of the Digital Lead. Recognising the poor response and to enable a better understanding of the impact of the digital tool, a virtual workshop was held to discuss how health visitors were finding the digital tool. Full details of the questions asked in the pre- and post-evaluations, and workshop, can be found in appendix 2.

The feedback from this workshop highlighted that The My Digital Caseload Tool has been well received and the following benefits were identified:

- A positive visual layout that is simple to navigate
- It is now easier to analyse caseload and identify the most vulnerable and hidden children
- Enables caseload management at a glance to ensure the right plan of case is in place with the correct alerts and documentation completed
- Useful for safeguarding supervision and liaison with partners, such as GPs. The “Child “tab was noted to be particularly valuable when writing child protection reports or liaising with social workers
- A useful teaching aid for students and new staff
- The tool provides a helpful summary with key factors that have potential to impact on the child’s developmental progress, this digital tool further triangulates that information by displaying the latest “Ages and Stages Questions” (ASQ) assessment results for the child from their health visitor review appointment
- Clinical team leads thought the information on the “caseload” and “factors for consideration” tabs would support them with distributing caseloads more equally across teams and managing staff health and wellbeing
- The clinical team leads felt they would be able to identify the potential “complexity” of a practitioner’s caseload by the numbers of children with high indicators, “factors for consideration”, held per health visitor. They also felt the factors for consideration tab gave them evidence of the priorities of need in their caseloads, and would be useful when considering service change, training required for a specific team, targeted health promotion or identifying clinical pathways of support with partner agencies
- The potential for further development of the digital tool by adding other data such as multi-agency safeguarding referral information and the exploration of the use of regression analysis.

The consensus from the initial evaluation was that the digital tool will save time, as well as support staff with management and supervision of their caseload. Staff felt reassured by being able to identify children who, for various reasons (e.g. change in health visitor, large caseloads, vacancies), may have caused them to slip below the radar of the health visitor or their teams. The team leads felt it helped with their reporting requirements as well and comments included:



*“staff have embraced so much change in technology over the last few months, but this (the tool) adds value!”*

*The “assurance” is fabulous*

### 4.3 Impact of the pandemic

The COVID-19 pandemic hit the UK in spring 2020. The project started in September 2020 and had been conceived prior to the pandemic, therefore several adaptations to the project’s approach in scoping, co-production and evaluation needed to change to the virtual world. Workshops which would have been held face-to-face were held by Zoom, which increased the ability of staff to attend as there was an increase in people working from home. However, as the project moved on, other aspects of the COVID-19 pandemic impacted the staff’s ability to engage: there was wider Trust demand on the time of the I.T. department supporting the roll-out of the staff vaccination programme, and, as health visitors returned to the workplace, they had less time to engage with evaluation and co-production due to the recovery pressures of the service. The Service also started going through an unexpected local authority consultation process with a proposal to reduce funding to the health visiting service, including proposed workforce cuts which negatively impacted on staff morale and their time and capacity to support the project.

Despite this, the project remained on track, minor delays were accommodated within the project timescales and budget, and all planned aspects of the project were completed. There was a delay in the rollout of the MVP and this limited the evaluation timescale. However, as this is a scoping and learning project, the impact was minimal as ongoing evaluation will be central to the implementation of the tool. These incidents also provided additional learning to share with others who may be considering a similar project and the importance of planning with mitigations for unforeseen circumstances.

#### 4.4 Summary of findings

It can be seen from the collective evaluation methods that the MVP digital tool is seen as an asset to health visiting and has added value to the health visitor’s ability to utilise data as part of a full assessment of a child and to inform their clinical decision-making process.

Although there has only been a small amount of formal evaluation of the digital tool and momentum stalled due to the Digital Lead stepping down, it is encouraging to see that the digital tool is perceived positively by health visitors and further developments to support its implementation will increase its future use.

The evaluation process has also shown a clear need for defined Digital Leadership with ring-fenced time to ensure that there is continued engagement and understanding from the health visitors, as well as bridging the knowledge and understanding gap between health visitors and I.T.

Having co-design and co-production throughout the development has produced a digital tool which health visitors see as easy to use and hugely beneficial. By engaging health visitors with data analytics and identifying clear benefits, we can demonstrate that this is a core part of health visiting. When used effectively, this will benefit children and families by identifying those with additional needs, and those children who remain hidden. The tool supports clinical decision making and importantly does not negatively impact on health visiting time or capacity.

## 5. NEXT STEPS AND RECOMMENDATIONS

Due to the success of the initial rollout of the digital tool and preliminary evaluation, there are several next steps and recommendations to consider.

NEXT STEPS
Further evaluation to ensure continuous improvement of My Digital Caseload Tool.
A review of the Digital Lead role and future requirements by the Senior Leadership team.
A review of current health visiting guidance to ensure accuracy of data inputting which will contribute to future developments of the tool.
Further work to take place on information for parents on how data is processed.
Southern Health and the iHV to share their findings with local and national stakeholders.
iHV to consider how findings from this project can be shared to improve health visitor understanding and engagement with data analytics.
Present project and findings at: <ul style="list-style-type: none"> <li>• The 0-19 Public Health Nursing Forum which is attended by approximately 300 staff</li> <li>• Presentation to SHFT Local Authority Commissioners</li> <li>• Presentation to the Southern Health executive board</li> <li>• National iHV Leadership conference.</li> </ul>

## RECOMMENDATIONS FOR FUTURE PROJECTS

Ensure that there is a clear project plan and timeline.

A project manager or coordinator is required to manage the different stages and keep the digital tool development to time and on cost.

Have clear discussions at the start of the project to understand the project scope and what is achievable within the project limitations.

Start with a minimal viable product comprising the essential elements needed to launch the digital tool and then further refine, test, and develop, during future stages of the project.

At the start of the journey, clarify language used between teams so that everyone is using the same terms, this maybe health visitor or I.T. specific to describe a task or it may be what the digital tool and user guides will be called.

When developing a data analytic digital tool, have a service specific Digital Lead with the ability to engage staff and bridge the gap with I.T. to drive the project forward.

Have a clear management structure in place to ensure the Digital Lead reports into the correct forums.

Provide a separate supervision process to support any development and learning.

Staff engagement and involvement in the co-production of a digital tool is needed from the project's inception and throughout its development and evaluation. Expectations of roles/requirements should be clarified at the outset. This improves staff engagement and will ensure that the tool meets the needs of the user, and that once developed, it will be used.

Parent/carer engagement should be included from the start to understand how the new digital tool will impact families.

Safeguarding representation is key at the commencement of the project to ensure that vulnerability factors reflect local safeguarding criteria, including compliance with information governance and data protection regulations for storing data about specific topics.

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## APPENDIX 1 - Digital Lead 360° evaluation questions

1	Job role					
2	Organisation					
3	Were you aware the project had a Digital Lead?	Yes		No		
4	If yes, have you had any contact with them in relation to the project?	Yes		No		
5	What is your understanding of the role of the Digital Lead?					
6	Considering the Digital Lead please indicate on a scale of 1 -5 how you felt the role supported the following personally.					1 did not meet 5 fully met
	Kept me informed about the project					
	Helped me to understand how the tool was developing					
	Supported me to engage directly with project and tool development					
	Listened and responded to my ideas					
	Listened and responded to questions I had					
	Kept me engaged in progress with the development of the tool					
	Helped me recognise the importance of using analytics to inform my clinical practice					
7	Considering the Digital Lead role, please indicate on a scale of 1 -5 how you felt the role led the use of analytics within health visiting					1 did not meet 5 fully met
	Raised the importance of health visitors use of analytics in practice					
	Effectively led the start of the development of a new tool within health visiting					
	Helped the health visiting service to be more connected to the IT team					
	Raised awareness of the direct impact of analytics on family care					
<b>Thinking about future Digital Lead roles in health visiting</b>						
8	What do you see are three main benefits of having a dedicated post of Digital Lead?					
9	Do you have any ideas on how the role could have greater impact?					
10	Do you feel this should be a role for the future?	Yes		No		Unsure
11	Please say why you selected your response in question 10					

## APPENDIX 2 - Evaluation questions

### Pre-evaluation

1. What is your Job Role?
  - Health Visitor
  - Specialist Health Visitor
  - Student Health Visitor
  - Additional fields Health Visitor
  - FNP
  - Safeguarding
  
2. Which locality do you work in?
  - North
  - Southeast
  - West
  - FNP
  
3. When do you use Tableau and data?
  - Caseload management
  - Core contacts
  - Vulnerable families review
  - Review Care plans
  - Scheduling appointments e.g., Health Review.
  - It's only for the clinical team leader
  - I don't
  
4. Which of the following data on risk factors for wider health outcomes would you routinely like to see?
  - Children open to children services e.g., CP/CIN
  - Domestic Violence and Abuse
  - Parental substance misuse / alcohol dependency
  - Parent(s) with a learning disability
  - Parent(s) with a chronic condition
  - Parent(s) with mental health conditions
  - Parent(s) with physical disabilities
  - Single parent household
  - Parent(s) smoking
  - Poverty in receipt of food bank
  - Eligible for Healthy Start vouchers
  - Unemployed / workless household
  - Family Categorised as “Early Help” or receiving “Team around the Family/Child (not statutory support)
  - Teenage parents
  - Asylum seekers / refugees/ migrants
  - Gypsy / traveller community
  - Sex workers
  - Parents/carers in prison
  - Parent/carers on probation
  - Care leavers
  - Homeless family or other issues related to housing
  - Military family
  - Parental Adverse Childhood Experiences (ACEs)
  - Other, please state:

5. Are you able to see information from other agencies / organisations (interoperability) within your own health visiting records to support your decisions on risks/ vulnerability?

- A&E / critical care attendance
- Child Social Care
- Child Health Information
- Police / Domestic Violence and Abuse Notifications
- NHS Adult Mental Health Service
- NHS Child Mental Health Service
- Therapy Services (SLC/OT/Physio/Community Paediatrics)
- Maternity Services
- Visited a dentist
- GP records
- Summary Care Record
- Child Protection System (CPIS)
- Multi-agency safeguarding Hub (MASH)
- Immunisation status
- Other please state:

6. What are your views on the use of analytics to support health visitors’ clinical decision making around risk / vulnerability? *Please rate each statement on how closely it aligns to your current situation /view*

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
I find it very helpful; it enhances my practice				
I find it unhelpful; it does not enhance my practice				
We have access to analytics to inform my clinical practice when working with risk / vulnerability where I work				
I would like to see the development of use of analytics to support my practice and maximise the use of data and analytical capability in health visiting in the future				
I do not think data and analytics have a place in health visiting				

7. In your view, what is needed to improve the way we use data and analytics in health visiting? *Please indicate as a health visitor how important each of these options are for you/ would enhance your practice?*

As a health visitor, I want ....

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
To view information on known vulnerability before I complete an assessment of need at Universal Contacts				
To view information on known vulnerability before I complete an assessment of need when a family transfers in from a different area				
To receive timely data /information from other agencies highlighting when families’ needs/vulnerability has changed to support a responsive service (i.e., movement between levels of support U, UP, UPP)				

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
Information on risk/ vulnerability factors to be presented to me in a visual way to help me prioritise/ triage the work on my caseload				
A mechanism to alert me when a child/ family with high levels of vulnerability has been/ may have been missed				
To know which families on my caseload are currently receiving a universal plus/ UPP care plan (e.g., listening visits, support from a nursery nurse for a specific need, open referral to another agency etc...)				
To track whether interventions are making a difference – i.e. outcome measures, client goals etc...				

8. In your view what are the main barriers to the use of data and analytics in health visiting?

Please write 3 points in the box below

- i. ... ..
- ii. ... ..
- iii. ... ..

9. What training have you had on Tableau?

- Formal training when it was first rolled out
- Formal training as part of my induction
- Informal training for a colleague when I joined my team
- Informal support from colleagues when I ask for it
- Self-taught/I have had no training
- I don't use it/I have had no training

10. If there was training available on Tableau, would you attend?

- Yes – Face-to-face formal 1:1 training
- Yes - Face-to-face formal group training
- Yes - Virtual formal 1:1 training
- Yes - Virtual formal group training
- Written step-by-step instructions
- Informal support from colleagues when I ask for it
- I don't want training

### Post-evaluation questions

1. What is your Job Role?

- Health Visitor
- Specialist Health Visitor
- Student Health Visitor
- Additional fields Health Visitor
- FNP
- Safeguarding

2. Which locality do you work in?

- North
- Southeast
- West
- FNP

3. When do you use Tableau?

- Caseload management
- Core contacts
- Vulnerable families review
- Review Care plans
- Scheduling appointments e.g., Health Review.
- It's only for the clinical team leader
- I don't

4. Which of the following data on risk factors did you look at on Tableau?

- Children open to children services e.g., CP/CIN
- Domestic Violence and Abuse
- Parental substance misuse / alcohol dependency
- Parent(s) with a learning disability
- Parent(s) with a chronic condition
- Parent(s) with mental health conditions
- Parent(s) with physical disabilities
- Single parent household
- Parent(s) smoking
- Poverty in receipt of food bank
- Eligible for Healthy Start vouchers
- Unemployed / workless household
- Family Categorised as “Early Help” or receiving “Team around the Family/Child (not statutory support)
- Teenage parents
- Asylum seekers / refugees/ migrants
- Gypsy / traveller community
- Sex workers
- Parents/carers in prison
- Parent/carers on probation
- Care leavers
- Homeless family or other issues related to housing
- Military family
- Parental Adverse Childhood Experiences (ACEs)
- Other, please state:

5. Did you see information from other agencies / organisations (interoperability) on Tableau to support your decisions on risks/ vulnerability?

- A&E / critical care attendance
- Child Social Care
- Child Health Information
- Police / Domestic Violence and Abuse Notifications
- NHS Adult Mental Health Service
- NHS Child Mental Health Service
- Therapy Services (SLC/OT/Physio/Community Paediatrics)
- Maternity Services
- Visited a dentist
- GP records
- Summary Care Record
- Child Protection System (CPIS)
- Multi-agency safeguarding Hub (MASH)
- Immunisation status
- Other please state:

6. What are your views on the use of Tableau to support your clinical decision making around risk / vulnerability?  
Please rate each statement on how closely it aligns to your current situation /view

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
I find it very helpful; it enhances my practice				
I find it unhelpful; it does not enhance my practice				
Tableau is a positive development of analytics to support my practice and maximise the use of data and analytical capability in health visiting in the future				
I do not think Tableau has a place in health visiting				

7. In your view, how has Tableau improved the way you use data and analytics in health visiting? Please indicate answering the question below?

As a health visitor, I used Tableau to ....

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
To view information on known vulnerability before I complete an assessment of need at Universal Contacts				
To view information on known vulnerability before I complete an assessment of need when a family transfers in from a different area				
To receive timely data /information from other agencies highlighting when families' needs/vulnerability has changed to support a responsive service (i.e., movement between levels of support U, UP, UPP)				
Information on risk/ vulnerability factors to be presented to me in a visual way to help me prioritise/ triage the work on my caseload				

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
A mechanism to alert me when a child/ family with high levels of vulnerability has been/ may have been missed				
To know which families on my caseload are currently receiving a universal plus/ UPP care plan (e.g., listening visits, support from a nursery nurse for a specific need, open referral to another agency etc...)				
To track whether interventions are making a difference – i.e. outcome measures, client goals etc...				

8. In your opinion, how has Tableau affected your practice? *Tick all that apply*

- It has helped me identify children who need additional support
- It has helped my clinical decision-making skills
- It has increased my workload
- It has decreased my workload
- It supported me in writing reports
- It supported caseload management
- It has had no impact
- I haven't used it
- Other; please leave a comment about your experience

9. Would you like training on Tableau?

- Yes – Face-to-face formal 1:1 training
- Yes - Face-to-face formal group training
- Yes - Virtual formal 1:1 training
- Yes - Virtual formal group training
- Written step-by-step instructions
- Informal support from colleagues when I ask for it
- I don't want training